

Steering Group on Competence
for Building a Safer Future

RAISING THE BAR

INTERIM REPORT

Improving Competence
Building a Safer Future

RAISING THE BAR

IMPROVING COMPETENCE BUILDING A SAFER FUTURE

**Interim Report of the
Industry Response Group
Steering Group on Competence for Building a
Safer Future**

August 2019

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Please also refer to the separate documents which are:

Appendix A: Compilation of Supporting Documents

Appendix B: Full Report of WG8 – Building Safety Managers

A. Foreword

October will mark the 40th anniversary of my career in the construction industry. At any time during the first 38 of those years, I would have argued passionately that the UK had the best-qualified construction industry of any country in the world, and that the industry has done much to improve its efficiency, particularly in prioritising the health and safety of its workforce.

That awful night on 14 June 2017 changed my opinion. What we have learned since that dreadful tragedy is that a whole host of circumstances may have contributed to the rapid fire spread and that failings in the relevant competences across all those working on higher risk residential buildings (HRRBs) is likely to have been a key part of that mix.

It is also salutary to accept that it is not just residents' safety from fire spread in high-rise towers that should concern us. Had the collapse of nine tonnes of masonry at Oxbgangs Primary School, in Edinburgh (January 2016) happened on a different day, we might have been considering the deaths of schoolchildren arising from industry failures. Significant concerns have also been raised by the collapse of the Nottingham City Car Park (August 2017) and the failure of large-scale concrete panels in several tower blocks.

Whilst writing this foreword, I received a letter from a coroner, sent to me under Regulation 28 of the Coroners (Investigations) Regulations 2013, concerning the death of a man from legionella pneumonia. The coroner had concluded that 'expert evidence suggested that architects, construction engineers and others designing water systems for care homes and healthcare premises, rarely take into account the need for water safety'.

These – and other - issues mean that it is essential for the focus to be on competence for all issues of the life safety of those who occupy and use the facilities that we construct.

It was my privilege to chair the Competence working group during phase 2 of Dame Judith Hackitt's post-Grenfell Review and I was disturbed by some of the complacency that I encountered during that work. Chapter 5 of her report, *Building a Safer Future*¹ threw out a challenge to the industry: get your act together and come up with an improved set of systemic competences within a year, or government will mandate some imposed solution. Working under the auspices of the Industry Response Group, set up jointly by the MHCLG² and the three leading industry umbrella bodies (Build UK, the Construction Industry Council and the Construction Products Association) with the support of the Local Government Association and the National Fire Chiefs' Council, the Competence Steering Group (CSG) was established a year ago to take up that challenge.

I have chaired 29 meetings of the CSG over the past year, ably and industriously supported by Peter Caplehorn (CPA) and Peter Yates (LGA) as deputy chairs and by a steering group and working group process that has engaged over 300 people. It has been an enormous undertaking, bringing together the largest alliance of built environment organisations ever to work together for a common purpose, drawn from more than 150 institutions, associations and businesses across the full spectrum of construction, built environment, fire safety and the building owner/manager sectors. Dame Judith Hackitt recommended that ten areas of competence should be addressed. The CSG extended this to twelve and set up working groups of experts to develop enhanced competence frameworks plus other groups to look at the principles of competence and how the process should be managed by an overarching competence system. The individuals involved are too numerous to name in this foreword but their contributions are acknowledged in Annex A.

¹ *Building a Safer Future*, published 17 May 2018

² Ministry of Housing, Communities and Local Government

The CIC has generously sponsored my involvement over the past year and also that of the CSG Secretary, Denise Chevin (ably deputised on occasion by Steven Thompson of the RICS). The combined total input from all those engaged is conservatively estimated at around £6m-£7m in the donated time and expenses of experts and in direct costs. CIC, the NHBC, the RICS and the Engineering Council have generously donated meeting rooms and ancillary costs to the CSG. Countless other organisations have done so for the many working group meetings.

I am also particularly indebted to Scott Steedman of the BSI³ who accepted my late request to come up with a solution to the Hackitt recommendation for an Overarching Competence Body when the CSG appeared to be blocked on the issue. His working group (WG0) has managed an elegant solution that has met with universal approval from all involved. Izzy Connell, Dee O'Connell, Kara Kashemsanta and Bethany Dunning of MHCLG have been towers of strength in terms of keeping us in line with the spirit of Dame Judith's recommendations and their implementation in other areas.

Although many individuals have contributed to the CSG, I am particularly indebted to the unwavering support and wise counsel of my two deputy chairs, plus Hanna Clarke (CPA), Malcolm Hynd (UKAS⁴), Sarah Garry (Build UK), Gary Strong (RICS) and Katy Turff (Engineering Council) in addition to the Chairs and Secretariat of each working group who are separately identified in the report.

Our report comes hot on the heels of the government's own consultation on post-Hackitt legislation, which was published on 6 June 2019 and included our proposals for the overarching system for overseeing competence requirements for buildings in scope of the new regime. *Raising the Bar* is also therefore issued, as an Interim Report, for consultation (with consultative conferences to be held on 30 September and 18 October 2019) and we will look forward to the views of every stakeholder in that process.

The interim report is entitled *Raising the Bar* because everyone involved wants to see a paradigm shift in competence levels throughout all sectors. We are particularly concerned to understand whether we have the balance of competence enhancements at a level that will truly raise the bar and lead to behavioural changes, and whether there are unintended consequences that we should understand.

The combination of enhanced competence standards for those working on higher risk buildings and an independent process for overseeing this new regime will – irrespective of anything else that arises from the Hackitt reforms – mean that the industry is at last taking the life safety of those who will occupy the buildings we create just as seriously as the safety of those who build them.

A separate 16-page Executive Summary of *Raising the Bar* is available on request.

We look forward to receiving your views, which should be emailed to enquiries@cic.org.uk and received no later than 18 October 2019.

Graham Watts OBE
Chair, Competence Steering Group
16 August 2019

³ British Standards Institution

⁴ United Kingdom Accreditation Service - the national accreditation body

B. Introduction

Overview and Background

1. This report represents twelve months' work by more than 150 organisations from across the construction, built environment, fire safety and owner/manager sectors, which have come together to improve the competence of those procuring, designing, constructing, inspecting, assessing, managing and maintaining Higher Risk Residential Buildings (HRRBs)⁵.
2. The work is in response to recommendations in the Independent Review of Building Regulations and Fire Safety, conducted by Dame Judith Hackitt. Her report, *Building a Safer Future*, identified a lack of consistency in the processes and standards for assuring the skills, knowledge and behaviours of those working on HRRBs as constituting a major flaw in the current regulatory system. She pointed to a fragmented approach, with different competence frameworks even within one discipline; a lack of professional qualifications; and in instances where qualifications did exist, no coherent way for how they should be evidenced so as to be clearly understood by those operating in the system.
3. Furthermore, as Dame Judith made clear, different approaches across industry towards competence standards and assessment has led to a focus on individual specialisms without considering how their work interacts with others and a failure to see the building as a single system.
4. In addition, in the current system, responsibility is too widespread among different roles and often there is no single person clearly carrying the primary responsibility for building and life safety at each stage of the building lifecycle.
5. In the context of design, this means there may be no single person responsible for ensuring the overall design intent is maintained throughout periods of construction activity. In practice, there may be a lack of competence and authority to ensure that the design intent is not compromised by minor works or poor behaviour and that any changes are managed appropriately. This lack of a coherent and comprehensive approach, Dame Judith said, 'can seriously compromise the fire safety of HRRBs'.
6. In response to Dame Judith's report and to address these failings, the Steering Group on Competence for *Building a Safer Future*, known as the Competence Steering Group (CSG) was established at the request of the Industry Response Group (IRG)⁶, in the immediate aftermath of the Grenfell tragedy by the MHCLG and the leading umbrella bodies in construction⁷, to take forward recommendations set out in *Building a Safer Future*.
7. The IRG had been maintaining a watching brief over the evolution of phase two of the Hackitt Review, and had begun initial work following the publication of Dame Judith's Interim report (published in December 2017). The IRG therefore agreed to reconstitute the steering group that had been held in abeyance during phase two of Dame Judith's deliberations and asked Graham Watts, Chief Executive of the Construction Industry Council, who had chaired the competence working group under the Hackitt Review, to continue as chairman with a

⁵ Following publication of *Building a Safer Future: Proposals for reform of the building safety regulatory system* by the MHCLG, references to HRRBs throughout this report should be taken to include all buildings in scope to the new regulatory system

⁶ The IRG was established jointly by the Ministry of Housing, Communities and Local Government and Build UK, CIC and CPA, in July 2017

⁷ Build UK, Construction Industry Council (CIC) and Construction Products Association (CPA) in association with the Local Government Association and the National Fire Chiefs' Council

view to ensuring implementation of the recommendations on competence in *Building a Safer Future*. Peter Caplehorn of the Construction Products Association and Peter Yates of the Local Government Association were appointed as co-Deputy Chairmen. A preliminary meeting of engaged parties met to form the steering group on 16 May 2018 (the day prior to the publication of *Building a Safer Future*), and since the first full meeting in June 2018 the CSG has met 29 times during the year's investigation.

8. The CSG was tasked with:

- developing the role and remit for an overarching competence body;
- to ensure a coherent and consistent approach to raising and overseeing competence standards within each discipline in scope; and
- to support the delivery of competent people working on HRRBs.

9. Chapter Five and Appendix E of *Building a Safer Future* are concerned with competence and contained five key recommendations, which we address directly in this report. The CSG took on the challenge of responding to these recommendations (reproduced in full in Section C of this report on pp 18-20) within one year.

10. At all times the CSG has endeavored to meet the spirit of *Building a Safer Future* by ensuring that the membership of the steering group and its working groups was balanced between the construction industry/professions/ fire safety sector/ and building owners and managers (a full list of members and the bodies they represent is given in Annex A).

11. The CSG then embarked on the challenge of raising competence standards for specific sectors. These were the ten disciplines set out in *Building a Safer Future*, and the CSG added two further sectors (Procurement and Products), which were considered equally important to bring about the necessary improvement.

12. Twelve Working Groups were therefore formed for individual sectors to develop competence frameworks, which would report to the CSG. Subsequently, a separate group (known as WG0) was tasked to come up with recommendations for the role and remit of the overarching body (or system for overseeing competence) with an aim of driving up standards and providing oversight of competence in a way that gives assurance to residents, dutyholders and regulators that those involved in the design, construction, inspection, maintenance and management of HRRBs are fully competent to perform these roles.

13. The Working Groups are:

- Overarching Competence Body (WG0)
- Engineers (WG1)
- Installers (WG2)
- Fire engineers (WG3)
- Fire risk assessors (WG4)
- Fire safety enforcing officers (WG5)
- Building standards professionals (WG6)
- Building designers, including architects (WG7)
- Building safety managers (WG8)
- Site supervisors (WG9)
- Project managers (WG10)
- Procurement professionals (WG11)
- Products (WG12)

14. The Procurement group was considered essential because of poor commercial practices, prioritising time and cost over quality and putting safety at risk of being compromised. As profit margins throughout the construction industry are low and competition fierce, there is a real concern, despite the best intentions of everyone involved in the various working groups that the culture of low prices and undercutting of competitors will continue.
15. Similarly, products are a critical element in every construction project. The choice, specification and performance of each individual component are critical to the overall performance required. Recent experience shows the process of delivering required outcomes (in particular, with safety critical items) is systemically broken. Inappropriate products and product combinations are often used and can jeopardise life and property.
16. The scope of this work covers competences required for interactions with all construction products that are a fixed part of completed assets. WG12 established the qualities needed for the competent selection and installation and maintenance of products throughout an asset's life.
17. There is a chapter on each of the working group's proposals contained within this report. For the purposes of brevity, more detailed documents drawn up by each of the working groups as annexes have been collated into a separate publication.
18. For the working groups, this has involved:
 - appraising the competence frameworks and qualifications that already exist;
 - developing additional competence frameworks for general construction and operation;
 - developing additional frameworks specific to those working on HRRBs, where required; and
 - setting out how the frequency that they need to be reassessed and by whom.
19. This, combined with the introduction of third-party assessment and a new layer of oversight (as outlined in proposals from WG0) will result in a step change and improve competence and industry culture.
20. The CSG's focus has not solely been on fire safety: it has also considered how to develop skills and competences pertaining to all aspects of life safety related to completed buildings, and potentially across all buildings to raise the bar and drive the much-needed and far-reaching culture change.
21. This is the most comprehensive network of organisations from across the built environment, fire safety, construction and building owners/manager sectors that have ever come together for a common purpose. But it is a long-term project. As Dame Judith recognised, the current competence landscape for those working in the built environment industry is fragmented and complex.
22. The working groups each started at a different place in terms of competences for working on HRRBs. Some (engineers and architects, for example) already have mature competence systems, from which an extension can be made to cover the specialism of HRRBs. Some sectors have a plethora of competence systems, which will need to be assessed and reviewed; while others have no recognised competence and accreditation system.
23. WG2, which is focusing on installers, has had a huge and complex task. Although the entirety of the installation professions are to be reviewed, it has focused in this first phase on installers for cladding systems and those for passive and active fire systems. This has meant

grappling with a multitude of trades and a mottled landscape of competence schemes and qualifications in some areas, and none in others.

24. At the other end of the spectrum, WG8, which has focused on the competences of the Building Safety Manager⁸, has essentially started from scratch, since there is currently no recognised competence and accreditation system for this discipline.
25. The approaches of the working groups also differ in that some professions expect their new competency frameworks to apply to all types of buildings; others are specifically focusing these new requirements on HRRBs. The Government consultation setting out legislation was published⁹ on 6 June 2019 and the CSG has not fully referenced its content in this interim report.
26. To ensure organisations represented on the working groups had a shared appreciation of the key concepts and principles relating to competence, the CSG drew up a common approach in the Principles of Competence, which is reproduced in full in Section D (pp 23-25). The CSG has also embarked on bringing a common thread to Continuing Professional Development (CPD). Although the CPD and assessment requirements for each sector will vary significantly, it is proposed that these common principles are established to guide each sector, which the Building Safety Competence Committee¹⁰ would then use to hold sectors to account.
27. The CSG's recommendations achieve two objectives: they lay firm foundations for a more coherent and consistent approach to assessing and ensuring competence across the critical disciplines; and accompanied with the right legislation they pave the way for a culture change across the whole building industry, so that everyone recognises their responsibility as part of a wider system for delivering safe buildings.
28. It is clear that industry organisations have accepted the need to change. Through the working groups, they have raised the bar through a more rigorous approach, including training, assessment, reassessment and third-party accreditation.
29. But as already stated, the measures and approaches we suggest are designed to sit alongside an enhanced regulatory framework which will be necessary to ensure all businesses and individuals undertake their professional obligations. Without such regulatory rigour, it remains likely that bids will still be won on lowest price and a culture of cutting corners and putting building users at risk will remain. It is vital Government takes the lead and commits to requiring any company or individual working on a public sector construction project, including the management of occupied premises, to meet the competence framework set out within this report (see *Drivers*, p13).
30. Many of the working groups have identified that time and investment would be required to achieve the outcomes detailed in their recommendations. The scale of costs and time required are diverse, being related to matters like the current availability of people and maturity of training and development systems. Some working groups envisage completely new arrangements, others modification or adaptation of existing systems.

⁸ WG8 recommends the title, Building Safety Coordinator (see Section 8, pp 92-100)

⁹ *Building a Safer Future*: Proposals for reform of the building safety regulatory system

¹⁰ Proposed in *Building a Safer Future*: Proposals for reform of the building safety regulatory system

An overarching system for overseeing competence

31. In *Building a Safer Future* it is clear that Dame Judith was convinced that industry should set up an overarching body to oversee and continue to improve competence across the range of disciplines involved in working on and in HRRBs. This body needed to bring a degree of independence to the process so that no organisation could be seen to be 'marking their own homework'.
32. The CSG gave considerable thought and discussion to the role of an overarching body and in January set up a Working Group (WG0) under the chairmanship of Dr Scott Steedman, director of standards at the BSI and a member of the Industry Safety Steering Group (ISSG)¹¹, in consultation with Dame Judith. The chair of WG0 reported jointly to the CSG and the ISSG.
33. WG0 consulted more than 50 organisations and sought the views of the Early Adopters Group¹² the Joint Regulators Group¹³ and the ISSG. It has drawn up an industry-led proposal for a robust, coherent and comprehensive system of overseeing competence that gives assurance to residents, dutyholders and regulators that those involved in the design, construction, inspection, maintenance and management of HRRBs are competent and understand the risks and responsibilities of their work and act accordingly. This is set out in more detail in pp 35-45.
34. The main proposal is for the role of the overarching competence body to be taken by a new Building Safety Competence Committee, or similar. The recommendations in this report dovetail with the proposals for the Oversight of Competence in the Government consultation paper to implement *Building a Safer Future*.¹⁴
35. The proposed overarching system takes a dual approach. This comprises a bottom up, 'raising the bar' process for the general workforce and a top down 'sharp focus' on the three key roles of Principal Designer, Principal Contractor and Building Safety Manager.
36. The development of a national register for these key roles, new national competence standards, robust assessment frameworks, guidance, signposting and the establishment of strategic committees and working groups will incur additional costs to industry and government that will need to be met over and above the status quo.
37. However, in the longer term, there will be significant cost benefits from having a competent workforce and more robust safety management processes which will increase efficiency and result in safer and higher quality buildings, far outweighing the initial costs.

¹¹ The ISSG was formed to scrutinise industry proposals and progress towards culture change on behalf of the Secretary of State. The role of the ISSG is to provide appropriate constructive challenge to industry, recommending actions and making proposals to overcome blockages and accelerate industry culture change.

¹² The Early Adopters are a series of industry players who have agreed to take early action on the *Building a Safer Future* recommendations and lead the way on safety. The Early Adopters are committed to the culture change and system reform that has been outlined in the *Building a Safer Future* review and endorsed by Government.

¹³ The JRG provides coordinated regulatory leadership to help develop and begin to shadow the functions of a stronger regulatory regime for safety in buildings in scope; trials aspects of the new regulatory regime with the Early Adopters and other partners in the construction and housing sectors; and begins preparations for a transition to a new regulatory regime

¹⁴ *Building A Safer Future: Proposals for reform of the building safety system*, published by MHCLG. 6 June 2019. Pp 96-99 and Annex E.

Principles of Competence

38. In responding to *Building a Safer Future*, it was agreed by the CSG that it was important for all of the many organisations represented on the working groups to have a shared appreciation of the key concepts and principles relating to competence.
39. Angus Law PhD (Lecturer in Fire Safety Engineering, Edinburgh University) facilitated an initial seminar held in June 2018, to scope the essential ingredients of competence, and gain common understanding of the challenges faced by organisations in assuring the competence of their members.
40. A text to capture the dialogue, based on the Engineering Council's '*Statement of Ethical Principles*', was further developed by Peter Yates (Local Government Association) in conjunction with representatives of the Working Groups and UKAS.
41. The aim was to communicate a clear, simple and consistent message to ensure all those involved in the procurement, design, delivery, assessment, commissioning, management and maintenance of HRRBs were encompassed, and to ensure those responsible for carrying out work that impacts safety, have the proven competence to do so.
42. Mapping the roles engaged across the full life cycle of HRRB's throughout new build, refurbishment, maintenance and occupation stages, it was immediately evident that the competences required by those roles varied widely, as did the manner in which their competencies are assured. The majority of professional disciplines already have mandatory Codes of Conduct. However the recording and accreditation of competence for all disciplines (professional and trades) is often generic and in some areas lacking, especially for those 'non-technical' and lay-persons (notably at both ends of the project lifecycle: clients and building managers) who are nonetheless critical to the HRRB process.
43. *Building a Safer Future* specifically targets these groups to encourage personal ownership throughout the HRRB lifecycle, to maintain the Golden Thread and prevent the practice of, 'assuming responsibility for competence will be picked up elsewhere'. The CSG's goal was to ensure that ALL individuals involved in HRRBs, including those who do not identify with being a 'professional', can't accidentally (or deliberately) slip the loop – and moreover, their obligation to carry out their duties competently is spelt out to them.
44. The full text of the Principles of Competence is given in Section D of this report (pp 23-25).

Culture

45. The CSG recognised that changing culture and behaviour to achieve safer buildings is essential thus reflecting the view reported by Dame Judith in *Building a Safer Future*:

*'As well as addressing technical competence, there is a pressing need to see the leadership that is required within the construction industry and fire safety sector to drive the shift in culture'*¹⁵

46. Each working group has set out how they will implement change which will have a positive impact on culture within their sector. The CSG believes that when combined, these changes

¹⁵ *Building a Safer Future*: Recommendations Part 1, 5.8

will support a significant level of change. *The Farmer Review of the UK Construction Labour Model: Modernise or Die* (2016) set out ten symptoms contributing to the failure and poor performance in the construction industry. The proposals outlined herein by the CSG will have a positive cultural impact on two of the symptoms identified: the 'lack of collaboration and improvement culture' and 'poor predictability'. However other symptoms including 'low margins, adversarial pricing models and financial fragility' and 'workforce size and demographics' have not been within the CSG's scope.

47. As Farmer identified, these two issues are extremely important to developing a highly functioning construction supply chain. Low margins and poor payment practices, can lead to a culture where high quality outcomes are rejected in favour of outcomes which drive the design and construction of a building towards lowest cost of delivery. This can contribute to low productivity as designs are found to be incomplete or incorrect, complex multi-trade site activities are rarely executed to plan and overall motivations of multiple unaligned parties are too often driven to minimising their costs and inputs to maximise profit rather than securing a planned outcome. Perversely this often leads to the need for extensive post-completion work to correct defects, which is why the need for payment retentions has become an accepted norm in the industry, albeit an ineffective one.
48. Low margins and the cyclical nature of construction also contribute to the lack of direct employment, and the proliferation of the sub-contracting model within construction. This lack of investment within a directly employed team, can lead to a lack of maintenance and development of workforce skills, which could hamper the safe and competent delivery of the project. The sub-contracting model is also at the heart of the lack of responsibility for outcomes as contractors are increasingly divorced from the point of execution on site, sometimes by up to four or five layers of contracts and often ending in the use of transient self employed labour.
49. Addressing this issue, would be a significant task of research and cooperative working to build a consensus of key messages and campaign initiatives (for example, a clear scope and programme of actions drawn from the considerable extant academic material and developed practice would be needed). The CSG concluded that a task of this scale is beyond its current remit and capacity.
50. These aspects of the current construction process may hinder the delivery of the best practice principles set out within this document and it is proposed that further work to define and provide solutions for reform is required. This requires leadership at the highest level and with the broadest involvement.

Drivers

51. There has been demonstrable commitment from those involved in developing new processes, or improving existing ones to ensure construction, built environment and fire safety professionals clearly understand how they must demonstrate their competence. However this relies on all of those who fall within scope to meet their obligations. There is considerable risk that without regulation to support these recommendations, those who already invest in their competence will continue to do so, and those who do not will have no driver to improve.
52. Although the construction industry has significant room for improvement, it is very aware of its obligations to the safety of its workers and eventual occupants. Contractors have existing frameworks in place, which supported by the recommendations in this report, will ensure the right individuals and companies are carrying out work on HRRBs.

53. Residents' understanding of professional competence is likely to be limited as they do not have access to the same frameworks as contractors. It is proposed that part of the function of the Building Safety Competence Committee must be support for residents and signposting to organisations holding competence registers. Ensuring residents are aware of this process and encouraging them to only accept work by those with the agreed competence is a marked change.
54. Without a regulatory framework to ensure all businesses and individuals undertake their professional obligations, a risk that those procuring services do so for the lowest price will remain. It is proposed that Government take the lead and commit to requiring any company or individual working on a central Government construction project, including the ownership of completed buildings meet the competence frameworks set out within this report, and that Local Authorities and the wider public and private sectors are encouraged to follow suit.

Accreditation

55. Chapter 5 of the *Building a Safer Future* report calls for improvements in the way that the competence of those professions and trades involved with HRRBs is assessed and verified. The CSG recognises that the different sectors concerned employ a wide variety of methods for assessing competence and accepts the need for greater consistency. The CSG considers that the introduction of a greater degree of independent scrutiny in the assessment process and a requirement for regular re-assessment of competence in all sectors will provide significantly increased assurance of competence.
56. All working groups have considered how assessment and re-assessment should operate in their particular sectors. It is proposed that existing arrangements, in the main delivered through certification and professional registration, should be improved and built on by requiring all assessments and re-assessments to include - as a minimum - the competences needed for working on HRRBs. It is further proposed that all organisations carrying out the assessments and re-assessments should themselves be subject to a rigorous system of oversight (in *Building a Safer Future* referred to as 'accrediting the accreditors') by a body such as UKAS or the Engineering Council. The suitability and consistency of the assessment and oversight processes should be overseen by the Building Safety Competence Committee.¹⁶

Continuing Professional Development (CPD)

57. Across all sectors, there has been clear commitment to a CPD framework. It is agreed that CPD is important for the sectors which this report covers, to ensure they maintain their existing skill set and are able to integrate new products, technologies and techniques into their work. This needs to be supported by robust methods of independent assessment and re-assessment (in *Building a Safer Future* referred to as accreditation and reaccreditation) to ensure that all those involved with HRRBs have the necessary competence for the roles they undertake.
58. Many professional bodies have pre-existing CPD recording frameworks which are mandatory for membership renewal and are clearly understood by the sectors using them. Other sectors, notably installers, have few opportunities to undertake formal CPD and where they do, there is no formal recording process. It is recommended that the competence of all those involved with HRRBs should be regularly re-assessed.

¹⁶ *Building a Safer Future*: Recommendation 5.2, fourth bullet

59. Although the CPD and assessment requirements for each sector will vary significantly, it is proposed that common principles are established, which sectors would be guided by and the Building Safety Competence Committee would use to hold sectors to account. To ensure these principles are embedded, UKAS and the Engineering Council have begun working with each sector to ensure there is clear oversight of each sector's CPD and assessment processes to provide assurance that it is being carried out effectively and consistently.

Competence Interdependencies

60. The working groups have a focus around significant roles, activities and topics. They do not cover all the relevant areas, as explained below in the section *Areas of competence not yet addressed*. There is however interdependency between the competences explored between the groups. That is to say when the various competence work is presented against the RIBA Plan of Work¹⁷ they each address a range of stages. For some this will vary depending on the type of project, the contract and the relationship with the client.
61. To help explain this principle a diagram of interdependencies is included as Annex B. This shows the range of engagement for each group and where some degree of variation is encountered.
62. The diagram allows the ranges to be clearly demonstrated while allowing an understanding of the relationship across all working group areas. In taking this work forward the relationship between different working group areas is crucial to ensure consistency and enable topics to be coordinated.
63. In the development of the work, each topic area will need to have awareness of all other areas. A significant competence characteristic is one of understanding what other roles are engaged during each stage in the project. This initial assessment will need to be reviewed in more detail but sets a sound initial basis for the continued work to proceed.

Areas of competence not yet addressed

64. The construction sector is a complex, diverse and highly fragmented arena. When considering the challenge ahead – namely improving the level of competence across the board – viewing this as a universal activity makes the scale of the challenge considerable.
65. While the working groups set up by the CSG have tackled the key and significant areas especially when the initial focus is fire and HRRB risks there are clearly areas and occupations not yet covered. For this work to raise the bar universally and significantly these other areas need to be addressed.
66. It is recommended that a similar approach to the current methodology be employed. Specifically working groups should be formed from specialists within the community in question to undertake a process of analysis and enhancement to make competences clear, robust and fit for purpose.
67. The CSG has discussed, but not addressed, the following areas of competence. This is not an exhaustive list and there will be others yet to be identified.

¹⁷ First developed in 1963, the RIBA Plan of Work is the UK model for the building design and construction process

Clients

68. Those who instigate, fund, control or own projects and often operate buildings in use are ultimately the responsible entities. Their competence, understanding of their responsibilities and accountabilities, and that of safety aspects is crucial as they set the scene for everything else that follows.

Ad hoc designers

69. This represents one of the most elusive groups to define and therefore potentially one of the most difficult to address in terms of the aspiration for competence. Ad hoc design is prevalent across the industry and is present in all systems and complex assemblies as well as in areas where there is specific tailoring to a particular asset. Many products are brought together or modified to suit the application required. All of these activities require design work and often this occurs completely under the radar and is unseen by the majority of the construction team.
70. The challenge here is to identify those involved in this sector. A good start can be to break this down in to the prime areas, noting that this list is not exhaustive:
- Sub-structure and below ground works including service connections, ducting and drainage;
 - Cladding, curtain walling and glazing systems;
 - Roofing;
 - External (building envelope) features;
 - Mechanical electrical and plumbing systems;
 - Secondary and trimming steelwork (e.g. for internal openings, glazed screens, demountable and acoustic partitioning etc.);
 - Carpentry and joinery packages;
 - Finishes – including painting and decorating;
 - Flooring including raised access floors;
 - Ceilings including proprietary drop-in grid and plasterboard systems including bulkheads etc; and
 - Hard and soft landscaping.

71. These all have significant influence over the safety of the completed asset.

Contractors and subcontractors

72. Although there has been work in raising the bar with procurement, installers, project managers, supervisors and engineers, some work should be dedicated to ensuring competence of those running contractors, especially regarding those subcontracting to other companies.

Facilities Management

73. There has been some work done on maintenance via procurement, installers and the Building Safety Manager working groups; however the complex area of facilities management needs more detailed attention.

Occupants and building users

74. Occupants of HRRBs must be briefed to ensure they understand their building's fire and evacuation procedures and be under an obligation to obey the rules and instructions of building safety throughout their occupation. This will ensure they do not make changes to their homes (or the building) that inadvertently risk safety.

Insurance providers

75. Insurers' understanding of the process and control of risk is fundamental to the safety and security of all projects, and is therefore critical to the stability of the industry.

Legal profession

76. Those providing legal advice need to have a clear understanding of the implications of providing certain advice to clients in respect of the chosen procurement strategy and the resultant contractual framework to be put in place for a specific project.

Regulatory groups

77. Although there has been work undertaken in raising the bar for some regulators there have been other authorities whose competence has not been addressed as part of the CSG's work. These include those working in Town Planning, environmental health, trading standards and the Health and Safety Executive. All of these authorities may have a role to play in the new regulatory system and therefore should also have their level of competence, particularly in relation to fire, subjected to scrutiny.

The Golden Thread

78. *Building a Safer Future's* analysis of the construction process makes very clear the need to ensure information is current and accessible at all times. Construction projects, and the management of occupied premises, are complex, as is the consequent generation of information that may happen over many months that often does not result in useful and usable information.
79. In a well organised project the following principles should be applied from the outset:
- Design intent is preserved and used for reference;
 - Project information becomes clearer and easier to access;
 - Coordination and collaboration is achieved with a great degree of certainty;
 - Use of three dimensional graphics guides assembly and erection sequencing;
 - Information about the site, setting out, and access are reliable, and accessible to the emergency services;
 - During construction record keeping, change control, checking and performance verification are all up to date and readily available;
 - From the start of occupation information is accurate and a true reflection of the built asset;
 - Maintenance and repair are easier and more efficient due to accurate information;
 - Asset information and valuations have more confidence due to the robustness of the information;
 - Greater life-cycle benefits can be achieved;
 - Durable and accessible record information is possible as long as the data is kept up to date; and

- Future techniques and analysis are emerging on a regular basis.
80. The case is well made that the only feasible way of ensuring that this information is brought together is by means of digital techniques. In many areas of the industry there are pockets of digital working, some of which are well advanced. The conversation around digital has been advancing for several years. From every perspective it is essential to take full advantage of these technologies.
81. Within these benefits and characteristics are embedded fire and safety design principles, materials and performance details as well as information that can be used by a wide range of interested parties.
82. The connection with competence is clear. Digitisation provides the information, the communication channels, the feedback and means of verification. The Golden Thread concerns the recording of information and making that accessible for the wide range of interested parties that may need it. It can provide both the means of verifying competence and the tools to enhance the processes for competent working. It creates reference points that once established are always there and can be relied on as a single version of the truth. Digital techniques are integral to ensuring that competence is supported, verified and recorded.

Other issues that need to be given further consideration

83. The CSG has identified gaps in the areas where it believes there should be additional focus on competence. A number of other areas came to the fore as our work progressed over the year that we considered important to resolve. These were outside the immediate remit of the CSG but they should be acted on by the proposed building safety regulator¹⁸. Some of these issues have been brought out in the recommendations.
84. **The need to coordinate definitions of roles and technical terms:** In the course of the CSG's work it became clear that the differing interpretation of roles and technical terms was hampering a common approach to setting standards. The CSG believes this is a task that needs to be taken up by the Building Safety Competence Committee – in order to produce a set of definitions that can be used in law. The BSI could provide the necessary starting point.
85. **Develop learning materials for basic fire safety:** Fire safety CPD materials explaining basic fire science and the measures currently employed in buildings to prevent and contain fire (e.g. why maintaining the integrity of compartmentation is so important) would be beneficial across the industry and for those managing occupied HRRBs. This is work that has been started by the CSG.
86. **The need for oversight organisations:** Whilst the national accreditation body, UKAS, and the Engineering Council are already active in the accreditation and licensing of industry bodies and professional institutions, there is a challenge of scale and reach to ensure that all disciplines have appropriate assessment and oversight mechanisms for their members to be certified to work on HRRBs.
87. **Competence Process Map:** A further strand of work to provide an integrated approach has involved beginning to draw up a process map showing how the different competences would work across the industry – and would help provide a tool for a client to test in practice.

¹⁸ *Building a Safer Future – Proposals for reform of the building safety system – pp 92-95*

88. **Safety Case:** Some aspects of this work are already being piloted, notably the safety case process developed by the engineers' group (WG1), which has been trialled on a number of higher risk residential building projects.
89. **Reasonable Access:** A key aspect that needs to be ensured is the requirement to gain reasonable and proportionate access to individual units within properties.

What happens next?

90. This report is the product of a year's work but it needs to be subject to the scrutiny of the widest number of stakeholders throughout the industry. For this reason it is issued as a consultative document and we would value input from anyone regarding the recommendations herein. Details of how to participate in the consultation exercise are on p.146. The consultation process will end on 18 October 2019.
91. The CSG recommends the establishment of a Building Safety Competence Committee, which will (if implemented), in due course, own the implementation of this work, perhaps under the auspices of a new building safety regulator as proposed by Government¹⁹.
92. In the meantime there is still work to be done and the CSG will remain in place for the purposes of:
- overseeing work that is continuing from several working groups that have identified ongoing work in this interim report;
 - overseeing the consultative process and produce a final (post-consultation) report; and
 - acting as an independent focal point for this work ahead of the formation of the Building Safety Competence Committee.

¹⁹ *Building A Safer Future: Proposals for reform of the building safety regulatory system*

C. Recommendations on Competence from Building A Safer Future

93. Dame Judith published her Final Report, entitled *Building a Safer Future* on 17 May 2018.
94. Chapter 5 and Appendix E of the Final Report are concerned with competence and it is these recommendations that have guided the remit and work of the CSG.

Recommendation 5.1:

The construction sector and fire safety sector should:

- demonstrate more effective leadership in relation to developing a responsible approach to delivering building safety and integrity;
- work with other sectors to learn and translate good practice and implement it within the sector; and develop continuous improvement approaches to competence levels

In giving detail to this recommendation, paras 5.14/5.15 of *Building a Safer Future* confirms Dame Judith's view that the competencies to be covered by a single body should be:

- engineers;
- those installing and maintaining fire safety systems and other safety-critical systems;
- fire engineers;
- fire risk assessors;
- fire safety enforcing officers;
- building control inspectors;
- building designers, including architects
- building safety managers;
- site supervisors; and
- project managers

Recommendation 5.2:

The professional and accreditation bodies working within the construction and fire safety sectors should continue the work started in response to the interim report and present a coherent proposal to government within one year. As a minimum, this proposal should cover the role and remit of an overarching body to provide oversight of competence requirements and support the delivery of competent people working on HRRBs²⁰, including:

- The professional bodies, professions and disciplines in scope;
- its membership and governance;
- its role in receiving, agreeing and monitoring the individual competence frameworks for those bodies, professions and disciplines in scope for individuals within their membership or on their register, and/or whether a single competence framework for professional bodies in scope should be established;
- its role in agreeing and monitoring accreditation and reaccreditation, and the period within which the competence of individuals should be reassessed and reaccredited;
- its role in establishing a method for demonstrating or proving competence;

²⁰ Higher-Risk Residential Buildings (as defined in *Building a Safer Future*)

- how the correct balance between construction sector skills and fire safety skills should be balanced; and
- whether the competence requirements for those working on HRRBs should also be extended to cover other multi-occupational residential buildings and to institutional residential buildings.

Progress should be monitored by government, with the professional and accreditation bodies providing government with quarterly progress reports.

If government does not consider that the proposed approach provides the necessary assurance to the JCA²¹, or there is evidence that the fragmented approach to the oversight of competence will continue, then government should mandate a body to establish the competence levels required and oversee its implementation’.

Recommendation 5.3:

Relevant parties, along with the relevant professional bodies, should:

- Continue to work together to develop a new common approach and competence framework which meets the requirements of the new regulatory framework and the new skills required of Building Standards Inspectors when working on HRRBs, and those offering consultancy and verification services to dutyholders.
- This framework should apply to all Building Standards Inspectors whether they are LABS²² Inspectors and part of the JCA or AIs²³ offering their services to Building Standards or to dutyholders.
- Consider whether this competence requirement for Building Standards Inspectors working on HRRBs, and AIs, should also be extended to cover those working on other multi-occupancy residential buildings and institutional residential buildings.

Recommendation 5.4:

Relevant parties should work together, along with the relevant professional bodies, to develop a robust, comprehensive and coherent system for:

- the competence requirements for the role of building safety manager of HRRBs; and
- the remit of the role in introducing and overseeing the process by which residents in HRRBs would be able to access fire safety awareness training.

In addition to these recommendations in the main body of the report, a number of separate proposals are made in Annex E thereof. These are:

- There is a role for each professional body to deliver a programme of fire and system safety-related CPD, and for this to be mandatory for individuals accredited by the respective professional body;

²¹ Joint Competence Authority (as defined in *Building a Safer Future*)

²² Local Authority Building Standards - a new title recommended in *Building a Safer Future*

²³ Approved Inspectors

- The relevant Professional Engineering Institutions (PEIs) should work with the Engineering Council to develop a contextualised standard for chartered and incorporated engineers working on HRRBs;
- All bodies representing active and passive fire safety system installers should come together to agree a comprehensive and coherent framework for assuring competence levels for those installing and maintaining fire safety and other safety-critical systems for HRRBs, and any enhanced levels of competence that may be necessary;
- The Fire Risk Assessment Competency Council (FRACC)²⁴ should develop and introduce an enhanced level of competence for fire risk assessors undertaking work on HRRBs;
- The NFCC²⁵ should seek to ensure that fire and rescue services comply with the Competency Framework for Business Safety Regulators;
- The Competency Framework for Business Safety Regulators should be developed through a national standard for England that could be adopted throughout the United Kingdom;
- Fire and rescue services should ensure that they have sufficient capacity through suitably qualified Fire Safety Officers to effectively implement Integrated Risk Management Plans, Risk Based Inspection Programmes and discharge their statutory fire safety duties in relation to:
 - inspection and audit;
 - statutory consultations;
 - undertaking enforcement action as appropriate; and
 - carrying out any additional activities which may be introduced as part of this Independent Review.
- Building on the competence requirements set out in the Regulator's Code²⁶, NFCC should work with a suitable body to ensure fire and rescue services can introduce third party accreditation of the competence of Inspecting Officers with a recognised accreditation or professional body;
- Government and the Architects Registration Board, working with partners, should consider current and future competence levels of those architects on the Register of Architects, and those joining the Register, in relation to the fire safety design issues specifically relating to those architects involved in designing HRRBs;
- The approval of AI should be restricted to certain defined project categories and individual AIs should satisfy CICAIR²⁷ that they have sufficient experience and competence on a case-by-case basis to be granted approval to work on HRRBs
- Local Authority building control departments (or 'local authority building standards' under the proposed new terminology) should be required to become members of the national LABC²⁸ body.'

²⁴ The FRACC has now ceased to exist and its work has been absorbed into the Fire Sector Federation

²⁵ National Fire Chiefs Council

²⁶ <https://www.gov.uk/government/publications/regulators-code>

²⁷ CIC Approved Inspectors Register Ltd

²⁸ Local Authority Building Control

D. Principles of Competence

95. The text is intended to encompass all those involved in the procurement, design, delivery, assessment, commissioning, management and maintenance of HRRBs.

Goal:

96. To ensure that all those individuals engaged at every stage of the life cycle of HRRBs and responsible for carrying out work that impacts safety²⁹, have the proven competence to do so.
97. It is recommended that the Principles of Competence document is adopted for use well beyond the CSG and its working groups, and that it will hopefully be embraced as the datum for common competency by all those working on HRRBs - ultimately to make them safer places to live and work in.

Definitions:

98. In the context of this document and pertaining to all functions associated with the procurement, design, delivery, commissioning, management and maintenance of HRRBs throughout their full lifecycle, to include new build, refurbishment, retrofitting and maintenance work:
- 'Competence' is the combination of skills and knowledge that enables a person to make informed decisions and carry out a defined task;
 - 'Competences' are the particular skills and knowledge of an individual, that may be applied personally or collectively as part of a team.

Principle 1 – Core set

99. The assessment of competence requires a defined core set of competences that are capable of being demonstrated and evaluated in a consistent, objective manner. The adequacy, or otherwise, of the competences should be judged by other recognised members of the same group with the input of other relevant stakeholders as necessary.

Route forward:

Each professional, trade or skills body will define the activities that make their body unique, and over which they have primacy.

Each body will define the competences that are unique to that activity – and over which only other members of that body can assess adequacy.

Principle 2 - Expectation

100. In order to perform their role effectively, each member of the team is entitled to expect specific competences from other members.

²⁹ including fire safety; access and ability for fire-fighting; structural safety; and building, operational and user safety throughout the design, delivery and occupation (management and maintenance) of an HRRB.

Route forward:

Each professional, trade or skills body or, where appropriate, collection of bodies, is to identify the other bodies with which they interact.

Each body will identify the competences that they require of those other bodies (in order that they can competently fulfil their own role).

Principle 3 - Assessment

101. Recognition of competence follows assessment by a professional or regulatory body/ trade registration body/ qualification scheme/ certification scheme/ recognised testing regime.
102. The process by which an individual or organisation is assessed and recognised should be relevant to the role they are undertaking and provide consistent, objective evaluation.³⁰

Route forward:

Each professional, trade or skills body will determine how the assessment and recognition of competence is carried out in the sector for which it is responsible.

In order to ensure equivalence of outcomes, the process developed by each body for assessment and recognition will be agreed by the Building Safety Competence Committee.

Principle 4 – Ethics

103. Irrespective of the specific competences associated with a professional, trade or skills body, all those involved with the procurement, design, delivery, commissioning, management and maintenance of HRRBs have agreed a set of overarching ethical principles as follows:

Respect for life, law, the environment and public good

104. All those involved in the procurement, design, delivery, assessment, commissioning, management and maintenance of HRRBs have a duty to obey all applicable laws and regulations and give due weight to facts, published standards and guidance and the wider public interest. They should:
 - hold paramount the health and safety of others and draw attention to hazards;
 - ensure their work is lawful, ethical and justified;
 - recognise the importance of physical and cyber security and data protection;
 - respect and protect personal information and intellectual property;
 - protect, and aim to improve, the quality of built and natural environments;
 - maximise the public good and minimise both actual and potential adverse effects for their own and succeeding generations; and
 - take due account of the limited availability of natural resources.

Honesty and Integrity

105. All those involved in the procurement, design, delivery, assessment, commissioning, management and maintenance of HRRBs have a duty to uphold the highest standards of personal and professional conduct including openness, honesty and integrity. They should:
 - act in a reliable and trustworthy manner and treat others with equality and fairness;

³⁰ in due course the Building Safety Competence Committee will establish a comprehensive list of recognised bodies

- be alert to the ways in which their work and behaviour might affect others and respect the privacy, rights and reputations of other parties and individuals;
- respect confidentiality;
- declare and manage conflicts of interest;
- avoid deception and take steps to prevent or report corrupt practices or professional misconduct; and
- reject bribery and improper influence.

Accuracy and Rigour

106. All those involved in the procurement, design, delivery, commissioning, management and maintenance of HRRBs have a duty to acquire and use wisely the understanding, knowledge and skills needed to perform their role or task. They should:

- always act with care;
- perform services only in areas in which they are currently competent or under competent supervision;
- keep their knowledge and skills up-to-date;
- assist the development of knowledge and skills in others;
- present and review theory, evidence and interpretation honestly, accurately, objectively and without bias, while respecting reasoned alternative views;
- identify, evaluate, quantify, mitigate and manage risks; and
- not knowingly mislead or allow others to be misled.

Responsibility for Direction, Conduct and Communication³¹

107. All those involved in the commissioning, design, delivery, management and maintenance of HRRBs have a duty to abide by and promote high standards of personal conduct, communicate clearly and provide direction as appropriate, setting the example for others to follow.

108. They should:

- be aware of and seek to effectively communicate the issues that the built environment raises for society;
- communicate as unambiguously and openly as possible to avoid misinterpretation;
- promote equality, diversity and inclusion, and respect the views of others;
- promote public awareness and understanding of the impact and benefits of new areas of learning, achievements and innovation in industry;
- be objective and truthful in any statement made in their personal or professional capacity; and
- challenge statements or policies that cause them personal or professional concern.

109. The work of the group has been focused on improving the competences of those involved in the life cycle of HRRBs, however it is recognised that membership of a professional chartered or competence scheme alone is not a guarantee of a group's or an individual's conduct – and that *behaviour* plays a significant factor in the application of competence, manifested through action - which in turn is affected by wider cultural influences within the industry.

³¹ Responsibility for Direction, Conduct and Communication' is a working title replacing the original title of 'Leadership and Communication' taken from the Engineering Council's 'Statement of Ethical Principles', on which this document is based. The change was made to reflect the diversity of skills/ backgrounds and inputs of the wider HRRB team, in recognition that not all members will be in management or leadership positions. Similarly the addition of the word 'personal' in the main body of the text has been added for those who would not otherwise associate with the title of 'professional'

E. Summary of Recommendations

Generic recommendations by the CSG

110. These recommendations have been agreed by the CSG and are generic to all those working on HRRBs and therefore apply to the output of every working group.

Principles of Competence

R1: The Principles of Competence³² should be adopted for universal use to be embraced as the datum for common competence by all those working on HRRBs.

Competence Frameworks

R2: That the competence frameworks proposed by each working group (WG 1 – WG 12) are adopted.

R3: The Building Safety Competence Committee will need to consider and approve each proposal for competence levels.

R4: Any changes to competence frameworks should be made with full consultation of the relevant stakeholder groups, which may be varied from time to time by the Building Safety Competence Committee.

Cultural Improvement

R5: More work is required to review cultural improvement, by considering ethics and behaviours as practical drivers of cultural transformation.

Support for residents

R6: Part of the function of the Overarching Competence System³³ should be support for residents and signposting organisations holding competence registers.

Procurement of public work

R7: Government should take the lead and commit to requiring that any company or individual working on Government construction projects should meet the competence frameworks set out within this report. Local authorities and the wider public and private sectors should be encouraged to follow suit.

Accreditation

R8: For those involved with HRRBs, there should be a robust system of reassessment so as to ensure that they have maintained their competence in relation to the work they are registered/certified to undertake and have a plan to develop new competences where necessary.

³² See Section D pp 23-25

³³ The Building Safety Competence Committee

R9: The competence of those involved with HRRBs should be demonstrated by independent, third party assessment and periodic reassessment.

R10: Wherever appropriate, Government should mandate persons to be registered/certified by a recognised professional/certification body.

R11: Existing arrangements, for assessing and reassessing competence, in the main delivered through certification and professional registration, should be improved to include - as a minimum - the competences needed for working on HRRBs.

R12: All organisations carrying out the assessments and re-assessments should themselves be subject to a rigorous system of oversight (in *Building a Safer Future* referred to as 'accrediting the accreditors') by a body such as UKAS or Engineering Council. The suitability and consistency of the assessment and oversight processes should be overseen by the Building Safety Competence Committee.³⁴

R13: The period of reassessment may vary from discipline to discipline but it should not be less frequently than every five years.

Continuing Professional Development (CPD)

R14: Levels of competence should be maintained and subject to continuing professional development.

R15: There must be suitable management systems within the workplace to monitor competence and record CPD annually.

R16: Common principles of CPD should be established for each sector, which the Building Safety Competence Committee should use to hold sectors to account.

R17: Fire safety CPD materials explaining basic fire science would be beneficial across the industry and for those managing occupied HRRBs.

Areas of competence not yet addressed

R18: A similar approach to the current methodology should be employed for all areas of competence not yet addressed. Specifically working groups should be formed from specialists within the community in question to undertake a process of analysis and enhancement to make competences clear, robust and fit for purpose.

Clear definition of roles and technical terms

R19: The Building Safety Competence Committee should coordinate a set of definitions that can be used in law.

³⁴ *Building a Safer Future*: Recommendation 5.2, fourth bullet

Specific recommendations from the working groups

112. These recommendations have been agreed by individual working groups, as identified, and have been approved and endorsed by the CSG. Recommendations are only included in this section where they are unique to that working group. More detailed recommendations can be found in the report of each working group.

WG0: An Overarching System for Overseeing Competence

HRRB Competence Framework as part of a suite of national standards

R20: Industry should lead the creation of an HRRB benchmark competence framework covering the core knowledge, skills and behaviours required to work on HRRBs as part of a suite of national standards under the governance of the national standards body against which professional and trade bodies are expected to develop their individual sector-specific or discipline competence frameworks.

Registration and Accreditation

R21: Professional and trade bodies that certify or qualify members against the HRRB competence framework national standards are expected to maintain a register of those individuals certified under their scheme and to be accredited/licensed by a suitable publicly recognised body such as UKAS, the Engineering Council or other body, subject to equivalent standards of accreditation or licensing being agreed by the Building Safety Competence Committee.

Building Safety Competence Committee

R22: A strategic, industry-led “Building Safety Competence Committee” should be created comprising representatives of relevant industry bodies, independent experts, building owners and Government. The committee should be appointed or designated by the building safety regulator to raise competence by working with and challenging professional and trade bodies to drive gap-filling, promote the equivalence of accreditation or licensing systems, issue guidance to dutyholders and the Regulator on selecting competent people, provide a space for industry to continue to work collaboratively to drive competence more widely and provide or signpost guidance to industry and the public on relevant legislation, registers and standards relevant to buildings in scope.

Additional Competence Requirements

R23: The three key roles that have primary responsibility for building and life safety at each stage of a building’s life-cycle (Principal Designer, Principal Contractor and Building Safety Manager³⁵) require competences in addition to any discipline related competences. These additional competences relate to their overarching role to ensure that the design intent of the building is maintained and that workers employed and used in design, construction, refurbishment, maintenance and operation are suitably competent. The competences of these key roles should be developed and maintained as part of the suite of national standards that comprise the competence framework. Market providers that offer to assess individuals against the enhanced competence requirements should be accredited or licensed by UKAS or other suitable body.

³⁵ WG8 prefers the term Building Safety Coordinators (see Section 8 pp 93-102)

Maintaining a Register

R24: The building safety regulator should hold and maintain a register of those qualified to perform the key roles, with the advice of the Building Safety Competence Committee and provide sign-posting to the registers held by the professional and trade bodies.

WG1: Engineers

Appointment of Lead Engineer

R25: Dutyholders should be required to appoint a Lead Engineer with responsibility for overall safety risk management throughout the building lifecycle.

Systematic Safety Management Process

R26: To improve interfaces between systems and professions, dutyholders should use a systematic safety management process, comprising a safety management system, safety case and a hazard identification and risk assessment methodology, coupled with engineering leadership responsible for ensuring these are integrated and functioning effectively. The proposed process needs to be user-friendly and enable collaborative contribution of stakeholders including residents.

Piloting Safety Management Process

R27: The safety management process and competence framework should be piloted with industry professionals.

Enhanced UK Standard for Professional Engineering Competence (UK-SPEC) for HRRBs

R28: The Engineering Council should establish a section of its Register requiring assessment and revalidation against an enhanced 'contextualised' version of the UK Standard for Professional Engineering Competence (UK-SPEC) mapped to an HRRB benchmark competence framework and process. This should include identified levels of competence from awareness to comprehensive that can be used to build competence profiles underpinned by a code of ethics and professional engineering conduct.

WG2: Installers

Installer Competence Framework

R29: An 'industry adopted' framework is proposed for the building safety regulator³⁶ to monitor for all the installer sectors working on HRRB's in particular, but could also be applied to other project types. This consists of an ultimate aim to have a combination of:

- Accredited Third Party Certification of companies;
- Level 2 or 3 Qualifications for individuals;
- Card scheme (CSCS³⁷ logo);
- CPD in the form of refresher training and the maintenance of individual skills; and

³⁶ The new regulator proposed in Proposals for reform of the building safety regulatory system, a consultation published by MHCLG in June 2019

³⁷ Construction Skills Certification Scheme

- All installers have a core knowledge of fire safety in buildings – training to be standardised and made mandatory.

Where sectors do not currently have the combination proposed above, these will need to be defined and developed.

Standardised Terminology

R30: Standardised terminology in educational terms should be adopted across all installer sectors.

Reviews

R31: There will need to be:

- A review of card accreditation schemes which are not currently partners of CSCS;
- A robust review of contractors' CSCS card-checking processes via the Early Adopters Group;
- A robust, regular audit of CSCS and its processes for awarding cards; and
- Support from industry and government to raise awareness of CSCS in the domestic market.

R32: An industry-wide CPD/ refresher training programme should be introduced with each sector to define the training to be included, process and accessible storage of records. Contractors and Building Safety Managers³⁸ should ensure industry-agreed fire safety resources are presented to all installers at induction.

R33: There should be further work by WG2 to explore the competences of systems designers and task supervisors.

WG3: Fire Engineers

R34: Dutyholders must appoint only professionally registered Fire Engineers to carry out safety critical work on 'in-scope' buildings.

R35: A number of key fire engineering-related deliverables are produced as part of the design process – notably a fire safety strategy for the works, which will describe the basis of the fire safety design & which will detail how the design meets the relevant legislation and standards. This should be updated as the project progresses and upon completion an 'as built' version should be handed to the building user. This will assist the dutyholder and their other fire safety advisors and risk assessors to undertake their duties once the premises are in occupation.

R36: WG3 should continue to co-operate with RIBA to incorporate the Fire Engineer role in the RIBA Plan of Works.

R37: The Institution of Fire Engineers (IFE) should continue to work with CROSS³⁹ to incorporate fire safety into the reporting system.

³⁸ WG8 prefers the term Building Safety Coordinators (see Section 8 pp93-102)

³⁹ Confidential Reporting on Structural Safety, a confidential reporting scheme established in 2005

WG4: Fire Risk Assessors

R38: Fire safety in buildings has to be founded upon a qualitative and quantitative methodological process that comprehensively assesses the risk of fire.

R39: The fire risk assessment is required to support the fire safety strategy and safety case from the design stage, through construction and on into occupation and must include regular reviews.

R40: To assure the process is undertaken by competent qualified HRRB assessors it must be a statutory requirement for those responsible for HRRB to use only persons registered as qualified by their professional bodies.

R41: In HRRBs this process must only be applied by assessors capable of demonstrating accredited or validated third party certification and who additionally have demonstrated the highest levels of competence to the standards agreed by their professional bodies.

WG5: Fire Safety Enforcement Officers

R42: The legislative fire safety overlap should be resolved and/or the competence of Housing Act regulators in relation to fire should be demonstrated through a competency framework.

R43: The increased financial burdens to fire and rescue services as a result of the enhanced competence standards proposed in the revised Competency Framework should be addressed by Government to ensure effective fire safety regulation by professional, competent fire and rescue service fire safety officers.

R44: Government should consider the broader issues associated with recruitment and retention of fire safety officers and support Fire and Rescue Services in addressing these.

R45: Consideration needs to be given to how the competency of fire safety officers in the devolved administrations, Crown Premises Fire Safety Inspectorate and Defence Fire Safety Regulators are quality assured.

WG6: Building Standards Professionals

R46: Building Standards Professionals should have their competence validation carried out by assessors or assessing bodies that are impartial and are themselves disconnected from the influence of businesses within the construction industry.

WG7: Building Designers

R47: Individuals wishing to be recognised via the competence framework for building designers must be a current full member of a relevant construction professional organisation⁴⁰; be subject to and adhere to a Code of Conduct and disciplinary procedures; and have the specified or relevant experience in HRRBs.

⁴⁰ To be agreed by the Building Safety Competence Committee

WG8: Building Safety Managers

R48: The Building Safety Manager title should be amended to Building Safety Coordinator (BSC). Due to the extensive scope of their duties and responsibilities, the BSC role sits within a wider organisational structure so that sufficient support and resources are available to enable the BSC to fully exercise their responsibility and duty of care.

Competences

R49: To be(come) a competent Building Safety Coordinator, a person must:

- Have minimum relevant experience in managing building risk (duration dependent on building classification) and demonstrate a relevant recognised professional qualification;
- Demonstrate that the requirements of the competency framework are met through assessment of:
 - Accreditation of Prior Experiential Learning, or
 - Recognised fire/life/building safety qualification related to the competency standard;
- Comply with Code of Conduct; and
- Maintain competence through completion of meaningful CPD.

Statutory Licencing Structure

R50: A statutory licensing structure for buildings in scope should be introduced covering:

- A building licence: to operate and occupy buildings (in scope) with any residential accommodation, with classification based on building types, occupancy and the level of risks and complexity, amongst others;
- A licence for the Accountable Person (AP) who would be held responsible and accountable for building safety and resident engagement. They must also either be a resident in or have formal representation in the UK. The Accountable Person must ensure a Building Safety Coordinator is appointed for each of the buildings in scope. Whether or not an RAO⁴¹ is appointed, there should be a direct line of communication between the AP and the BSC;
- A permissioning licence for the Building Safety Coordinator which will be relevant to the building classifications for which the BSC is responsible;
- A licence for a Residential Accommodation Operator to operate residential accommodation. They must employ BSCs appropriate for the building types within their portfolio; and ensure the relevant resources are made available to manage all the classifications of buildings they operate;
- The building safety regulator should hold a national register for these roles; and
- The building safety regulator should maintain a national register of Accountable Persons' Buildings and their classifications. The Building Safety Competence Committee will be responsible for setting, maintaining, assessing and delivering competence standards and maintain a national register of BSCs.

⁴¹ Residential Accommodation Operator

Strengthened right of 'reasonable and proportionate' access

R51: A strengthened right of 'reasonable and proportionate' access should be enabled for individual residential units. This should be enshrined in new and 'standard' clauses in leases and provided for in existing tenure contracts.

Safety Case and Fire and Emergency File

R52: Key data and information should be available so that the BSC can make evidence-based decisions when managing the building.

R53: The content and structure of the Safety Case and the Fire and Emergency File should be mandated.

R54: Information should only be uploaded and managed by competent persons. It should be held on a single (digital) National Database (akin to the Energy Performance Certificate).

R55: The Fire and Emergency File should become mandatory for all residential buildings, (except detached and semi-detached, owner occupied and subject to the building category falling into scope of the new regime) to include for existing 'built' stock, (the assumption being that the new regime will be rolled out across different building categories over a period of time).

Improved residency engagement

R56: The BSC should be responsible for ensuring that all occupiers are better informed about building safety and their role in supporting it. This should be supported by a long-term public sector broadcast campaign.

WG9: Site Supervisors

Independent Construction Assessor

R57: A new role of Independent Construction Assessor should be introduced.

R58: The ICA (normally appointed by the client dutyholder), will manage and coordinate the independent assurance of the construction to ensure that it is commensurate with the design intent.

R59: The dutyholder will use reports from the ICA to see that the safety of the building and of people in and around the building is being promoted.

R60: Without sign-off by the dutyholder, based on assurances provided by the ICA, the regulator may not be persuaded that the General Duty of the client has been satisfied and therefore will not permit a project to pass *Building a Safer Future Gateway 3*. This could provide a powerful potential sanction that will help to ensure that the building is constructed correctly.

WG10: Project Managers

R61: All Project Managers (PMs) who are to work on HRRB projects must be members of a recognised professional body (or equivalent)⁴².

R62: The level of competence that is required of Project Managers should be 'Comprehensive' given that it would seem right to conclude that the 'level' or 'depth' of knowledge and application for PMs working on HRRB projects should be greater than 'understanding'.

WG11: Procurement

R63: There must be a Procurement Lead for HRRBs with a comprehensive HRRB procurement competence level involved at every stage of the RIBA Plan of Work.

R64: Implementing this Procurement Lead role will need a culture change in the construction sector and work is needed to raise awareness of the new competence requirements for procurement activities to ensure appreciation and compliance.

WG12: Products

R65: The Competent 'SAKE'⁴³ matrix and methodology should be further developed and implemented across the sector as a benchmark for ensuring correct product interactions.

R66: The new regulatory framework and sanctions must recognise the WG12 competence framework as the way industry should behave when addressing products and their interactions.

R67: As the WG12 framework is developed and applied, due consideration is made to ensure it coordinates and fits with other competence work and with product information standards (being developed by the CPA Marketing Integrity Group⁴⁴).

⁴² To be agreed by the Building Safety Competence Committee

⁴³ SAKE = Skills, Attitude, Knowledge, Experience. For further details of the SAKE matrix see Annex 12C (in Appendix A)

⁴⁴ The CPA Marketing Integrity Group is developing a framework to provide clear unambiguous product information. This has been expanded upon in 7.3. The CPA Marketing Integrity Group scope is attached in Annex 12E (Appendix A).

Working Group 0 - Overarching System for Overseeing Competence

Introduction

WG0 was chaired by Scott Steedman, Director of Standards and Executive Director, BSI. Three meetings were held to which a wide range of stakeholders were invited. Separate discussions with other stakeholders provided further insight and advice to inform the conclusions and recommendations. The chair attended meetings of the JRG and the Early Adopters' Group to discuss the approach and recommendations.

A list of experts and stakeholders consulted in the preparation of this report is provided at Annex A.

Executive Summary

113. WG0 aimed to deliver an industry-led proposal for a robust, coherent and comprehensive system of overseeing competence that gives assurance to residents, dutyholders and regulators that those involved in the design, construction, inspection, maintenance and management of HRRBs are competent. Annex C provides a diagrammatic representation of the overarching competence system proposed in this report.

Industry context

114. *Building a Safer Future* identified a lack of consistency in the processes and standards for assuring the skills of those working on buildings in scope as a major flaw in the current regulatory system. The current competence landscape for those working in the built environment industry is fragmented and complex. While some professions and trades have systems or schemes in place to assure competence, others do not. Competence standards that are used may not be adequate for work on HRRBs. In most disciplines the standard pathway to qualification may not adequately cover fire safety or issues specific to HRRBs, such as understanding the 'whole building' approach. There are also some disciplines that do not have transparent, consistent and robust systems in place to assure competence. All of this results in a lack of coherence in the overall system and makes it difficult for dutyholders to ensure that they employ competent people to work on buildings in scope.
115. Different approaches across industry towards competence standards and assessment result in a focus on individual specialisms without considering how their work interacts with others and a failure to see the building as a single system.
116. There is a need for a more coherent and consistent approach to assessing and ensuring competence across all disciplines and a culture change across the whole building industry, so that everyone recognises their responsibility as part of a wider system for delivering safe and high-quality buildings. Such an approach needs to provide oversight of competence in a way that gives assurance to residents, dutyholders and regulators that those involved in the design, construction, inspection, maintenance and management of HRRBs are competent.
117. In addition, in the current system, responsibility is too widespread among different roles and often there is no single person clearly carrying the primary responsibility for building and life safety at each stage of the building lifecycle. In the context of design, this means there may be no single person responsible for ensuring the overall design intent is maintained throughout periods of construction activity. In use, there may be a lack of competence and authority to ensure that the design intent is not compromised by minor works or poor behaviour and any changes managed appropriately. Individuals in the sector are generally

not trained or qualified to work across disciplines to ensure that the quality and integrity of all work is consistent with the desired outcome in relation to maintaining or enhancing building and life safety.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

118. WG0 is responding to recommendation 5.2 (creation of an overarching competence body) – see Section C, pp 20-22. In response to the report, the construction industry and fire-safety sector set up the CSG to develop proposals for an overarching competence body and to raise competence standards within each discipline that works on buildings in scope.
119. In January 2019, a new working group (WG0) was formed, reporting to the CSG to take forward the recommendation for a robust, coherent and comprehensive overarching system to oversee competence requirements across industry. WG0 has held a series of meetings and discussions with over 50 people to gather views and input. WG0 has also sought views from the Early Adopters group, JRG and the ISSG.
120. In this report, WG0 is making high-level recommendations for the overarching system for overseeing competence requirements for buildings in scope. WG0 recognises that there are issues that need further consideration and that further work is required on the detail to implement these recommendations. However, the overall concept, illustrated at Annex C, has broad stakeholder support and the CSG proposes that industry continues to work together and with MHCLG to resolve outstanding issues as these recommendations are taken forward.

Detailed analysis of issues

Issue 1: The current landscape for competence is fragmented, complex and inconsistent.

121. The industry comprises hundreds of disciplines, many but not all of which maintain schemes for assuring competence. To ensure a common understanding of the importance of quality of work and the impact that individuals may have on the safety of HRRBs, there is a need for a coherent, system-based approach to assessing and assuring competence across disciplines.
122. A benchmark competence framework standard would provide an overarching structure to map the necessary core knowledge, skills and behaviours required for individuals to work on buildings in scope. Such a standard is essential to identify gaps in individual fields or disciplines across the competence landscape.
123. Industry should work together with other affected stakeholders to define, agree and maintain a framework standard by peer-reviewing individual disciplines' competence standards against a consistent set of common requirements, considered appropriate for all individuals working on HRRBs.

Issue 2: Existing systems for assessing and assuring competence are not necessarily suitable for HRRBs, for example, they may not adequately cover fire safety or issues specific to HRRBs, such as understanding the 'whole building' approach.

124. There is a need to raise the bar on competence for all individuals who could impact the safety of buildings in scope through all stages of the building life-cycle. Raising the bar for all individuals requires not only a deeper understanding of the importance of quality of work and

impact on safety in the context of a 'whole-building' approach, but also culture change to improve behaviours and attitudes of those in industry.

125. A combination of top-down and bottom-up approaches should be taken to improve systems for assessing and assuring competence. The benchmark competence framework standard will provide a basis for raising the bar for all individuals and across all disciplines. The framework standard will need to be supported by individual standards which taken together will create a suite of national standards that provide specific requirements for individual disciplines, roles or activities.
126. The national standards body provides a formal governance process for the development and maintenance in perpetuity of national standards (British Standards) that ensures full stakeholder engagement, open public consultation and consensus. These standards should be regularly reviewed and updated to ensure they continue to be fit for purpose.

Issue 3: It is difficult for residents, dutyholders and regulators to ensure that those employed and deployed at the relevant stages of a building's life cycle are sufficiently competent, as different disciplines have various routes for assessing and assuring competence, which are not always clear or consistent.

127. The benchmark competence framework standard will provide for a consistent and equivalent basis for raising the bar on competence both generally and for key roles. Organisations offering certification of individuals should be accredited or licensed by independent bodies such as UKAS, the Engineering Council or other bodies as appropriate. Use of certified individuals, whose qualifications are maintained by accredited organisations meeting the benchmark competence framework standard to work on HRRBs, would simplify the identification and appointment of competent workers at all stages through the life-cycle of the HRRB. Guidance and signposting should be developed that supports industry, dutyholders, regulators and the public to identify the competence qualifications of individuals working on HRRBs.

Issue 4: In the current system, responsibility is too widespread and there is often not one person carrying the primary responsibility for building safety at each stage.

128. Each of the key dutyholder roles in HRRB projects should have the primary responsibility for and oversight of building safety: Principal Designer for the design stage, Principal Contractor for the construction stage, and Building Safety Manager for the occupation stage. These roles should take a 'whole-building' approach to safety and will require the knowledge, skills and experience to be able to challenge, interrogate and act on any aspect of the design, construction and operation that is inconsistent with the maintenance of the design intent or management of change. These special competences are not always apparent in the built environment industry but are prevalent in many others, such as the nuclear and oil and gas industry, where there are learnings that should be transferred. Ensuring that these key roles have the additional competences required to fulfil their responsibilities will require the development of new accredited training and qualification processes that are in addition to any discipline related competence requirements. These roles should be recognised in regulation and the names of the individuals qualified to undertake these roles should be recorded in a national register.

Proposed approach

129. WG0's aim is to deliver a proposal for a robust, coherent and comprehensive system of overseeing competence that gives assurance to residents, dutyholders, and regulators that

those involved in the design, construction, inspection, maintenance and management of HRRBs are competent. To give this assurance, the overarching competence system should provide for:

- Setting of the benchmark competence framework standard, assessment process, revalidation and CPD requirements, allowing for periodic review and update, as part of a suite of competence standards developed and maintained through formal governance, stakeholder engagement and public consultation;
- Raising of general competence levels for individual disciplines against the benchmark standard and improving competence of individuals across disciplines to work on buildings in scope through peer-review and independent assessment;
- Continuous learning (particularly related to quality of work and risk), to be expanded over time from competence of those that work on buildings in scope to wider market-led competence needs, including issuing guidance;
- Third party accreditation or licensing against the benchmark standards of bodies offering training, qualification and registration schemes for individuals working on buildings in scope;
- Clear accountability of dutyholders for building safety at all times;
- A structure of enhanced competence, qualification and registration of the key roles of Principal Designer (PD), Principal Contractor (PC) and Building Safety Manager (BSM), with delegated responsibility for building safety, and a register of individuals qualified to undertake these key roles;
- Signposting for residents, duty-holders and regulators to Government and industry registers of competent people;
- Strategic oversight of the system, provision of guidance and support, feedback to industry, assessment and comparison of competence schemes; and
- Provision for residents and the public to escalate concerns and for appropriate action to be taken in response.

Key Recommendations

130. These are given in the relevant text throughout the report.

Summary of the system

131. The proposed overarching system takes a dual approach to enhancing the competence of those working on HRRBs that will provide assurance to residents, duty-holders and regulators that those involved in the design, construction, inspection, maintenance and management of HRRBs understand the risks and responsibilities of their work and act accordingly.
132. The dual system comprises a bottom up, '**raising the bar**' process for the general workforce and a top down '**sharp focus**' on the three key roles of Principal Designer, Principal Contractor and Building Safety Manager (PD/PC/BSM).

Sharp focus on key dutyholder roles

133. The accountability of the dutyholder (the client or accountable person) for building safety at each stage of the building work and occupation will be set out in legislation. WG0 proposes that the client (during building work) and the accountable person (during occupation) be required to appoint a suitably experienced company (exceptionally an individual) to one of the three key roles of PD/PC/BSM, to oversee building safety during the design, construction and operation phases of the building, as appropriate. The appointment of a company to any

dutyholder role should be subject to the nomination of a suitably qualified and registered individual employee who will take responsibility for that function through the duration of the assignment.

134. WG0 recognises that the roles of PD and PC are defined within the Construction Design and Management Regulations (CDM) 2015.
135. New legislation and associated guidance for buildings in scope should redefine the overarching responsibilities that both roles carry for building and life safety. The PD role on an HRRB should be a single suitably qualified 'guiding hand' empowered through regulatory guidance to ensure the design intent in relation to building safety is understood, maintained and delivered to the point of handover. The PD HRRB should be part of the role of the lead designer, who will often be an architect but should always be the designer with the most appropriate professional background for the project. Where the focus of the project is on construction works, the PC role should be fulfilled by the lead contractor.
136. The new role of BSM should similarly be fulfilled by a single individual, who is suitably qualified and has appropriate authority and resource to ensure the design intent is maintained through operation of the building asset.
137. This approach will ensure that at each stage of the building work and occupation a suitably qualified individual is available and empowered, through the regulatory framework and associated guidance, to fulfil the dutyholder role under the legislation.
138. Focusing on a single role with primary responsibility at any time for building safety avoids the risk of dilution or dispersion of responsibility across multiple individuals and organisations.
139. For HRRBs it is recognised that there are special competences required at different stages of the building lifecycle that will be demanded of the dutyholder roles of PD/PC/BSM, who are expected to have an integrated view of the design, construction works and operation of the building. They must have the competence and skills to be able to challenge, interrogate and act on any aspect of the design, construction or operation that is inconsistent with the maintenance of the design intent or the management of change.
140. The special competences required from these roles to oversee building safety will be developed and maintained (and updated as appropriate over time) in one or more national standards (British Standards) or Publicly Available Specifications (PAS). Individuals aspiring to undertake these roles will require to be qualified by accredited industry bodies and market providers and requalified as set out in the standards.
141. WG0 proposes that Government through its nominated Oversight Body⁴⁵ maintains a national register of individuals qualified to undertake these key roles.

Raising the bar

142. In parallel, there is a need to raise the bar on competence for everyone working on buildings in scope that may have an impact on building safety. The relevant professional and trade bodies should work together to agree an overarching competence framework standard for work on HRRBs covering core knowledge, skills, behaviours and organisational culture, which should be developed and maintained (and updated over time as agreed) as a national standard.

⁴⁵ Likely to be the Ministry for Housing, Communities and Local Government or the proposed new building standards regulator

143. Upgrading competence across hundreds of disciplines is a substantial task and will take time. The CSG working groups have made progress in many areas to define the competences expected of different functions and roles (such as the new BSM). In the years to come, continuing pressure will be needed on all qualifying bodies to implement the enhanced competence standards for work on HRRBs. Gaps will need to be addressed and third-party accreditation or licensing (checking the checker) extended to all qualifying bodies seeking to demonstrate compliance with the competence framework standard.
144. Individual qualifying bodies will be expected to maintain a register of their members that have met the workforce competence standards for HRRBs.
145. Assurance that all organisations offering qualifications and certification against the new suite of standards are themselves suitably competent will be provided through accreditation or licensing by UKAS (as the national accreditation body) or the Engineering Council (EngC) in the first instance. The system should also enable other organisations to act as accreditation bodies in addition to UKAS and the EngC if they can demonstrate equivalent standards.
146. WG0 proposes that a strategic, industry-led Building Safety Competence Committee could be hosted or appointed by MHCLG, whose purpose is to keep the pressure on the system, signposting registers (both the qualifying bodies and the national register), publishing guidance and white papers, challenging industry and reviewing equivalencies (e.g. the accreditation or licensing of the different assessing bodies) and providing a space for industry to continue to work collaboratively to drive competence more widely.
147. An essential element of any competence system is that there are channels through which concerns may be raised and action taken. The sharp focus on three key roles will provide a clear and direct route for immediate concerns to be raised by the public or workforce. Alternatively, the system should permit the escalation of concerns directly to the regulatory body in Government. Thirdly, existing mechanisms such as the Social Housing Ombudsman could provide another channel for addressing residents' concerns.

Recommendations

Standards – Setting the benchmark competence standard, assessment process, revalidation and CPD requirements

148. The relevant professional and trade bodies should work together to define and publish a benchmark overarching competence framework covering the necessary knowledge, skills and behaviours expected of all disciplines to work on buildings in scope, to define robust, rigorous and repeatable assessment processes and the requirements for evaluation/re-evaluation of qualifications or certifications of professional and trade body members working on HRRBs. These frameworks should be used as base documents for formal national standards maintained independently in perpetuity by BSI in its role as the national standards body working with representatives of all affected stakeholders.
149. Through this route, relevant qualifying bodies will develop the core competences required for their discipline to work on buildings in scope within a consistent and coherent framework. The competences required for work on HRRBs should relate particularly to the importance of maintaining a high quality of work and risk awareness. Individual qualifying bodies will be expected to maintain a register of their members that have met the competence standards for working on HRRBs.

Recommendation One⁴⁶: Industry should lead the creation of an HRRB benchmark competence framework as part of a suite of national standards under the governance of the national standards body against which professional and trade bodies will develop their individual sector-specific or discipline competence standards to be used as a basis for their qualification processes.

Accreditation – Checking that qualifying bodies are compliant with the national standards for competence of workers on buildings in scope

150. To create a consistent and coherent competence landscape for the certification and qualification of individual workers across all disciplines, organisations (industry bodies, professional institutions) claiming compliance with the HRRB competence framework national standards should be accredited or licensed by a rigorous, publicly recognised and accepted means, for those aspects of the individual disciplines' competence framework that relate to working on buildings in scope.

Recommendation Two⁴⁷: Professional and trade bodies that certify or qualify members against the HRRB competence framework national standards are expected to maintain a register of those individuals certified under their scheme and to be accredited/licensed by a suitable publicly recognised body such as UKAS, the Engineering Council or other body, subject to equivalent standards of accreditation or licensing being agreed by the Building Safety Competence Committee.

Industry-led Building Safety Competence Committee maintaining pressure on industry to drive competence improvement, advising Government and signposting guidance and legislation for industry and the public

151. There is a need for an authoritative, strategic committee to maintain pressure on industry, drive gap-filling in the competence landscape, provide signposting to the regulator, dutyholders and members of the public on competence requirements to work on buildings in scope and registers of qualified individuals, provide guidance for industry on matters such as legislation and a structure for industry to work collaboratively to drive competence more widely. The entity should include representatives from the industry, regulator and owner communities, appointed or designated by the relevant Government Oversight Body⁴⁸.
152. The committee should peer-review and benchmark individual disciplines operating accredited or licensed HRRB schemes to compare the effectiveness of their system for assuring and recording competence and publish guidance on the merits of different schemes. It should further benchmark the different approaches offered by UKAS, EngC or other bodies accrediting or licensing individual disciplines to ensure equivalence of outcome. It should also provide guidance to industry on legislation and risks associated with work on buildings in scope and advise and promote the integration of learning into continuous improvement cycles and through competence training.
153. Given the reach and overarching role of the Committee, WG0 proposes that the Regulator, in exercising its functions, should have regard to advice from the Committee on the selection of competent people so far as is reasonably practicable.

⁴⁶ R20 in the overall recommendations (p28)

⁴⁷ R21 in the overall recommendations (p28)

⁴⁸ Likely to be the Ministry of Housing, Communities and Local Government or new building safety regulator

154. For disciplines with no established professional or trade bodies, or system for assuring competence, the committee should promote and oversee representative working groups to develop appropriate assessment and accreditation processes that enable compliance with the benchmark overarching competence framework.
155. The committee would publish an annual work plan and make a report annually on progress to the Government Oversight Body.

Recommendation Three⁴⁹: A strategic, industry-led Building Safety Competence Committee should be created comprising representatives of relevant industry bodies, independent experts, building owners and Government. The committee should be appointed or designated by the relevant Government Oversight Body to raise competence by working with and challenging professional and trade bodies to drive gap-filling, promote the equivalence of accreditation or licensing systems, issue guidance to dutyholders and the regulator on selecting competent people, provide a space for industry to continue to work collaboratively to drive competence more widely and provide or signpost guidance to industry and the public on relevant legislation, registers and standards relevant to buildings in scope.

Enhanced competence for key roles in the design, construction and management of buildings in scope

156. Government is working on a new regulatory framework that will provide stronger regulatory oversight, clear roles and responsibilities for dutyholders. Dutyholders will be accountable for building safety at all times though they may delegate authority to carry out specific activities to suitably qualified individuals in defined roles. The proposed framework will require dutyholders to ensure that buildings are procured, designed, constructed and maintained in a way that safety is prioritised and that people employed on HRRBs are suitably qualified and competent.
157. Consistent with this approach, it is a core principle that the single line of responsibility for building safety should be extended through regulation to the three key dutyholder roles of Principal Designer, Principal Contractor and Building Safety Manager (PD/PC/BSM), which the client is required to appoint depending on the nature of the work in hand. In order to discharge their responsibilities, these roles will need to be satisfied as to the competence of the workforce.
158. Government will consult on the definitions of these key roles and their statutory duties and responsibilities under proposals for the new regulatory framework.
159. The focus on one professional role having primary responsibility (through the dutyholder) for building safety at any time means in practical terms that the competence of individuals appointed to the PD/PC/BSM roles must be assured independently of any discipline related qualification process for working on buildings in scope.
160. Further detailed work is to be undertaken on enhanced competences expected of individuals performing the key roles. As these roles will require an overarching understanding of all aspects of building safety and the impact of construction works or in-use activities on the design intent throughout the life-cycle, individuals will need to demonstrate that they have the skills to interrogate design and construction activity, challenge the quality of work and bad practices, and the ability to identify major hazards and minimise the risk to safety during operation.

⁴⁹ R22 in the overall recommendations (p28)

161. The special competences required of the PD/PC/BSM roles should be developed and maintained as part of the suite of national standards and overarching competence framework discussed above to ensure a common governance structure and full stakeholder engagement in the process.
162. Where an organisation is appointed to fulfil the PD/PC/BSM roles on a specific building, the company will be obliged to nominate a suitably qualified individual, listed on the national register.

Recommendation Four⁵⁰: The three key roles that have primary responsibility for building safety at each stage of a building's life-cycle (PD, PC and BSM), require competences in addition to any discipline related competences. These additional competences relate to their overarching role to ensure that the design intent of the building is maintained and that workers employed and used in design, construction, refurbishment, maintenance and operation are suitably competent. The competences of these key roles should be developed and maintained as part of the suite of national standards that comprise the competence framework. Market providers that offer to assess individuals against the enhanced competence requirements should be accredited or licensed by UKAS or other suitable body.

Hold and maintain a register of competent individuals in key roles

163. The focus on the accountability of the dutyholder and responsibilities of the three key roles (PD/PC/BSM) provides a sharp focus on building safety. Individuals appointed to the key roles are deemed competent to discharge their role-related responsibilities, and will need to undertake role-specific training and assessment leading to qualification (and regular re-qualification) in addition to maintaining their discipline related competence for working on HRRBs.
164. The names of qualified individuals with the required special competences to fulfil the key roles should be maintained on a national register, together with the names of their employer.

Recommendation Five⁵¹: The Government Oversight Body should hold and maintain a register of those qualified to perform the key roles, with the advice of the strategic Building Safety Competence Committee and provide sign-posting to the registers held by the professional and trade bodies.

Address claims of malpractice, call-in specific projects in the public interest, review reports and take action as necessary in the interests of public safety

165. Under Government proposals, there will be a Government Oversight Body for buildings in scope that will be empowered to take appropriate action in the event of whistleblowing, escalation or other public concern being raised that cannot be addressed through the key roles and dutyholder structure or existing local government or other channels (such as the HSE, or Social Housing Ombudsman). The work to define this function is being undertaken by MHCLG.

Programme for delivery and next steps – see also Annex D

166. Government is consulting on the implementation of the recommendations in *Building A Safer Future*⁵², in preparation for legislation to be brought forward in late 2019/early 2020.

⁵⁰ R23 in the overall recommendations (see p.28)

⁵¹ R24 in the overall recommendations (see p.29)

⁵² *Building a Safer Future*: Proposals for reform of the building safety regulatory system

167. Government's legislative timeframe means that it will take time before the statutory arrangements underpinning these proposals can be in place to establish the regulatory framework and relevant bodies, including the proposed Building Safety Competence Committee.
168. In the interim, industry should continue to work collaboratively to raise competence standards across industry as soon as possible. Taking an approach which maximises speed and pipeline capability is therefore key. The CSG is consulting on all proposals in its interim report to seek views from wider industry and interested parties.
169. Subject to wider agreement on these proposals, the CSG will continue industry's work to drive competence, including developing and agreeing the overarching benchmark competence framework as a base document for a suite of new national standards or PAS, working with relevant disciplines to peer-review the provisional competency framework and to drive gap-filling in individual sectors. WG0 recognises that it could take around 6-8 months to agree the base document for the benchmark competence standard.
170. The additional competence requirements for the key roles should form part of the overarching framework and will need to be developed by a dedicated working group of the CSG (or its successor), working with experts from other sectors experienced in the management of design and construction and the operation of building assets in high risk environments. In the context of the BSM role, the group would build on the work of the CSG WG8 (Building Safety Managers) to confirm that the benchmark competences of that role were consistent and could be fed into the development of the national standards together with the base document for the roles of PD and PC.
171. In parallel, relevant disciplines should continue to work collaboratively on provisional sector-specific competency frameworks which can be delivered through voluntary agreement by relevant professional and trade bodies, creating a temporary and accepted standard of competence assessment while the benchmark competence standard is agreed and the suite of new national standards is published. For example, CSG working groups including those concerned with Engineers, Building Designers, Building Standards Professionals and Site Supervisors are planning to pilot this approach. This could continue to operate until a fully established and resourced system is in place and will provide valuable learnings for the development of the national standards.
172. WG0 recommends that Government continues to work with industry through the CSG (or its successor) to take forward these proposals and provide support where necessary, as part of its plan for implementing the recommendations of *Building a Safer Future*.

Barriers to delivery and issues for further consideration

173. To enable the Building Safety Competence Committee to perform its role effectively in driving competence it will require some Government backing or statute underpinning the role of the Committee. This means the Committee could not be formally appointed until legislation comes into effect.
174. It will take time to develop and agree the national standards for competence of workers and key roles on HRRBs, and for relevant organisations to review their sector-specific competence frameworks, develop and deliver the additional accredited training and qualifications, upskilling and certifying competent individuals. In many cases, the speed of implementation will be affected by capacity within the industry organisations to respond. Annex D presents further consideration of the timeline for implementation.

175. The development of a national register, new national standards, guidance, signposting and the establishment of strategic committees, industry forums and working groups will incur additional costs to industry and government that will need to be met over and above the status quo.
176. In the longer term, there will be significant cost benefits from having a competent workforce and more robust safety management processes which will increase efficiency and result in safer and higher quality buildings, far outweighing the initial costs.
177. Whilst the national accreditation body, UKAS, and the Engineering Council are already active in the accreditation and licensing of industry bodies, there is a challenge of scale and reach to ensure that all disciplines have appropriate accredited schemes for their members to be certified to work on HRRBs. Annex E describes the challenge of accreditation in more detail. Other accreditation bodies may need to step up alongside UKAS and EngC to provide the oversight required and the Building Safety Competence Committee will need to develop appropriate methods for assuring the equivalence of their activities.
178. The additional competences required of PD/PC/BSM will require a number of organisations with the appropriate experience to step forward and offer accredited training and qualification processes against the new national standards. As these roles are still to be defined in regulation and do not exist in their proposed form for HRRBs at present, these qualification processes will be new and may be offered by only a few organisations in the first instance.

Acknowledgements

179. WG0 warmly thanks the many individuals who gave of their time and expertise to contribute at short notice to the discussions that informed this report. A full list of those consulted or who participated in the three meetings of the group to date is given at Annex A.
180. WG0 is particularly grateful to Peter Caplehorn (CEO, CPA), who briefed the CSG and to MHCLG for their administrative support during the process.

List of Annexes

Annex C: Overarching Competence System map
Annex D: Proposed timeline for developing and implementing proposals
Annex E: UKAS and Engineering Council's paper on accreditation

Working Group 1 – Engineers

Chair: George Adams, SPIE UK, Engineering Council

Secretary: Katy Turff, Engineering Council

For the list of contributors, see Annex A.

Executive Summary

181. WG1 brought together four end-user organisations, 13 professional engineering institutions and two other industry bodies, led and supported by the Engineering Council. WG1 had good integration with MHCLG.
182. The scope of WG1 was the competence required by engineering professionals engaged in design, build, test and maintenance of the fixed engineering assets that constitute life safety systems within an HRRB and proposals for the safety case process.
183. Engineering life safety systems are critical to the safety of occupants and fire and rescue services, and buildings must be seen as an integrated solution if the integrity of the life safety strategy is to be maintained. The choice, specification and performance of each individual element of the system or collection of systems are critical to the overall safety of occupants. WG1 set out to define how the competence and professionalism to undertake these tasks could be better recognised and this included the need for improving the integration of systems and approaches.
184. For residents to be safe and feel safe, WG1 identified a need to integrate the currently disparate engineering practices in HRRBs and provide a new coherence to the life safety solution. WG1 has approached this from three angles:
 - The engineering and safety interfaces throughout the building lifecycle, as defined by an enhanced version of the RIBA Plan of Work (Annex 1D in the supporting documents), and the roles responsible for them;
 - The safety case as an integrating process and the role of the engineer in creating and maintaining it; and
 - The existing framework of engineering professional registration, competence standards and statement of ethical principles
185. WG1 has:
 - Identified key improvements needed and learning from other industries;
 - Undertaken site visits (Annex 1E2 in the supporting documents) to explore the operational engineering competence needed to manage and maintain the building safety case; and
 - Explored and used an established methodology – Bowtie risk assessment – to analyse the key components in the life safety system and the competences needed to implement, operate and maintain them. (Annex 1J in the supporting documents).
186. WG1 considers that problems arise during occupation, when modifications made in isolation collectively produce a material change to the way the building functions. The future approach must be capable of being deployed in existing as well as new buildings.

Key Recommendations

187. These are given in the relevant sections below.

Industry context

188. The biggest challenge is how to make existing occupied HRRBs, some of which were built in the 1960s, safer. *Building a Safer Future* indicates there are up to 3,000⁵³ tower blocks in England qualifying as HRRBs⁵⁴. Only a small proportion of these are new builds. A new system must be applied retrospectively for impact to “raise the bar” within the industry. The observations on the current industry context below reflect the collective experience of WG1 members.
189. **Observation One:** The process WG1 has been through has identified that there is no joined-up approach to ensuring that all services in a HRRB work together to provide a fully functioning safety solution. The requirement to integrate safety critical systems technology into all buildings is frequently not upheld. Safety cases are not used and consequently the connectivity between design, build and operate is disjointed and inconsistent.
190. **Observation Two:** People with responsibilities for HRRBs are not required to be familiar with the building or its component parts. The Construction (Design and Management) Regulations (CDM) 2015 (Annex 1I in supporting documents) focus on ensuring safety during construction and setting up a system for future safety but do not provide coherence in relation to the occupants of the building during the operational phase. Compliance is not regulated. The designers often are not retained beyond the design phase and the detail of designs and design calculations essential to the ‘golden thread’ is often not accessible or not updated. Older buildings pre-dating CDM often lack documentation including original designs and life safety strategy.
191. **Observation Three:** In all buildings there will be a multitude of life safety engineering systems to be designed, built, tested, modified or new systems added and there needs to be a fully integrated life safety engineering solution. Under CDM regulations it is both permissible and the norm that the Principal Designer (Annex 1I in supporting documents) is not the lead designer. Where extensive use is made of sub-contracting, procurement can create separate work packages, creating distinct systems within the same project. Unless required by contract, contractors responsible for ‘contractor-designed’ portions are not obliged to demonstrate design competence and the lead designer is not obliged to verify the competence of sub-contractors who undertake design work.
192. **Observation Four:** Where undertaken, change management processes are not sufficiently robust to deliver life safety systems.
193. **Observation Five:** To improve competence, behaviours and responsibilities within the Built Environment Industry at all levels, its largely blame and ‘cheapest price rules’⁵⁵ approach needs to be led into a culture of identifying and analysing data related to failures to identify systemic issues and make focused reforms to achieve safer and more efficient buildings.

⁵³ *Building A Safer Future* para 1.3 (p19) and Appendix C

⁵⁴ Using the definition in *Building A Safer Future* of ten storeys and above

⁵⁵ A Better Deal for Public Building, All-Party Parliamentary Group for Excellence in the Built Environment 2012

Responding directly to questions arising from Dame Judith Hackitt's recommendations

194. WG1 has considered: definition of buildings in scope (1.1, 2.4); treatment of the building as a system (1.3); key roles (2.1), creation, maintenance and handover of key documents (2.3) use of safety case (2.9, 2.14, 3.3); engagement with residents (4.1), industry leadership (5.1), overarching competence system and overarching competence framework (5.2), products (7.1), golden thread (8), contracts and procurement (9.1-3).

Issues and recommendations

Issue 1: Interconnectivity of building components

195. To function in accordance with codes, practices and approvals all the components should be designed, built and operated in such a way as to complement one another. This includes the structure, the building envelope, the services, fixtures and fittings within the building and its relationship to adjacent buildings, other infrastructure and the natural environment. These components must be considered as an interconnected whole in order to maintain the safety and functionality of the building and its occupants. This interconnectivity must be maintained throughout the life of the building.
196. Design should include a life safety strategy aimed at preventing harm and protecting occupants and emergency services in the event of a potentially harmful incident. WG1 identified that to raise the bar it is essential to increase the rigour and coherence of engineering responsibility for and integration of technology. This requires engineering leadership during design, build and testing and engineering support during the operational and maintenance phase.

Recommendation One⁵⁶: Dutyholders should be required to appoint a Lead Engineer with responsibility for overall safety risk management throughout the building lifecycle.

197. WG1 concluded there is a requirement for a Lead Engineer (Annex 1D in the supporting documents) throughout the building lifecycle with the responsibility, authority and competence to ensure that the building as a system is being engineered appropriately and the safety systems always function as intended.
198. During design and construction, the Lead Engineer should take an integrated view of the building and manage the co-ordination of the many complex engineering parts. During the much longer period of occupation, maintenance and from time-to-time renovation of the building, the Lead Engineer should be an independent advisor to the Building Safety Manager. During the preparation and submission of the safety case the Lead Engineer should act as an Independent Competent Person, fulfilling an audit function.
199. All engineers, co-ordinated by the Lead Engineer, must recognise their shared responsibility to ensure that all sub-systems of the building contribute to the safety of the whole. The Lead Engineer should be competent to lead and evaluate the effectiveness of that “systems thinking” on the part of the team. Timescales and the need for different engineering specialities may mean a company rather than a natural person is needed.

Issue 2: Creating a Safety Case for HRRBs

200. In the nuclear and process industries, aviation and rail sectors, a safety management process comprising a safety management system, safety case, hazard identification and risk

⁵⁶ R25 in overall recommendations (see p29)

assessment techniques and the use of suitably qualified and experienced persons is established and effective practice. This process is well known to the engineering community. Risk assessment is part of risk management. The Health and Safety at Work Act requires that risks are managed/controlled to be as low as reasonably practicable (ALARP). Safety Cases are also used for sports stadia, airports and railway stations. However, they are not used in the residential building sector.

201. A safety case is an assessment of an object that is used by people with respect to the health and safety of those using said object. In terms of HRRBs, the building is the 'object' and its occupants are the 'users of said object'. This abstract view of buildings is not commonly held but it is important as considering the building as a whole is vital for producing an all-encompassing risk assessment that would ensure it is safe to use.
202. Each industry which has adopted a safety management process, usually following a major disaster, has had to adapt the process to its particular needs. WG1 spent some considerable time working to understand how HRRB safety cases could be prepared and presented. This included visits to existing occupied HRRBs and discussions with building operators where the concept of the safety management process was well-received and further trialling was agreed.

Recommendation Two⁵⁷: To improve interfaces between systems and professions dutyholders should use a systematic safety management process, comprising a safety management system, safety case and a hazard identification and risk assessment methodology, coupled with engineering leadership responsible for ensuring these are integrated and functioning effectively. The proposed process needs to be user-friendly and enable collaborative contribution of stakeholders including residents.

203. Risk is a function of the likelihood and consequence of hazards. The HRRB safety case must cover all risks. In order for a safety case (and its processes) to be approved, the building owner/operator will need to have in place a safety management system (SMS) to demonstrate that the required inspections such as the fire risk assessment, life safety systems inspection and the various regulatory inspections have been carried out and documented, and any non-conformities found and recommendations made are addressed. WG1 found that some building operators use asset management systems and/or housing maintenance management software to track building work that might be modified for this purpose.
204. A key part of any safety case is the underlying hazard identification and risk assessment. Building owners are familiar with fire risk assessments as these are a legal requirement. The proposed safety management process (Annex 1E1 in supporting documents) needs to be user-friendly and enable collaborative contribution of stakeholders including residents. WG1 identified the Bowtie risk assessment method (Annex 1J in supporting documents) as one that, if used appropriately, enables collaboration across all stakeholder groups to provide comprehensive insight into the safe operation of the building. The Bowtie identifies the interaction between the essential life safety systems (such as smoke vent, fire alarms, fire compartmentation, sprinklers etc) and demonstrates the safety interdependencies and compliance requirements at all stages of an HRRB's lifecycle.
205. The safety management process can enable everyone across the industry to be aligned to the HRRB safety needs and identify the minimum level of understanding needed to interact with, for example designers, procurers, constructors, testers and maintainers and the eventual Building Safety Manager (BSM).

⁵⁷ R26 in overall recommendations (see p.29)

Recommendation Three⁵⁸: The safety management process and competence framework should be piloted with industry professionals.

Issue 3: Competence of construction professionals and operatives

206. There is no legislative structure in the UK to ensure that engineers who practice are qualified. HRRB operators encountered on site visits were seen to know their jobs, be competent and committed but must work in the environment and system they are in. The collective experience of WG1 concluded that industry does not fully embrace the skills, knowledge, behaviours, experience and coherence required when appointing engineers to roles in HRRBs.
207. The Engineering Council is the regulatory body for the professional engineering institutions and holds the UK National Registers of Chartered and Incorporated Engineers, Engineering Technicians and ICT Technicians. The Engineering Council sets profession-wide generic engineering competence standards, including learning outcomes used for the accreditation of engineering education programmes, which the institutions tailor to a greater or lesser extent for their disciplines. Bodies from non-engineering disciplines provide similar guidance. However, none of these address HRRBs as a unique building form, therefore these frameworks do not specifically focus on life safety or the issue of integrated design, construction and operation methods that are critical for HRRBs.

Recommendation Four⁵⁹: The Engineering Council should establish a section of its Register requiring assessment and revalidation against an enhanced 'contextualised' version of the UK Standard for Professional Engineering Competence (UK-SPEC) mapped to an HRRB benchmark competence framework and process. This should include identified levels of competence from awareness to comprehensive that can be used to build competence profiles underpinned by a code of ethics and professional engineering conduct.

208. To take on a discipline role within an HRRB project, at any stage in its lifecycle, requires demonstration not only of competence but also of commitment to the systems thinking and shared responsibility that goes with it. WG1 considers that the Engineering Council's generic Standard for Professional Engineering Competence (Annex 1G in supporting documents) and Statement of Ethical Principles⁶⁰ (Annex 1H in supporting documents) provide an appropriate baseline from which to develop specific and enhanced competence requirements that also map to an overarching HRRB competence framework. WG1 further considers that those assessed as meeting the enhanced competence requirements should be admitted to a contextualised section of the Engineering Council Register with prescriptive CPD and revalidation requirements aligned to other professions within the overarching competence system.
209. WG1 proposes that contextualised registration would require membership of a professional engineering institution that can provide appropriate support for and monitoring of continuing professional development and conduct, investigate complaints and impose sanctions when needed. Assessment and revalidation would be carried out by Professional engineering institutions licensed by the Engineering Council. Professional engineering institutions would be able to apply for a licence extension to assess individuals for admission to the contextualised HRRB register.

⁵⁸ R27 in overall recommendations (see p.29)

⁵⁹ R28 in overall recommendations (see p.29)

⁶⁰ Developed and published jointly with the Royal Academy of Engineering

210. Contextualised engineering competences (Annex 1F1, 1F2, 1F3 in the supporting documents) relate to:

- Application of knowledge and understanding of performance of the building as a system;
- Principles of fire science, fire and life safety;
- Boundaries of competence and interfaces with other disciplines and professions during design, construction and operation of buildings;
- Knowledge of building regulations, standards, management systems and certifications;
- Safety management process including safety case review; and
- Integration of engineering components within a building system.

211. Enhanced generic engineering competences relate to:

- Hazard identification and risk assessment;
- Engaging and communicating with stakeholders including residents;
- Use of construction products; and
- Promoting a culture of ethical behaviour, based on the four key principles of the Statement of Ethical Principles.

Programme for delivery and primary authorities

212. Industry alignment by December 2019 is a fast track target. It is recommended that compliance is mandatory, and a mandatory implementation timescale is also agreed in parallel with the CSG and MHCLG consultations.

213. WG1 proposed ongoing actions:

- Safety case second workshops with 3 of the 4 user groups (September 2019);
- Final proposals for safety case process (November 2019);
- Finalise Lead Engineer role with representative industry bodies, with requirement to appoint to be introduced in line with implementation of the new legislation (November 2019);
- Finalise SMS proposal and competency matrix (December 2019); and
- Finalise concept for a training programme that will be required and the parties to deliver it (2020).

214. Primary Authorities for engineering are the Engineering Council and those professional engineering institutions opting to provide a route to the contextualised HRRB engineering register.

Barriers to delivery

215. Potential barriers might be:

- Industry's willingness to re-structure to adopt new roles and practices for what is a narrow slice of the market. Government needs to set out that the changes will not stop at HRRBs in the long term;
- the introduction of an enhanced competence framework is unlikely to have significant impact while the use of competent engineers remains optional. Guidance supporting the new regulations should set the expectation that dutyholders will appoint suitably

qualified and experienced people, as demonstrated by inclusion on a contextualised register;

- the changes are unlikely to be widely adopted unless sanctions are in place to ensure industry compliance, including a resourced compliance/auditing capacity. This must be coupled with structured compliance training opportunities. Government should initiate a strong drive for change and at a momentum commensurate with the risks;
- further development of the concepts, pilot studies and guidance materials will be needed, together with sufficient competent training providers, to ensure a ready-to-play solution is made available;
- there is a serious shortage and diminishing supply of skills in the industry (Brexit is not the driver of this). New HRRB requirements will add to the industry's demand at a time when other sectors, such as cyber security, are targeting the same resource pool; and
- lack of joined-up support for the need for the Lead Engineer role.

Acknowledgements

Thanks are due to all working group members listed in Annex A for their engagement and contributions.

Thanks also to Southwark Council, Camden Council and Haringey Council for hosting site visits and positive engagement with this work, and to Sheryl Hurst of Risktec for her introduction to Risk Assessment and Bowtie Analysis.

The generous support of Aecom, Engineering Council, Institution of Structural Engineers, Institution of Mechanical Engineers and SPIE UK in hosting meetings is also acknowledged.

List of Annexes

Annex 1B	– Barriers to Delivery
Annex 1C	– Engineering roles and interfaces with reference to RIBA Plan of Work
Annex 1D	– Lead Engineer role description
Annex 1E1	– Safety Management Process
Annex 1E2	– Site Visit Reports
Annex 1F1	– Contextualised competence guidance
Annex 1F2	– Contextualised competences
Annex 1F3	– Competence system diagram
Annex 1G	– UK-SPEC
Annex 1H	– EngC/RAEng Statement of Ethical Principles
Annex 1I	– Principal Designer in CDM Regulations
Annex 1J	– Bowtie Analysis – Fire in HRRB prepared for Engineering Council by Sheryl Hurst, Risktec Solutions Ltd, 2018

Annexes 1B to 1J are in the separate compilation of supporting documents (Appendix A).

Working Group 2 – Installers

Chair: Nick Jarman – Stanhope Plc (Build UK)
Secretariat: Martin Duggan – Fire Industry Association

All other lead contributors are listed in Annex A.

Executive Summary

216. WG2 consists of representatives from the construction and fire safety sectors, bringing together the expertise of installers of products or systems which contribute towards the fire safety strategy of a building. The group has engaged clients, contractors and specialist contractors.
217. WG2's brief was to agree a comprehensive and coherent framework for assuring competence levels for those installing and maintaining fire safety and other safety critical systems for HRRB's.
218. There are many installer sectors within the construction and fire protection sectors. The initial 36 installer sector participants mapped and compared their current competence arrangements to understand the existing landscape; this mapping is ongoing and includes the cladding sector. With such a wide scope, WG2 has focused on the wider issues rather than the depth of each installer sector.
219. An 'industry adopted' framework is proposed for the Building Safety Competence Committee to monitor for all the installer sectors working on HRRBs in particular, but could also be applied to other project types. This consists of an ultimate aim to have a combination of:
 - Accredited Third Party Certification of companies;
 - Level 2 or 3 Qualifications for individuals;
 - Card scheme (CSCS logo);
 - CPD in the form of refresher training and the maintenance of individual skills; and
 - All installers have a core knowledge of fire safety in buildings – training to be standardised and made mandatory.
220. Whilst WG2 has primarily focussed on the active and passive installer sectors, the group has considered the wider installer sectors as part of its remit. All installers should have a core knowledge of fire safety within buildings and training on this should be standardised and made mandatory. This is not currently widely implemented.
221. There is still work to do to support procurers and ensure there is a consistent framework for understanding whether a company (and its installers) has the technical competence to carry out the work they are tendering for. Defining the framework above makes it easier for those procuring services to understand what good looks like in relation to assuring competence.

Key Recommendations

Installer Competence Framework

Recommendations One⁶¹: An ‘industry adopted’ framework is proposed for the building safety regulator⁶² to monitor for all the installer sectors working on HRRB’s in particular, but could also be applied to other project types. This consists of an ultimate aim to have a combination of:

- Accredited Third Party Certification of companies;
- Level 2 or 3 Qualifications for individuals;
- Card scheme (CSCS⁶³ logo);
- CPD in the form of refresher training and the maintenance of individual skills; and
- All installers have a core knowledge of fire safety in buildings – training to be standardised and made mandatory.

Where sectors do not currently have the combination proposed above, these will need to be defined and developed.

Standardised Terminology

Recommendation Two⁶⁴: Standardised terminology in educational terms should be adopted across all installer sectors.

Reviews

Recommendation Three⁶⁵: There will need to be:

- A review of card accreditation schemes which are not currently partners of CSCS;
- A robust review of contractors’ CSCS card-checking processes via the Early Adopters Group;
- A robust, regular audit of CSCS and its processes for awarding cards; and
- Support from industry and government to raise awareness of CSCS in the domestic market.

Recommendation Four⁶⁶: An industry-wide CPD/ refresher training programme should be introduced with each sector to define the training to be included, process and accessible storage of records. Contractors and Building Safety Managers⁶⁷ should ensure industry-agreed fire safety resources are presented to all installers at induction.

Recommendation Five⁶⁸: There should be further work by WG2 to explore the competences of systems designers and task supervisors.

⁶¹ R29 in the overall recommendations (see p.29)

⁶² The new regulator proposed in Proposals for reform of the building safety regulatory system, a consultation published by MHCLG in June 2019

⁶³ Construction Skills Certification Scheme

⁶⁴ R30 in the overall recommendations (see p.30)

⁶⁵ R31 in the overall recommendations (see p.30)

⁶⁶ R32 in the overall recommendations (see p.30)

⁶⁷ WG8 prefers the term Building Safety Coordinators (see Section 8 pp 93-102)

⁶⁸ R33 in the overall recommendations (see p.30)

Industry context

- 222. The construction industry in the UK can account for both a direct and indirect workforce of around 3 million people. Therefore, the term 'installer' accounts for an extremely wide remit of consultation in relation to both new build and retrofit work.
- 223. Following the brief, WG2's initial focus was made on the active and passive fire protection installer sectors, yielding 36 initial installer sector participants, including the cladding sector, to review.
- 224. Further work is needed to identify every installer sector. The Early Adopters group has been asked to provide a definitive list of typical installers on HRRB projects.
- 225. Many Active and Passive fire protection sectors have established British, European or ISO standards for the installation and maintenance of fire safety systems. These standards often include design and commissioning.
- 226. Typically, as technology advances create new products and systems, full British Standards are developed. Originators will develop 'manufacturers' installation guidance, which progress to Trade Association best practice guides and/or Publicly Available Standards (PAS) before the market demand leads to the need to standardise fully.
- 227. This is not necessarily the same pattern in other 'installer' sectors.
- 228. The fire sector has well established albeit limited scope ISO/IEC 17065 Accredited Third Party Certification to rigorously demonstrate competence of companies. These schemes assess companies against the specific industry-agreed certification scheme requirements.
- 229. ISO/IEC 17065 "Requirements for bodies certifying products, processes and services," provides the framework from which many schemes were developed against.
- 230. Accredited third party certification has supported procurers to identify companies which understand and meet agreed practices within their sector although mainly are limited to the installation of 'fire safety systems' and not therefore inclusive of the wide range of installer activity on a HRRB.
- 231. In the last eight years the active and passive fire protection sectors have moved to focus on improving the competency benchmark for individuals. Traditionally companies would train their employees on processes. The employee would receive product training and be trained to understand the installation and maintenance standard.
- 232. Level 2 or 3 Ofqual regulated qualifications have been launched in some areas but are fairly new.
- 233. Across other construction sectors, many companies are used to undertaking Accredited Third Party Certification to demonstrate their adherence to international standards e.g. ISO 45001 Occupational Health and Safety Management Systems or ISO 9001 Quality Management Systems. Although there are some industry-agreed technical standards for installation, due to the sub-contracting nature of construction and high numbers of labour only sub-contractors employed in some sectors, the focus has often been on Ofqual regulated qualifications for individuals.

234. During the build process checking installers' skills is critical. A site manager or supervisor should require evidence that the operatives attending site on behalf of the installation company have the relevant qualification and CSCS card for their role. In an occupied building the site manager is typically replaced with a building manager who should want to see a proof of qualification or competence. However, a rigorous checking process is not always the norm.
235. CSCS is defined as a recognition of training and qualification scheme. It is used to show what qualifications an individual has undertaken to achieve the occupation title on the card. CSCS effectively acts as a register of qualified installers and trainees. The minimum standard for skilled CSCS cards to be awarded should be Level 2 or equivalent, although, in some sectors, the industry recognised minimum standard is Level 3.
236. CSCS cards have been in place across the construction industry since 1995. Cards have the technology to store additional training data and certificates, to help assess competence, but this is used infrequently by individuals, employers or clients. In 2015 the Construction Leadership Council⁶⁹ specified that industry should promote card schemes carrying the CSCS logo with no equivalents accepted. This is known as the One Industry Logo action and aims to unite a range of individual card schemes under a consistent set of principles. Further uptake of this across all installer sectors would provide a complete installer register containing all the qualifications held by individuals.
237. CPD or Refresher training is offered infrequently and, where it is the model for recording this is not yet defined. To ensure installers keep up to date with technological advances and regulatory changes, regular refresher training is critical.
238. Operating in a construction industry sector where the main focus has been on low cost, and lack of regulation has led the fire protection sector to develop its competence measures on a voluntary basis. It has taken considerable time to develop accredited third party certification schemes and qualifications and for these to gain traction in the various installer sectors.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

239. In *Building a Safer Future*, the construction and fire safety sectors were tasked with demonstrating more effective leadership and there were a series of recommendations relating explicitly to the role of installers. This report aims to address some of these directly, specifically improving the way procurers can assess the technical competence of a company at the tendering stage and the training required for installers working on HRRBs.

Detailed analysis of issues

240. The fire protection sector has primarily focused on accredited third party certification of companies to provide a competency check whilst the construction industry has focused on individual qualifications demonstrated via CSCS. Both approaches can be complementary rather than mutually exclusive and this has been the basis for developing an 'industry adopted' framework. Accredited third party certification, particularly in the construction industry, requires detailed industry consultation in relation to implementation time and how this is made appropriate for all installer companies. This approach represents a clear target in raising the bar of assuring competency.

⁶⁹ The Construction Leadership Council works between industry and Government to identify and deliver actions supporting UK construction in building greater efficiency

241. The use of CSCS has been reviewed within the group and although it represents a recognised means of proving installers' qualifications there is a consensus that it needs further development to be widely accepted for installers across all sectors. Card accreditation schemes which are not currently partners of CSCS should be reviewed in the next stages of the WG2's implementation plan to ensure the route proposed is appropriate to cover all installers.
242. 'Educational terminology' including terms such as "diploma", "qualification", "certification" and "accreditation" were, among others, used interchangeably with little difference in meaning. Some training courses were advertised as "Level 2" or "Level 3" but it was unclear whether this was a recognised qualification regulated by Ofqual. The result is patchwork coverage for the training available to installers with inconsistent standards between courses, apprenticeship standards and qualifications.
243. Although there are a range of qualifications available, feedback from working group members indicates that there is often a lack of training and/or assessors available against some of these qualifications. Where training is not available, or effective requirements or incentives to provide training are lacking, this leads to installers who lack the right training and instead have to learn 'on the job', sometimes without a formal structure or support to provide them with the correct knowledge and skills.
244. Some installers' training courses which are offered as the route to competence are not guided by a consistent training framework. Whilst well intentioned, without a regulated framework to guide the course development, there is no way of verifying whether the content and quality being delivered is consistent for all individuals.
245. Some sectors were unaware of the specific construction Level 3 qualification, *Occupational Work Supervision*, which gives supervisors the skills needed to monitor the performance of installers in their specialist area. This poses questions around the quality and rigour of assessment for the installation of a system. Those supervising the installation of a system need to be trained to a consistent standard to ensure it has been installed correctly, free from any defects: it also provides a mechanism to provide feedback to installers and assesses for their ongoing competence.
246. There is limited learning for installers on fire safe buildings and their role in maintaining the integrity of a building. Fire safety is included within existing qualifications generally, but as there is no specific prescribed teaching, it is unlikely that there is consistency in teaching across installer sectors.

Raising the bar: proposed approach

247. An 'industry adopted' framework is proposed for the Building Safety Competence Committee to monitor for all the installer sectors working on HRRB's in particular, but could also be applied to other project types. This consists of an ultimate aim to have a combination of:
 - Accredited Third Party Certification of companies;
 - Level 2 or 3 Qualifications for individuals;
 - Card scheme (CSCS logo);
 - CPD in the form of refresher training and the maintenance of individual skills; and
 - All installers have a core knowledge of fire safety in buildings – training to be standardised and made mandatory.

248. The proposed approach is split into three phases: addressing fundamental issues, standardising content and wider implementation.

Addressing Fundamental Issues

249. Accredited Third Party Certification schemes for installer companies should include a requirement for the individual employees to have a regulated qualification and to check that CSCS cards are held.
250. Where they do not exist, industry should develop technical competences which will allow procurers to assess a company's competence against an agreed standard.
251. Employee training records are already included in the accredited third party certification inspection process. This could be expanded to provide a CPD check on an annual or risk-based assessment basis.
252. Training should lead to formal qualifications that are provided through Awarding Bodies recognised by Ofqual and/or apprenticeship standards approved by the Institute for Apprenticeships and Technical Education (IfATE). A minimum level 2 or 3 regulated competence-based qualification is recommended, which will vary depending on the sector.
253. Qualifications should be mapped to the installation Standard if one exists and/or a National Occupational Standard.
254. Standard Setting Bodies, such as the CITB, and the relevant industry group should support this mapping exercise if suitable qualifications do not already exist in the installer sectors.
255. Standardised terminology in educational terms should be adopted across all installer sectors to prevent a siloed approach of improvement and education within each installer sector.
256. Some sectors have accredited third party certification of individuals. The group has not yet considered whether or how such certification schemes for persons could fit into the proposed framework. This should be reviewed in the first phase.
257. CSCS has begun implementing the requirement for installers to demonstrate they hold the relevant qualification before they are issued a card. This includes requiring existing card holders who may previously have a card through Industry Accreditation or 'Grandfather Rights' to obtain a qualification.
258. All installation and maintenance work, and especially relating to HRRBs, should require the installer to show a card featuring the CSCS logo and issued for the occupation being undertaken. It is critical that the 'person in control', whether site manager, asset manager, building safety manager, occupier, needs to check the competence of the installer before works take place.

Standardising Content

259. WG2 has agreed that there should be an industry-wide CPD/refresher training programme, which provides the installer with the training needed to maintain their skills. Each sector will require different refresher training and a mechanism to demonstrate this via Accredited Third Party Certification and CSCS cards will need to be agreed.

260. Minimum levels of training on the fundamentals of fire safe buildings should be agreed, developed and be provided freely to all installers. This should provide an overview of key issues, such as compartmentation, and the impact of installing products in a way which undermines this, would have on the fire safety strategy of a building. This training is not currently widely available.
261. This training would highlight the importance of understanding where an installer's own competence ends, deferring to someone more skilled or experienced. This would include a short, free film for all installers. Testing of the comprehension should be through qualifications and via the Health, Safety and Environment Test which must be passed every five years to access a CSCS card. Industry should agree whether this test should take place more frequently. It is also recommended that all sites agree to include the fire safety film as part of their induction process, to ensure regular exposure to the training content. Building Safety Coordinators should also ensure that retro fit and refurbishment installers also have access to the fire safety film. The above could drive significant change to culture within the installer sector and is seen as a key missing link. Culture change should also be facilitated through the development of workforce engagement schemes either tied in or similar to the health and safety schemes such as Incident and Injury Free (IIF).

Wider Implementation

262. This phase of work will cover installers of all construction products and systems, not just those covered by WG2. This phase also feeds into a wider attempt to change the culture in the construction sector by creating a solid framework to drive the importance of safety and competence.
263. The building safety regulator must insist that only Accredited Third Party Certificated installation companies are engaged at the procurement stage for HRRBs and that CSCS cards must be shown by individuals on site when work is undertaken. This will act as the driver for industry to adopt these practices.
264. The Building Safety Competence Committee must publish the list of Accredited Third Party Certification schemes, the qualifications and accepted CSCS cards for each installer sector.

Programme for delivery and primary authorities

265. It is expected that full implementation will take eight to ten years which will include phasing out previous requirements for CSCS cards over a five year cycle. Specific fire safety training recommendations will take roughly two to three years to implement. A full list of actions and bodies is available in the implementation plan in Annex 2C in the supporting documents.
266. It is proposed that there should be a robust audit process in place to ensure CSCS is delivering and upholding the proposed recommendations.

Barriers to delivery

267. Whilst the proposed framework for assuring competence as a combination of all five elements could be the ultimate goal, it must be recognised that one size does not fit all and the Building Safety Competence Committee will need to consider each installer sector's proposal, and WG2 will continue in its role to support sectors to outline this. Some installer sectors will take longer to achieve all five or there may not be the demand to drive all five elements.

268. Whilst there are industry sectors which have existing UKAS Accredited Third Party Certification Schemes there would be a need to define a process for sectors without existing industry standards, to ensure there is a clear, robust process for procuring services. This work should be undertaken in conjunction with WG11, which is leading on procurement.
269. The group acknowledge training and qualifications do not lead to competence on their own. However, ensuring there is a consistent level of training provides a basic level of assurance. The role of the supervisor and Independent Construction Assessor, proposed by WG9 (see p.103) will positively impact on the quality of work installed, further ensuring quality compliance and increasing competence over time.
270. WG2 is solely focussed on exploring installers' competences. However, the system installer should work closely with the system designer, following the installation instructions set by them. These recommendations will ensure that future qualifications will focus on the importance of consulting with the designer early in the process if systems cannot be correctly installed on site. This is particularly important for installers where the system designer is not based in-house. There should be further work to explore the competences of systems designers.
271. Further work is also required to understand how those who inspect and approve these systems are trained and assessed. A recommendation has been included to ensure there are equivalent assessment requirements to become a supervisor across sectors. This falls outside of the scope of WG2 however it is proposed that the group expand its remit to explore the role of the task supervisor in more detail.
272. At the time of writing, the Department for Education (DfE) is conducting a consultation Review of Post 16 Qualifications at Level 3 and Below in England. The group will need to ensure that any qualifications are updated or developed with a view to the outcome of the consultation.
273. Whilst CSCS cards demonstrate the level of attainment, they are not able to show an individual's degree of competence as they do not demonstrate how an operative performs in their daily role; their experience and attitude can only be managed by their supervisor and/or contractor on the job.
274. The use of CSCS cards that demonstrate training and CPD requirements have been met, will be clearly understood by industry. However, domestic tenants and landlords with limited knowledge of construction will also need to understand how to assess the competence of a company and the operative. Showing a card for the occupation being undertaken featuring the CSCS logo should give them this confidence. Industry and government will need to work together to raise awareness of CSCS in the domestic sector, which will reduce the number of unqualified tradespeople operating as they are more frequently asked to show their card.
275. In addition to holding qualifications, installers should also have the detailed knowledge to install a specific system which may not have been covered by their qualification. To ensure end users are confident that installers have the relevant skills, they should also undertake relevant training for these systems, details of which should be maintained on an installer's CSCS smart card or on training records inspected via accredited third party certification schemes, or the sector trade association with appropriate audit requirements and systems.
276. Industry is not fully utilising the technology available on CSCS cards; employers are not uploading the information and site managers and clients are not asking to see it.

277. It is proposed that the Early Adopters' Group trial a robust card checking process on site to ensure installers have the right qualifications and training to undertake the role.
278. There needs to be drivers for companies to invest in the increase in cost to achieve all five elements recommended in the framework for assuring competency. Without them the process of improvement will be slower and companies may decide to ignore HRRBs as an opportunity for work.
279. There may be elements of the implementation plan that have an impact on the work of other working groups; there is a significant overlap between the work of WG2 and WG12 (products) for example. Where recommendations crossover, there is the potential for slippage in delivery timelines as extra work not previously accounted for is added to delivery plans. Ensuring this does not occur requires clear communication and effective collaboration between the various working groups.
280. There are other issues which may also affect the implementation of the recommendations more generally which are not exclusive to WG2. These include maintaining a legislative appetite, ensuring collaboration between key stakeholders, construction industry churn and capacity pressures.
281. The long implementation period for the plan presents a risk to the process. Training and methods of working in the construction sector are constantly changing and being reviewed. This presents an opportunity for practices to change and recommendations to become obsolete whilst work is being done to deliver them. Whilst identified in WG2's terms of reference, the group is yet to consider how those who ensure systems are maintained properly are competent. Although some installers fulfil a dual role and also maintain systems, we have not fully explored the complexities surrounding this issue.

Acknowledgements

Thanks to all those listed in Annex A for contributing at meetings and correspondence of WG2.

List of Annexes

- Annex 2B – Working Group Terms of Reference
Annex 2C – Implementation Plan
Annex 2D – Current competence information from industry

Annexes 2B – 2D are included in the separate compilation of supporting documents (Appendix A).

Working Group 3 - Fire Engineers

Chair: Mostyn Bullock BEng CEng FIFireE, Chair IFE TSAG, Director Tenos
Secretary: Neil Gibbins QFSM FIFireE

The lead contributors are listed in Annex A.

Executive Summary

282. WG3 brought together fire engineers from a broad range of bodies, companies and practices to discuss the competence of fire engineers and competences in fire engineering, including:
- what is expected of a Fire Engineer in the building work process;
 - the means for identifying a competent Fire Engineer;
 - ethical practice;
 - maintenance of knowledge;
 - possible re-registration / re-affirmation; and
 - means and practice of sharing safety critical information (whistleblowing)
283. WG3 has close links to WG1 (Engineers), with the aim of ensuring consistency on issues common to Professional Engineering Institutions (PEIs) licensed by the Engineering Council such as:
- mandatory CPD recording by registrants with audit by the PEIs;
 - requirement for adherence to professional code of conduct (COPC);
 - subject to disciplinary policy and procedure for breach of COPC; and
 - whistleblowing policy, guidance and support for whistleblowers.
284. Professional engineers subject to the above should be recognised as a means of providing assurance of relevant competence.
285. MHCLG proposes to produce statutory guidance⁷⁰ for the Principal Designer, Principal Contractor and Building Safety Manager roles to ensure that these dutyholders appoint only professionally registered fire engineers to carry out safety critical work on 'in-scope' buildings.
286. The RIBA Plan of Works is accepted as an industry standard template for managing projects. A WG3 delegation met with representatives of the RIBA to put forward WG3's views in response to RIBA's consultation on the RIBA draft Fire Plan of Work (FPOW) WG3 recommended the inclusion of a row in the FPOW to identify the role of the fire engineer and fire engineering in the FPOW.
287. There is also a recommendation that a number of key fire engineering-related deliverables are produced as part of the design process – notably a fire safety strategy for the works, which will describe the basis of the fire safety design and which will detail how the design meets the relevant legislation and standards. This should be updated as the project progresses and upon completion an 'as built' version should be handed to the building user. This will assist the duty holder and their other fire safety advisors and risk assessors undertake their duties once the premises are in occupation.

⁷⁰ *Building a Safer Future*: proposals for reform of the building safety regulatory system

Key Recommendations⁷¹

Recommendation One: Dutyholders must appoint only professionally registered Fire Engineers to carry out safety critical work on ‘in-scope’ buildings.

Recommendation Two: A number of key fire engineering-related deliverables are produced as part of the design process – notably a fire safety strategy for the works, which will describe the basis of the fire safety design & which will detail how the design meets the relevant legislation and standards. This should be updated as the project progresses and upon completion an ‘as built’ version should be handed to the building user. This will assist the dutyholder and their other fire safety advisors and risk assessors to undertake their duties once the premises are in occupation

Recommendation Three: WG3 should continue to co-operate with RIBA to incorporate the Fire Engineer role in the RIBA Plan of Works.

Recommendation Four: The Institution of Fire Engineers (IFE) should continue to work with CROSS⁷² to incorporate fire safety into the reporting system.

Industry context

288. For the purpose of developing contextualised standards of competency for *Building a Safer Future* “Fire Engineering” is defined as:

“the competent application of scientific and engineering principles, rules [codes], and expert judgment, based on an understanding of the phenomena and effects of fire and of the reaction and behaviour of people to fire, to protect people, property and the environment from the destructive and harmful effects of fire”.

289. There is no requirement in law for a person giving fire engineering input into a building project to hold any minimum qualification, professional body membership, registration or certification as a means of giving assurance as to their competence and ethical conduct.

Responding directly to questions arising from Dame Judith Hackitt’s recommendations

290. WG3 has responded directly to Recommendation 5.1 in *Building a Safer Future* (see p.18).
291. Fire safety is an integral and critical element of building safety. The fire engineers’ professional body (IFE⁷³) provides a means of assuring the competence of Fire Engineers. WG3 asserts that it is for the construction and building management sectors to deploy relevant competent assistance and that this should be enshrined in Government’s published guidance for buildings in scope.
292. The disciplines represented by the other working groups require fire safety knowledge in their competence framework. There is recognition that all professional bodies involved must share relevant learning with their members and others. In response to a request from WG1, WG3 provided the list in Annex 3B in supporting documents of what WG3 considers to be core knowledge relating to the fire engineering discipline to ensure appropriate co-operation and co-ordination with other disciplines.

⁷¹ R34-37 in overall recommendations (see p.30)

⁷² Confidential Reporting on Structural Safety, a confidential reporting scheme established in 2005

⁷³ Institution of Fire Engineers, founded 1918

293. Membership of a relevant professional body that requires maintenance of CPD as a condition of maintaining membership is key to meeting the Recommendations of *Building a Safer Future*. The IFE and other PEIs commit to supporting their members and members of other professional bodies by the provision of accredited CPD.
294. WG3 understands that the IFE is also co-operating with other bodies regarding the expansion of the Confidential Reporting of Structural Safety (CROSS) reporting system and supports the widening of the remit to include fire related learning.

Detailed analysis of issues

Issue 1: Framing the context

What is Fire Engineering/ what is a Fire Engineer?

295. Through education, training and experience, a fire engineer competently applies understanding of:
- the nature, characteristics and mechanisms of fire;
 - the spread and control of fire and the associated products of combustion;
 - how fires originate;
 - how fires spread within and outside buildings/structures;
 - how fires can be detected, controlled, and/or extinguished;
 - the likely behaviour of the occupants of a premises when confronted with a fire emergency;
 - the management of fire safety;
 - the likely behaviour of materials, structures, machines, apparatus, and processes as related to the protection of life, property and the environment from fire; and
 - the interaction and integration of fire safety systems and all other systems in buildings, industrial structures and similar facilities.

What activities does a Fire Engineer undertake?

296. Conceiving, developing, detailing and overseeing the delivering of the fire safety strategy. Fire engineers work with all other professions across the full project lifespan to ensure that fire safety objectives (both legislative and otherwise) are correctly identified and achieved. More detail about the activities of the fire safety engineer and how these feed into a developing project will hopefully be provided in the modified RIBA Fire Plan of Work, due to be published in the future.
297. WG3 will work with WG1 and others to overlay fire engineer roles onto the FPOW work steps.

Issue 2: Assurance of competence and ethical practice

298. It should be mandatory for a fire engineer to have membership of a professional body with a:
- requirement for compliance with a Code of Professional Conduct (COPC);
 - whistleblowing policy and associated support for its members who act as whistle-blowers; and
 - robust disciplinary procedures for sanctioning members who breach the body's COPC.

299. If not enshrined in law, it should be set as the industry standard by agreement with the regulators and in guidance published by the regulators.
300. WG3 recommends that such membership is with a PEI that is licensed by the Engineering Council to register engineers who practice in the field of fire engineering (e.g. IFE) and that the Engineering Council audits these PEIs accordingly to ensure that these processes are robust. Namely, that the registration process for a fire engineer by a PEI for CEng, IEng or EngTech must establish that the fire engineer is working at the appropriate level to achieve the competence and commitment requirements of UKSPEC for a fire engineer (set out in Annex 3C in supporting documents for CEng. UKSPEC for IEng and EngTech follow similar formats) and where the knowledge of the fire engineer encompasses the range of knowledge areas of fire engineering laid out by the BS7974 series of standards (Annex 3D in supporting documents).
301. WG3 recommends that the IFE and other PEIs continue to work with the Engineering Council and increase activity with other professional bodies to set expectations and requirements for maintenance of knowledge of members and will implement a scrutiny system in line with national practice and guidance.

Issue 3: External validation and assurance

302. The IFE is a professional body for fire engineers and is licensed by the Engineering Council to grant registrations to individuals that meet UK SPEC and IFE specific knowledge requirements. This is also the case for other PEIs.

Raising the bar: proposed approach

303. Should amended regulations identify buildings for which building work requires enhanced safety processes, professional bodies such as the IFE whose processes are audited by Engineering Council provide a means to identify competent persons to deliver these enhanced processes.
304. The design, construction and management of buildings “in scope” should have oversight by a competent fire engineer who should be engaged across the FPOW stages and a fire engineer who has the authority to do so signs off the fire engineering aspects of the fire safety system (the fire related elements of the safety case).
305. On the assumption that the proposed building safety regulator is provided with the mandate to carry out audits of compliance with a Gateway process:
 - Fire engineering work on ‘in scope’ buildings should be tested by independent peer review carried out by, or commissioned by, the building safety regulator when considered appropriate;
 - A fire engineer should be required to sign off the safety and functionality of the fire protection associated with the construction works at Gateway 3 in parallel with building safety regulator; and
 - When auditing a project for compliance with the ‘Gateway’ process, even if not carrying out a full peer review, the building safety regulator should perform a check that the fire engineer(s) responsible for work carried out on the project is/are members of a PEI (such as the IFE).
306. Knowledge and understanding of key fire safety principles is essential across all aspects of design, construction and management of buildings. For “in scope” buildings the IFE and

other PEIs and other bodies registering fire safety professionals should work with each other and other relevant bodies to assist in the provision of accredited CPD relevant to the roles of persons involved. See Annex 3B for the cross-discipline competencies WG3 believes to be of importance.

307. Agreements should be reached between professional bodies to confirm training needed across professions and how it is delivered (e.g. what fire safety education or training is needed for architects). Organisations that deliver training could assist with the arrangements for putting the training courses together on these fire safety topics and arranging their delivery including members of appropriate competence to deliver the technical content, which the professional bodies would accredit.
308. PEIs (including the IFE) should require registrant engineers to submit a CPD record at intervals (e.g. 2 years - and not just maintain a CPD record for possible audit by the PEI). In contrast to the IFE's Fire Risk Assessors register where registrants undergo periodic re-evaluation as a condition of registration, a fire engineer who is a member of the IFE (including Engineering Council registration as CEng, IEng or EngTech) does not undergo any compulsory reappraisal. There is only the requirement stated in the COPC to carry out CPD and maintain a copy of that CPD for potential audit. It is understood that the same situation applies to other PEIs. A change will require new policies and implementation by the PEIs and the Engineering Council should be asked to advise on policy for reaffirmation of registrants.
309. PEIs (including the IFE) should support the creation of more academic courses to provide CPD in the core fundamentals of fire safety & practical implementation in buildings as follows:

Heat Transfer
Properties of Materials
Fire Chemistry
Fire Dynamics
Active Fire Protection
Passive Protection
People/Fire interactions
Human Behaviour, evacuation & escape route design
Performance Based Design
Fire Protection Analysis
Computational Modelling
Fire Hazard & Risk Assessment
General Building Design
Code and Regulations
Fire-fighting
Fire testing
Cost benefit analysis
Presentation skills

Programme for delivery and primary authorities delivering competent Fire Engineers

310. The process of identifying competent fire engineers is already in place with the IFE, which is licensed by the Engineering Council to register fire engineers. This process can respond to changes in CPD requirements, regulations or regulatory guidance set by the building safety regulator or Engineering Council.

311. There are practicing fire engineers who have achieved CEng, IEng and EngTech registration via other PEIs (e.g. CIBSE,⁷⁴ EI⁷⁵ & IET⁷⁶). Engineering Council rules under which PEIs carry out registration allow this. The Engineering Council must ensure that its audit ensures that the registration process establishes the applicant's competency and commitment in the activity of fire engineering and that the peer process is carried out by registered engineers at the appropriate grade whose competence is in fire engineering.
312. A CEng, IEng or EngTech fire engineer is required to work ethically within his/her limits of knowledge and skill (competence). A registered engineer whose registration has been achieved through peer examination of their competence and commitment in fire engineering and who is maintaining that registration through appropriate CPD would be expected to have the relevant competence to act on a HRRB project if he/she puts themselves forward to do so. This is no different to a registered engineer deciding if he/she has the competence to take on any job. For instance, some fire engineers will have sufficient competence to lead on complex health care projects which use particular codes and standards whilst others will not.
313. This is a matter of professionally qualified fire engineers being appointed who take on the appointment because it fits their competence and who will act competently, including knowing when they need to call in professional assistance should any situation develop which is outside their competency.
314. Therefore, there is no delay in putting in place additional measures as the means of delivering competent fire engineers already exists. Any delay relates to the timetable for implementation by government of regulation/statutory guidance that ensures dutyholders employ registered fire engineers. If this is done then competent fire engineers who are currently not registered with a PEI will apply for registration.

Deployment of Competent Fire Engineers

315. WG3 will continue to co-operate with RIBA to incorporate the fire engineer role in the FPOW.

Learning from others

316. The IFE should continue to work with CROSS to incorporate fire safety into the reporting system.

Barriers to delivery

317. The deployment of competent fire engineers must be clearly expected through guidance issued by the building safety regulator to the Principal Designer, Principal Contractor & Building Safety Manager.
318. Involvement of a fire engineer through the relevant stages for buildings in scope could become established practice if the FPOW is amended to reflect the role specifically.
319. If PEI(s) registering fire engineers are to invest in putting in place resources to support and maintain registration of a greater number of competent professionals, this must be balanced by introduction of a surety that use of registrants will be required of dutyholders based on guidance issued to dutyholders by regulators and which the regulators will expect (and check by audit) dutyholders to follow.

⁷⁴ Chartered Institution of Building Services Engineers

⁷⁵ Energy Institute

⁷⁶ The Institution of Engineering and Technology

Acknowledgements

Thanks to all those listed in Annex A for their contribution. Thanks also to ARUP, Greater Manchester Fire & Rescue Service and IFE for providing support with meeting facilities.

List of Annexes

- Annex 3B – Core Fire Engineering knowledge.
- Annex 3C – UKSPEC for CEng Fire Engineers.
- Annex 3D – Knowledge headings from BS7974.

Annexes 3B to 3D are in the compilation of supporting documents (Appendix A).

Working Group 4 - Fire Risk Assessors

Chair: Dennis Davis, Fire Sector Federation
Secretariat: Stephen Adams, British Approvals for Fire Equipment (UK)

The lead contributors are listed in Annex A.

Executive Summary

320. *Building a Safer Future* specifically referred to fire risk assessment stating “The Fire Risk Assessment Competency Council (FRACC) should develop and introduce an enhanced level of competence for fire risk assessors undertaking work on HRRBs”. FRACC’s role was incorporated within the Fire Sector Federation (FSF) Competence workstream. The Federation volunteered to lead WG4 and the working group shares the view that some fire risk assessors are below acceptable competence standards.
321. WG4 has therefore created criteria that better defines the level of competence needed for HRRBs and the more complex fire risks that exist. WG4 has also sought to clarify how reassurance may be offered to those, including the public, using fire risk assessor services that involve organisations and people. Recognising that weaknesses currently exists, WG4 has also indicated how improvement could be achieved, with a statutory requirement, accredited third party certification, a national register and a new organisation.
322. The review and development proposed reflects a consensus opinion and therefore those elements within the responsibility of WG4 members are judged achievable within a timescale of two years.

Key Recommendations⁷⁷

Recommendation One: Fire safety in buildings has to be founded upon a qualitative and quantitative methodological process that comprehensively assesses the risk of fire.

Recommendation Two: The fire risk assessment is required to support the fire safety strategy and safety case from the design stage, through construction and on into occupation and must include regular reviews.

Recommendation Three: To assure the process is undertaken by competent qualified HRRB assessors it must be a statutory requirement for those responsible for HRRB to use only persons registered as qualified by their professional bodies.

Recommendation Four: In HRRBs this process must only be applied by assessors capable of demonstrating accredited or validated third party certification and who additionally have demonstrated the highest levels of competence to the standards agreed by their professional bodies.

Industry context

323. In 2005 following the introduction of the Fire Safety Order, work on competence of fire risk assessors was undertaken notably as part of the FRACC, published in 2011 as ‘Competency

⁷⁷ R38-41 in overall recommendations (see p.31)

Criteria for Fire Risk Assessors’ This was followed in 2014 with a complementary guide: ‘Choosing a Competent Fire Risk Assessor’.

324. Driving this work was the deep concern of “registered assessors”, individuals who had been independently verified, that the fire risk system lacked any underpinning requirement to use competent persons with appropriate standards of professional competence leaving dutyholders like the “Responsible Person” without adequate safeguards in their selection of assessors and at risk of market influence.
325. In 2017 the FSF Competency Work-stream, the successor to FRACC, published an ‘Interim Fire Competency Framework’ to reinforce wider fire industry competence to encourage a responsible industry. The publication reflected concern that dutyholders again had little insight into choosing competent persons from examples emerging of poor quality fire risk assessments.
326. WG4 therefore commenced its work by reviewing all this existing progress and guidance. This included the *Building a Safer Future* recommendations and the MHCLG response. In noting the broad support given to taking forward matters of competence, sharing good practice with early adopters and creating an overarching system, WG4 strongly agreed that the scope of buildings which should be considered complex fire risks should be extended by the new regime to include: those where failure could put many people’s lives at risk or where many people sleep and that; secondly, without mandating a requirement that permitted only competent fire risk assessors to operate on these risks any new regime risked failure.

Responding directly to questions arising from Dame Judith Hackitt’s recommendations

327. WG4 commenced by agreeing the concept of high or complex fire risk resulted from:
 - evaluations made following the systematic assessment of fire hazards;
 - the probability or likelihood of a fire occurring; and
 - the vulnerabilities of people and property to harmful consequences.
328. This extended much further than the generalised description adopted in *Building A Safer Future* referred to as HRRBs. WG4 decided that the methodical risk assessment process, often described in a series of steps using qualitative and quantitative measures, would be the appropriate methodology to be used.
329. WG4 agreed fire risk was set within a very diverse built environment range of complex fire risks, directly challenging HRRBs as presenting the highest form of fire risks, whilst recognising this had to be the initial work focus. WG4 therefore envisaged HRRB as a pilot for a system that had the flexibility and capability to expand its reach into the wider built environment. A modest amendment to the WG4 Terms of Reference was made to: “Develop and prepare to introduce a method for demonstrating or proving competence for fire risk assessors including those undertaking work on higher risk residential buildings”. This expansion of classification over time resonates with a WG4 view that complex fire risk goes far beyond the constricted definition used in *Building A Safer Future*.
330. WG4 therefore concluded that whilst this important initiative related to HRRBs, given the requirement for competent fire risk assessments in many different buildings e.g. other residential housing, warehouses, shops, heritage, etc. and the existence of directly employed company fire risk assessors who may not be certified or accredited or registered, the scope of this current initiative will require extension, with or without a statutory mandate if buildings are to be adequately assessed for fire and life safety. This ‘cascade effect’ has been part of WG4’s overall approach.

Detailed analysis of issues

Issue 1: Accredited Third Party Certification (ATPC)

- 331. WG4 concluded there is a need for accredited third party certification of fire risk assessors and organisations. The FRACC approach had identified a number of existing registers of such persons, some accredited by the UKAS others validated by being part of a PEI licensed by the UK Engineering Council.
- 332. UKAS schemes generally relate to companies although they can also relate to people. Under the UKAS system accredited certification bodies assess the competence of either organisations or people, thus acting as independent auditors of those organisations and people. PEI's have schemes or verification processes in which individuals who apply to join and become registrants are required to demonstrate appropriate competence. WG4 considered that these approaches offered reassurance.
- 333. WG4 considered that individuals outside these two processes and products also need to be subject to a robust third party certification system and in this context have considered that a peer group of members from the existing WG4 would for those operating outside UKAS or IFE scrutiny continue working to find a route to achieve a similar standard of assurance.

Issue 2 Mandated Requirement to Employ Competent Fire Risk Assessors

- 334. Effective building control requires enforced use of competent fire risk assessors on complex fire risks to ensure the effectiveness and success of any new regime. Evidence available to WG4 indicates a negative impact of cost upon quality fire risk assessments with cited cases of incompetent behaviour.
- 335. WG4 considers a statutory requirement to use only fire risk assessors meeting the standards defined in WG4 criteria to conduct assessments on HRRB designated buildings and those of complex fire risk will safeguard and reassure the public and Fire and Rescue Services that competent fire risk assessments have been made.

Issue 3: Open Public Register

- 336. To assist the public and dutyholders gain reassurance and confidence WG4 proposes that there be a fire risk assessors' register compiled from the existing registers, a 'register of registers', with open public access and ease of use which records those individuals and organisations who satisfy the defined criteria and who are validated or registered by a certification or professional body.
- 337. WG4 perceive this register will increase the protective impact of any new regime by ensuring better informed dutyholders and public monitoring. It also introduces the possibility of a cascading effect, without further regulatory intervention, to support all responsible and concerned building owners who want to engage fire risk assessors competent in fire risk assessments of lower category risk buildings.

Raising the bar: proposed approach

- 338. There is a general view that fire risk assessments are only undertaken in the pre-occupation phase of a building's development. This is incorrect; fire risk assessment is the foundation upon which the fire safety depends, in the built and natural environments, used throughout what can be a building's extensive life.

339. The process is highly appropriate from concept, influencing the fire safety strategy introduced by design, the practices and material selections applied, through occupation particularly during refurbishment and retrofitting when protective systems are disabled or rendered ineffective, and can affect demolition. Fire risk assessment underpins the emergency response made by the Fire and Rescue Services and the level of insured protection used to mitigate risk.

Programme for delivery and primary authorities

340. WG4 envisages a continuum across three levels of fire risk assessor proficiency recognising some company schemes may have different formats of progression. These are:
- those working on low risk simple buildings;
 - those involved with the normal fire risk range of buildings; and
 - those capable of operating in the most complex fire risk buildings, including HRRBs and supervising lower level assessors.
341. Qualifications for each level are based upon quantifiable learning outcomes established in the criteria included in WG4's Full Report (Annex 4B in supporting documents) with recorded progress and supervisory comment referenced to the criteria, FSF Framework and FRACC, to build a gap analysis. Once an individual completes the process of development and is validated they are regarded as formally qualified as a fire risk assessor at the required professional level.
342. All current registrants who intend to operate on HRRBs must have their name and registration details transposed onto a single National Register designed to allow open public access. Although creation of a register requires organisation it has many advantages. It can assist in quality assurance and mutual recognition across existing registration schemes and between individual registrants.
343. Additionally having a framework and structure in place will help maintain currency in the criteria to meet evolving changes in construction and fire knowledge; clarify inter-organisational interpretation, methodology of application; possibly respond to regulator or public concerns; and ultimately ensure continuing relevance of the fire risk assessors' standard.

Barriers to delivery

344. The absence of some form of statutory duty to require competent persons could leave the current situation unchanged. Lack of a recognised registration standard likewise does little to improve the current situation. The absence of an open register creates an unwanted barrier to those who want to do "things right". Rightly some of these matters are dependent upon government imperative and action. WG4 will transition into some form of entity to create a suitable environment to discuss and then implement those issues mentioned above.
345. Costs will inevitably rise in creating any new system and again although there has been some discussion no firm proposals exist. The ability of the fire risk assessor to influence the responsible person or duty-holder can be heavily impacted by the cost from the point of selection to implementing their recommendations.
346. Changing the regime and culture within the wider industry to improve public fire safety through wider fire safety education remains a significant barrier.

Acknowledgements

The support and BAFE, LABC and IFE who all hosted WG4 meetings together with all members and others who contributed their thoughts, ideas and opinions are gratefully acknowledged.

Thanks especially to Dennis Davis for chairing, drafting and leading discussions and to Chris Auger, Bob Docherty, Jason Hill and Bob Ward for assisting in the attendance of meetings and assembly of contributed material.

List of Annexes

Annex 4B – WG4’s full report – is included in supporting document (Appendix A).

Working Group 5 - Fire Safety Enforcing Officers

Chair: Adreena Parkin-Coates - National Fire Chiefs Council (NFCC)
Secretariat: Provided by the NFCC

The lead contributors are listed in Annex A.

Executive summary

347. A number of issues were raised in relation to the existing Competency Framework for Fire Safety Officers (FSO) in *Building a Safer Future*. As a result NFCC assembled representatives from fire and rescue services (FRS), Crown Premises Fire Safety Inspectorate, Defence Fire Safety Regulators, and other interested parties to form WG5 to review these matters.
348. The scope of WG5 was to review the existing Competency Framework for Business Fire Safety Regulators (Framework) to ensure that it provided a clear structure for Organisations to follow, to achieve, maintain and demonstrate appropriate standards of competence within their workforce. It was also to ensure that the issues identified in *Building a Safer Future* were addressed.
349. As work progressed WG5 identified that the existing National Occupational Standards (NOS) (Annex 5C in supporting documents), which govern the knowledge and skills requirements for FSOs, needed to be reviewed.
350. The revised Framework includes benchmark competency standards for FSOs engaged in the audit and enforcement of fire safety standards in all regulated buildings under the Regulatory Reform (Fire Safety) Order 2005. These competences may change in due course as the Joint Regulators Group reviewing the competency and capacity of regulators is yet to meet, HRRBs are not defined and the role of FSOs in the new regulatory framework may be changed leading to further competences being required.
351. The revised Framework includes comment on:
- FSOs understanding the scope of their competence and acting accordingly;
 - All FSOs regulating HRRBs to be registered with a nationally recognised professional body;
 - Behaviours based upon the CSG Principles of Competence (see Section D, pp 23-25);
 - Knowledge and skills associated with the ‘*Core Competencies for Regulators*’ published by the Department for Business, Energy and Industrial Strategy (annex 5D in supporting documents);
 - Competency of Fire Engineering Design Technicians and Fire Engineers within FRS;
 - Competency standards of those undertaking quality assurance of FSOs work;
 - Conflicts of interest;
 - Recognised Prior Learning;
 - Specialist premises where enhanced knowledge may be required (e.g. hospitals); and
 - Continuing Professional Development.
352. Once the revised Framework has been finalised all interested parties will be consulted. This consultation may include the Fire Standards Board Standard of which the Framework will

form a part. Once agreed the Framework will be issued as a Standard for all FRS in England to have regard to.

353. When inspecting FRS in England Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS) will measure the FRS against the Standards set by the Fire Standards Board. This should ensure adoption of the Framework.
354. See annex 5B in supporting documents for the terms of reference for WG5.

Key Recommendations ⁷⁸

Recommendation One: The legislative fire safety overlap should be resolved and/or the competence of Housing Act regulators in relation to fire should be demonstrated through a competency framework.

Recommendations Two: The increased financial burdens to fire and rescue services as a result of the enhanced competence standards proposed in the revised Competency Framework should be addressed by Government to ensure effective fire safety regulation by professional, competent fire and rescue service fire safety officers.

Recommendation Three: Government should consider the broader issues associated with recruitment and retention of fire safety officers and support Fire and Rescue Services in addressing these.

Recommendation Four: Consideration needs to be given to how the competency of fire safety officers in the devolved administrations, Crown Premises Fire Safety Inspectorate and Defence Fire Safety Regulators are quality assured.

Industry context

355. The Framework was originally published in 2013 and has been adopted, in whole or part, by a significant number of the 50 FRSs in the UK.
356. There is currently no requirement for FRSs to follow the Framework.
357. The Framework applies to FSOs responsible for providing goodwill fire safety advice and the regulation of fire safety in the built environment. This could also include officers from Defence Fire Safety Regulators, Crown Premises Fire Safety Inspectorate and FSOs from the devolved administrations.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

358. There were a number of specific competence issues for FRS to address in *Building a Safer Future*.

The existing Competency Framework requires review (paragraph 1.11)

The Framework is now complete. The National Occupational Standards are currently being reviewed.

Cross referencing of previously attained qualifications and skills needs to be completed

The revised Framework states that individuals with qualifications which do not meet the Framework should be assessed for recognised prior learning by

⁷⁸ R42-45 in the overall recommendations (see p.31)

(paragraph 1.11)

an appropriate training provider. Additional training should be provided where prior learning is not considered equivalent to current standards.

The NFCC (National Fire Chiefs Council) should seek to ensure that fire and rescue services comply with the Competency Framework for Business Safety Regulators. (proposal Appendix E p137)

The NFCC cannot require FRS to adopt the Framework; however, the Framework will be recommended to the Fire Standards Board to be converted to a Standard in due course. This will help to ensure FRS adopt the Framework as it is against the published Standards that FRS in England are measured by Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS).

It should be noted that the Fire Standards Board can only set Standards for FRS in England. However it is anticipated that the Framework will be adopted by the devolved administration FRS when published.

HMICFRS only inspect FRS in England therefore FRS in devolved administrations and other organisations will not be subject to the same pressures to adopt the Standard as those in England.

The Competency Framework for Business Safety Regulators should be developed through a national standard for England that could be adopted throughout the United Kingdom. (proposal Appendix E p137)

The Framework is now complete. The National Occupational Standards are currently being reviewed.

Fire and rescue services should ensure that they have sufficient capacity through suitably qualified Fire Safety Officers to effectively implement Integrated Risk Management Plans, Risk Based Inspection Programmes and discharge their statutory fire safety duties... (proposal Appendix E p137)

NFCC cannot require FRS to increase their FSO capacity. A comment has been made in the Framework on this matter; however, it is for individual FRS to determine their own resourcing. HMICFRS highlighted capacity issues within FRS Fire Safety Departments in its Tranche 1 and 2 inspection summary report of FRS in England⁷⁹. This may have a positive effect going forward.

Building on the competence requirements set out in the Regulator's Code, NFCC should work with a suitable body to ensure fire and rescue services can introduce third party accreditation of the competence of Inspecting Officers with a

The Framework contains a requirement for all FSOs who are responsible for the regulation of HRRBs to be registered with a nationally recognised professional body including 2-3 year re-registration. The Framework also states that it would be best practice for all FSOs to be registered with a professional body. NFCC is liaising with the Institution of Fire Engineers for FRS to use the

⁷⁹ Fire and Rescue Service inspections 2018/19 Summary of Findings from Tranche 1 HMICFRS, 2019

recognised accreditation or professional body. (proposal Appendix E p137)

current auditors register, which may need to be considered in light of the new regulatory regime and building safety regulator.

Detailed analysis of issues

359. *Issue 1* – FRS are not solely responsible for the regulation of fire safety standards in residential buildings due to the legislative overlap with the Housing Act. The revised Framework will improve the competency of FSOs; however; it will not address the competency of Housing Act regulators in relation to fire who have not been subject to scrutiny to date. It is recommended that the legislative overlap is resolved or Housing Act regulators ensure an appropriate competency framework is established.
360. *Issue 2* – The NOS for fire safety which provide guidance on the knowledge and skills requirements for fire safety regulators are out of date. WG5 has started the process of reviewing the NOS, however this is likely to be a significant challenge. This is on the basis that the NOS are not specific to FRS therefore changing the content would require a national consultation exercise and liaison with Skills Development Scotland to ratify any changes made. As an alternative, WG5 is exploring whether there may be the opportunity for new sector specific occupational standards for FSOs to be published by the Fire Standards Board.

Raising the bar – proposed approach

361. The Framework has addressed all the FSO issues (which are within the control of the NFCC) in the *Building a Safer Future* report as outlined on pages 75/76.
362. Roles and competency requirements have been updated and include four levels.
363. Fire Safety Advisor – responsible for providing fire safety advice and undertaking audits in simple premises but not including enforcement activity. Requirements:
- Level 3 Certificate in Fire Safety;
 - Core competencies for Business Fire Safety Regulators excluding those specific to enforcement.
364. Fire Safety Inspector – responsible for providing fire safety advice and undertaking audits in complex premises and HRRBs and undertaking enforcement activities. Requirements:
- Level 4 Diploma in Fire Safety;
 - All Core Competencies for Regulators.
365. Fire Engineering Design Technician – responsible for reviewing complex building control consultations and providing assistance to FSOs where required. Requirements:
- Level 5 Diploma in Fire Engineering Design (Technician)
366. Fire Engineer – responsible for reviewing fire engineered building control consultations and providing assistance to FSOs where required. Requirements:
- Level 6 Fire Engineering degree.
367. The Competency Framework also contains information on:
- FSOs understanding the scope of their competence and acting accordingly;
 - Behaviours based upon the CSG code of ethics;

- The knowledge and skills in the 'Core Competencies for Regulators' published by the Department for Business, Energy and Industrial Strategy (Annex 5D in supporting documents);
- Competence standards of those undertaking quality assurance of FSO work;
- Competence of Fire Engineering Design Technicians and Fire Engineers within FRS;
- Conflicts of interest;
- Specialist premises where enhanced knowledge may be required (e.g. hospitals); and
- Continuing Professional Development.

368. An outstanding activity is completion of the review of the NOS for FSOs. It is anticipated that this will be completed by August 2019 and will go out to consultation with the proposed Competency Framework and Standard.

Programme for delivery and primary authorities

Lead	Action	Predicted completion date
NFCC	Revision to Competence Framework	July 2019
NFCC	Review and adjustment to National Occupational Standards	August 2019
NFCC	Consultation with all FRS and interested parties on Framework, Standard and revised NOS	1 st October 2019
Fire Standards Board & NFCC	Conversion to a Standard	January 2020
Organisations in scope	Adoption of Competence Framework	January 2022

Barriers to delivery

369. *Issue 1* - FRS resources are limited, therefore investment in additional FSOs, their development and maintenance of skills may be an issue. This may result in limited adoption of the revised Framework. HMICFRS has highlighted resource issues, which may have a positive effect.
370. *Issue 2* – The current capacity of FRS to maintain sufficient competent Fire Engineers to ensure appropriate regulation of fire engineered premises is limited. This may result in FSOs without the appropriate level of competence regulating fire engineered buildings. The Framework states that all FSOs should have access to the services of a competent Fire Engineer and discusses scope of individual competence.
371. *Issue 3* – The capacity of the nationally recognised professional body to deliver registration of a significant number of FSOs may be limited. This could result in a delay to the delivery of third party registration of FSOs.
372. *Issue 4* – There is no incentive for FSOs to register with a nationally recognised professional body if the FRS does not pay for the application, assessment, registration and re-assessment of the individuals. This additional requirement for FSOs may also be considered a contractual change of conditions of service. The identification of additional costs to FRS of

the new regulatory framework and how this is to be addressed by Government would be beneficial.

373. *Issue 5* – The competences specified within the revised NOS could be impacted by:
- The JRG amending the competence requirements for regulators;
 - The scope of HRRBs being amended following Government consultation; and/or
 - Changes to the role of FSOs in the new regulatory framework

This should not delay the issuing of the revised Framework but may require further changes to the NOS.

374. *Issue 6* – There are only two training providers delivering fire safety qualifications. The content and quality of the training varies resulting in inconsistent training standards across the country. This could be addressed through the NFCC providing quality, consistent training supported by Government or by close liaison between NFCC and the training providers once the NOS have been reviewed.
375. *Issue 7* – Only FRS in England will be subject to oversight of their FSO competence standards through the Fire Standards Board and HMICFRS. FRS in devolved administrations and those responsible for Crown premises may need additional oversight, however this may fall within existing mechanisms.
376. *Issue 8* – FRS are experiencing problems with retention of competent FSOs due to retirement and increased remuneration in the private sector. It may be that this issue forms part of the consideration associated with additional costs to FRS of the new regulatory framework.

Acknowledgements

NFCC would like to acknowledge the support of all individuals and their respective organisations who contributed their thoughts and ideas in the development of the revised Competency Framework for Business Fire Safety Regulators.

Thanks also to London Fire Brigade for hosting monthly meetings and the Institution of Fire Engineers for their support and input.

List of Annexes

- Annex 5B – Terms of reference
Annex 5C – National Occupational Standards
Annex 5D – Core Competencies for Regulators

Annexes 5B to 5D are in the compilation of supporting documents (Appendix A).

Working Group 6 – Building Standards Professionals

Chair: Wayne Timperley – LABC/Manchester City Council
Deputy Chair: Martin Conlon – ACAI
Secretary: Dan Falchikov – LABC

All lead contributors are listed in Annex A.

Executive Summary

- 377. This competence framework relates only to Building Standards Professionals (BSPs) engaged in the inspection and enforcement of building standards in HRRBs including those working as advisors and consultants.
- 378. The framework has been developed such that it can evolve to capture those BSPs working across all types of building control work should the range of buildings in scope be extended.
- 379. It can be used to support the development of HRRB related qualifications for BSPs.
- 380. It can be used to assist in the assessment of a candidate's suitability for BSP roles relating to HRRBs and to support BSPs to develop their own career and personal development plans.
- 381. It can be used to validate ongoing competence on a periodic basis.
- 382. The framework (included in Appendix 6D in supporting documents) focusses on buildings identified by the review as HRRBs and provides a range of activities by which BSPs and teams can assess their individual and combined competence to ensure that they are able to satisfactorily meet their obligations on such buildings as outlined in *Building a Safer Future*.

Key Recommendations

Recommendation One⁸⁰: Building Standards Professionals should have their competence validation carried out by assessors or assessing bodies that are impartial and are themselves disconnected from the influence of businesses within the construction industry.

Recommendation Two⁸¹: That the competence framework attached as Annex 6D be accepted for the assessment of competence of BSPs working on HRRBs.

Recommendation Three: That the competence topics within the framework are captured within a set of competence standards that are consistent across the whole of the construction industry; for those required to work on HRRBs.

Recommendation Four: That the formal peer review of competence for BSPs should be undertaken at least once every five years.

Recommendation Five: That the method of competence assessment and any associated CPD must not be seen as a means for profiteering and courses and schemes must provide value for money/not be cost prohibitive.

⁸⁰ R46 in overall recommendations (see p.31)

⁸¹ Recommendations Two-Six of WG6 are either included in the overall generic recommendations (R1-19) or specific to WG6

Recommendation Six: That the Regulator be the body responsible for controlling and maintaining the system of competence for enforcing bodies/agencies.

Industry context

- 383. In developing this framework, WG6 has had regard to the existing competence systems of those professional organisations responsible for standards within the sphere of Building Control such as, the Chartered Association of Building Engineers (CABE); Chartered Institute of Building (CIOB); Royal Institution of Chartered Surveyors (RICS); Engineering Council as well as the Guidance for Regulators Information Point (GRIP).
- 384. The working group also had regard to various other professions that employ competence assessment schemes, such as Aviation, Medical, and Teaching etc and noted that there are good examples of highly skilled professions requiring undergoing continual assessment and periodic peer review, to ensure their skills/competence continue to be fit for purpose.
- 385. From a review of the existing competence mechanisms available to BSPs, a GAP analysis (See Annex 6B in supporting documents) was developed. This analysis indicates those areas within the *Building a Safer Future* and how these might be provided in professional body systems and where any gaps might occur.
- 386. Dame Judith Hackitt highlighted the fragmentation of the industry with a lack of a coherent approach or relevant frameworks for competence. She stated, *'Increased levels of competence are an integral part of the proposed new regulatory framework.'*
- 387. The report called for the sector to demonstrate more effective leadership, work with others to develop best practice and continuously improve competence levels. The review identified six key professions – including Building Control Inspectors/Building Standards Professionals – whose work was essential to the fire safety of HRRBs.
- 388. Annex 6B (included in the supporting documents) provides further narrative on how the working group proposes to fulfil the recommendations to provide a coherent and joined up approach to competence and drive the increased levels of competence for BSPs that the review sought.

Who are Building Standards Professionals?

- 389. Building Standards Professionals (BSPs) are often referred to as Building Control Surveyors, Building Control Officers or Building Inspectors. They are not to be confused with Building Surveyors or Clerks of Works.
- 390. BSPs, under the current legislative system, either work for a Local Authority – in a council Building Control section (LABC), or they are a consultant Approved Inspector (a sole practitioner or a limited company). The collective name for LABC and Approved Inspectors (AI) is Building Control Body (BCB).
- 391. BSPs are not members of a trade body who offer Competent Persons Scheme (CPS) services (a system to self-certify controlled building work, without the oversight of a BCB). This is because CPS members must comply with the regulations etc, but have no power to inspect the work of others or to enforce standards by serving a notice and/or carrying out work in default.

392. BSPs who work for a council (LABC) are building regulations enforcement officers and the council is the enforcing authority. Councils are authorised by statute (section 91 of the Building Act 1984) to enforce the building regulations in their administrative area. AIs are approved to carry out the same building regulation function as a council – and must be approved for that purpose by government. The government has granted the CIC Approved Inspectors Register (CICAIR) the authority to approve AIs and all AIs must register with it.
393. BSPs will either be educated to a degree level or will have a trade or construction qualification, up to degree level and have many years' experience in Building Control. They may also be a member of a relevant professional body such as CABE, CIOB or RICS. In some cases, they may be members of specialist professional bodies such as RIBA⁸², IStructE⁸³ or IFE.
394. Qualifications, once obtained, are not currently required to be periodically reviewed by the professional body. However, members of professional bodies, AIs registered with CICAIR and LABC sections operating under the LABC Standards scheme and employees working for certain BCBs are expected to maintain and record their CPD – generally between 10 and 30 hours a year. In some cases training has to be formal in nature and demonstrate detailed understanding. There is, currently, no obligation for a minimum number of hours of CPD for specific topics such as fire safety, as might be required for HRRBs.

What do Building Standards Professionals do?

395. BSPs use their qualifications, knowledge, skill, and experience (competence) to assess if any building work controlled under the building regulations, complies with the regulations and requirements. This is done by assessing elements of the construction against government and other recognised standards/technical guidance.
396. BSPs will undertake a two-stage compliance assessment. The first stage being the assessment of detailed drawings and specifications; and the second stage being the inspection of building work as it progresses on site.
397. BCBs principally carry out building regulations compliance inspections as mentioned above. However, the role of councils – as the enforcing authority – will also extend to enforcement investigation and prosecution. They will also, in the majority of cases, undertake other building/public safety duties such as dealing with:
- Maintenance of a public register of AI notices/certificates;
 - Approving AI Final Certificate extensions of time;
 - Enforcement of work reverting from an AI;
 - Dispensation or relaxation of building regulations/requirements;
 - Appeals to the Government for a refusal to dispense with or relax a regulation etc;
 - Dangerous and dilapidated buildings;
 - Demolition of buildings;
 - Safety at sports grounds; and
 - Safety of structures at public events such as at concerts and parades.
398. To a lesser extent, councils may become involved in supporting such matters as:
- Street naming and numbering;

⁸² Royal Institute of British Architects

⁸³ Institution of Structural Engineers

- Fire risk assessments;
- Energy assessments;
- Warranty inspections; and
- Land Charges.

399. Some Als might also carry out other professional consultancy work such as:

- Fire engineering;
- Fire risk assessments;
- Energy assessments;
- Acoustic assessments;
- Warranty inspections;
- Access audits;
- CDM services;
- Party Wall Act surveying services; and
- Expert witness.

400. Whilst outlining other roles that a BSP might undertake, it should be noted this framework does not address competence other than that necessary to undertake regulatory inspection and enforcement of HRRBs. If a BSP wishes to undertake additional activities then they must demonstrate competence for that particular type of work/role such as Fire Risk Assessors or Fire Engineer competence.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

401. The framework addresses all of the recommendations in Building a Safer Future in relation to BSPs. For the specific recommendations refer to Section C (pp 20-22).

402. In particular the framework addresses and provides for:

- competence in dealing with HRRBs as outlined in recommendations 1.1, 5.1, 5.2 & 5.3;
- cross-regulatory understanding throughout the life-cycle of the HRRB as outlined in recommendations 1.2, 2.3, 2.10, 3.6 & 3.7;
- the need to consider regulatory compliance as a holistic approach; as opposed to 'Silo' mentality (recommendations 1.3 and 2.7);
- knowledge and understanding of whistleblowing and occurrence reporting (recommendations 1.4, 3.6 & 4.2);
- the need to ensure an understanding of the need for suitable information to be available during and after the creation of an HRRB (recommendations 2.3, 2.7, 2.9, 4.1, 4.2, 7.5, 8.1 & 8.4);
- the need for regulators/compliance advisors to understand their role in relation to compliance where appropriate and the sanctions available to assure compliance (recommendations 2.13, 3.6, 3.8, 4.1 & 4.5);
- BSPs to understand and challenge safety case reviews by the dutyholder(s) (recommendation 3.3);
- the need for residents to take responsibility and for BSPs to act accordingly (recommendation 3.5).

As outlined in recommendations 7.1, 7.2 & 7.3 the framework also addresses the need for BSPs to have an understanding of materials and systems used in HRRBs and how these are tested and reported.

Detailed analysis of issues

Issue 1: Closer working links between enforcement agencies

- 403. Recommendation 3.7 of *Building a Safer Future* requires closer collaboration between BSPs and other agencies involved in the enforcement of standards in HRRBs eg Environmental Health Officers (EHOs), Fire and Rescue Services and HSE.
- 404. Such communications already occur to a large extent as part of the current Building Regulations system, but will need to be enhanced and expanded to incorporate communications between HSE and EHOs.
- 405. This framework makes provision for recognising inter-agency communications and collaboration.

Issue 2: Competence of Building Standards Professionals

- 406. Recommendation 5.1 – 5.4 *Building a Safer Future* refer to the need for the industry to provide more effective leadership, develop continuous improvement, create an overarching competence body and common approach and frameworks for competence.
- 407. The narrative and framework at Annexes 6C and 6D (included in supporting documents) will provide a common approach for Building Standards Professionals' competency.
- 408. To cover those individuals who may not have the required recognised qualifications, the framework proposes they will undergo relevant assessment to ensure competence. They will have to demonstrate their ability is to at least level 6 NVQ – or equivalent – through whatever means, or membership of a relevant professional body as well as demonstrating competence to the principles of this framework

Issue 3 Challenging designs and work

- 409. Clause 5.27 *Building a Safer Future* has the expectation that: “*Buildings Standards Inspectors will be skilled at challenging clients, designers and contractors about proposals, and to assess the adequacy of and suitability of these proposals, and will need additional training to ensure they have the relevant skills to do so*”.
- 410. This will require BSPs to have detailed understanding of construction, law and guidance and other systems such as safety case analysis (e.g. Bow Tie analysis) and its impact on the HRRBs and residents and to effectively challenge the findings of such cases.
- 411. It is considered that the content of the framework should be sufficient to support the ‘Challenge’ aspect of the work of BSPs going forward.

Raising the bar: proposed approach

Will it make a difference?

- 412. The proposed framework creates a competence system for BSPs that is targeted to HRRBs but which can be developed to address all types and tenures of building compliance work.
- 413. The proposed competence framework addresses industry engagement and includes topics that span regulatory understanding and stakeholder engagement.
- 414. It allows for competence validation that can be carried out in both the workplace and through independent verification.
- 415. The framework allows building users and residents to be placed at the centre of the regulator's and compliance advisor's focus as opposed to it being on the demands of building owners, developers, builders and designers.
- 416. The framework addresses the failings in the current system of competence identified in the review and provides a pathway for continuous improvements in competence for BSPs.
- 417. Notwithstanding the outcome of the Grenfell Public Inquiry and police investigation, the development of any mechanism that creates a change in culture within the industry, improves the competence and standard of care by individuals and organisations and makes them take time to think about the impact of their decisions, will be a significant step in the right direction.
- 418. The application of this framework will facilitate the continual improvement of individual BSPs and their employing organisations and therefore lead to greater confidence of the system by residents of HRRBs and the general public.

Programme for delivery and primary authorities

- 419. Delivering the programme is dependent on the evolution of the overarching competence system, as proposed by WG0 and taken forward in the Government consultation⁸⁴ and the programme of the JRG. WG6 is devising a framework for overseeing competence (particularly where trades have no formal industry body) and the JRG is investigating new functions and processes for the new regulatory regime. Once the outputs of these are known then a programme can be agreed.
- 420. The responsibility for BSPs competence is that of WG6. WG6 believes that this competence framework should be passed to those bodies and organisations responsible for maintaining the professional standards of members/employees and incorporated into their own competence standards.
- 421. As this framework relates to BSPs working as regulators, it should be considered that the application, delivery and assessment of the competences is free from the influence of industry.
- 422. This competence should be delivered by way of both workplace assessment and peer review. WG6 is of the opinion that a formal peer review of competence should be undertaken at least once every five years This should be supported by annual workplace appraisals and

⁸⁴ *Building a Safer Future*: proposals for reform of the building safety regulatory system

CPD monitoring by employing organisations and the records of those annual reviews should be provided at the quadrennial or quinquennial peer review as supporting information.

Barriers to delivery

423. Barriers to delivery include:

The upskilling of BSPs and undertaking the necessary competence assessments in a sensible time-frame;
Implementing the competence framework and embedding it into the culture of BSPs;
Costs associated with (re)assessing the competence of BSPs;
The validation of competence by a suitable independent body; and
The work being undertaken by the JRG and others that might impact on the role of the proposed building safety regulator.

Acknowledgements

WG6 wishes to thank the support of LABC and NHBC in providing arrangements and facilities for working group meetings to be held.

WG6 is grateful to the contributions of all its members and their respective professional bodies.

WG6 is equally grateful to employers of the members in allowing contributors to both attend and prepare materials for meetings.

List of Annexes

Annex 6B	Building Control Competence systems GAP analysis
Annex 6C	Narrative to the competence framework.
Annex 6D	Competence framework

Annexes 6B to 6D are in the separate supporting document (Appendix A)

Working Group 7 – Building Designers

Joint Chairs: Nabila Zulfiqar (ARB), Richard Parnaby (ARB)
Secretary: Simon Howard (ARB)

The lead contributors are listed in Annex A.

Executive Summary

424. WG7 consisted of bodies that regulate and represent building designers who may work on HRRBs. This group was chaired by the Architects Registration Board (ARB) and included representation from the engineering, fire safety, surveying and architectural technology professions.
425. The terms of reference required the group to develop a framework to assess and assure the competence of building designers. The group worked on the basis that building designers have achieved a set level of competence within their profession. This competence means that they have met certain standards and must maintain these standards throughout their professional membership or registration. The building designers identified by WG7 are subject to regulation and/or are members of professional organisations that require adherence to a code of conduct and ongoing learning and development. There are disciplinary procedures in place if individuals do not comply with the requirements of membership or registration.
426. WG7 identified a fundamental purpose and general principles that should apply to all construction professionals and workers: that all those working on HRRBs deliver a better working and living environment for the public. This is achieved through meeting and championing a set of core principles, core behaviours and core knowledge. The competences for building designers are enhanced through the specialist knowledge required for those who want to work on HRRBs.
427. The guidance to the framework (Annex 7B in supporting documents) identifies the main types of professions that may be defined as building designers; subject to review by the proposed building safety regulator or Building Safety Competence Committee. A building designer may fulfil the role of the (as yet undefined) Principal Designer. The competence framework has been developed so that it may be used by the proposed building safety regulator or Building Safety Competence Committee to accredit or licence a building designer as a Principal Designer.
428. The core competences of the building designer framework are:
- Technical knowledge and understanding;
 - Assessment of design, process, systems, services and products;
 - Responsibility, management and leadership;
 - Effective communication and inter-personal skills; and
 - Professional commitment
429. Each competence is defined in more granular detail together with the scope and typical evidence required to meet it. There are four levels of competence and it is expected that building designers leading on a HRRB project will have comprehensive knowledge of each competence.

430. WG7 envisaged that the Principal Designer should have a legal responsibility for managing and assuring the competence of those working with them. This may include ensuring other members of a design team such as engineers or surveyors are compliant with their own competence framework.

Key Recommendations

Recommendation One⁸⁵: Individuals wishing to be recognised via the competence framework for building designers must be a current full member of a relevant construction professional organisation⁸⁶; be subject to and adhere to a Code of Conduct and disciplinary procedures; and have the specified or relevant experience in HRRBs.

Recommendation Two⁸⁷: The recommended period of reassessment is five years.

Industry context

431. To develop the standards in context, WG7 adopted the role/main duties of a designer, being an individual or entity who:
- is appointed by the client to prepare or modify a design for a building or structure in conformity with relevant legislation and where relevant may jointly certify for its' practical use; or
 - arranges for or instructs someone else to do so under their design direction and co-ordination; or
 - is appointed by the client or principal contractor to design or consult on specialist elements of a building or structure to be assembled as part of a whole building or structure in co-ordination with the principal, lead or other designers in the appointed team.
432. The framework is relevant to any person acting as a building designer in relation to the design, construction, alteration, extension or maintenance of HRRBs.
433. There is no legal requirement for a building designer on a construction project to hold a qualification, registration or certification. WG7 proceeded on the assumption that future regulations would require a scheme of accreditation to allow a building designer to work on an HRRB.
434. Many building design professionals are subject to professional regulation. Architects are subject to statutory regulation through ARB, and two-thirds of the architectural profession are members of the RIBA and/or another professional body. Architectural technologists are members of the Chartered Institute of Architectural Technologists (CIAT), and surveyors are members of the RICS.
435. Members of these bodies are subject to some form of competence testing before membership or entry is granted, and all are subject to ethical codes of conduct, which will include an expectation that they do not practise outside of the limits of their competence. The regulator and these professional bodies have complaints and enforcement regimes in place to deal with issues of conduct and competence. In addition, ARB, as a statutory regulator, has a statutory responsibility to set standards for entry to the profession.

⁸⁵ R47 in overall recommendations (see p.31)

⁸⁶ To be agreed by the Building Safety Competence Committee

⁸⁷ Included in R13 of generic recommendations (see p.27)

Responding directly to questions arising from Dame Judith Hackitt's recommendations

- 436. The WG7 activity is related to recommendation 5.1 (a)-(c) and Appendix E – see Section C (pp 20-22).
- 437. This is demonstrated through the work undertaken over the last 12 months in developing the competence frameworks and in contributing to the development of the overarching competence body. The industry has collaborated and taken the lead in delivering improved building safety. The proposed overall approach requires refinement and embedding. Due to the complexity of the sector, it will inevitably take some time to transition to a new way of working. The membership bodies of WG7 are proposing to demonstrate leadership by piloting the approach it has developed.
- 438. WG7 considered the approach to accreditation and reaccreditation undertaken by other professions, including accountants, solicitors and some health professions.
- 439. WG7 is of the view that membership of a relevant body that requires continuous improvement to ensure ongoing competence is an essential requirement for a building designer engaged to work on HRRBs. It is recommended that the competence levels are reviewed and refreshed on a regular basis to ensure they are fit for purpose and up to date with advances in areas including technology, digitisation and other product development.
- 440. Design responsibilities are not exclusive to architects. However, they are likely to play an early and significant part in the design of HRRBs and are likely to be appointed to the role of Principal Designer by the dutyholder. The competence framework gives assurance to those appointing a building designer that the individual is competent to carry out the task.
- 441. ARB sets the standards for entry into the architectural profession. It maintains these standards through the prescription of qualifications. It requires architects to maintain their competence and undertake work within their expertise and competence. The MHCLG and ARB will consider whether any change to legislation is required to enhance this function.

Detailed analysis of issues

Issue 1: The need for clarity and responsibility

- 442. One of the key issues emanating from *Building a Safer Future* was for dutyholders to be held to account for their performance. WG7 welcomes this approach. The roles of Principal Designer, Principal Contractor and dutyholder exist in the Construction Design and Management Regulations (CDM) 2015. There is a need to ensure there is clarity between these regulations and the roles created for oversight by the Building Safety Competence Committee if effective change is going to be delivered.
- 443. WG7 notes that a legal entity may be a dutyholder and may appoint an individual or an organisation/company/firm to the role of Principal Designer. If an organisation is appointed to the role of Principal Designer, they must be responsible for ensuring a competent individual designer is appointed to lead the design team. The view of WG7 is that the Principal Designer should usually be the leader of the building design team (an architect or other building design professional). This aligns with the view of WG0 which recognises that the Principal Designer role on a HRRB should effectively be the lead designer.
- 444. However there are situations, for example refurbishment or retrofit projects, where the Principal Designer may be an engineer or other construction professional. We acknowledge

that there may also be a lead designer, and indeed other designers, in the design team. We envisage that these designers will be accountable to the Principal Designer as the dutyholder.

445. It is important that the statutory dutyholder roles in the design, construction and management of HRRBs are held by accredited individual persons, or organisations employing identifiable accredited individual persons, responsible for oversight of the key design, construction and management decisions that affect fire safety.
446. The Principal Designer (or Principal Contractor) leading the design or construction should not be able to divest or delegate their specific responsibility.
447. The diagram at Annex 7D in the supporting documents shows how various roles involved in the design, procurement and construction of a HRRB may fit into the new system of regulation.

Issue 2: Assurance of competence and ethical practice

448. WG7 considers that any individual wishing to access the competence framework for building designers must:
- Be a current full member in good standing of a relevant construction professional organisation;
 - Be required to have in place a suitable programme for Continuing Professional Development (CPD);
 - Be subject to and adhere to a Code of Conduct and disciplinary procedures;
 - Have suitable academic qualifications in a construction-based subject; and
 - Have the specified or relevant experience in complex building projects.

Issue 3: Maintaining competence

449. Levels of competence should be maintained and subject to CPD. These competence levels should be reassessed and recredited on a defined periodic basis.
450. WG7 recommends a robust system of revalidation, involving documentation and peer-interview, so as to ensure that the building designer has maintained their competence in relation to the work they are accredited to undertake, and have a plan to develop new competences where necessary.
451. The recommended period for reassessment is five years.

Raising the bar: proposed approach

452. The Competence Framework (Annex 7C in supporting documents) has been drafted to raise the standard of competence of building designers working on HRRBs and allow it to be applied to other complex buildings that may later be brought into scope.
453. Although WG7 identified that those leading on building design may be subject to professional and statutory regulation, there was a gap in relation to knowledge, skills and overall competence in relation to building designers working on HRRBs. The framework addresses this gap.

- 454. It is flexible and can be used by schools to develop qualifications; by professionals to gain the requisite experience for accreditation; as a career development tool and by employers to develop and recruit staff. The framework can be adapted and changed over time to reflect the changing landscape in the built environment.
- 455. The membership organisations of WG7 are proposing to pilot the recommended approach because it acknowledges legislative change may take some time to implement. This may highlight any gaps or issues with the approach and also help with the development of CPD and the role and work of the Building Safety Competence Committee.
- 456. The ARB is considering the coverage of life safety in the criteria for initial qualification, which are held jointly with the RIBA, as part of the current regular review of those criteria. It is also considering how best to monitor the ongoing competence of those on the Register of Architects.
- 457. Most of the organisations already have requirements in place for CPD and can adapt their procedures and processes to comply with the competence framework.

Programme for delivery and primary authorities

- 458. Subject to the proposed regulatory framework in relation to HRRBs, the initial step for delivery would be to identify those organisations and individuals with sufficient expertise to be able to assess the competence of those wishing to access the framework.
- 459. While the overarching system of regulating competence has yet to be decided, WG7 does not see any logistical issues with the professional bodies running the accreditation schemes for their members (and if necessary, non-members), with oversight from UKAS, the Engineering Council or any other suitable organisation. Given the number of professional bodies and organisations that exist in the building design field, the concept of an additional regulatory body appears disproportionate.
- 460. WG7 has prepared a draft timetable for delivery of the system based on an interim competence system and a codified system for the construction sector that aligns with the introduction of the building safety regulator and Building Safety Competence Committee.

Barriers to delivery

- 461. The absence of a statutory obligation to employ competent persons on HRRBs may undermine the work of the industry to raise standards of competence. Risks to the public do not come from those willing to engage in raising standards, but from those who will operate outside of the regulatory framework if they are allowed to do so.
- 462. Conversely, standards cannot be set at an unrealistically high level if they are going to be accepted by industry. There must be a balance between benefit and burden for the individuals wishing to demonstrate their competence and accept the additional responsibility and liability arising from it. Consideration needs to be given to issues such as the availability of insurance for dutyholders and role holders, the cost of delivery, as well as ensuring organisations and individuals are willing and able to fulfil the roles.
- 463. WG7 acknowledges that it is common for significant and often high-risk elements of buildings to be designed by subcontractors or suppliers: for example, façade assemblies, fire alarm and suppression systems and HVAC equipment. Many of the individuals who design such elements contribute significantly to the design of the completed building but fall

outside the definition of building designers covered by WG7 and so will not be covered by the building designer competence framework. The design of these types of building assemblies and components and their interfaces with other building elements and systems constitute a significant life safety risk which must be addressed in the new system of regulation, competence assessment and contractual relationships.

464. This issue has been picked up in the report from WG0 which highlights that there are disciplines with no established professional or trade bodies, or system for assuring competence. It recommends the Building Safety Competence Committee should promote send and oversee representative working groups to develop appropriate assessment and accreditation processes, to enable compliance with a benchmark overarching competence framework.

Acknowledgements

Thanks to all those listed in Annex A for contributing at meetings and correspondence of WG7.

List of Annexes

Annex 7B	Guidance on the Competence Framework for Building Designers
Annex 7C	Competence Framework for Building Designers
Annex 7D	Project framework for HRRBs.

Annexes 7B to 7D are in the compilation of supporting documents (Appendix A).

Working Group 8 – Building Safety Managers⁸⁸

Chair: Anthony Taylor, Avison Young (Independent)
Secretariat: Sofie Hooper, Institute of Workplace and Facilities Management
John Briggs, Fire Protection Association

WG8 acknowledges the contribution made by all the members, as listed in Annex A.

Executive Summary

465. WG8 was asked to explore the competence requirements for HRRB Building Safety Managers (BSMs), and any appropriate scheme, governance and potential sanctions for non-compliance.
466. The complexity of residential management and its many arrangements leading to opaque lines of responsibility for life safety should not be underestimated, which is why WG8 also looked at the wider residential building ecosystem in which the BSM would operate to ensure a holistic and effective approach. This wider ecosystem and accompanying recommendations are described in greater detail in the full WG8 report, which is contained in a separate document (Appendix B to this report).
467. This being a newly defined role, WG8 has focused its recommendations around the following:
- The title, scope of the role and responsibilities of the BSM;
 - The competence of the BSM;
 - The organisational management and licencing structure essential to the BSM role;
 - The Golden Thread and processes the BSM and connecting roles should oversee; and
 - The recommendations that should be embedded in legislation to support this structure.

Key Recommendations⁸⁹

Recommendation One: The Building Safety Manager title should be amended to Building Safety Coordinator (BSC). Due to the extensive scope of their duties and responsibilities, the BSC role sits within a wider organisational structure so that sufficient support and resources are available to enable the BSC to fully exercise their responsibility and duty of care.

Competences

Recommendation Two: To be(come) a competent Building Safety Coordinator, a person must:

- Have minimum relevant experience in managing building risk (duration dependent on building classification) and demonstrate a relevant recognised professional qualification;
- Demonstrate that the requirements of the competency framework are met through assessment of:
 - Accreditation of Prior Experiential Learning, or

⁸⁸ WG8 recommends the title Building Safety Coordinator, as explained in this section.

⁸⁹ R49-56 in the overall recommendations (see pp.32/33)

- Recognised fire/life/building safety qualification related to the competency standard;
- Comply with Code of Conduct; and
- Maintain competence through completion of meaningful CPD.

Recommendation Three⁹⁰: Resubmission for certification of competence should occur every three years, evidencing participation in a refresher course, relevant CPD and adherence to the Code of Conduct

Statutory Licencing Structure

Recommendation Four: A statutory licensing structure for buildings in scope should be introduced covering:

- A building licence: to operate and occupy buildings (in scope) with any residential accommodation, with classification based on building types, occupancy and the level of risks and complexity, amongst others;
- A licence for the Accountable Person (AP) who would be held responsible and accountable for building safety and resident engagement. They must also either be a resident in or have formal representation in the UK. The Accountable Person must ensure a Building Safety Coordinator is appointed for each of the buildings in scope. Whether or not an RAO⁹¹ is appointed, there should be a direct line of communication between the AP and the BSC;
- A permissioning licence for the Building Safety Coordinator which will be relevant to the building classifications for which the BSC is responsible;
- A licence for a Residential Accommodation Operator to operate residential accommodation. They must employ BSCs appropriate for the building types within their portfolio; and ensure the relevant resources are made available to manage all the classifications of buildings they operate;
- The building safety regulator should hold a national register for these roles; and
- The building safety regulator should maintain a national register of Accountable Persons' Buildings and their classifications. The Building Safety Competence Committee will be responsible for setting, maintaining, assessing and delivering competence standards and maintain a national register of BSCs.

Strengthened right of 'reasonable and proportionate' access

Recommendation Five: A strengthened right of 'reasonable and proportionate' access should be enabled for individual residential units. This should be enshrined in new and 'standard' clauses in leases and provided for in existing tenure contracts.

Safety Case and Fire and Emergency File

Recommendation Six:: Key data and information should be available so that the BSC can make evidence-based decisions when managing the building.

Recommendation Seven: The content and structure of the Safety Case and the Fire and Emergency File should be mandated.

⁹⁰ Included in R13 of generic recommendations (see p.27)

⁹¹ Residential Accommodation Operator

Recommendation Eight: Information should only be uploaded and managed by competent persons. It should be held on a single (digital) National Database (akin to the Energy Performance Certificate).

Recommendation Nine: The Fire and Emergency File should become mandatory for all residential buildings, (except detached and semi-detached, owner occupied and subject to the building category falling into scope of the new regime) to include for existing 'built' stock, (the assumption being that the new regime will be rolled out across different building categories over a period of time).

Improved residency engagement

Recommendation Ten: The BSC should be responsible for ensuring that all occupiers are better informed about building safety and their role in supporting it. This should be supported by a long-term public sector broadcast campaign.

Title, role and responsibilities of the BSM:

468. While *Building a Safer Future* recommended the BSM was a 'named person', the scope of the BSM's competences and the number of buildings within their remit are highly likely to be extensive. The role and responsibilities identified by WG8 can be found in Annex 8D in the supporting documents. WG8 consider the role is too extensive for an individual to be an expert in everything, rather they will be a Co-ordinator with the competence to understand what needs to be done, by whom and to understand what information they are provided with, (by appropriate subject experts), what to do with it, what the right questions and challenges are, hence the suggestion to use the term Building Safety Coordinator (BSC).
469. Because of the wide-ranging competence, WG8 also recommends that the BSC sits within an organisational structure to enable the BSC to fully exercise their responsibility and duty of care by providing the necessary support and resources. Such organisational structure is being referred to as a Residential Accommodation Operator (RAO).

The Competence of the Building Safety Coordinator (BSC)

470. The competence framework for the BSC is outlined in Annex 8B (core) and 8C (detailed) in the supporting documents. At its core sit 6 strands of knowledge/skills/expertise, focusing on building systems and operations, life safety in buildings, monitoring and control and managing risk, from a legal and operational perspective.
471. Knowing how to effectively manage information is a key aspect of the role. WG8 has also identified a key set of behaviours that the BSC must be competent in to enable the culture change needed in building management. Essential to the role is the competence to effectively communicate and engage with occupiers as they are a key stakeholder in helping to deliver safe and healthy buildings. The framework is still at prototype stage as it will next need to be incorporated into the overarching competence framework. It requires fine-tuning and consequent further consultation so that it can be translated into training, upskilling and CPD programmes.
472. WG8 recognised that differing building types will present differing complexity of risk, management needs, etc, and therefore the competences of those working in/on those buildings will need to relate directly to the complexities of those buildings. Therefore, WG8 considers that each building will require 'classification' related to its complexities into a limited number of categories.

The organisational management and licencing structure essential to the BSM role

- 473. For the BSC function to be correctly delivered, WG8 has identified an organisational management and licencing structure within which the BSC is one player. This structure is essential to WG8's recommendations and delivers a route of responsibility and a practical delivery approach. Central to this proposal is that buildings should be licenced to be able to have occupancy.
- 474. To achieve this licence, each building would be classified. Each building would have an Accountable Person (AP) who themselves will have been deemed fit and proper, and who will remain accountable for safety within the building. The AP may operate the building or appoint a RAO to operate it on their behalf. Each building must have appointed a BSC to it, and the BSC license should reflect the classification of building they are overseeing. Therefore, buildings with specific needs would have a BSC appointed with the appropriate competences.
- 475. The proposed building safety regulator would deliver licences for the AP, building and RAO; and the proposed Building Safety Competence Committee would verify and register the competency of the BSC and other professions/roles.

The Golden Thread and processes the BSC and connecting roles should oversee:

- 476. Of essential importance is the need to address the lack of necessary building information, (even where already legally required). This information should be maintained within a Safety Case, with a structure mandated in law. This mandated structure could then be verified at each Gateway point and form the basis of the Safety Case Review by the building safety regulator.
- 477. The BSC would manage this Safety Case in occupation, which would include the Fire and Emergency File (FEF), as built plans, Health and Safety file, residency engagement strategy, each would in turn have their own regulatory mandated structure.
- 478. While the Safety Case requirement could be rolled out to different building classifications over time (beyond HRRBs), the FEF must be mandated to all residential buildings (except single unit owner-occupied detached/semi-detached buildings) in a short space of time. This information provision will be one of the most important single factors to improve life safety.

The recommendations that should be embedded in legislation to support this structure:

- 479. WG8 recommends that legislation embeds its key recommendations to achieve strengthened life and building safety. Full recommendations and more detail can be found in Annex 8E in supporting documents of this report. The detailed reasoning behind the recommendations can be found in WG8's full final report (Appendix B in separate documentation).
- 480. The Building Safety Manager title should be amended to Building Safety Coordinator. Due to the extensive scope of their duties and responsibilities, WG8 also recommend the BSC role sits within a wider organisational structure so that sufficient support and resources are available to enable the BSC to fully exercise their responsibility and duty of care
- 481. A competence framework for the BSC covering the core knowledge, skills, expertise and behaviours required for the role to be adopted for HRRBs, and beyond. This framework will

be aligned with the overarching benchmark competence framework for HRRBs proposed by WG0. The draft framework is outlined in Annexes 8B & 8C in the supporting documents. Annex 8D in the supporting documents sets out more detailed descriptions of the role, responsibilities and the competence requirements for the role

482. WG8 recommends a **statutory licensing structure** for buildings in scope covering:

- A building licence: to operate and occupy buildings (in scope) with any residential accommodation, with classification based on building types, occupancy and the level of risks and complexity, amongst others;
- A licence for the Accountable Person who would be held responsible and accountable for building safety and resident engagement. They must also either be a resident in or have formal representation in the UK. The Accountable Person must ensure a BSC is appointed for each of the buildings in scope. Whether or not an RAO is appointed, there should be a direct line of communication between the AP and the BSC;
- A permissioning licence for the BSC reflecting the classification of building types or occupancy within which the BSC is competent to undertake the role;
- A licence for a RAO to operate residential accommodation. They must employ BSCs appropriate for the building types within their portfolio;
- The Regulator should hold a national register for these roles;
- The Regulator should maintain a national register of APs Buildings and their classifications; and
- The Building Safety Competence Committee will be responsible for setting, maintaining, assessing and delivering competence standards and maintain a national register for the BSC.

483. A strengthened right of 'reasonable and proportionate' access to individual residential units should be enshrined in new and 'standard' clauses in leases and provided for in existing tenure contracts.

484. The content and structure of the Safety Case and the Fire and Emergency File should be mandated, and this information should only be uploaded and managed by competent persons. This information should be held on a single National Database (akin to the EPC).

485. The Fire and Emergency File should become mandatory for all residential buildings, (except detached and semi-detached, owner occupied) to include for existing 'built' stock, over a short period of time.

486. The BSC should be responsible for ensuring that all occupiers are better informed about building safety and their role in supporting it. This could be supported by a long-term public sector broadcast campaign.

Industry context

487. Industry, currently, does not widely employ a BSM as defined by *Building a Safer Future*. There are many models across the residential sector, and further models used to manage safety (including fire safety) in 'institutions', with the function currently often spread across several people and organisations.

488. The management of residential buildings is very fragmented, with much expert advice, for both goods and services, being sub-contracted. In the case of an owner with a portfolio of one or more buildings they will most often contract the daily management of financial, legal

and life safety responsibilities to an Agent (managing, letting or estate), or perhaps a facility manager or in some situations there will be a designated Block Manager or management organisation.

- 489. There are examples of good practice in operation, however, there is often a lack of an identifiable person responsible for (whole) building life safety, and often there are gaps in the complete delivery of building safety as a consequence.
- 490. This context is not helped by the fact that building management professions are not regulated, and while there are professional bodies working in this space, there are those for whom best practice can often be seen as being discretionary.
- 491. Lord Best has been mandated to look at the regulation of Property Agents. He will be looking at the regulation of estate agents, letting agents, block managers and auctions amongst others. As part of the remit, there will be a Code of Practice, regulations and qualifications to ensure upskilling. Of particular interest to WG8 is Lord Best's remit to regulate both individuals and organisations. The latter is of potential interest in relation to providing a regulatory framework for the RAO.

Detailed analysis of issues

- 492. Please refer to the full final report from WG8, for the detailed workings, and rationale behind all the recommendations made in this document. This is Appendix B to the main report.

Current fragmentation of building management and lack of industry wide standards and role description:

- 493. The way buildings are managed differs from building to building/organisation to organisation. Through the creation of a licencing and management structure, greater clarity will be provided about those responsible and accountable, and what their role is, for life safety in buildings. The BSC competency framework sets the bar for what is needed to deliver life safety in buildings, in a manner that can be delivered uniformly across industry and buildings alike.

Building diversity and classification:

- 494. WG8 noted through the many discussions that while there were some key principles that should be common to all buildings to provide life safety, not all buildings are alike. Occupants, type of build and function mean that there are certain categories of buildings with differing needs. To meet this need, WG8 considered the use of categorising buildings. This 'classification' will make it easier to assess if BSCs are competent for a specific building.
- 495. Additionally, the classification system would also provide a useful, objective criterion for when Government would be looking to widen the scope of the future building safety programme. Every occupier deserves a safe home. The classification criterion would allow a gradual widening of the scope, while not overwhelming the system from day one, allowing it to bed in.

Lack of transparency on who is responsible for life safety in buildings:

- 496. It is often difficult to find out who is accountable or responsible for safety within a building and this can mean that safety concerns remain unaddressed. The WG8 licensing and management structure, and their statutory status, would make such situations a thing of the

past. The system of collaboration between the AP, BSC and the RAO, and the interplay with the Regulator through the safety case review, makes sure that safety concerns will be addressed. WG8 has outlined scenarios for how to manage non-compliance, including whistleblowing schemes, redress schemes for occupiers, safety case reviews leading to sanctions, ultimately leading to building licences potentially being revoked if safety issues are not addressed satisfactory.

Why have a Residential Accommodation Operator (RAO)?

497. WG8 recognise that the concept of evidencing competence can only apply to an individual. Hence our recommendation that it is not feasible for a BSC to be an 'organisation', rather the RAO will support the BSC(s). To ensure that the organisation fully understands its responsibilities, we recommend it hold a RAO licence, evidencing it is 'fit and proper' and can deliver the resources necessary to manage one or multiple residential properties for which it is contractually responsible.
498. In the spirit of accountability required by *Building a Safer Future* we recommend that a senior manager within the organisation should be nominated as the RAO licence holder. The responsibility of the RAO senior licence holder will be to ensure their (RAO) organisation fully comprehends the higher duty of care to residential occupiers and the classification of all the buildings which they manage and will be responsible to ensure adequate resource is made available to the licenced BSC personnel. The RAO organisation will deliver one or more appropriately licensed BSCs in their employ to deliver the BSC role to each building, as appropriate to the buildings' classification. The RAO will hold a Licence and be registered with the Building Safety Regulator.
499. A BSC could take the role of a RAO but an RAO, as an organisation, could not assume the role of a competent BSC.
500. In addition, as already outlined above, in residential management, the AP is often distinct from the organisation or Agent that manages and effectively operates the building. Our considerations are recognising this reality and by introducing this licencing system, WG8 considers the provision of life safety in buildings will be strengthened.
501. **'Whole Building':** *Building A Safer Future* describes the role of a BSC as being responsible for a 'whole building'. This description remains undefined but will need addressing, especially with the advent of 'Right To Manage' organisations and mixed-use buildings, which will have very varied ownership structures. As a result the volume of buildings that any one individual BSC may be expected to be responsible for cannot be determined or readily defined. WG8 recommend this latter matter be left to the integrity of the BSC and the RAO on the basis of risk assessment and, potentially, referral to the building safety regulator via the Safety Case.

Raising the bar: proposed approach

How does the approach work and does it improve safety?

502. The success of the WG8 approach of a licencing ecosystem will be based on two pillars: the competency of the BSC and the effective management of the Golden thread.
503. The competent BSC will bring consistency of best practice across the management of buildings, improving safety and occupier engagement at the same time.

504. **Does this improve safety and confidence?** The structure proposed would establish clear lines of responsibility and accountability and related potential sanctions for failure. The alignment of competency with the risks associated with individual buildings' classification/rating will ensure the knowledge base, and behavioural integrity necessary for occupier safety, is in place. Addressing the need to upskill residents in regard to provision of information and the recommendation for long-term public sector broadcast will enhance occupier behaviours in regard to fire safety and other safety issues, and hopefully, access requirements.
505. **Application of WG8 Management Model wider than HRRBs.** WG8 expressly set out to develop a model that could apply to the whole national portfolio of residential properties (except detached or semi-detached owner occupied buildings). The anticipated building safety regime in HRRBs could (and should) be easily extended over a medium-term timeframe to most residential property, thereby addressing the very real safety concerns in the smaller properties such as, for example, HMOs or accommodation above shops on a high street (e.g. over a fish and chip shop). WG8 hope that once best practice is established, this will naturally filter down through the industry before regulation follows.
506. **Resident (Occupier) voice and engagement.** Occupiers need the opportunity to voice their concerns and with the BSC role being clearly defined, there is a clear route for occupiers to raise such issues. It will be the BSC's responsibility to outline the different options through their occupier engagement strategy.
507. Optimal building safety is only possible if occupiers are supported with information about their role towards it. Not only should information be made readily available, residents/occupiers in buildings should be engaged in positive engagement with the AP and BSC, including collaborating with them so that they can fulfil their obligations.
508. To achieve a true behavioural step change across the board, Government should take forward a long-term public broadcast behavioural change campaign. Opportunity lies in driving a new norm and empowering occupiers to achieve safety for themselves, and their fellow occupiers.
509. **Assessment of Competent contractors.** Due to the wide and complex variety of personnel who will be engaged to work on/within the building during its lifecycle, the BSC will need to rely on all others being appropriately competent to work on each different classification/rated building. The establishment of a 'register of registers' to hold lists of both competent organisations and individuals providing services to the (classified) residential buildings will facilitate the employing of an appropriately competent workforce at all times.
510. **Delivering Competence:** The new competence framework would be delivered by a dual system, provided by the proposed building safety regulator and Building Safety Competence Committee.
511. The building safety regulator would issue licences for and hold the register of APs and building ratings, operate a whistleblowing system and an enforcement and intervention regime. The RAO should be regulated either through the issue of a 'fitness to operate' license, or through Lord Best's work (RoPA) that aims to regulate organisations in residential management.
512. The Building Safety Competence Committee would deliver competent professionals by way of owning and maintaining an industry competence framework of standards (WG0 – BSI/PAS standard) and it would manage the register of competent people (BSCs). Delivery

of the different professional competency frameworks could be carried out by appropriate professional bodies. The role of the Building Safety Competence Committee would be important in ensuring uniformity of application of the framework and the ethics applied across the built environment. This upskilling route will need to be accessible to individuals who are not members of those professional bodies/training providers. Standards across these different bodies could be assured by third party accreditation.

513. Through the safety case review, the building safety regulator would also be able to assess the BSC's (and AP/RAO) compliance with statutory requirements set out for the safety case.

Programme for delivery and primary authorities

514. There are several proposed steps for successful implementation of the new Competency Framework for the BSC:
- Gain Government approval to implement the framework;
 - Adopt a wider legal framework that facilitates the delivery of the change-enabling system including:
 - Regulation facilitating the golden thread of information, including strict structure for the safety case file and the digital capability for a central database;
 - Harmonisation of terminology used across the sector (e.g.: fire strategy, fire risk assessment, "Whole Building");
 - Licensing and registration regime for key HRRB stakeholders such as the AP, RAO, BSM/BSC;
 - Finalise the detailed competence profile, assessment and accreditation approach, tools and process. Given that the BSC role requirement is new, sufficient implementation time will be needed to deliver the required personnel;
 - Streamline and ensure alignment with related workstreams, such as Lord Best's work and the 13th Law Commission;
 - Establish the governance structure by mandating the building safety regulator and Building Safety Competence Committee and its terms of reference; and
 - Work with CSG and wider stakeholders, including early adopters, residents' feedback groups, WG8 members and other WGs to roll out the Framework.
515. WG8 members should retain representation on any overseeing committee/group by way of representing those who are operating residential properties, their employers (potentially RAOs) and those providing support services such as facilities management.

Barriers to delivery

516. **Accountability of - and clarity on - the Accountable Person.** Often it is challenging to clarify who the AP is and what their duties and responsibilities are. The Ultimate Owner (Duty Holder or AP) needs to be accountable, in full to UK Law, this would suggest residence, or at least being legally represented within the UK.
517. **Licensing of the Residential Accommodation Operator (RAO).** The RAO as an organisation cannot be assessed as being competent; it could only be evaluated as being 'fit and proper' and on appropriate evidence be issued a 'Licence to Operate'. There should be a named individual who takes responsibility (accountability within the organisation) to ensure that appropriate resources are made available to manage all the classifications of buildings that it is contracted to manage.

518. If there is no appropriate Agency licensing regime there is a potential conflict of interest for the BSC being employed by the 'Agent' (the proposed RAO) but appointed by the AP where the Agent has no regulated duty but is also employed, via contract, by the AP. Whistleblowing on one's employer to one's 'appointer' does not lean towards a transparent system.

The BSC (BSM) would need to be based in the UK.

519. Why would this be important? For this role to be meaningful, the BSC should be familiar with the building, even if they are responsible for a portfolio of buildings, and should be able to visit the property at short notice and potentially very short notice, in case of emergency. Additionally, they are the main contact and liaison with the residents and occupiers; as such, they must be based in the UK
520. **Access:** The greatest risk of fire in multi-occupancy high rise buildings lies within occupiers' flats. It is often impossible to assess this risk in accommodation as there is currently no easy and prompt route to gain proportionate and reasonable access. Without addressing this lack of access, the BSC will not be able to mitigate risk appropriately or sufficiently.
521. **Golden Thread- mandated safety case file structure:** The availability of the right, correct, and up to date building information is critical to enable the BSC to execute their function.
522. The content and structure of the Safety Case and the Fire and Emergency File should be mandated, and this information should be digitised, held on a single National Database and only be uploaded and managed by competent persons. The BSC should manage and oversee this information flow and make it accessible where appropriate. Government support is essential to ensure the introduction and maintenance of the system and to ensure there are appropriate sanctions to non-compliance.

Common Definitions of terms used.

523. There are many terms in common use which mean different things to different people, such as 'Fire Strategy' and 'Whole Building' WG8 recommend that a group be set up to identify and define these terms.

Acknowledgements

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List of Annexes

Annex 8B Core Competencies
Annex 8C Detailed Competencies
Annex 8D Example Job description for Building Safety Co-ordinator
Annex 8E Recommendations made by WG8

Annexes 8B to 8F are in the compilation of supporting documents as Appendix A.

The full workings of WG8 are in a separate report attached as Appendix B.

Working Group 9 – Site Supervisors

Chair: Peter Dawber BSc MBA FCIQB FRICS, Owner - Solvere Ltd
Secretary: Lyndsey Montgomery, Qualifications Manager, CIOB

All other contributors are acknowledged in Annex A.

Executive Summary

- 524. The membership of WG9 comprised construction managers, structural engineers, subcontractor procurers, clerk of works, the Institute of Workplace and Facilities Management, LABC and NHBC (the initial meeting only).
- 525. Though the focus of WG9 was the competences required of individuals supervising the construction or refurbishment of HRRBs, discussions identified two key roles in the construction process.
- 526. Additionally, and without negating the role of the contractor to ensure and assure the quality of work undertaken, these early discussions identified a third enhanced independent role required to underpin the quality assurance process.

Key Recommendations

Independent Construction Assessor⁹²

Recommendation One: A new role of Independent Construction Assessor should be introduced.

Recommendation Two: The ICA (normally appointed by the client dutyholder), will manage and coordinate the independent assurance of the construction to ensure that it is commensurate with the design intent.

Recommendation Three: The dutyholder will use reports from the ICA to see that the safety of the building and of people in and around the building is being promoted.

Recommendation Four: Without sign-off by the dutyholder, based on assurances provided by the ICA, the regulator may not be persuaded that the General Duty of the client has been satisfied and therefore will not permit a project to pass *Building a Safer Future Gateway 3*. This could provide a powerful potential sanction that will help to ensure that the building is constructed correctly.

- 527. The ICA is not a statutory position. The ICA is neither an Approved Inspector nor any part of the regulatory system, although Building Control and Approved Inspectors should find the work of the ICA helpful. The engagement of the ICA will not reduce the responsibility and accountability of contractors for ensuring that construction work complies with the design.
- 528. **In summary, the involvement of the ICA will increase significantly the amount of independent scrutiny of construction works.**

⁹² R57-60 in the overall recommendations (see p.33)

Recommendation Five⁹³: The competence framework required of each of the following three roles considered in this report should be that set out in Annex 9B in the supporting documents:

- **Construction Project Manager (CPM)** - whose primary role is to liaise with the client and design team, procure the appropriate subcontractors, materials, plant and equipment required of the project and oversees all construction activities;
- **Site Supervisor (SS)** - who oversees the on-site construction works to ensure the works are safe, to specification, to contract and to the required standard; and
- **Independent Construction Assessor (ICA)** who assures that the on and off-site works comply with the design and all necessary building standards and regulations.

529. Competency frameworks exist for construction project managers and site supervisors (Chartered Institute of Building). With reference to the ICA, the competency frameworks for construction professionals (for example chartered or incorporated members of appropriate institutions) will provide some of the underpinning competences, but these will need to be enhanced. In such cases these have been reviewed and evaluated in the preparation of the competence frameworks presented in Annex 9B in the supporting documents.
530. Given the breadth and complexity of building works, it is not expected that any one individual will have the competences to assess every aspect of modern construction. All three role holders, described above, will however, hold an overall duty for assuring their own work and that of others by engaging with more specialist individuals, teams, technical experts, digital evidence and professionals (see Annex 9B in the supporting documents).
531. The main drive with HRRBs is to assign legal responsibility to a named dutyholder at each stage in the construction lifecycle (design, construction and operation) and ensure that they have the required competences to perform this role, whilst recognising that they in turn will rely on the competence of other disciplines to discharge their duties. Once this is confirmed and defined it is anticipated there will be an enhanced dutyholder role of Principal Contractor and the need to define the necessary competences in particular those of the CPM and upskill this role in the context of HRRBs. We anticipate these additional competences to be around the ability to take a whole-building approach, an integrated view of design, construction, operation and enhanced risk awareness.

Industry context

532. In the UK there is no formal registration or requirement to operate as a CPM or SS. Best practice in construction project management is at the core of the CIOB's requirements for chartered membership. However, even if construction project managers or site supervisors charged with responsibility for HRRBs were chartered, WG9's mapping demonstrates that additional knowledge and competences would be required.
533. With reference to the competence requirements of the ICA, WG9 believes that the existing role and competences of a clerk of works or for that matter any other qualified professional would not be sufficient to meet the requirements of the ICA role. However, building control professionals, approved inspectors, principal designers, construction managers and building surveyors may be well placed as individuals, with additional development, to move into the position of ICA.

⁹³ Included in R3 of generic recommendations (see p.26)

534. WG9 has devised a framework whereby the competences for all three roles are specifically for HRRBs under its wider definition. It is, however, structured in such a way as to easily allow for modification for those working on other buildings.
535. To establish whether there are other models around the world where the introduction of increased independent construction assessment has improved quality, WG9 commissioned a paper by a leading USA engineer and is included as Annex 9D in the supporting documents. To summarise, in the USA, the introduction of regulated inspections by designers has reduced catastrophic building structural failures by over 80%.
536. WG9 has also obtained evidence from around the UK, showing how a lack of independent supervision has been responsible for a wide range of construction failures – see Annex 9E in the supporting documents.
537. These two papers make a compelling case for the role of the ICA and increased vigilance by the construction team.

Responding directly to questions arising from Dame Judith Hackitt’s recommendations

538. WG9 responded to Recommendation 5.1 (a) – (c) in *Building a Safer Future* (see Section C, pp. 20-22).
539. The work of WG9 demonstrates more effective leadership in relation to developing a responsible approach to delivering building safety and integrity by recommending the following:
 - A new independent construction assessor role should be introduced;
 - Construction project managers, site supervisors and independent construction assessors should hold the defined competences which as a minimum would be found in chartered or incorporated members of relevant professional institutions;
 - Relevant professional institutions should introduce additional competences to raise the level of competence of people taking on the roles of construction project managers, site supervisors and independent construction assessors; and
 - The provision of training to individuals to acquire these additional competences may not necessarily come from the institution to which the individual belongs. For example, a member of CIBSE may need training developed by CIOB, in order to gain a wider appreciation of HRRBs.
540. WG9 recognised the inextricable relationship between supervisors and sub-contractors and has therefore liaised with WG2 (Installers). WG9 membership included construction project managers, structural engineers, clerk of works, building control surveyors, facilities managers, etc who have shared best practice from their disciplines and others with which they are familiar.
541. The group engaged with representatives of CROSS (Confidential Reporting On Structural Safety) and have hosted members of MHCLG at working meetings.
542. The group has liaised with Glenn Bell, an eminent American structural engineer, to learn from the good practice that has evolved in the USA after a number of serious building failures.
543. To take WG9’s vision forward, further collaboration between the professional institutions whose members are involved with HRRBs will be essential.

544. The roles identified in this report should only be undertaken by those competent to do so and membership of relevant professional bodies would be a route to (partial) demonstration of this. Such professional membership should demand robust, compulsory evidenced CPD as a drive to continuous improvement.

Detailed analysis of issues

545. **Issue 1: lack of independent on-site checking.** In the 1970s, designers and often clerks of works would be commissioned to check construction as it progressed. In an effort to reduce costs, this independent on-site checking role is now a rarity.
546. This lack of independent checking has led to construction frequently falling short of the design, resulting in potentially dangerous buildings and unnecessary remedial costs. Designers who seldom see their designs being implemented now have a reduced awareness of site constraints. Without on-site input from designers and clerks of works, the construction workforce can repeatedly make the same errors from project-to-project until they do not recognise them as errors.
547. There is widespread evidence to support the introduction of independent checking on site – see Annexes 9D and 9E in the supporting documents of Appendix A.
548. **Issue 2: the contracting team taking responsibility for quality.** Despite the potential introduction of the ICA, it is imperative that contractors raise their game and take responsibility for quality. Quality needs to move further up the priority list from where it resides at present, where it is subordinate to programme, cash flow and profit in nearly all instances. The CIOB has carried out a Call for Evidence which provided a helpful evidence base to draw on and identify what improvements are necessary to achieve high standards of quality in the product, people and processes throughout the construction sector.⁹⁴
549. **Issue 3: Extensive use of subcontracting.** – making it difficult to trace the thread of responsibility. Such arrangements must be re-engineered to focus on the maintenance of the ‘Golden Thread’.

Raising the bar: proposed approach

550. In future, anyone working on HRRBs should be competent. Over time the core competence will remain with more added to reflect the demands of more buildings falling into scope.
551. Mandatory, specifically relevant, evidenced CPD will be required of all three roles, to ensure competence is continually updated and refreshed. CPD will include continuing reference to SCOSS⁹⁵ and CROSS cases as they are published. Irrespective of what CPD has been evidenced; reassessment of specific competencies will be undertaken every 5 years.
552. At the pre-construction stage the ICA will support the principal designer helping to set a culture of continuing vigilance over quality. The ICA role becomes more intensive during the construction stage where they will be assuring compliance, with powers effectively to enforce rebuild if standards of construction fall short of the design.
553. Construction project managers and site supervisors must remain the primary guardian of the quality of work, in the first instance, to ensure the design intent is maintained. Similarly,

⁹⁴ CIOB call for evidence on Construction Quality. December 2017.

⁹⁵ Standing Committee on Structural Safety

subcontractor installers must also be responsible for signing off their work as meeting the required standard(s) prior to inspection by the site supervisor. Sub-contractor installers must be registered as competent at a company and individual level with clear signposting to their relevant regulations and competences; this will allow for robust sub-contractor appointment and site scrutiny. All such evidence should be recorded digitally and preferably within a Building Information Model.

- 554. The introduction of the ICA will be one of the main drivers for cultural change. It will bring with it a collaborative approach between the contractor, the subcontractor/installer workforce and the ICA which will raise quality throughout the project and maintain continuity of the Golden Thread, driving cultural change.
- 555. Individuals performing any of the three defined roles will have their name and contact details attached to the project documentation. They will be contactable and held responsible after the project is complete, driving cultural change.
- 556. Individuals performing any of the three defined roles will be trained to use the CROSS reporting system, thereby sharing valuable knowledge across the wider industry.

Programme for delivery and primary authorities

- 557. The programme would include:
 - Devising and delivering courses/programmes to address any shortfall from professional standards (these will be different for each professional body);
 - Reviewing professional body rules to ensure they demand robust, compulsory CPD underpinning the specific knowledge and competencies demanded of the buildings in scope; and
 - Pilot the scheme with the Early Adopter's Group;
- 558. Many of these activities can run concurrently, so WG9 anticipates that this programme would take around 12 – 18 months from an understanding of the future regulatory framework to delivery of the first course.
- 559. Once the duties of the Principal Designer, Principal Contractor and Building Safety Manager are defined, WG9 would need to review its competence framework proposals against the first two duty-holders' responsibilities. When an overarching framework is established WG9's competence frameworks may need to be revised into a consistent format.
- 560. The broader primary authority to hold the competences would be the CIOB and other relevant professional bodies.

Barriers to delivery

- 561. **Introduction of the ICA as a role:** Implementation will take some time. Any required legislation (e.g. MHCLG's concept of a General Duty) will need to be in place along with guidance (e.g. an ACOP – approved code of practice) that sets out the expected duties of the ICA.
- 562. **Cost:** Acceptance that the increased initial cost for the ICA role and the associated testing and supervision will lead to improved quality, increased safety throughout the life of the building, reduced waste and potential reduced environmental impact of buildings with consequent lower costs later on.

563. **Staff shortages:** As buildings in scope increase in number, there may not be sufficient qualified individuals to undertake all of these roles. In the case of the ICA one solution may be to upskill designers, approved inspectors, building control professionals or construction managers such that they could take on the ICA role.
564. **Evidence of competence:** knowledge in industry of the structures being implemented
565. Along with a register of competent CPMs, SSs and ICAs, a register of approved installers, competent individuals is required to ensure competent installing companies are appointed and site scrutiny of the competence qualification of the installer's workforce can be effectively undertaken.
566. To remain on the register, individuals should undertake compulsory, recorded and evidenced HRRB-related CPD. Professional Statutory Regulatory Body rules may need to change.
567. **Insurance of the ICA:** WG9 has discussed potential sign-off declarations with a firm of leading professional indemnity insurers and we are of a view that there will be a form of words that will make the ICA position insurable, perhaps including features such as a net contribution clause.

Acknowledgements

Thanks to all those who have provided support, guidance and contributions and in particular, Glenn Bell, author of Annex 9D, especially prepared for WG9.

List of Annexes

Annex 9B	Competency Frameworks
Annex 9C	Independent Construction Assessor (ICA) a new role - a detailed description.
Annex 9D	An American view: Design Professional Site Presence in Typical US Practice
Annex 9E	UK evidence supporting independent construction assessment

Annexes 9B-9E can be found in the compilation of supporting documents, which is attached as Appendix A to this report.

Working Group 10 – Project Managers

Chair: Prof Charles Egbu, Pro-Vice Chancellor (Education & Experience),
University of East London (UEL),
President, Chartered Institute of Building

Secretary: Steven Thompson, Associate Director of the Built Environment, RICS

The lead contributors are listed in Annex A.

Executive Summary

568. WG10's task was to agree specific competence levels and provisions for accreditation/reaccreditation for project managers (PMs) working HRRBs.
569. This will involve the need to enhance the competency of PMs working on HRRB (and other complex) projects such that they are aware of their requirements, to put in place a system of accreditation and re-accreditation of PMs going forward and to require specific and focussed CPD on a regular basis.

Key Recommendations⁹⁶

Recommendation One: All Project Managers (PMs) who are to work on HRRB projects must be members of a recognised professional body (or equivalent)⁹⁷.

Recommendation Two: The level of competence that is required of Project Managers should be 'Comprehensive' given that it would seem right to conclude that the 'level' or 'depth' of knowledge and application for PMs working on HRRB projects should be greater than 'understanding'.

Industry context

570. Various professional bodies (and others) currently have members who act as construction PMs within the UK industry and WG10 has drawn upon these sources as the basis of the PM competency framework as outlined in Annex 10B in the supporting documents. In addition to professional bodies, several national standards in PM competency previously published and all of these sources are set out below:
- Association for Project Management (APM)
 - Chartered Institute of Building (CIOB)
 - Royal Institution of Chartered Surveyors (RICS)
 - Institution of Civil Engineers (ICE)
 - International Competence Baseline (ICB)
 - National Occupational Standards (NOS): Project Management
 - Edexcel Level 5: NVQ in Construction Project Management
571. For the purposes of this framework, we have made use of the APM framework model of competency, although other sources have similar styles and formats.

⁹⁶ R61/62 in the overall recommendations (see p.34)

⁹⁷ To be agreed by the Building Safety Competence Committee

572. Each of these organisations sets out competence frameworks for PMs and the resultant output has taken material from each of the investigated sources to arrive at the final framework. WG10 has drawn from other competence and accreditation models which are already in place and which address particular knowledge or application in specific situations. The model example given is the scheme regulated by the ICE for those engineers who design and construct dams and reservoirs where a separate register is maintained. Details of this scheme are given in Annex 10E in the supporting documents.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

573. There is a very real need to address the challenge to the industry provided by *Building a Safer Future* and WG10's work has resulted in the drafting of a PM competency framework with additional requirements particular to HRRBs added as set out in Annex 10B in the supporting documents. This also draws in reference points from the international arena.
574. In arriving at the list of competences, WG10 discussed a host of issues, including whether there was the need for a specific series of PM competences for HRRB projects, and whether there could be a separate 'bolt on' competence matrix produced for those PMs who wish to work on HRRBs or 'complex' buildings. In addition, issues were raised as to whether a PM working on a HRRB needs to have the relevant knowledge and skill to a deep level or just an awareness of who to go to be able to ask the right question(s) and to go on asking until satisfactory answers are received. The issues of whether a PM needs to be a "generalist" or a "technical specialist" or have "a reasonable level of technical specialism" was also discussed. WG10 was also mindful that a PM could work for a number of employers (client, contractor, consultant), and could be brought into a project at different stages of the project depending on the procurement route/type. In the same vein, WG10 noted the peculiarities of refurbishing HRRBs as opposed to new build and the extent to which this needs to be accommodated in the sets of competences needed for project managing HRRBs.

Detailed analysis of issues

575. **Issue 1:** establishment of the parameters around the use of the term, Project Manager (PM) for the purposes of this report, given that the term is present and is used in a whole variety of industry organisations to refer to the person (or organisation) who is responsible for the successful management (or oversight) of the Project, in whatever scope or form the project comprises.
576. However, the context of the relevant section of *Building a Safer Future* (5.15) suggests that there was a discovery made by the review team between the publication of the interim and the final report, such that the position of the PM is considered to be one as a client-appointed consultant who is responsible for the management of the overall construction project, including the oversight of the other members of the consultant team (as they undertake their duties) and the review and management of the build phase of the project.
577. Whilst the PM is responsible for the oversight of the whole project and the work of others, there is no expectation that they will undertake any of the particular consultant functions themselves (unless they have specialist skills in this area). It could be that the PM is a member of the client's staff (if sufficient competency and experience exists already 'in-house'). For the purposes of this report, it is assumed that consideration of the competency of PMs does not extend to other roles within the project, where the person (or firm) might be referred to as the Project Manager – these might include:
- The contractor's PM, responsible for the successful delivery of the project on site;

- Any sub-contractor's PM, responsible for the successful delivery of a portion of the project;
 - The client's PM, where a consultant PM is also appointed; or
 - Any consultant's PM, who might be responsible for the successful delivery of the design services within the consultant firm.
578. Whilst all of these will need to demonstrate competence in exercising their PM function, consideration of these is outside the scope of this report.
579. **Issue 2:** The competence framework included within this report sets out the competences required for a client-appointed PM to undertake their duties on an HRRB project, although much of the framework content could apply equally to PM duties on any residential building or indeed across the whole of the construction industry, with whatever project function is under consideration.
580. The benefits of this competence framework can be derived for all involved in the commissioning, procurement, design, management and execution of HRRB projects, be it for the establishment of the initial baseline competence for individuals and firms at the point of project appointment, for setting education and qualification standards, for those embarking upon their career and for the ongoing accreditation of such standards over time.
581. **Issue 3:** The PM competence framework included within this report addresses the specific role of a client-appointed PM for work on an HRRB, although these competences could apply equally to other building types.
582. It should be recognised that the role of the PM on HRRB projects (or indeed on any type of project) is likely to stretch across the whole of the life-cycle of the project, which has been categorised by many by reference to the eight stages of the RIBA Plan of Work (PoW). Because WG10 believes that the role of the PM includes all of these stages (and more) we have not presented the PM competency framework in the context of the PoW, but rather by reference to the categories of competence that a PM must exhibit throughout the project.
583. In many project models, the PM can be the first appointment made by the client and the PM is then required to advise and recommend to the client upon the appointment of other members of the consultant team. Indeed, the PM may also be the sole person to advise and assist the client in the preparation of the Strategic Brief document.
584. In addition, and as well as being responsible for oversight of the complete construction project, the PM may also be responsible for post-completion 'client care', being the interface between the client and the consultant and contracting teams over the management and completion of defect rectification, the interface with any facilities management organisations appointed by the client and addressing ongoing performance issues with the completed building.
585. Notwithstanding the fact that we have not categorised the competence framework for a PM by reference to the PoW, we have nevertheless undertaken a piece of work that seeks to map the functions and duties required by a PM when working on a HRRB project (and also, as a sub-set, when that HRRB project is itself a refurbishment project within an existing building, rather than a new-build). This mapping exercise has been undertaken by reference to the structure of the PoW and is included at Annex 10C in the supporting documents – rather than being a competence-framework, it is instead a checklist of the duties expected of a PM – and, clearly, the implications of the analysis is that if a PM is expected to undertake

such duties, that they are required to be able to demonstrate their competence to do so and to continue to be able to so demonstrate.

Raising the bar: proposed approach

586. The essential features of any proposed approach that seeks to improve upon the *status quo* must include three key aspects, namely:
- Risk profile;
 - Compliance; and
 - Process.
587. And these must be underpinned by a fundamental need for a culture change such that behaviours are modelled on 'doing the right thing' rather than 'just getting over the line' in respect of the 'rules'.

Enhancement of competence requirements

588. The enhanced competence requirements are set out elsewhere in this report and captured fully in Annex 10B in the supporting documents.
589. The core competencies that a PM is required to demonstrate are three-fold, namely:
- **Knowledge** (knowing about the subject in question);
 - **Application** (the applying of the acquired knowledge to the specific project, combined with the gaining of relevant experience); and
 - **Behaviours** (the manner in which the PM acts when undertaking that function – this is of particular relevance to the role of the PM, when they are required to exhibit 'softer skills' so as to 'get the best out of people')
590. In the assessment of these core competences, consideration needs to be given to the 'level' or 'depth' of competence that needs to be exhibited. All of the professional bodies represented on WG10 (and other bodies not so represented) have similar systems in place that seek to 'test' the depth of knowledge and application that candidates for membership must demonstrate – indeed, some subjects or topics are considered more important than others and are accordingly 'tested' to a greater depth.
591. Overall, there is a scale of competence that could be applied to the role of the PM working on HRRBs (which might be considered as needing to be to a higher level than other types of buildings). We had originally taken one typical model as an illustration (from APM), but have now adopted the common alignment of terms across all WGs, namely:
- Awareness;
 - Appreciation;
 - Understanding; and
 - Comprehensive
592. We recommend that 'comprehensive' be the level of competence that is required of PMs in this field, as considered in Annex 10B in the supporting documents. It would seem right to conclude that the 'level' or 'depth' of knowledge and application for PMs working on HRRB projects should be greater than 'understanding'.
593. Separately, WG10 recommends that all PMs who are to work on HRRB projects must be members of a recognised professional body (or equivalent), although we acknowledge that this might meet with some resistance from those qualified by experience. In addition, there would need to be a structured and aligned 'route to membership' such that we would avoid

the risk of one body having a qualification route which was perceived to be 'easier' than the others.

594. As acknowledged within Annexes 10B and 10C in the supporting documents, there needs to be an awareness that c.90% of all HRRB projects are refurbishment rather than new-build and accordingly, the competence of PMs needs to be more finely attuned to the particular needs and challenges of this type of project.

Accreditation/reaccreditation

595. WG10 recommends, going forward, that the professional bodies involved in the training and accreditation of PMs who wish to work on HRRB projects seek to have their own in-house systems, which focus on the particular area of HRRB competencies, accredited by a third-party organisation (and UKAS has been suggested as one possible solution).
596. To ensure that accreditation is operated as smoothly as possible, it would be good to have the proposed accreditation system validated in advance by the chosen third-party organisation, this to ensure that the quality of the source material as well as a check on the quality of the checking process itself. Consideration would need to be given to the policing of any such system and what penalties should be put in place.
597. Whilst the requirement for members to remain competent and up-to-date should be an ongoing process, it is recommended by WG10 that re-accreditation takes place at regular intervals throughout the career of PMs working within on HRRB projects.
598. This could take the form of demonstrating continuing competency along the lines of that which is outlined elsewhere in this paper but without the knowledge acquisition which it would be assumed is being gathered on a continuous basis. It is considered that re-accreditation could be a 'lighter touch, with perhaps only a requirement to exhibit the 'log book' at the relevant time.
599. It feels like that cycle of re-accreditation should be initially no more than at three-year intervals although there might be a case for extending this to five years as time develops. Consideration would also need to be given to what would be applied in the case of a PM not being involved in any HRRB project over the relevant period.

Continuing Professional Development (CPD)

600. All of the professional bodies represented on WG10 (and many other bodies not so represented) already have a system in place which requires qualified members to ensure that they keep up to date with knowledge and application in areas of practice relevant to the PM function. The specifics of each different system differ in the detail, but the common features include the setting a defined minimum number of hours of study (either private study or attending organised events) and the recording of such CPD hours, so that compliance can be verified.
601. What is not currently mandated is a requirement that the PM undertakes focused CPD relevant to his/her particular area of practice – the PM is typically free to gather CPD hours on any subject, however closely linked (or not) to their current area of practice.
602. It is WG10's recommendation that PMs who are working, or in the future to be working on HRRB projects, will be required to undertake focused (and perhaps mandatory) CPD sessions on relevant subjects (such as fire and/or life safety). Clearly, there will need to be a

focus by CPD content providers on producing material that is relevant and topical on both the subject itself and focused to the needs and requirements of the relevant professional discipline.

603. WG9 has considered that this CPD requirement for HRRB projects could be satisfied by the design of a suitable training module (with end-of-course 'testing' or an examination), which might include some or all of these various components, such as:
- Knowledge acquisition (and a demonstration of learning outcomes, perhaps by reflection);
 - A log of suitable and relevant project experience over a defined time-period;
 - Preparation of a case study to illustrate one particular aspect of relevant project work; and
 - Interview with questions on knowledge, experience and case study material
604. Once the assessment of the module is complete and the candidate has demonstrated competence in the particular subject, then a suitable supplementary qualification is awarded, and the individual candidate is able to work on HRRB projects. The foregoing describes a system that would need to be put in place to upskill the current qualified PM community to ensure that they are suitably competent to work on HRRB projects going forward, whereas over time the relevant module content would itself become part of competence assessment at the entry point to the PM profession. The outline design of how such a system might look like and be operated is set out in Annex 10D in the supporting documents.

Programme for delivery and primary authorities

605. WG10 recommends that the revised system for PMs working on HRRB projects should be implemented as soon as possible and without necessarily waiting for the passage of primary and/or secondary legislation in this field.
606. However, it would be sensible, given the cross-industry impact of change within one specific discipline, if the change were introduced together and at the same time, to avoid confusion and waste. Having recommended this, WG10 is mindful of the number of matters to be introduced at the same time and it may be wiser to consider a phased approach. Whilst each professional body involved in the qualification and accreditation of PMs could undertake the necessary changes on their own, it would be good if this could be done in collaboration. WG10 considers that a common 'Best Practice Guide' would be a very helpful addition.
607. In any programme for delivery, an account needs to be taken of the fact that any new regulatory framework introduced by Government will need time to be implemented and for industry to develop their competence to deliver against any scheme requirements and this period should not be underestimated.

Barriers to delivery

608. There could be the tendency to consider that the various professional bodies might consider that there is no need to change, given that their current competence models are sound – this might serve to discourage an acknowledgement of the need for change. The reaction of the various professional bodies is key to this approach, together with the opportunity to work with universities, firms and organisations, Government and procurement bodies. Clearly, this culture must change through a 'hearts-and-minds' revolution.

609. Consideration would need to be given to the potential costs of the implementation of fresh training provision and whether Government support might be forthcoming. Further there would need to be an examination of the relationship between cost and consequent benefit.

Acknowledgements

The assistance of all those named in Annex A is gratefully acknowledged for having given freely of their time and for sharing details of the relevant material from their own representative organisations.

List of Annexes

Annex 10B: Project Managers competence framework (HRRBs)
Annex 10C: Competence requirements for Project Managers (working on HRRBs)
Annex 10D: Possible competence assessment/reassessment model
Annex 10E: Dams and Reservoirs model

Annexes 10B to 10E are in the compilation of supporting documents, which is Appendix A to this report.

Working Group 11 – Procurement Professionals

Chair: Duncan Brock, Chartered Institute of Procurement & Supply (CIPS)
Secretary: Lauren Williams, CIPS

The lead contributors are listed in Annex A.

Executive Summary

610. In response to *Building a Safer Future*, the CSG agreed that a focus on Procurement competences is required. It is recognised that poor procurement practices can lead to decisions that compromise all aspects of building and life safety, and across the sector there is a desire to improve the competence of people involved in procurement activities so that better decisions are taken at all levels of the construction supply chain.
611. The CSG established Working Group 11 (WG11), chaired by The Chartered Institute of Procurement and Supply (CIPS) to focus on procurement professionals. The working group's Terms of Reference are:
- To agree specific procurement competence levels, and measures of competence, for people involved in all aspects of sourcing, tendering, contracting and contract management of suppliers and resources involved in the construction of new HRRBs; and
 - Delivering the ongoing services, refurbishment, retrofit, maintenance and repairs for all HRRBs.
612. The structure for the framework is the eight stages of the RIBA Plan of Work, with the specific procurement activities for each stage based on the standard CIPS Procurement and Supply Cycle⁹⁸.
613. The CIPS Global Standard⁹⁹ has provided the detailed content for the specific Procurement Capabilities and Knowledge, and these have been adapted by the members of WG11 for the construction industry and specifically for HRRBs.
614. In this context the definition of procurement is wide. It covers all of the activities in the procurement cycle and therefore this competence framework will be relevant to many/most people who are involved in the construction of new HRRB's and in delivering the ongoing services, refurbishment, retrofit, maintenance and repairs for all HRRB's.
615. It is recognised that dedicated, competent procurement professionals are not currently involved in all required procurement activities identified for HRRBs. This competence framework identifies the capabilities and knowledge that are needed to carry out the procurement activities, allowing organisations and individuals, whatever their current role and profession, to assess their competence to carry out good procurement practices.
616. Anyone involved in procurement activities throughout the supply chain has a responsibility to ensure that they possess the required competence set out in this document.

⁹⁸ The CIPS Procurement and Supply Cycle can be found on the CIPS website in the Knowledge section

⁹⁹ The CIPS Global Standard can be found on the CIPS website in the Knowledge section

Key Recommendations

Recommendation One¹⁰⁰: There must be a Procurement Lead for HRRBs with a comprehensive HRRB procurement competence level involved at every stage of the RIBA Plan of Work.

Recommendation Two¹⁰¹: The HRRB Procurement Lead will be assessed and accredited against a new procurement competence framework which identifies the capabilities and knowledge that are needed to carry out all procurement activities identified for HRRBs

Recommendation Three¹⁰²: Implementing this Procurement Lead role will need a culture change in the construction sector and work is needed to raise awareness of the new competence requirements for procurement activities to ensure appreciation and compliance.

Industry Context

617. It is recognised that throughout the construction industry it is not always common practice to have dedicated procurement professionals involved in every procurement activity. This also applies to HRRBs. It has been accepted that the procurement activities can be carried out by other professions without ensuring that they have the full commercial competencies and experience.
618. In comparison, other sectors such as Oil & Gas and Automotive would not allow procurement to take place without going through a proper structured procurement process led by procurement professionals. It is accepted that the situation in construction needs to change.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

619. In Dame Judith Hackitt's report there were a number of recommendations made about Procurement and Supply, and the Government's response was published by the Ministry of Housing, Communities and Local Government on 18 December 2018 in the Policy Paper - Building a Safer Future: An Implementation Plan. Chapter 9 of the Policy Paper covers Procurement and Supply:

9.1:

- a. For higher risk residential buildings (HRRBs), principal contractors and clients should devise contracts that specifically state that safety requirements must not be compromised for cost reduction.
- b. The Government should consider applying this requirement to other multi-occupancy residential buildings and to institutional residential buildings.

620. The Government accepts this recommendation and will work with procurement professionals across the public and private sectors to develop standards and disseminate procurement best practice that prioritises safety outcomes.

9.2:

- a. For HRRBs, tenders should set out how the solution that is proposed will produce safe building outcomes, approaching the building as a system. Those procuring should use the tender review process to test whether this is the case.

¹⁰⁰ R63 in the overall recommendations (see p.34)

¹⁰¹ Included in R3 of the generic recommendations (see p.26)

¹⁰² R64 in the overall recommendations (see p.34)

- b. The Government should consider applying this requirement to other multi-occupancy residential buildings and to institutional residential buildings.
- 9.3: For HRRBs the information in the contracting documentation relating to the safety aspects should be included in the digital record set out in Chapter 8.
- 621. To support the implementation of these recommendations, it has been identified that improving the competences of everyone involved in procurement activities will be a key factor.
- 622. This competence framework identifies the capabilities and knowledge that are needed to carry out the procurement activities, allowing organisations and individuals, whatever their current role and profession, to assess their competence to carry out good procurement practices.
- 623. The new Procurement Competence Framework for HRRBs included within the appendices of this document directly addresses the above recommendations, and also suggests further recommendations in order to improve the overall procurement process for HRRBs to preserve life and building safety.

Detailed analysis of issues

- 624. Throughout the discussions in WG11 and the CSG, there have been many examples provided of poor commercial practices which have led to a focus on price and margin at the expense of safety. We know that profit margins throughout the construction industry are low and with high levels of competition there is a real concern, despite the best intentions of everyone involved in the various working groups, which the culture of low prices and undercutting of competitors will continue.
- 625. It is recognised that to embed a safety first mentality through the sourcing, contracting and contract management process is a significant change from the current operating environment, and the fear expressed by some of the contractors is that if they follow the best practices recommended in this report they will lose new contracts to other contractors who continue to cut corners to win business. They all quote examples of where this has happened in the past, and where safety has been compromised for commercial gain.
- 626. Other industries have gone through similar culture changes and commercial practices have altered. A balanced approach to decision-making at every stage of the sourcing, contracting and contract management process is needed. We have built this into every stage of the new HRRB Procurement Competence Framework.
- 627. It has been identified that one of the main issues is that procurement activities are too often being carried out by individuals who are not fully qualified or fully competent which leads to poor decision-making and focus on price rather than building safety. This drives poor behaviours throughout the supply chain, and when margins are tight there is a potential for people to prioritise cost over quality and safety. This occurs not only at the awarding of a major contract but all the way down through the contractor and supplier supply chain.
- 628. It is clear that the current approach to tendering and contracting reinforces these price focused behaviours as was highlighted by *Building a Safer Future*.

Raising the bar: Proposed approach

629. It is recognised that dedicated, competent procurement professionals are not currently involved in all required procurement activities identified for HRRBs. A new competence framework has been created to identify the capabilities and knowledge that are needed to carry out the procurement activities, allowing organisations and individuals, whatever their current role and profession, to assess their competence to carry out good procurement practices.
630. It has become clear through the discussions in WG11 that a new HRRB Procurement Lead role with a comprehensive competence level is needed at every stage of the RIBA Plan of Work, and that we need to define a way to assess and accredit that person to work on procurement activities on HRRBs.

What is a Procurement Lead?

631. Through education, training and experience, a Procurement Lead competently applies knowledge and understanding of:
- How to achieve value for money outcomes within the supply chain through effective spend management;
 - How to formulate selection criteria and sourcing strategies to ensure that the organisation will achieve the appropriate choice of supplier for goods, services or works;
 - How to create robust contractual arrangements with the organisation's supply chain to ensure positive outcomes in cost, time, quality & safety;
 - How to deliver value added outcomes to the organisation which can include:
 - improved quality and safety;
 - achievement of timescales;
 - required quantities;
 - reduced prices and costs;
 - innovation and sustainable supply of goods;
 - services provided by external suppliers;
 - How the external environment influences procurement and supply;
 - Recognising, evaluating and promoting the importance of ethics and responsible procurement in organisations and supply chains;
 - Opportunities for the use of technology and systems to improve procurement and supply;
 - Methods to monitor and collate information and data to communicate performance to suppliers and stakeholders; and
 - Leading and coaching people within the organisation, suppliers and other stakeholders to further the objectives of improved procurement and supply.
632. Anyone involved in procurement activities throughout the supply chain has a responsibility to ensure that they possess the required competences set out in WG11's recommendations. The framework applies not only to procurement conducted by the client, but also carried out by prime contractors and contractors throughout the supply chain.
633. This competence framework identifies the capabilities and knowledge that are needed to carry out the procurement activities, allowing organisations and individuals, whatever their current role and profession, to assess their competence to carry out good procurement practices.

634. The HRRB Procurement Lead does not have to be a qualified procurement professional, but they must ensure they have the required level of procurement competence as defined in the Competence Framework in Annex 11C in supporting documents.
635. This framework is built on best practices in procurement, using the CIPS Global Standard for Procurement and Supply as the foundation. Applying best practice procurement will ensure that safety considerations for HRRBs are fully assessed and incorporated into any decision making processes, making sure they are not compromised by short term commercial benefits.
636. The detailed framework is included in Annex 11C and can be used as follows:
- For individuals to assess their current procurement competences and identify gaps in capabilities and knowledge that need to be closed;
 - For organisations to assess the competency of people involved in HRRB procurement activities to identify gaps in capabilities and knowledge that need to be closed; and
 - For organisations to use when recruiting procurement professionals to work on HRRBs, to ensure they are competent to carry out their role.

Programme for delivery and Primary authorities

637. The following steps are proposed for successful implementation of the new Procurement Competence Framework for HRRBs:
- Gain final approval from MHCLG to implement the Framework;
 - Finalise the assessment and accreditation approach, in line with the recommendations for the Overarching Competency System, proposed by WG0 and included in the Government's consultation¹⁰³ and develop the assessment tool and process for accreditation;
 - Work with the Local Government Association (LGA), National Housing Federation (NHF), Early Adopters, CIPS Construction Procurement Leadership Group, and members of WG11 to roll-out the Framework and raise procurement competencies in their organisations;
 - Raise awareness of the new competence requirements for Procurement across the construction sector through conferences and forums held by relevant sector bodies; and
 - Update the Framework to reflect regulatory and guidance changes resulting from the Government consultation.
638. It is envisaged that all of the above can be completed by January 2020.
639. CIPS is the Primary Authority for the procurement competence standard, assessment and accreditation.
640. UKAS are being considered as the Oversight Body for the CIPS procurement competence assessment and accreditation processes.

¹⁰³ *Building a Safer Future: Proposals for reform of the building safety regulatory system*

Barriers to delivery

641. Barriers to delivery might include:

- Acceptance in the construction industry that procurement practices need to change to ensure there is a balanced approach to commercial decision making, taking into account safety as well as cost. This is a culture change and needs to be linked to the other culture change initiatives that are being proposed by the CSG;
- Investment in the proposed competence assessment approach and register of individuals. CIPS is willing to contribute towards the necessary funding, but other funding will be needed;
- Getting the first organisations to make necessary investments in people, education and training to raise procurement competences to the required standard;
- Investment from all of the major organisations involved in the construction supply chain to raise competence levels through training and education;
- Cascading the procurement competence-raising initiatives down through the smaller contractors where it may not currently be recognised that these specific procurement competences are needed; and
- Holding organisations to account if they don't demonstrate that they have implemented the proposed competence improvement initiatives and they continue poor procurement practices, leading to safety being compromised for commercial gain.

Acknowledgements

Thanks to all those who have provided support, guidance and contributions to the report. Thanks also to CIPS and Trowers & Hamlin for hosting meetings.

List of Annexes

Annex 11B – Core Competences
Annex 11C – Competence Framework
Annex 11D – Reference Materials
Annex 11E – Glossary

Annexes 11B-11E are in the separate compilation of supporting documents, which is Appendix A to this report.

Working Group 12 – Products

Chair: Peter Caplehorn, Construction Products Association (CPA)

Secretariat: Hanna Clarke, Construction Products Association (CPA)

The list of lead contributors is given in Annex A

Executive Summary

642. The scope of this work covers competence¹⁰⁴ required for interactions with all construction products that are a fixed part of completed assets. WG12 established the qualities needed for the competent selection and implementation of products throughout an asset's life.¹⁰⁵
643. WG12 has identified a framework that defines levels of product competence across industry and has undertaken a process of engagement with all other working groups over the course of this programme. Once published those interacting with the product can respond and demonstrate levels to safely choose, deploy and maintain products throughout an asset's life.
644. Products are a critical element in every construction project. The choice, specification and performance of each individual component is critical to the overall performance required. Recent experience shows the process of delivering required outcomes (in particular, with safety critical items) is crucially broken. Inappropriate products and product combinations are often used, the use of which can run the risk to life and property.
645. Using a matrix developed by WG12, everyone across the industry will be aware of the minimum level of understanding needed to interact with a product. The standards¹⁰⁶ have been generated by a peer group based on professional judgement.
646. It will be for the rest of industry to demonstrate how their skills, attitude, knowledge and experience meet those standards. This may be demonstrated through combinations of qualification, practical learning, peer review and CPD.
647. The proposal is at the prototype stage. Further review of the competence standards is to be undertaken. As a starting point, it offers a clear process to untangle this complex area allowing all participants to establish the level of competence that manufacturers feel necessary.

Key Recommendations

Recommendation One¹⁰⁷: The Competent 'SAKE'¹⁰⁸ matrix and methodology should be further developed and implemented across the sector as a benchmark for ensuring correct product interactions.

¹⁰⁴ WG12 used the definition of competence given in Annex 12D (Appendix A)

¹⁰⁵ For the full WG12 - Products Scope see Annex 12B (Appendix A)

¹⁰⁶ The standards are outlined in the 'key' of the Competent 'SAKE' Matrix. For further details, see Annex 12C (Appendix A)

¹⁰⁷ R65 in the overall recommendations (see p.34)

¹⁰⁸ SAKE = Skills, Attitude, Knowledge, Experience. For further details of the SAKE matrix see Annex 12C (in Appendix A)

Recommendation Two¹⁰⁹: The new regulatory framework and sanctions must recognise the WG12 competence framework as the way industry should behave when addressing products and their interactions.

Recommendation Three¹¹⁰: The Building Safety Competence Committee is put in place to ensure that WG12's recommendations are properly maintained and consistently applied.

Recommendation Four¹¹¹: As the WG12 framework is developed and applied, due consideration is made to ensure it coordinates and fits with other competence work and with product information standards (being developed by the CPA Marketing Integrity Group¹¹²).

Industry context

648. WG12 has identified existing work and models with relevant experience.

649. The *Each Home Counts* project has worked on safe and applicable competence, specific to domestic retrofit. Two Publically Available Specifications (PAS's) are in late development as a response:

- A revision to PAS 2030 – *Specification for the installation of energy efficiency measures (EEM) in existing buildings*; and
- The first edition to PAS 2035 – *Retrofitting Dwellings for Improved Energy Efficiency: Specification and guidance*.

Finishes and Interiors Sector (FIS) – Products, Process, People (PPP)

650. PPP is a process to provide evidence to show compliance. This evidence is combined with relevant operative records providing a full record of what has been installed, compliance and competence.

This work informed WG12:

- How competency was defined and described on CSCS cards;
- What the blockers are to demonstrating competence on CSCS cards; and
- Describing the components of competence as: Skill, Attitude, Knowledge and Experience or 'SAKE'.

Aviation industry (Black Box Thinking, Matthew Syed)

651. In *Black Box Thinking*, Matthew Syed describes how the aviation industry actively promotes a culture of viewing failures as unique opportunities to learn and improve performance. In 2015 the accident rate for major airlines was one crash for every 8.3 million take offs.

652. Changing culture within the construction industry involves a move away from blame culture. A new culture of identifying and cataloguing data surrounding failure must be cultivated. This will allow the industry to identify systematic issues and make relevant reforms to avert future crisis.

¹⁰⁹ R66 in the overall recommendations (see p.34)

¹¹⁰ Included in R4 of generic recommendations (see p.26)

¹¹¹ R67 in the overall recommendations (see p.34)

¹¹² The CPA Marketing Integrity Group is developing a framework to provide clear unambiguous product information. This has been expanded upon in 7.3. The CPA Marketing Integrity Group scope is attached in Annex 12E (Appendix A).

Responding directly to questions arising from Dame Judith Hackitt's recommendations

- 653. WG12 particularly responded to Recommendation 5.2 (a) in *Building a Safer Future* – see Section C on pp 20-22.
- 654. WG12 identified that a higher level of product-competence should be a standardised requirement for all those choosing, deploying, maintaining and otherwise interacting with products from conception to the end of an asset's life.
- 655. WG12 developed a matrix defining levels of competence that can be published within product information¹¹³. Those interacting with the product should identify and demonstrate the relevant levels. This will give clarity to a product-competent workforce. The recognised individual key roles should select from and evidence this competent workforce.
- 656. WG12 work covers all construction materials, products (including product interactions / systems) that are a fixed part of a completed building. Products that directly interact with fire or that are specific to HRRBs can be difficult to separate at a market level. WG12 has recognised that culture change across the competence of all sectors is the safest way to achieve the required change.

Detailed analysis of issues

Competence is more than a qualification

- 657. Product competence is complex. Whilst courses and qualifications may set good foundations for understanding, product competence cannot solely be identified through these alone.
- 658. WG12 has identified that there are four factors that come together to describe competence: Skills, Attitude, Knowledge and Experience or 'SAKE'¹¹⁴. These factors - defined, attained, acknowledged and verified - create a formal framework for product competence.

Inconsistent models of demonstrating and recognising competence

- 659. WG12 has identified a lack of competence across the sector, an inability to robustly identify competence where it exists and inconsistent approaches to verification. There is a level of understanding and experience needed to ensure safe and appropriate outcomes.
- 660. There have been five levels of product-competence defined for the framework ranging from the very simple basic understanding of products (Grade E) to the expert and technically adroit (Grade A). These apply to any role actively engaging with products. WG12 has identified in broad terms how competence can be defined and what attributes are needed. Additionally, it has established how these are maintained and verified. It would be then for other professions to solidify how these are demonstrated.
- 661. The framework would allow the registered key roles to identify and demonstrate they have allocated a competent workforce.
- 662. The proposed framework has been shared with the other working groups to establish the fit with each area's workstream, and has been adopted most firmly by WG2 - Installers. It has also been agreed between the working groups that an overarching standard regarding the

¹¹³ The CPA Marketing Integrity Group is developing a framework to provide clear unambiguous product information. This has been expanded upon in 7.3. The CPA Marketing Integrity Group scope is attached in Annex 12E (Appendix A).

¹¹⁴ See Annex 12D (Appendix A) for expanded definitions of 'SAKE'

common applicable principles of competence should be developed. It has been agreed that the WG12 framework grades would be integrated into this.

Understanding product interactions

- 663. Product performance is determined in large part by its interaction as part of a wider system. Understanding this becomes particularly pertinent when choosing, substituting and installing products. In the worst case, inappropriate combinations may have dangerous ramifications.
- 664. The framework reflects understanding of product interaction. Each level expands the understanding on how products interact in relation to systems, environment, against cost and over time. Those performing more critical roles should be more knowledgeable and experienced of the potential outcomes of the product interactions, and the attitude and skill to correctly respond to them.
- 665. Product information should be clear, accurate and verified.
- 666. Whilst competence of those using products needs to be addressed, it is equally clear information provided by manufacturers could in many cases be improved. Marketing and other forms of information should be clear, rigorous and unambiguous.¹¹⁵

Raising the bar: proposed approach

The Competent 'SAKE' Grade Matrix

- 667. Using the RIBA Plan of Work (extended to retrofit) and accepted titles for all those involved in the design, specification, supply, procurement, installation and maintenance of assets, it is possible to map product interactions to a Competent 'SAKE' Grade Matrix. Levels of competence are outlined, graded E (lowest) to A (highest). Each actor's minimum grade of competence can be plotted for every key interaction at every stage of the asset life.
- 668. The required competence varies from one product or system to the next. In its digital work, CPA has developed 'Relevant Authorities'¹¹⁶, a process to bring together similar product groups of manufacturers to achieve consensus of common characteristics for use by others. Relevant Authorities should be used to reach consensus when applying appropriate competence levels to all materials, products and systems.
- 669. There will be various methods of achieving, maintaining and proving the Skills, Attitude, Knowledge and Experience (SAKE) required to be competent at using products.
- 670. Methods of achieving SAKE will be both task and product specific. They will include combinations of qualifications, training and applicable experience. The maintenance may be achieved through top-up training and CPD. These can all be proved through appropriate records including formally recorded experience.
- 671. It has been recognised that attitude – whilst a key ingredient to competent behaviour – is far harder to identify and record. Part of the problem may be addressed by understanding incentives that promote good attitudes and applying transparent and constructive approaches to failures.

¹¹⁵ The CPA Marketing Integrity Group is developing a framework to provide clear unambiguous product information. The CPA Marketing Integrity Group scope is attached in Annex 12E (Appendix A).

¹¹⁶ 'Relevant Authorities' is an existing construction product consensus mechanism, developed for the LEXiCON project. For an expanded summary of Relevant Authorities, please see Annex 12H (Appendix A).

672. WG12 has started initial studies into incentivising and evidencing good attitudes, but further investigation and development is required. Models currently in industry include:

- Health and safety observation cards – regularly used in construction and could be developed to promote a positive approach to reporting failures;
- CROSS, a confidential safety reporting scheme to capture and share lessons learned which might not otherwise have had formal recognition; and
- Peer group review, which could provide valid verification of positive attitude.

The third dimension of product competence

673. Over and above the matrix, WG12 identifies there are other variables required to ensure product competence. Two factors key to this have been:

- understanding limitations of competence; and
- the stages of competence development i.e. the difference between conscious and unconscious competence.

674. This is especially important when considering product interactions and seeking appropriate advice. Awareness and application of these variables overarch the matrix and are required at every stage by every actor.

Product Information – completing the picture

675. Additionally and in parallel to WG12, the CPA created the 'Marketing Integrity Group' (MIG). The MIG is working to establish a pan-industry standard for all marketing and technical information. This will provide a new level of confidence that marketing is not overpromising or misleading, either directly or by omission, and that technical information is provided using industry norms and/or clear descriptions.

676. The CPA MIG product information standards should be used to establish what information is provided to which actor. Levels of information should be matched to levels of competence. This will drive clarity so that information that is more complex is normally only acted upon by an actor of suitable competence level or above¹¹⁷. If that is not the case, the actor's competence should be flagged as inappropriate.

Programme for standards development and implementation

677. WG12 initially identified a programme within the scope that envisions the development of the standard to continue into the third quarter of 2019. This will include agreeing a level of understanding from manufacturers and each actor.

678. Through Relevant Authorities¹¹⁸, manufacturers' establish and publish competence matrixes for different products. As a consensus process, appeals, review and update should be established.

679. This system should be applied to all products in safety critical areas in the first instance, and then be rolled out to all products. A training programme should be developed and rolled out to ensure a consistent approach across all sectors in the use of the matrix.

¹¹⁷ There may be scenarios, e.g. during supervised training where exceptions are made.

¹¹⁸ 'Relevant Authorities' is an existing construction product consensus mechanism, developed for the LEXICON project. For an expanded summary of Relevant Authorities, please see Annex 12H (Appendix A).

Industry adoption

680. The matrix and methodology will establish a required approach. Failure to meet this will require a notification. Failure to respond to the notification will require that the building safety regulator be informed. The approach should be reviewed on an annual basis. Application should be reviewed every 2 years in each sector via the Relevant Authorities network.
681. Time for industry uptake should be carefully considered to allow practical implementation. However, WG12 does recommend that a date ultimately be applied by which compliance is mandatory¹¹⁹ and sanctions will be delivered for non-compliance. This will also motivate a positive change before full implementation.

Barriers to delivery

682. Industry process should be in place for policing this with the building standards regulator being the ultimate arbiter via the Building Safety Competence Committee. Proportionate but appropriately severe sanctions must be in place to ensure industry compliance, including a resourced policing mechanism.
683. WG12 has already received great support for the proposals in our preliminary tests, however considerable work is required to ensure buy-in across industry. Ultimately practices, training and qualifications would need to adapt to the recognised grades.
684. This programme will take around five years to roll-out and ten years for full uptake. It is vital that Government also actively supports the entire process to ensure industry wide implementation.

Acknowledgements – see Annex A

List of Annexes

Annex 12B	Working Group 12 – Products: scope
Annex 12C	Competent 'SAKE' Grade Matrix
Annex 12D	Definitions of Competence and 'SAKE' – Skills, Attitude, Knowledge and Experience
Annex 12E	CPA Marketing Integrity Group: scope
Annex 12F	LEXiCON and Relevant Authorities

Annexes 12B-12F are included in the separate compilation of supporting documents, which is attached as a separate document (Appendix A)

¹¹⁹ Mandatory - potentially both via the Building Regulations and via the key duty holders.

Annex A

Individuals and Organisations participating in this work

George Adams	Engineering Council (EC)/ Chair, WG1
Stephen Adams	British Approvals for Fire Equipment (BAFE)/Secretary, WG4
Ian Aldridge	Institution of Gas Engineers and Managers (IGEM)
Sam Allwinkle	Chartered Institute of Architectural Technologists (CIAT)
Mark Anderson	Institution of Fire Engineers (IFE)
Mike Andrews	National Association of Professional Inspectors and Testers (NAPIT)
Michael Appleby	Fischer Scoggins Waters
Sandra Ashcroft	Health and Safety Executive (HSE)
Chris Auger	British Approvals for Fire Equipment (BAFE)
Martin Bainbridge	Institute of Fire Protection Officers (IFPO)
Thomas Bainbridge	Ministry of Housing, Communities and Local Government (MHCLG)
Peter Baker	Health and Safety Executive (HSE)
Nathan Baker	Institution of Civil Engineers (ICE)
Bob Bantock	National Trust
John Barfoot	Chartered Association of Building Engineers (CABE)
Darya Barham	Association of Consultant Architects (ACA)
Andrew Beal	Oxfordshire Fire & Rescue Service/NFCC
Francesca Berriman MBE	Chartered Institute of Architectural Technologists (CIAT)
Frank Bertie	National Association of Professional Inspectors and Testers (NAPIT)
Chris Bielby	SGN Fire and Security Ltd
Bob Birtles	National Fire Chiefs Councils (NFCC)
Ian Bowbrick	Institute of Materials, Minerals and Mining (IOM3)
Billy Boyd	Northern Ireland Fire and Rescue Service
Ben Bradford	BB7
John Bradley	National Fire Chiefs Councils (NFCC)
Robin Bradley	National Fire Chiefs Councils (NFCC)
Steve Brawley	Joint Industry Board (JIB)
Paul Bray	Devon & Somerset Fire & Rescue Service
David Bray	National Fire Chiefs Council (NFCC)
Richard Breen	Considerate Constructors Scheme (CCS)/Consultant
Julie Bregulla	Building Research Establishment (BRE)
Cathal Brennon	Local Authority of Building Control (LABC)
John Briggs	Fire Protection Association (FPA)/Secretary, WG7
Duncan Brock	Chartered Institute of Procurement and Supply (CIPS)/Chair, WG11
Hannah Brook	Ministry for Housing, Communities and Local Government (MHCLG)
Tom Brookes	Fire and Security Association (FSA)
Phillip Brownhill	Association for Specialist Fire Protection (ASFP)
Ronan Brunton	Single Ply Roofing Association (SPRA)
Mick Buck	Institution of Structural Engineers (IStructE)
Gavin Bull	Health and Safety Executive (HSE)
Mostyn Bullock	IFE TSAG / Tenos/Chair, WG3
Andrew Bulmer	Institute of Residential Property Management (IRPM)
Anthony Burd	British Standards Institution (BSI)
Tony Burton	Gardiner & Theobald
Paul Bussey	Royal Institute of British Architects (RIBA)
Wilf Butcher	Association for Specialist Fire Protection (ASFP)
Neal Butterworth	IFE TSAG / Design Fire Consultants
Darren Byrne	Institution of Structural Engineers (IStructE)
Peter Caplehorn	Construction Products Association (CPA)/Chair, WG12/Deputy Chair, CSG
Ian Carey	John Burke Associates/ICWCI
Lucy Carmichael	Royal Institute of British Architects (RIBA)
Denise Chevin	Construction Industry Council (CIC)/Secretary, CSG
Joe Cilia	Finishes and Interiors Sector (FIS)
Matt Clare	Royal Institution of Chartered Surveyors (RICS)
Richard Clark	National Fire Chiefs Council (NFCC)/South Yorkshire F&RS
Cathie Clarke	Single Ply Roofing Association (SPRA)

Hanna Clarke	Construction Products Association (CPA)/Secretary, WG12
Ed Clerk	Institute of Structural Engineers (IStructE)
Richard Coackley	Institution of Civil Engineers (ICE)
Martin Conlon	Association of Consultant Approved Inspectors (ACAI)/Dep Chair, WG6
Izzy Connell	Ministry for Housing, Communities and Local Government (MHCLG)
Nick Coombe	LFB/NFCC
Lisa Cooper	Institution of Fire Engineers (IFE)
Steve Cooper	Institution of Fire Engineers (IFE)
Graham Cory	Institution of Fire Engineers (IFE)
Brian Cox	Institution of Mechanical Engineers (IMechE)
Colin Coxon	Home Office
Alan Craddock	Health and Safety Executive (HSE)
Helvi Cranfield	Royal Institution of Chartered Surveyors (RICS)/CiG Manager
Alan Cripps	Royal Institution of Chartered Surveyors (RICS)
Simon Cross	BRE Group
Claire Curtis Thomas	British Board of Agrément (BBA)
Diane Dale	Chartered Institute of Architectural Technologists (CIAT)
John Davidson	National Security Inspectorate (NSI)
Hywel Davies	Chartered Institution of Building Services Engineers (CIBSE)
Dennis Davis	Fire Sector Federation (FSF)/Chair, WG4
Jamie Davis	BB7
Peter Dawber	Chartered Institute of Building (CIOB)/Chair, WG9
Melissa Dillon	Local Government Agency (LGA)
Adrian Dobson	Royal Institute of British Architects (RIBA)
Bob Docherty	Institute of Fire Safety Managers (IFSM)
Graham Dodd	Society of Façade Engineers (SFE)
Jonathan Dore	National Association of Rooflight Manufacturers (NARM)
Jonathan Ducker	Kingspan
Martin Duggan	Fire Industry Association (FIA)/Secretary, WG2
Jeremy Dunn	National Association of Rooflight Manufacturers (NARM)
Beth Dunning	Ministry for Housing, Communities and Local Government (MHCLG)
Chris Eady	The Welding Institute (TWI)
David Egan	DWF
Prof Charles Egbu	Chartered Institute of Building (CIOB)/University of East London/Chair, WG10
Nick Eckford	Institution of Structural Engineers (IStructE)
Steve Emery	IFE Heritage SIG / Oxford University
Dr Eric Marchant	IFE Scotland Branch/ Consultant
Jo Evans	Tata Steel
Steve Evans	National House-Building Council (NHBC)
Emma Fairman	Engineering Council (EC)
Dan Falchikov	LABC/ Secretary, WG6
Eve Farraud BEM	Construction Industry Council (CIC)
Antony Faughnan	Arcadis
Ian Firth	Institution of Structural Engineers (IStructE)
Ian Fletcher	British Property Federation (BPF)
Mike Foy	Chartered Institute of Building (CIOB)
Ange Francis	John Sisk & Son
Andrew Frankum	National Social Housing Fire Group NSHFG
Sally Friswell	IFE Registrants' Group / Arup (Campus)
Clifton Gare-Mogg	United Kingdom Accreditation Service (UKAS)
Sarah Garry	Build UK/CSG Member
Janet Gascoigne	United Kingdom Accreditation Service (UKAS)
Andrew Gausden	National Fire Chiefs Council (NFCC)
Chris Getty	Scottish Fire and Rescue Service
Neil Gibbins QSFRM	Institution of Fire Engineers (IFE)/Secretary, WG3
Adam Gilbert	Managing Agents Property Health and Safety Forum
Lindsay Gillespie	Building Engineering Service Association (BESA)
Tim Gillooly	Local Authority Building Control (LABC) Hackney Council
Nigel Glen	Association of Residential Managing Agents (ARMA)
Colin Goodwin	Building Services Research and Information Association (BSRIA)
Michael Gray	South Wales Fire and Rescue Service
Nigel Gray	Surrey Fire and Rescue Service
Graham Green	Institute of Fire Safety Managers (IFSM)
Michael Green	Trowers and Hamlin
Rob Greenfield	Institute of Workplace and Facilities Management (IWFM)

Neil Guyett	London Fire Brigade (LFB)
Chris Hallas	Institute of Materials, Minerals and Mining (IOM3)
Patrick Hamblin	Institution of Fire Engineers (IFE)
Phil Hammond	Local Authority Building Control (LABC)
David Hancock	Infrastructure Projects Authority (IPA)/IRG Member
Richard Harral	Chartered Association of Building Engineers (CABE)
Seán Harris	Institution of Civil Engineers (ICE)
Roger Harrison	BRE Group
Richard Harrison	Association of Consultant Architects (ACA)
Anthony Hart	Office for Nuclear Regulation (ONR)
Richard Hartless	Building Research Establishment (BRE)
David Hawkes	Institution of Civil Engineers (ICE)
William Heneker	Association of Residential Managing Agents (ARMA)
Felipe Herrera	SFPE / Trenton
Kevin Hickman	Chartered Institute of Procurement and Supply (CIPS)
Jason Hill	IFE Industrial Fire Risk SIG / Horizon
Dawn Hillier	Construction Industry Training Board (CITB)
Chris Hockaday	County Durham & Darlington Fire & Rescue Service & Fire Officers Assoc
Tina Holland	Local Government Agency (LGA)/IRG Member
Karen Holmes	Architects Registration Board (ARB)
Sofie Hooper	Institute of Workplace and Facilities Management (IWFM)/Secretary, WG8
Simon Howard	Architects Registration Board (ARB)/Secretary, WG7
Jenny House	Build UK
Chris Hughes	EXOVA
Julie Humphreys	Lighting Industry Association (LIA)
Sheryl Hurst	Risktec Solutions Ltd
Malcolm Hynd	United Kingdom Accreditation Service (UKAS)
Philip Isgar	Association of Project Management (APM)/Sunbeam Management Solution Ltd
Mike Jaggs	BRE Group
Andy James	Institution of Fire Engineers (IFE)
Nick Jarman	Stanhope plc/Chair, WG2
Chris Jeffers	Rider Levett Bucknall (RLB)
Gordon Jenkins	Construction Skills Certification Scheme (CSCS)
Chris Jones	Institution of Engineering and Technology (IET)
Kara Kashemsanta	Ministry for Housing, Communities and Local Government (MHCLG)
Sir Ken Knight CBE	Independent Expert panel on Fire Safety
Steven Kenyon	National Fire Chiefs Council (NFCC)
Stuart Kerr	Salix Homes
Trevor King	Institute of Clerks of Works and Construction Inspectorate (ICWCI)
Alan Kinnear	Fire Protection Ltd
Bruce Kirton	Welplan
Chris Knights	Building Services Research and Information Association (BSRIA)
Tassos Kougonis	Building Services Research and Information Association (BSRIA)
John Krancioch	The Welding Institute (TWI)
Mehdi Laftavi	C- MIST
James Lane	IFERG / BB7
Debbie Larnier	Chartered Institute of Housing (CIH)
Angus Law	University of Edinburgh
Rob Leach	Ministry of Housing, Communities and Local Government (MHCLG)
Charlotte Lee	National Association of Professional Inspectors and Testers (NAPIT)
Ian Leigh	Shropshire Fire & Rescue Service
Mike Leonard	Building Alliance (BA)
Lindsey Lewis	Ministry of Housing, Communities and Local Government (MHCLG)
Andy Lock	NFCC/Hampshire F&RS
Michael Locker	Defence Fire Safety Regulators
Conor Logan	Institution of Mechanical Engineers (IMechE)
David Loosemore	Chartered Institution of Civil Engineering Surveyors (CICES)
Prof Luke Bisby	IStructE / Edinburgh University
Mark Lunn	Horizon Nuclear Power
Louis Lyons	Build UK
Fiona MacCallum	Home Office
Bill Mackenzie	Ministry of Housing, Communities and Local Government (MHCLG)
Charles McArthur	Engineering Council (EC)
Ian McCluskey	Institution of Gas Engineers and Managers (IGEM)
David McCullogh	RICS/Balfour Beatty

Iain McIlwee	Finishes and Interiors Sector (FIS)
James McLarin	<i>previously of</i> Build UK/ CSG Member
Alistair Macleod	C- MIST
Scott McLew	Construction Industry Council Approved Inspector Register (CICAIR)
Steve Manchester	BRE Global
James Manning	North Yorkshire Fire and Rescue Service
Hannah Mansell	<i>previously of</i> British Woodworking Federation (BWF)
Darren Marshall	West Midlands Fire Service
Diane Marshall	ACAI/NHBC
Garry Marshall	Scottish Fire and Rescue Service
Steve Martin	Electrical Contractors' Association (ECA)
Phil Martin	Martin Fire
John Mason	IFE / JMEC Fire
Douglas Masterson	Guild of Architectural Ironmongers (GAI)
Emma Matthews	Architects Registration Board (ARB)
Allan Meek	Smoke Control Association (SCA)
David Metcalfe	Centre for Window and Cladding Technology (CWCT)
Andrew Miller	West Midlands Fire Service
Frank Mills	Institution of Mechanical Engineers (IMechE)
Adam Monaghan	IFE TSAG / Design Fire Consultants
Lyndsey Montgomery	Chartered Institute of Building (CIOB)/Secretary, WG9
Paul Mooney	Salix Homes
Conor Murphy	Osborne Group Ltd/BuildUKI
Alastair Murray	Arup (Glasgow)
Mike Napier	Costain Ltd & Mahn Consult Ltd
Paul Nash	Chartered Institute of Building (CIOB)
Mark Newton	Building Research Establishment Group (BRE)
Suzannah Nichol MBE	Build UK/IRG Member
Dee O' Connell	Ministry for Housing, Communities and Local Government (MHCLG)
Chris O'Regan	Institution of Structural Engineers (IStructE)
Martin Oldknow	FOA
Ruth Oliver	British Automatic Fire Sprinkler Association (BAFSA)
Jonathan O'Neill	Fire Protection Association (FPA)
Jenny Osbourne	TPAS
Jon Pagan	International Fire Consultants (IFC)
Mark Palmer	Help and Safety at Work (HASAW)
Adrian Pargeter	Kingspan
Chris Parker	Institute of Healthcare Engineering and Estates Management (IHEEM)
Adreena Parkin Coates	National Fire Chiefs Council (NFCC)/Chair, WG5
Richard Parnaby	Architects Registration Board (ARB)/Co-Chair, WG7
Howard Passey	Fire Protection Association (FPA)
Chris Pateman	Engineered Panels In Construction (EPIC)
John Paul Reeves	IFE Smoke Ventilation SIG/The Smoke Ventilation Consultancy Ltd
Rob Paul	Institution of Structural Engineers (IStructE)
Penny Pender	National Fire Chief's Council (NFCC)
Simon Pitchers	Institution of Structural Engineers (IStructE)
Martin Powell	Institution of Structural Engineers (IStructE)
Amy Powell	<i>previously of</i> Ministry of Housing, Communities and Local Government
George Preston	Lancashire Fire & Rescue Service
James Preston-Hood	Grosvenor Estate
Mark Pundsack	Institution of Structural Engineers (IStructE)/City of London
Nick Ralph	Rockwool
Cary Randall	United Kingdom Accreditation Service (UKAS)
Rebecca Rees	Trowers & Hamlins
Peter Rickaby	BSI Retrofit Standards Task Group
Ken Rivers	Industry Safety Steering Group (ISSG)
Ian Rowsley	United Kingdom Accreditation Service (UKAS)
Craig Ross	Royal Institution of Chartered Surveyors (RICS)
Niall Rowan	Association for Specialist Fire Protection (ASFP)
Tim Sainty	Chartered Institution of Plumbing and Heating Engineers (CIPHE)
Helen Samuels	Network Rail
Stuart Sargeant	Abbey Thermal Insulation Ltd.
Keith Scott	Consultant
Jenni Seex	Greater Manchester Fire and Rescue Service
Sarah Sek	Ministry for Housing, Communities and Local Government (MHCLG)

Colin Sellers	Institution of Engineering and Technology (IET)
Paul Senior	Chartered Institute of Building (CIOB)
Martin Shipp	Institution of Fire Engineers (IFE)
Amy Simmons	National Housing Federation (NHF)/IRG Member
Steve Skarratt	FSC Capita
Michael Skelding	Door Hardware Federation (DHF)
Dr Graham Smith	Chartered Institute of Architectural Technologists (CIAT)
Tony Smith	National Fire Chiefs Council (NFCC)
Mark Snelling	ARMA
Alastair Soane	CROSS
Sarah Spink	Liquid Roofing and Waterproofing Association (LRWA)
John Staves	Institution of Structural Engineers (IStructE)
Scott Steedman CBE	British Standards Institution (BSI)/Chair, WG0
Offer Stern-Weiner	Ministry for Housing, Communities and Local Government (MHCLG)
Sarah Stevenson-Jones	National Social Housing Fire Group (NSHFG)
Lorna Stimpson	Local Authority Building Control (LABC)/ <i>previously</i> Chair, WG6
Janie Strange	Consultant
Gary Strong	Royal Institution of Chartered Surveyors (RICS)/CSG Member
Chi Sun Wong	Construction Industry Council (CIC)
John Sweeney	Greater Manchester Fire and Rescue Service
Matthew Symes	Concerto Partners LLP
Alex Tait	Royal Institute of British Architects (RIBA)
James Talman	National Federation of Roofing Contractors (NFRC)
Andrew Taylor	Association for Specialist Fire Protection (ASFP)
Anthony Taylor	Avison Young/ Chair, WG8
Martin Taylor	Local Authority Building Control (LABC)
Tregear Thomas	Royal Berkshire Fire and Rescue Service
Kate Thompson	Ministry for Housing, Communities and Local Government (MHCLG)
Steven Thompson	Royal Institution of Chartered Surveyors (RICS)/Secretary, WG10
Rosalind Thorpe	Chartered Institute of Building (CIOB)
Wayne Timperley	LABC/Chair, WG6
Caroline Tong	Institution of Civil Engineers (ICE)
Richard Townsend	National Association of Professional Inspectors and Testers (NAPIT)
Pauline Traetto	BRE Group
Nick Troth	IFE TSAG / Arup (Sheffield)
Peter Tse	Building Services Research and Information Association
Katy Turff	Engineering Council (EC)/Secretary, WG1
Dale Turner	Skanska
Barry Turner	Local Authority Building Control (LABC)
Eddie Tuttle	Chartered Institute of Building (CIOB)
Kevin Underwood	British Woodworking Federation (BWF)
Brendan Van Rooyen	Institution of Civil Engineers (ICE)
Bob Ward	Fire Industry Association (FIA)
Wayne Ward	WWC Ltd/IWFM
John Waterman	Wilmott Dixon
David Watson	L&Q
Graham Watts OBE	Construction Industry Council (CIC)/Chair, CSG
Ian Weakford	National Association of Rooflight Manufacturers (NARM)
Richard Webb	South Wales Fire and Rescue Service
Roy Weghorst	Kingspan Insulation
Martin Weller	Atkins Global
Kevin Wellman	Chartered Institution of Plumbing and Heating Engineers
Liz Welton	Solihull MBC
Anna Wesson	Insulated Render and Cladding Association (INCA)
Graeme Whitty	Willmott Dixon
Nigel Wiles	L&Q
Peter Wilkinson	Institution of Fire Engineers (IET)
Lauren Williams	Chartered Institute of Procurement and Supply (CIPS)/Secretary, WG11
Lynsey Williams	Mid and West Wales Fire and Rescue Service
Laura Willoughby	CICAIR Ltd
Peter Wise	BB7
Stephen Wise	Knauf Insulation
Mike Wood	Mike Wood Glass and Fire Consultancy
Neil Woods	EXOVA
Peter Yates	Local Government Association (LGA)/Deputy Chair, CSG

Jeremy Yates
Nabila Zulfiqar

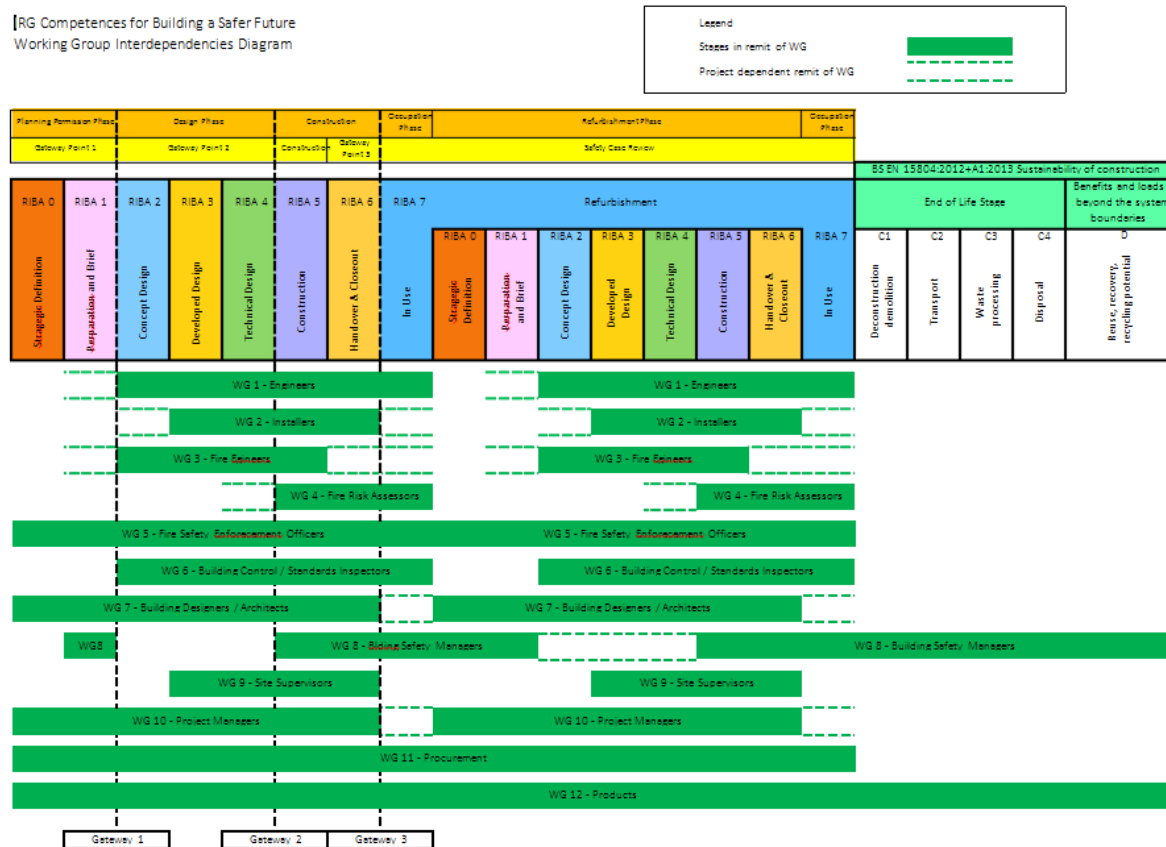
Crown Premises Fire Safety Inspectorate
Architects Registration Board (ARB)/ Co-Chair, WG7

Please Note: Every effort has been made to assemble a complete record of all those engaged in the work of the CSG and its Working Groups. If there are any errors of omissions please let us know as part of the consultative process.

Annex B

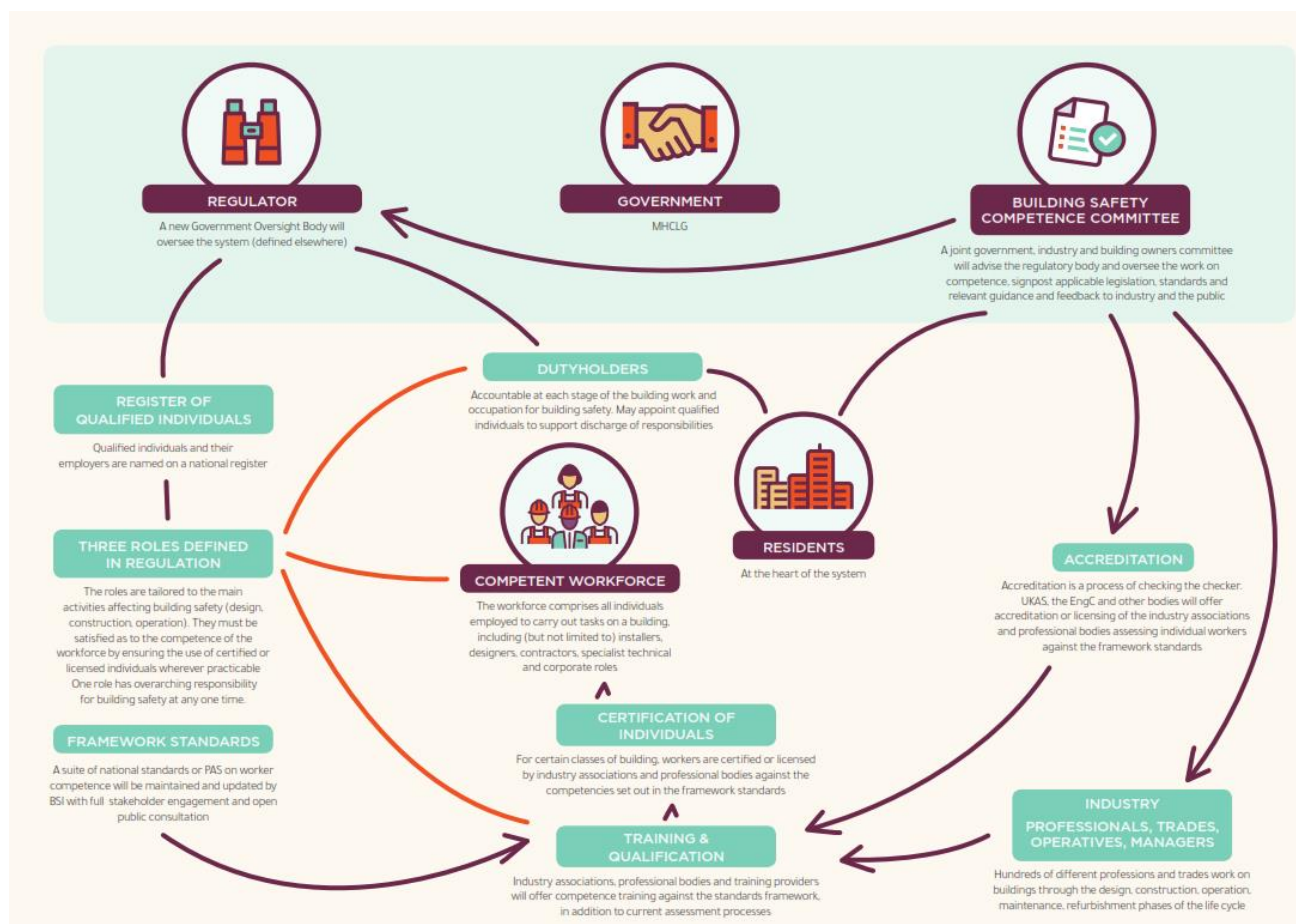
Working Group Interdependencies

IRG Competences for Building a Safer Future
Working Group Interdependencies Diagram



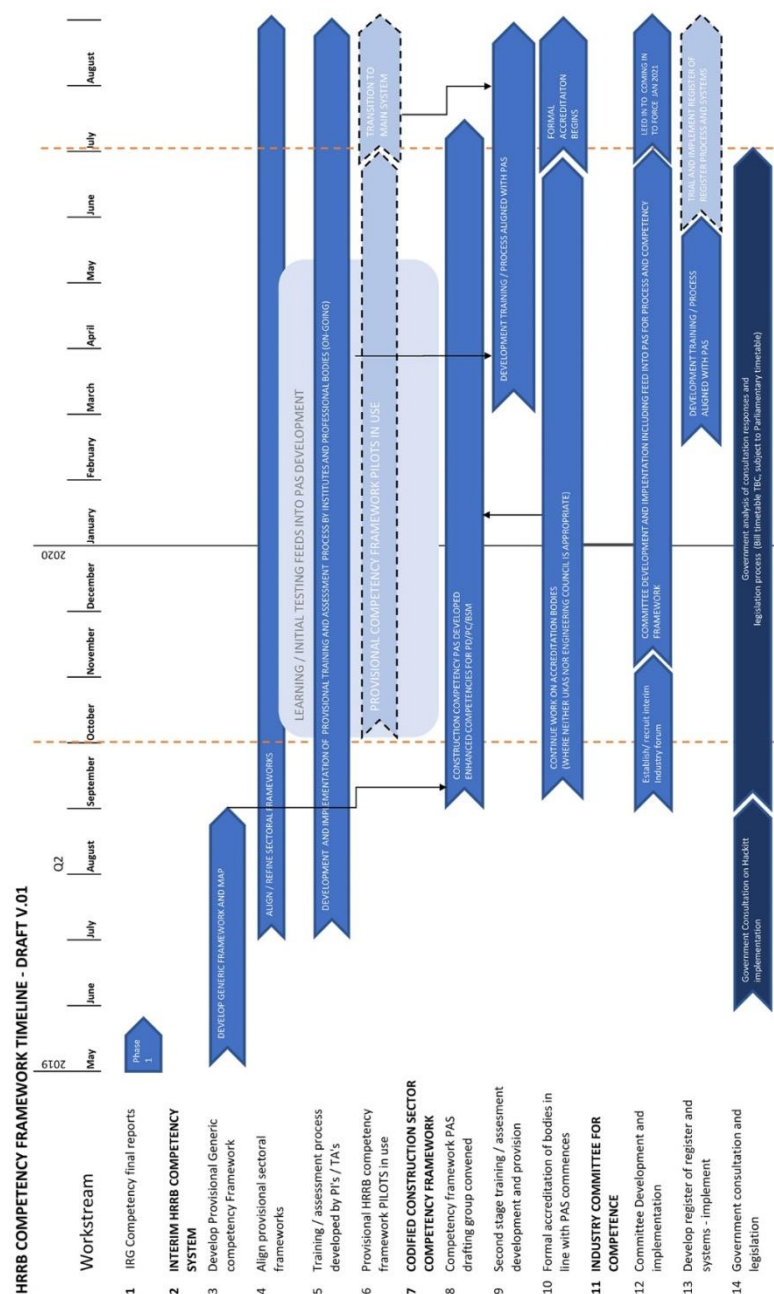
Annex C

Overarching Competence System Map



Annex D

Proposed timeline for implementation



Annex E

Oversight of Assessment of Competence

Lead contributors

Malcolm Hynd – United Kingdom Accreditation Service (UKAS)

Katy Turff – Engineering Council (EngC)

Executive Summary

Chapter 5 of the *Building a Safer Future* report calls for improvements in the way the competence of those professions and trades involved with HRRBs is assessed and verified. At the first meeting of the working group set up to consider the role and remit of the overarching competence body (WG0), UKAS and EngC were asked to consider how they and any other relevant organisations could work together to provide an assurance framework within the overarching competency system proposed in the report.

Representatives of UKAS and EngC have worked together to compare their respective methods for overseeing the assessment of competence, to identify the assessment and oversight arrangements that already exist for those professions and trades involved with HRRBs and to identify where there are gaps that need to be filled.

Key Recommendations

They conclude that:

- to provide the necessary confidence in the market place, all individuals working on HRRBs should meet the competence requirements developed by the CSG WGs;
- compliance needs to be demonstrated by independent, third party assessment and periodic re-assessment of the individuals;
- the organisations carrying out the assessment should themselves be subject to independent oversight of their competence and impartiality to do so;
- further work will be needed to ensure that robust and rigorous assessment and oversight arrangements are in place for all professions and trades involved with HRRBs; and
- this work could be led by UKAS and EngC, together with any other oversight bodies identified, but should be overseen by the overarching body or system to be established as part of the MHCLG regulatory framework for HRRBs.

Industry context

Current practice of assessment and oversight varies considerably across the many professions and trades involved with HRRBs falling broadly into two categories: professional registers and personnel or service certification schemes.

Professional registers are characterised by membership of a professional body, assessment by professional peers within that body against a generic professional competence standard set by the profession itself, agreement to be bound by a code of conduct and subject to the disciplinary procedures and sanctions of the body and a requirement to undertake CPD. Standards are set by the body, or by the regulator of the profession.

Personnel Certification Schemes are characterised by assessment against a specific occupational competence standard which may or may not have a code of conduct or behavioural component

associated with it, is usually subject to periodic re-assessment, and may provide a form of licence to practise. Assessment is conducted by an independent certification body working either to its own standards, those of an independent scheme owner or to national or international standards. The certification body may hold a register or issue some other form of identification. Certification under one of these schemes is not generally a prerequisite. Alternatively, some trades demonstrate competence through the certification of organisations for the quality of the services they provide. Again, the certification is carried out by independent certification bodies against agreed scheme criteria or standards, including clear competence requirements for the organisation's employees.

Some trades currently fall within a certification scheme framework as do some professions (e.g. some installers, fire risk assessors and product manufacturers) but coverage is by no means comprehensive and the particular competences required for working on HRRBs are unlikely to be specifically covered by the scheme criteria. However, the certification approach has the flexibility to apply to any scheme for the certification of personnel or service.

Different arrangements exist for the external accreditation or oversight of these mechanisms. For Certification Schemes there is a single mechanism for external accreditation of the organisations assessing the competence of individuals or organisations - accreditation by UKAS against internationally agreed standards. There is no external accreditation of the organisations setting the standards as conformity assessment bodies choose the standard(s) they wish to operate, including creating their own. However, the standards are assessed by UKAS for fitness for purpose and stakeholder support.

Professional registers have a variety of arrangements: at one end of the spectrum, the engineering profession has numerous professional bodies which work together under the umbrella of the Engineering Council. As the national regulator the Engineering Council sets the generic standards for professional engineering competence and commitment, and licenses and audits professional engineering institutions to tailor these and develop procedures to assess professional practitioners within their discipline for admission to the national register. In this respect it provides external assurance of both the organisations assessing competence and the standards they are using. However it is not subject to the same level of government oversight or international audit as UKAS. Some professional engineering institutions have both Engineering Council licence and UKAS accreditation. Other professions may have their own system, use UKAS or have no external assurance mechanism.

Responding directly to questions arising from Dame Judith Hackitt's recommendations

Of particular relevance to the assessment of competence, Dame Judith's report:

- calls for robust standards to be developed and operated in a clear framework that is coherent and consistent and provides assurance to the dutyholder (para 5.18);
- calls for greater consistency in the way competence is assessed and verified (5.16);
- calls for competence to be re-assessed on a defined periodic basis (5.21);
- recommends that, as a minimum, any body which 'accredits' competence should themselves be accredited by a rigorous, publicly recognised and accepted method of accreditation, for example by UKAS (5.22); and
- recommends the establishment of an overarching body to provide oversight of competence requirements and support the delivery of competent people working on HRRBs (Recommendation 5.2).

The focus of this report, is on the provision of a level of external oversight of the organisations setting the standards for and assessing the competence of individuals working on buildings in scope (i.e. the 4th bullet point 4 above). However, in addressing this issue consideration has also been given to bullets 1, 2 and 3. It is also important to set this activity in the wider context of the

overarching competence system and, in particular, the proposals emerging in response to bullet point 5 above and how this might work in practice.

Representatives of UKAS and EngC believe that the measures proposed herein, if implemented in full, would contribute significantly to the culture change indicated as necessary in *Building a Safer Future*. In particular, a comprehensive requirement for rigorous and robust assessment, periodic re-assessment and oversight of all individuals involved with HRRBs would be a major step forward.

Detailed analysis of issues

It is recognised that there is currently no consistent method for assessing the competence of those professions and trades involved with HRRBs. Whilst a number of UKAS accredited certification schemes cover the installation of fire safety equipment and the competence of fire risk assessors, the take up of these schemes is not comprehensive and they may not cover the specific competences required of those involved with HRRBs. Similarly, EngC licenses a number of professional engineering institutions (e.g. IMechE¹²⁰, IET, IFE) to register professionals working in the built environment sector but, again, coverage is not comprehensive across the sector and specific HRRB related competence is unlikely to be covered by the registration processes of the PIs concerned. Other PIs are also active in the sector (eg RIBA, RICS and CIPS) but are outside the scope of EngC licensing.

Setting the standards of competence of individuals working on buildings in scope

A second point of consideration is the role of the overarching system in "receiving, agreeing and monitoring the individual competence frameworks for those bodies, professions and disciplines in scope for individuals within their membership or on their register, and/or whether a single competence framework for professional bodies in scope should be established."

As indicated earlier, neither the professional registration nor the personnel certification schemes satisfactorily addresses the question of assuring the performance of organisations setting the standards of competence of individuals working on buildings in scope. Professional registration systems are generic and do not necessarily include requirements specific to a context and personnel certification schemes are assured to a wide range of standards.

Emerging thinking from the CSG working groups is that there is potential to develop a single 'mega-framework' of competences, with the different professions developing contextualised profiles and interpretations. This would allow the overarching system to compare widely differing professions within a single 'overlay', with a common language and an expectation that all professionals working in the buildings in scope will have as a minimum, an awareness across the full range, with progression to comprehensive knowledge, skills and behavioural attributes as applicable to the role they are fulfilling.

The proposed Building Safety Competence Committee would have control of the mega-framework, which it would need to review periodically.

For certification bodies, this may mean developing personnel certification schemes corresponding to one or more of the contextualised profiles. This raises a question of who should maintain the contextualised profiles currently being developed by some of the working groups. These schemes could be developed by BSI, as the national standards body, by specialised scheme owners (such as BAFE) or by the individual certification bodies themselves. UKAS would assess the schemes for fitness for purpose and stakeholder support. This assessment could be performed in consultation with the overarching organisation or by the overarching organisation itself.

¹²⁰ Institution of Mechanical Engineers

Where the contextualised profiles are being developed by professional bodies that have registers based on assessment against a generic standard of competence, this may mean the introduction of a specialist annex. As an example, the Engineering Council could develop and maintain a contextualised HRRB section to its register. Admission to this would require individuals to undergo an assessment against the engineering contextualised profile of the HRRB competence framework. Assessment could be simultaneous with assessment for registration as Engineering Technicians (EngTech), Incorporated Engineers (IEng), Chartered Engineers (CEng) and Information and Communications Technology Technicians (ICTTech), or an additional assessment for those already on the register. If held as a separate contextualised register, it would also be possible to admit people who chose not to join the main register, although they would still need to join an engineering institution and agree to abide by its code of conduct and be subject to its disciplinary procedures and sanctions. A feature of this model would be the requirement for periodic revalidation for the contextualised register, which may include prescribed CPD.

Assuring the performance of organisations setting the standards for and assessing the competence of individuals working on buildings in scope

The third area of consideration is then the options for external assurance of the performance of the organisations setting the contextualised standards and assessing competence of individuals working on the buildings in scope.

Two models are indicated in the examples above – UKAS and the Engineering Council. Other professions may have their own models which should also be taken into account.

UKAS is the sole national accreditation body for the United Kingdom; appointed by government, under EU Regulation 765/2008 and The Accreditation Regulations 2009, to accredit, against internationally agreed standards, organisations that provide assessment services including certification, testing and inspection. Accreditation by UKAS demonstrates the competence, impartiality and performance capability of these assessing organisations. In short, UKAS ‘checks the checkers’. UKAS does not accredit individuals, qualifications, training courses or training providers.

UKAS is a non-profit distributing private company that operates under an MoU with Government which requires it to work in the public interest. It is agreed Government policy to recommend the use of UKAS accredited conformity assessment services whenever this is an option.

The Engineering Council is the UK regulatory body for the engineering profession. It holds the national registers for EngTech, IEng, CEng and ICTTech. The Engineering Council sets and maintains the internationally recognised standards of academic achievement, professional competence and commitment, initial and CPD that govern the award and retention of these titles. It licenses professional engineering institutions to admit individuals to its Registers and to accredit or approve programmes of education and professional development, and audits the performance of those bodies. It provides guidance to those bodies on codes of conduct and disciplinary procedures.

The Engineering Council is a registered charity that operates under a Royal Charter which requires it to work in the public interest. Through its Charter it is authorised to represent the UK in relation to the international recognition of Registrants and of educational qualifications in engineering and related subjects and disciplines.

UKAS and EngC have undertaken a comparison of their governance arrangements and working practices and have identified the following key similarities and differences:

Similarities: Application, document review, onsite review, independent decision committee; the use of technical experts; one level of intermediary between accreditation/licencing and individual professional (checking the checker);

Differences: Extent of government oversight; methods of standards setting; operating to international standards (UKAS); peer review vs external accreditation process; who holds the register; scope, scale and flexibility (EngC remit is engineering, UKAS could be anything and consequently much larger); periodic reassessment of individuals (a requirement for personnel certification but not necessarily for professional institution registration); cost (UKAS required to be self-financing).

It is clear from this work that the systems operated by the two organisations have been developed for rather different purposes. Whilst it is not possible to conclude that the two systems are equivalent they are clearly fit for the purpose for which they were originally intended and could, with some adjustments, provide the basis for the oversight of assessment of competence called for in *Building a Safer Future*.

Terminology

Given the differences in the way that UKAS and EngC operate it is important that it is clear to end users which system is being used for each different discipline. This can best be achieved by the consistent use of terminology as the programme of work develops, with 'certification' and 'accreditation' being reserved for the UKAS system and 'registration' and 'licencing' for EngC.

Raising the bar: proposed approach

The system proposed will provide significant improvements in the assessment of competence by implementing clear, robust and more consistent oversight arrangements across the sector. It will require periodic re-assessment of all individuals and organisations involved with HRRBs.

Programme for delivery and primary authorities

UKAS and EngC will continue to work together, and with the proposed Building Safety Competence Committee when established, to ensure that satisfactory assessment and oversight arrangements are in place across the sector. Once proposals have been received from all the working groups, a comparison will be made to ensure that a consistent approach is being taken and that satisfactory arrangements are being made for the assessment (including periodic re-assessment) of the professions and trades involved and for the oversight of the assessment process. Assistance will be provided to those organisations responsible for setting up the arrangements for assessment and oversight. Consideration will be given to those areas in which satisfactory arrangements have not been identified.

Where UKAS accredited certification is identified as the preferred method of assessment, UKAS will work with the organisations developing the competences to ensure that they are suitably clear and robust to provide the desired levels of confidence. UKAS will also liaise with prospective certification bodies to ensure that there is sufficient provision of certification services available to those requiring it. UKAS will work with the applicant certification bodies to ensure they are working to the correct standards and have the necessary competence, impartiality and processes to carry out the certification of the individuals or organisations in scope.

Where EngC licenced registration is identified as the preferred method of assessment, EngC will work with bodies within its scope to implement the contextualised competence standard and registration, introduce periodic reassessment and support appropriate initial and continuing

professional development. EngC will also introduce a contextualised section or a discrete register of engineers and technicians who have been assessed to the contextualised standard.

If other routes to assessment and oversight are identified by the working groups, UKAS and EngC will work with the suggested bodies to ensure that the levels of assessment and oversight are consistent with those provided by UKAS and EngC to ensure that satisfactory levels of confidence are provided.

UKAS and EngC will work with MHCLG within the overarching system established to ensure that all assessments of competence provide the levels of assurance required.

Barriers to delivery

Potential barriers to delivery are:

- An unwillingness of some professions and trades to be subject to independent assessment and particularly to periodic reassessment;
- An unwillingness of some assessing organisations to be subject to UKAS accreditation, EngC licencing or some other satisfactory form of oversight; and
- An unwillingness by Government to mandate the proposed system of assessment and thereby allow un-registered individuals and organisations to continue to operate.

Acknowledgements

The co-operation of UKAS and EngC, the CSG members and the members of the various working groups is acknowledged.

Annex F

Acronyms used in *Raising the Bar*

ACOP	Approved Code of Practice
AI	Approved Inspector
ALARP	As Low as Reasonably practicable
AP	Appointed Person
APM	Association of Project Management
ARB	Architects' Registration Board
ATPC	Approved Third-Party Certification
BAFE	British Approvals for Fire Equipment
BCB	Building Control Body
BIM	Building Information Modelling
BSC	Building Safety Coordinator
BSCC	Building Safety Competence Committee
BSI	British Standards Institution
BSM	Building Safety Manager
BSP	Building Standards Professional
CABE	Chartered Association of Building Engineers
CDM	Construction Design and Management Regulations (2015)
CEng	Chartered Engineer
CIAT	Chartered Institute of Architectural Technologists
CIBSE	Chartered Institution of Building Services Engineers
CIC	Construction Industry Council
CICAIR	CIC Approved Inspector Register
CIOB	Chartered Institute of Building
CIPS	Chartered Institute of Procurement and Supply
CITB	Construction Industry Training Board
CLC	Construction Leadership Council
COPC	Code of Professional Conduct
CPA	Construction Products Association
CPD	Continuing Professional Development
CPM	Construction Project Manager
CPS	Competent Persons' Scheme
CROSS	Confidential Reporting on Structural Safety
CSCS	Construction Skills Certification Scheme
CSG	Competence Steering Group
DoE	Department of Education
EAG	Early Adopters' Group
EHO	Environmental Health Officer
EI	Energy Institute
EngC	Engineering Council
EngTech	Engineering Technician
EPC	Energy Performance Certificate
FEF	Fire and Emergency File
FPA	Fire Protection Association

FPOW	Fire Plan of Work
FRACC	Fire Risk Assessment Competency Council
FRS	Fire and Rescue Services
FSB	Fire Standards Board
FSF	Fire Sector Federation
FSO	Fire Safety Officers
FSO	Fire Safety Order
GRIP	Guidance for Regulation Information Point
HMICFRS	Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services
HMO	House in Multiple Occupation
HRRB	Higher Risk Residential Building
HSE	Health and Safety Executive
HVAC	Heating, Ventilation and Air Conditioning
ICA	Independent Construction Assessor
ICB	International Competence Benchmark
ICE	Institution of Civil Engineers
ICCTech	Information and Communications Technology Technician
IEC	International Electrotechnical Commission
IEng	Incorporated Engineer
IET	Institution of Engineering and Technology
IfATE	Institute for Apprenticeship and Technical Education
IFE	Institution of Fire Engineers
IIF	Incident and Injury Free
IMechE	Institution of Mechanical Engineers
IRG	Industry Response Group
ISO	International Standards Organization
ISSG	Industry Safety Steering Group
IStructE	Institution of Structural Engineers
IWFM	Institute of Workplace and Facilities Management
JCA	Joint Competent Authority
JRG	Join Regulators' Group
LABC	Local Authority Building Control
LABS	Local Authority Building Standards
LEXiCON	a single process for BIM data
LGA	Local Government Association
MIG	Marketing Information Group (CPA)
MHCLG	Ministry of Housing, Communities and Local Government
NAPIT	National Association of Professional Inspectors and Testers
NFCC	National Fire Chiefs' Council
NHBC	National House-Building Council
NHF	National Housing Federation
NOS	National Occupational Standards
NVQ	National Vocational Qualification
Ofqual	Office of Qualifications and Examinations Regulations
PAS	Publicly Available Standard
PC	Principal Contractor
PD	Principal Designer

PEI	Professional Engineering Institution
PM	Project Manager
PoW	Plan of Work (RIBA)
PPP	Products, Processes, People
QSFM	Queen's Fire Service Medal
RAEng	Royal Academy of Engineering
RAO	Residential Accommodation Operator
RIBA	Royal Institute of British Architects
RICS	Royal Institution of Chartered Surveyors
RoPA	Regulation of Property Agents
SAKE	Skills, Attitude, Knowledge, Experience
SCOSS	Standing Committee on Structural Safety
SMS	Safety Management System
SS	Site Supervisor
UKAS	United Kingdom Accreditation Service

Consultation Responses

This report is being issued to all interested stakeholders as a consultation exercise. Responses are requested from any interested party and should be received by:

18 October 2019

Responses should be sent to enquiries@cic.org.uk

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