

# BUILT ENVIRONMENT – PROPOSED CONSTRUCTION PRODUCT COMPETENCE STANDARD

WHITE PAPER



Competence Steering Group  
Working Group 12:  
Construction Product Competence

**cpa** | construction  
products  
association

# Foreword from Paul Morrell OBE

*I tell this tale, which is strictly true,  
Just by way of convincing you  
How very little, since things were made,  
Things have altered in the building trade*

In his poem *A Truthful Song*, written at the end of the 19th Century and expressing the view that not much had changed in the building industry since the time of the Pharaohs, Rudyard Kipling expressed the frustrations of generations of customers of, and participants in, the complex process of getting things built. Report after report has been written about this (a rare instance of increased productivity in the industry, as the interval between the reports shortens), most of them searching for a 'game changer' or hoping to answer the policy-maker's constant cry for 'three big things' that will fix the problem.

If there are three big things, they are simply expressed:

- to know what has to be done, and the sequence in which it should be done;
- for an understanding of that to be shared throughout the supply chain, so each actor knows its part, with the knowledge and skills necessary to execute competently; and
- for supervision and regulatory oversight of the process that ensures that what should be done is done, and that everybody plays by the rules.

That's all. But if only it were as simple to do as it is to say.

The reality is that, even within fairly traditional ways of working, we know we are well off the pace in consistently delivering what clients, users and society are entitled to expect; and as frustration grows to tragedy, we surely need no starker a demonstration of that than the fire at Grenfell Tower. This performance gap, and the risks that attend it, can only grow as products and technologies develop, and the ways in which they can be combined in order to make a building tend towards the infinite. Added to this diversity of demand and design response is the cast of thousands involved, and the extraordinary fragmentation of their interests.

Faced with this complexity, the alternative to just pulling the duvet up over our heads is to break it down into manageable components, and to make a plan – or rather a series of plans: a jigsaw that adds up to a complete picture of what has to be done so that buildings and the wider built environment function as they should, and do so safely.

Critical to those plans is a solid understanding of how construction products should be used appropriately. This too is complex. Very few products function on a stand-alone basis, and are reserved for a single purpose. Instead they are almost invariably built into assemblies comprising a number of other construction products, and quite possibly for purposes different from the manufacturer's original intent, so the possibilities of how a construction product might be used are boundless. It is therefore vital that decisions about construction product selection are informed by a full understanding of how those products will perform, individually or in combination with others, in reasonably contemplable situations; how they should be handled, prepared for use and installed; and how they should be used and maintained in the finished project. Knowing this, and knowing how to communicate it properly, is a matter of training, the foundation of competence.

We cannot produce all the plans that are needed, the complete jigsaw, overnight. The important thing is for those responsible for each part of the puzzle to take responsibility for it, and to make a start. This white paper shows that commitment in respect of the competence required in choosing and using construction products; and it is not just a start: it is a good start.



**Paul Morrell OBE**

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Chair of independent review  
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# 1.0 Executive Summary

*This white paper has been developed to outline proposals for an industry agreed standard on construction product competence and give the built environment sector the earliest opportunity to consider these proposals and ready itself.*

All industries of the built environment sector use construction products. The misuse of construction products can lead to dangerous and potentially fatal outcomes. The competence of those using construction products is vital to ensure that buildings and the built environment are safe, efficient and perform as required. However, the system as it stands needs to improve, and there is no way of universally demonstrating that an individual has the correct competence for the tasks concerning construction products for which they are accountable and responsible for.

As part of the work of the Competence Steering Group (CSG), WG12 Construction Products Competence has been tasked to create a solution that ensures all those using construction products are competent to do so, and can demonstrate their competence to others.

## **This document sets out:**

1. Proposals for an industry agreed standard that covers the core level criteria that should be achieved, demonstrated and maintained by all individuals making choices concerning construction products at all levels in the built environment sector.
2. Proposals for a methodology to define how those core level criteria can be mapped by industries within the built environment sector consistently to their competence frameworks.
3. How industries and organisations can use these principles to demonstrate their workforce has the appropriate competence to meet their duties, accountabilities and responsibilities with construction products.

## **This document is applicable to those<sup>1</sup>:**

- Designing, marketing or selling construction products
- Providing technical support for construction products
- Specifying construction products or designing with construction products
- Procuring construction products or services that provide/use construction products
- Handling or installing construction products
- Supervising, managing, inspecting or verifying other functions around construction products
- Exchanging information about construction products
- Owning, maintaining or decommissioning construction products
- Who hold regulated, dutyholding or statutory roles over built environment assets
- Regulating the built environment

Regulations and oversight for the built environment is undergoing a revolution and the built environment sector must brace itself for being held accountable, where previously it was not. Considerable work and effort will be necessary to meet new legal requirements, but more than that, industries should work to put in place the necessary checks and balances itself. We must demonstrate to the public that we have recognised our previous mistakes and short-comings and take the necessary steps to ensure we perform as we should.

This is about making sure that everyone using the built environment is safe, and feels safe. Demonstrating construction products competence is a necessary and integral part of achieving those goals.

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<sup>1</sup> Not an exhaustive list

## 2.0 Introduction

### 2.1 Setting the scene

**2.1.1** Since the Grenfell Tower fire, the built environment sector has had to take a hard look at itself and work out how to correct past short-comings. In her report, the *Independent Review of Building Regulations and Fire Safety* (Hackitt report) Dame Judith Hackitt identified competence as a lynchpin of that improvement. This has since been accepted as a key deliverable and the Government has and continues to implement regulatory changes.

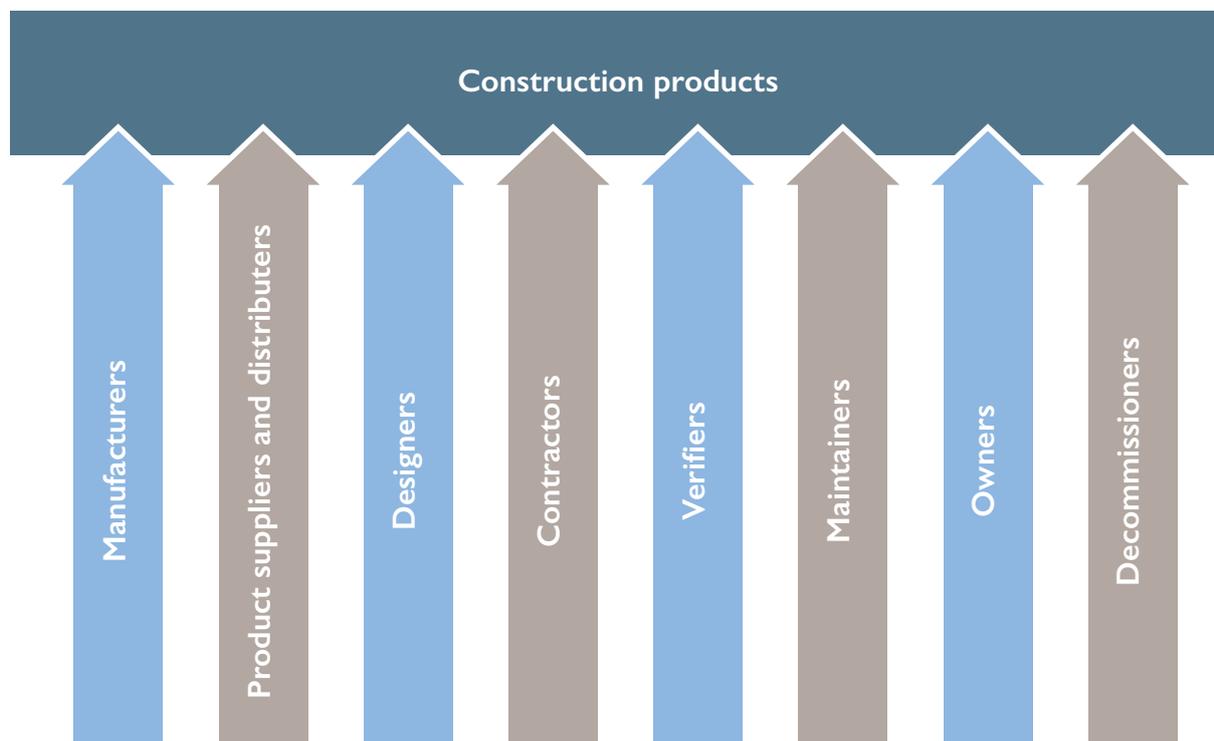
**2.1.2** The Competence Steering Group (CSG) formed immediately after the Hackitt report was published, and identified 11 working groups for industries to develop competence frameworks for individuals.

**2.1.3** A 12th working group, WG12, looking at Construction Products Competence was also formed, with the aim of identifying a solution to ensure that anyone using construction products is competent to do so, and can demonstrate their competence to others.

**2.1.4** All of the professions and occupations utilising construction products, whether manufacturing, selling or procuring, designing with and specifying, installing, maintaining or verifying, need to have a level of competence to reflect the tasks they perform within the supply chain. There isn't a singular profession or occupation involved in the built environment that doesn't use or interact with construction products in some manner.

**2.1.5** For this reason, the approach deemed necessary to ensure construction product competence requires horizontal application. The proposals in this paper potentially have an impact on each and every profession and occupation in the built environment.

**2.1.6** As such, while the output of this paper has been steered predominantly by WG12, it has also had integral and necessary input from all of the other working groups under the CSG and a variety of other stakeholders in its development.



**Figure 1:** Construction products relationship with the built environment industries

## 2.2 The problem

**2.2.1** The performance of construction products is complex. They have individual characteristics and can be combined to create assemblies or systems within the built environment. The performance of these systems is not just the sum of the parts, but rather it is highly dependent on the combination, including specification, selection, application, interface with other construction products, installation and maintenance of the construction products therein.

**2.2.2** Inappropriate use of construction products can and does result in built environment systems that do not perform to required outcomes. Critically, we have seen that inappropriate use of construction products within a system can and does have dangerous and potentially fatal consequences.

**2.2.3** It is essential that those involved with construction products are competent to carry out their tasks (functions); understand the products and their limitations; and have the correct level of competence necessary to meet their specific responsibilities and accountabilities.

**2.2.4** Chapter 5 of the Hackitt report identifies (in reference to the built environment):

*'An existing approach to competence which is fragmented, encompassing a range of disciplines and different competence frameworks even within one discipline and without reference to other interacting disciplines. This results in people working within the system focusing on their individual specialism without giving due consideration to how their work may interact with the work of others and failure to see a building as a single entity or system.'*

**2.2.5** The built environment is unified in the task of interacting with construction products. It should follow that it be unified in how it recognises those who are competent or not competent with construction products. However, there is currently no unifying approach to ground how these competences are recognised.

## 2.3 Evolving legislation and standards

**2.3.1** In England and Wales, the Building Safety Act sets new requirements for competence to be demonstrated and for dutyholders to be able to demonstrate the competence of their workforce.

**2.3.2** In Scotland, there is the introduction of the Competency Assessment System and a new role of Compliance Plan Manager for higher-risk buildings (HRBs).

**2.3.3** Across the United Kingdom<sup>2</sup> we are seeing new regulatory requirements necessitating the demonstration of competence, and a completely different system of oversight that has previously been unseen.

**2.3.4** It is also clear that the necessary changes are not limited to HRBs. The intent is not to create a two-tier system. It has been made clear in the Building Safety Act, for example, that the scope of oversight can and will be extended if deemed necessary. Moreover, HRBs are not built in a vacuum. To achieve safe HRBs, the competence of the entire built environment sector is necessary.

**2.3.5** Currently the built environment sector does not have the necessary infrastructure of training, qualifications, methods of recognising experience and behaviours, and demonstration tools necessary to meet the requirements of the proposed regulations. In regards to construction products competence this is even more so, especially for those not directly involved with the functions of supervising and installing.

**2.3.6** As a start, *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice* has been developed to begin establishing a unified approach to how building safety should be built into competence frameworks.

**2.3.7** *Publicly Available Specifications (PASs) 8671:2022 Built environment – Framework for competence of individual Principal Designers – Specification, 8672:2022 Built environment – Framework for competence of individual Principal Contractors – Specification, and 8673:2022 Built environment. Competence requirements for the management of safety in residential buildings* have also been published to outline competence criteria for those undertaking the roles of Principal Designer, Principal Contractor and the management of building safety.

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<sup>2</sup> Changes in Northern Ireland have yet to emerge, this document is relevant to information known at the time of publication



**2.3.8** All of these standards in some way reference construction products. Each of the PASs set competence requirements to assess and manage the capabilities and competences with those they work with.

**2.3.9** The built environment sector lacks a standard approach to recognising what construction product competence looks like, how to demonstrate it and how to recognise it in others.

**2.3.10** Construction product competence is a lynchpin of built environment competence. Without this key part of the puzzle being addressed, industries within the built environment sector will continue to work in a fashion that has proven dissonant and unpredictable, therefore increasing the risk of things going wrong.

## **2.4 Assumptions, responsibility and accountability**

**2.4.1** At the heart of this issue, the built environment sector needs to demonstrate that it can get the right construction product in the right place in the right way for the right performance. This is necessary to ensure that people are safe, feel safe and regain confidence in buildings and in the built environment.

**2.4.2** A recurring story within the built environment is of individuals making choices outside their scope of competence to do so, whether that be due to an individual decision, environmental circumstances, or a lack of understanding of the potential consequences of their actions.

**2.4.3** It is integral that everyone making choices or advising about construction products (whether that be those providing construction products or those working with construction products) have the appropriate competence relative to their level of responsibility and / or accountability. Responsibility and accountability for decisions needs to sit with those who have competence, who understand the limits of that competence and have the appropriate information necessary to make them.

**2.4.4** There has been a culture of assumptions regarding decision making on construction products, that the correct decisions have already been made and do not need to be addressed. Individuals need to be aware of how decisions are taken and the process for challenging where they suspect these may be incorrect.

**2.4.5** Without a clear method of recognising what construction product competence is and its relationship with responsibility and accountability, the built environment will inevitably replay previous failures.

## 3.0 The solution

**3.1** The aim of WG12 is to ensure that individuals using or otherwise working with construction products are competent to do so, and can demonstrate their competence to others.

**3.2** WG12 has designed the construction products competence (**CPC**) core level criteria and methodology as outlined in this white paper.

**3.3** This white paper proposes a new standard for CPC, describing five levels of core criteria and a methodology of application that can be made applicable to anyone using or otherwise working with construction products.

**3.4** This proposed standard is intended to be used by all industries in the built environment sector to map against their existing training and qualifications to demonstrate the CPC of the individuals in their work force. They may also use it to identify any gaps in their training and qualifications.

**3.5** The route for industries to implement this proposed standard can be described in a series of steps. This white paper describes the contents of the proposed standard, and the steps the built environment sector should take to utilise it.

<b>STEP 1</b> Publish an industry agreed CPC standard	<ul style="list-style-type: none"> <li>• CPC 5 levels of core criteria + methodology</li> <li>• Applicable to everyone using or work with construction products</li> </ul>
<b>STEP 2</b> Commit to CPC principles	<ul style="list-style-type: none"> <li>• Industries and organisations accept that those interacting with construction products must be competent to do so and commit to applying principles of CPC standard</li> </ul>
<b>STEP 3</b> Agree how to demonstrate CPC	<ul style="list-style-type: none"> <li>• Organisations map against training and qualifications and/or industries agree through consensus how to demonstrate by mapping against training and qualifications</li> <li>• Gap analysis</li> </ul>
<b>STEP 4</b> Demonstrate CPC	<ul style="list-style-type: none"> <li>• Organisations ensure that individuals are able to demonstrate CPC</li> <li>• Organisations ensure that individuals work only within the scope of their competence</li> <li>• Verification assessed by employing organisations</li> </ul>
<b>STEP 5</b> Utilise CPC	<ul style="list-style-type: none"> <li>• Clients, employers, duty holders and organisations can require their workforce demonstrate CPC</li> <li>• Regulators can confirm the CPC of a workforce has been verified</li> </ul>
<b>STEP 6</b> Review CPC	<ul style="list-style-type: none"> <li>• Periodic review of the CPC standard</li> <li>• Periodic review of the methods of demonstration in different industries in the built environment</li> <li>• Period review of individuals achieving and demonstrating CPC</li> </ul>

**Figure 2:** Implementation of standardised CPC in the built environment sector

## 4.0 STEP I: Publish an industry agreed CPC standard

### 4.1 CPC core level criteria and methodology for competence frameworks: scope

**4.1.1** The CPC core level criteria set applicable principles, with the intention that further development will be required from the different industries of the built environment to make them specific and appropriate to their functions, accountabilities and responsibilities.

**4.1.2** The CPC methodology sets recommendations for applying these principles in a uniform approach.

**4.1.3** The CPC core level criteria are designed to be applicable to all construction products in the built environment. They are not limited to construction products contributing to structure, fire systems or other performance attributes.

**4.1.4** The CPC core level criteria are designed to work alongside BSI Flex 8670 v3 to provide additional core requirements for competence in the built environment. Where applicable, both should be used together to map against competence frameworks.

**4.1.5** The CPC core level criteria are appropriate to competence frameworks applicable to individuals performing functions across the entire built environment with all construction products, including but not limited to those:

- Developing, marketing or selling construction products
- Providing technical support for construction products
- Specifying construction products or designing with construction products
- Procuring construction products
- Handling or installing construction products
- Supervising, managing, inspecting or verifying other functions or projects involving construction products
- Exchanging information about construction products
- Owning, maintaining or decommissioning construction products

It is not limited to those working on HRBs.

**4.1.6** The CPC core level criteria are intended for use by those with responsibility for the development, maintenance or application of industry-specific or organisation's competence frameworks for roles, functions, activities or tasks undertaken by individuals where these are critical to and directly influence decisions about construction products in built environment projects. This includes competence frameworks for technical and non-technical roles, and for individuals either working under their own authority or under the supervision of other competent individuals.

**4.1.7** The CPC core level criteria might also be relevant to regulated, dutyholding or statutory roles such as (but not limited to):

- Principal Designers;
- Principal Contractors;
- Designers;
- Contractors;
- Building control professionals; and
- Accountable persons for buildings in occupation.

Persons with accountability for building safety, or acting as clients for building work, might also find the recommendations of the CPC core level criteria of use.

**4.1.8** The CPC core level criteria are not intended to replace existing professional, technical or vocational training or competence frameworks, which continue to reflect the full range of competences required for particular disciplines, roles, functions, activities or tasks.

**4.1.9** The CPC core level criteria do not cover:

- organisational and team competence;
- third-party assessment schemes; or
- the process of product testing.

## 4.2 CPC core level criteria and methodology for competence frameworks: definitions

### 4.2.1 accountable

required and expected to justify actions or decisions to a person or body with greater authority, from whom the accountability has been formally assigned

Source: *Functional Standards Common Glossary*, Cabinet Office

### 4.2.2 bespoke construction product

construction product manufactured for a single project application

### 4.2.3 built environment safety

matter relevant to protecting the safety of people from risk in and around built environments (including but not limited to fire safety, structural safety, public health and public safety) and pertaining to the specification, design, manufacture, procurement, construction, inspection, assessment, management, operation, maintenance, refurbishment and demolition of built environments

Note: Includes building safety

Source: *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice, 3.2 Building Safety*, expanded

### 4.2.4 built environment system

Assembly of construction products contributing to built environments

Note: Includes building systems

Source: *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice, 3.3 Building system*, expanded

### 4.2.5 competence

application of skill, knowledge, experience and behaviour consistently to achieve a specific outcome

Source: *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice, 3.4*

### 4.2.6 competence framework

procedures and requirements for the development, assessment and maintenance of agreed skills, knowledge, experience and behaviours required for an individual undertaking a role, function, activity or task in order to perform their work to predetermined standards and expectations and to maintain or improve their performance over time

Source: *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice, 3.6*

### 4.2.7 consensus

general agreement, characterised by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.

Note: Consensus need not imply unanimity.

Source: *ISO/IEC Guide 2:2004 Standardization and related activities — General vocabulary, 1.7*

### 4.2.8 construction product

product, substance or collection thereof that has been manufactured, refined or processed and declared by its manufacturer for an intended end use for temporary and/or permanent inclusion in a building or civil engineering works, refurbishment or maintenance

Source: *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice, 3.8*

#### **4.2.9 design**

drawings, sketches, design details, specifications and construction product selection, engineering judgements, bills of quantity or calculations, prepared for the purpose of constructing, modifying or using a building or structure, a product, or built environment system (such as a mechanical or electrical system)

Source: *CITB CDM 2015 Industry Guidance to Designers pg 6 clause 1.2 “who is a designer”, amended*

#### **4.2.10 designer**

an organisation or individual that prepares or modifies a design for any part of a built environment project, including the design of temporary works, or who arranges or instructs someone else to do it

Source: *CITB CDM 2015 Industry Guidance to Designers pg 6 clause 1.2 “who is a designer”, amended*

#### **4.2.11 direct field of application of test results**

outcome of a process (involving the application of defined rules) whereby a test result is deemed to be equally valid for variations in one or more of the construction product properties and/or intended end use application(s)

Source: *BS EN 15269-1:2019 + C1:2020, Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware Part 1: General requirements, amended*

#### **4.2.12 direct scope of application**

scope of application for a construction product or built environment system that is formally recorded predominantly within external documentation based on relevant physical test evidence and their direct field of application

#### **4.2.13 extended field of application of test results**

outcome of a process (involving the application of defined rules that may incorporate calculation procedures) that predicts, for a variation of a product property and/or its intended end use application(s), a test result on the basis of one or more test results to the same standard

Source: *BS EN 15269-1:2019 + C1:2020, Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware Part 1: General requirements*

#### **4.2.14 extended scope of application**

scope of application for a construction product or built environment system that is formally recorded within internal or external documentation that sit outside the direct field of application based on standard relevant defined rules that may incorporate physical testing and/or calculated procedures for performances

#### **4.2.15 framework owner**

person(s) involved in the development, oversight and maintenance of a competence framework

Source: *BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice, 3.13*

#### **4.2.16 function**

group of activities aimed at achieving one or more goals of an organization

Source: *ISO 30300:2020 Information and documentation – Records management – core concepts and vocabulary, 3.1.12*

#### **4.2.17 organisation**

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

*Note 1 to entry: The concept of organisation includes, but is not limited to, sole-trader, company, corporation, firm, enterprise, authority, partnership, association, charity or institution, or part or combination thereof, whether incorporated or not, public or private.*

Source: *BS EN ISO 9000:2015, Quality management systems, fundamentals and vocabulary*



#### **4.2.18 product information**

any information about or specifying a construction product made available to internal and/or external stakeholders, which includes, but is not limited to, in print, in writing, online, electronically, verbally, by demonstration or in an advertisement

Source: *Code for Construction Product Information*, amended

#### **4.2.19 project specific application**

field of application of a construction product / built environment system for use in a single construction project

#### **4.2.20 project specific requirements**

the performance characteristics or specification of a construction product suitable for a particular application in a single built environment project

#### **4.2.21 project-led system solutions**

built environment systems including one or more construction products used in an extended scope of application, and / or one or more bespoke construction products

#### **4.2.22 reasonably foreseeable conditions**

reasonably foreseeable circumstances in which the construction product might come under stress (for example, a fire)

#### **4.2.23 standard system solutions**

built environment systems comprised of construction products used in their direct scope of application

#### 4.2.24 role

functions being performed by an actor at a point in time

Source: ISO 29481-1:2016 *Building information models – information delivery manual – Part 1: Methodology and format*, 3.19

#### 4.2.25 value engineering

the redesign of parts or all of the built environment project via a systematic and organised approach to promote additional value including cost, quality, performance, sustainability, buildability and programme, without compromising functionality

#### 4.2.26 verification

the process of establishing the truth, accuracy, or validity of something

#### 4.2.27 Acronyms and initialisms

- CE Conformité Européenne
- CDM Construction (Design and Management) Regulations 2015
- CSG Competence Steering Group
- CPC Construction Product Competence
- HRB Higher risk building
- PAS Publicly Available Specification
- SKEB Skill, knowledge, experience and behaviour
- UKCA UK conformity assessment
- UKNI UK Northern Ireland (conformity assessment)

### 4.3 CPC core level criteria and methodology for competence frameworks: fundamentals

#### 4.3.1 Function vs. Role

4.3.1.1 A challenge of applying competence requirements to a range of individuals across the built environment sector is identifying who is doing what. Roles are not standardised and therefore functions undertaken as per their description are widely diverse, meaning individuals with different roles can carry out similar functions.

Manufacturer	Engineer	Contractor
		
Selling	Specifying	Specifying
Specifying	Maintaining	Purchasing
Information exchanging		Installing
		Maintaining

Figure 3: Examples roles with potentially duplicating functions

**4.3.1.2** For clarity therefore, it is easier to apply CPC to a function as opposed to a role, i.e. the 'ing words' (present participles e.g. *specifying, installing, marketing*). Anyone performing that function to that level will require a consistent level of competence.

**4.3.1.3** Where an individual is carrying out multiple functions, they would have to consider the competence of each of those functions.

### **4.3.2 CPC core level criteria and SKEB**

**4.3.2.1** The four pillars of competence have been defined through this work as skill, knowledge, experience and behaviour (SKEB). All should be mapped and measured against the requirements of a given function, in order to provide a comprehensive assessment of an individual's competence for that function and level of responsibility and / or accountability. This process can also be used to help identify areas requiring improvement to meet a given level of competence (training needs) and understand the limits of an individual's competence.

**4.3.2.2** The CPC core level criteria are applicable to all the diverse functions across the built environment and not specific to any one function.

**4.3.2.3** The CPC core level criteria focuses most specifically on knowledge, as the foundation of competence. The knowledge of construction products can be made universal and applicable for all framework owners to reference.

**4.3.2.4** Behavioural requirements have also been added to the extent of understanding one's accountability and responsibility in regards to construction products. Further than that behavioural requirements for individuals have been covered in BSI Flex 8670 v3, and these should be referenced by framework owners.

**4.3.2.5** The appropriate skills and experience are mostly specific to the function and the type of products, and as such these should be built in by framework owners. Similarly there will be knowledge and behaviour specific to the construction product and the function that should be additionally diagnosed by framework owners.

**4.3.2.6** As such, additional to the CPC core level criteria will be a methodology of application of the skills, specific knowledge, experience and behaviour.

### **4.3.3 Bloom's Taxonomy**

**4.3.3.1** Bloom's Taxonomy is a classification system used to define and distinguish different levels of human cognition – i.e. thinking, learning and understanding. It has clear verbs to distinguish one level of comprehension to the other.

**4.3.3.2** This white paper applies the principles of Bloom's Taxonomy – Cognitive domain (2001) to the CPC core level criteria.

### **4.3.4 Not all CPC criteria can be identified in the standard**

**4.3.4.1** There is no such thing as 'one built environment industry'. The built environment sector encompasses a multitude of industries. Each industry has many functions, each using different ranges of construction products.

**4.3.4.2** The CPC core levels criteria enable industries of the built environment to approach CPC consistently. However further criteria will be required particular to the function and construction products to demonstrate CPC.

**4.3.4.3** It is essential that different industries identify the specific skills, knowledge, experience, and behaviour criteria for their areas of operation necessary for demonstrating holistic CPC within their own competence frameworks.

**4.3.4.4** This way, CPC will be consistent in how it is demonstrated, yet flexibility will be available for industries to make requirements specific to their functions and construction products.

## 4.4 CPC core level criteria and methodology for competence frameworks: core level criteria and methodology

### 4.4.1 CPC core levels

**4.4.1.1** The CPC core level criteria outlines fundamental knowledge bases applicable to all construction products and all functions.

**4.4.1.2** The CPC core level criteria are divided into five levels, and one further level to denote that an individual is ungraded. The levels are designed to give a clear path of progression through the necessary competences regarding construction products required for different levels of responsibility and accountability.

**Table I: CPC Levels**

Core level	Individual competent to be (example capabilities):
<b>U</b>	Ungraded
<b>E</b>	<ul style="list-style-type: none"> <li>Responsible for performing tasks with and about construction products under supervision</li> <li>Responsible for relaying information about construction products without interpretation</li> </ul>
<b>D</b>	<ul style="list-style-type: none"> <li>Responsible for proposing a construction product for a direct scope of application</li> <li>Responsible for using a construction product as per direct scope of application or under supervision</li> </ul>
<b>C</b>	<ul style="list-style-type: none"> <li>Responsible for developing product information for construction products within a direct scope of application</li> <li>Responsible for relaying product information within an extended scope of application</li> </ul>
<b>B</b>	<ul style="list-style-type: none"> <li>Responsible for developing product information within extended scopes of application that meet client requirements and its project specific application</li> <li>Accountable for the accuracy of product information within a direct scope of application</li> </ul>
<b>A</b>	<ul style="list-style-type: none"> <li>Accountable for construction product decisions, assessment, selection, change, recommendations and approvals</li> <li>Accountable for product information and its accuracy</li> <li>Accountable for an organisation's construction products rules (e.g. rules relating to design, substitution, product information etc.)</li> </ul>

**4.4.1.3** The levels are designed to not only give clarity as to what competence an individual should have to perform a function with a particular accountability or responsibility, but also as to what accountability or responsibility should not be applied to them.

**4.4.1.4** It will not be necessary for all individuals to reach or achieve level A to perform their function competently. The level of competence necessary for an individual to achieve should be equal to the task they are required to perform.

**4.4.1.5** The levels of competence are cumulative, i.e. an individual achieving level A will also be able to demonstrate the competences applicable to them in B, C, D, and E.

**4.4.1.6** The levels have been designed to fit as closely as possible to a wide range of functions. As such not all criteria will be appropriate to all functions.

**4.4.1.7** It may be that not all criteria are applicable to the function, and it may also be that criteria in other levels are applicable to the function. The overall level shall be judged based on where the majority of key criteria are drawn from.

## 4.4.2 CPC core level criteria

4.4.2.1 Each level is made up of criteria which are organised by activity.

4.4.2.2 The activity titles are:

- |                                                                                               |                                             |
|-----------------------------------------------------------------------------------------------|---------------------------------------------|
| 1. Responsibility and accountability                                                          | 5. Installation                             |
| 2. Construction product performance and characteristics                                       | 6. Durability, service life and maintenance |
| 3. Regulations, standards and certification                                                   | 7. Warranties and guarantees                |
| 4. Products as part of a built environment system, including substitution / value engineering | 8. Storage and handling                     |
|                                                                                               | 9. Competence maintenance                   |

4.4.2.3 The full matrix showing the journey of the activity criteria up the levels is available in Appendix 1.

4.4.2.4 The criteria can also be described as a series of tables for each level as shown below.

**Table 2: CPC Level E**

Level E		
Individual competent to be (example capabilities):		
<ul style="list-style-type: none"> <li>Responsible for performing tasks with and about construction products under supervision</li> <li>Responsible for relaying information about construction products without interpretation</li> </ul>		
Activity #	Activity name	Competence requirement
Responsibility and accountability		
E1-1	Hierarchy of competence	Recognise the organisation's construction products competence hierarchy and how to operate within it.
E1-2	Scope of selecting and proposing construction products	Understand that at this level that you cannot make a construction product choice, substitution or recommendation.
E1-3	Responsibilities and accountabilities regarding organisational rules	Understand your responsibility to follow organisational rules about construction products.
E1-4	Levels of information necessary to perform tasks with construction products without making assumptions	Follow the organisation's rules on levels of information needed to supply or use a construction product or product information without making assumptions.
E1-6	Communicating information on construction products	Know that it is your responsibility to accurately reflect the construction product(s) according to the relevant competent information or authority and not go beyond that.
Construction product performance and characteristics		
E2-1	Construction products and their application	Recognise the requirement for a construction product, locate information from approved sources and recite what the construction product is, what it is made of, its performance and characteristics.
E2-2	Content of product information management	Duplicate and relay product information and identify missing product information, where appropriate seeking guidance for resolution.
E2-3	Scopes and limitations	Identify and recite construction product limitations and scope.

Table 2: CPC Level E (cont'd)

Regulations, standards and certification		
E3-1	Regulatory oversight	Be aware that there is a framework of legislation, regulations and standards that should be worked to when using construction products and the consequences of not operating within these requirements.
E3-4	Verifying product information	Be aware of the Code for Construction Product Information and how it is utilised.
E3-5	Conformity marking	Be aware that the CE / UKCA / UKNI marks demonstrate that the manufacturer has declared a performance level against required characteristics.
E3-6	Absence of conformity marking	Be aware that not all construction products can be conformity marked.
E3-7	Third party certification	Be aware that third party certifications schemes assure a stated level of performance for certain characteristics.
E3-8	Test reports	Be aware that certain construction products are supported by direct test reports.
Installation		
E5-1	Installation information	Recite and relay installation methods according to the relevant competent information or authority.
Durability, service life and maintenance		
E6-1	Consideration for durability, service life and maintenance requirements	Know that construction products will have maintenance requirements and where to find them.
E6-2	Setting durability, service life and maintenance requirements	Recite and relay maintenance requirements according to the relevant competent information or authority.
Warranties and guarantees		
E7-2	Communicating warranties and guarantees	Identify whether the product comes with a warranty or guarantee <sup>3</sup> , and relay information without interpretation.
Storage and handling		
E8-1	Information for storage and handling	Recite and relay storage and handling requirements according to the relevant competent information or authority.
E8-2	Actions of storage and handling	Follow storage and handling requirements according to the relevant competent information or authority.
Competence maintenance		
E9-1	Personal competence	Demonstrate a commitment to ongoing learning and development, undergo periodic review of competence and undertake training and development as required.

<sup>3</sup> In this context, warranties and guarantees are limited to those extending to construction products, built environment systems and workmanship

**Table 3: CPC Level D**

<b>Level D</b>		
Individual competent to be (example capabilities):		
<ul style="list-style-type: none"> <li>• Responsible for proposing a construction product for a direct scope of application</li> <li>• Responsible for using a construction product as per direct scope of application or under supervision</li> </ul>		
<b>Activity #</b>	<b>Activity name</b>	<b>Competence requirement</b>
<b>Responsibility and accountability</b>		
DI-1	Hierarchy of competence	Understand the organisation's construction products competence hierarchy and how to obtain advice and raise concerns as appropriate within it.
DI-2	Scope of selecting and proposing construction products	Understand that at this level that you may propose alternative products within a direct scope of application meeting the stated requirements but cannot make a product selection or substitution recommendation as this incurs a design responsibility.
DI-3	Responsibilities and accountabilities regarding organisational rules	Understand your responsibility to follow organisational rules to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
DI-4	Levels of information necessary to perform tasks with construction products without making assumptions	Follow and understand the organisation's rules on levels of information needed to supply or use a construction product, product information or propose for consideration an alternative construction product within a direct scope of application without making assumptions.
<b>Construction product performance and characteristics</b>		
D2-1	Construction products and their application	Understand and explain the requirements for the construction product and its performance, characteristics and approved uses for various built environment scenarios or situations.
D2-2	Content of product information management	Recognise where product information is incomplete, inaccurate or out of date and where appropriate seek guidance for resolution.
D2-3	Scopes and limitations	Understand and explain performance scope / limitations of a construction product.
<b>Regulations, standards and certification</b>		
E3-1	Regulatory oversight	Be aware that there is a framework of legislation, regulations and standards that should be worked to when using construction products and the consequences of not operating within these requirements.
D3-1	Regulatory oversight	Be aware of the regulatory oversight associated with construction products and the consequences of deviating from guidance and regulations.
D3-2	Regulation and guidance	Confirm as necessary that instructions, controls and procedures for construction products are compliant with relevant regulations, including those for materials and workmanship.

**Table 3: CPC Level D (cont'd)**

D3-4	Verifying product information	Understand the Code for Construction Product Information and how it is utilised.
D3-5	Conformity marking	Understand the content of the Declaration of Performance (where available) and be able to compare products intended for the same direct scope of application.
D3-6	Absence of conformity marking	Understand that not all construction products fall within the scope of a harmonised or designated standard or a European or UK assessment document and therefore cannot be conformity marked.
D3-7	Third party certification	Understand that third party certification identifies a construction product's fitness for use in specific applications when following appropriate levels of workmanship.
D3-8	Test reports	Understand that a test report identifies a construction product's performance in a single application when following appropriate levels of workmanship.
<b>Products as part of a built environment system, including substitution / value engineering.</b>		
D4-1	Holistic built environment systems	Understand and explain how the construction product's performance contributes to built environment safety according to the application.
D4-2	Managing performances satisfy application in different levels of scopes of application	Know that systems are tested with specific construction products and that substitution may impact the conformance or compliance of that system; and that review, evaluation and approval must be sought.
<b>Installation</b>		
D5-1	Installation	Explain the installation method for the construction product.
<b>Durability, service life and maintenance</b>		
D6-1	Consideration for durability, service life and maintenance requirements	Explain maintenance requirements, limitations and service life of a construction product over time in a direct scope of application.
<b>Warranties and guarantees</b>		
D7-2	Communicating warranties and guarantees	Understand and explain the principles of warranties / guarantees, what would be included, excluded and required to maintain them.
D7-4	Risk assessing deviation from standard warranties and guarantees	Understand that there may be bespoke warranties or guarantees available, but that you cannot offer any such solution without direct confirmation from the individual with appropriate authority as this impacts an organisation's liability.
<b>Storage and handling</b>		
D8-1	Information for storage and handling	Understand and explain product information regarding requirements on the storage and handling of construction products.
D8-2	Actions of storage and handling	Confirm the requirements of storage and handling are met and the performance of the construction products is not compromised.

**Table 4: CPC Level C**

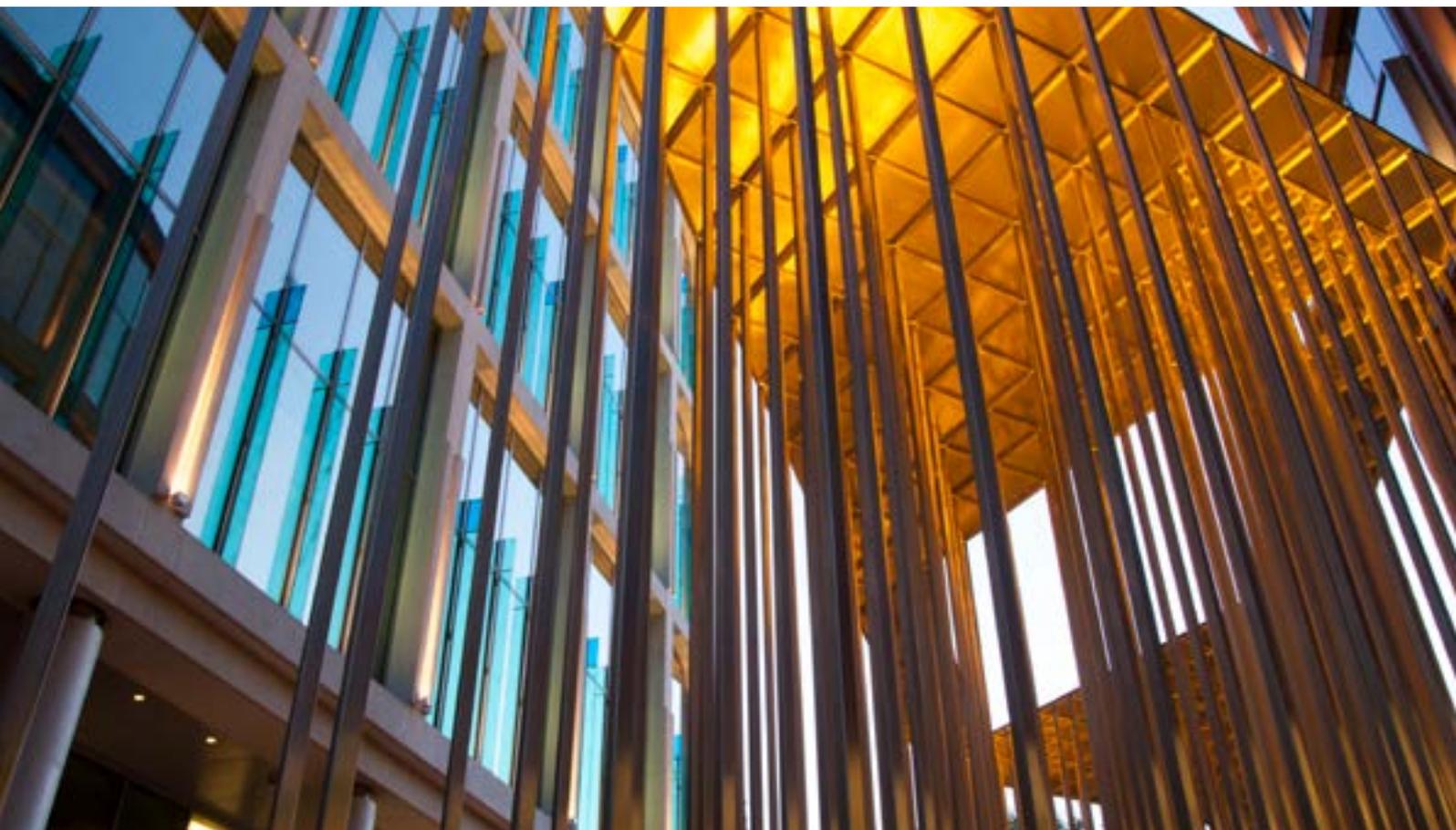
Level C		
Individual competent to be (example capabilities):		
<ul style="list-style-type: none"> <li>Responsible for developing product information for construction products within a direct scope of application</li> <li>Responsible for relaying product information within an extended scope of application</li> </ul>		
Activity #	Activity name	Competence requirement
Responsibility and accountability		
CI-2	Scope of selecting and proposing construction products	Understand that at this level you may select or propose a construction product for a direct scope of application, but for construction products for extended scopes of application or bespoke products, choices should be referred to the appropriately competent individual.
CI-3	Responsibilities and accountabilities regarding organisational rules	Understand your responsibility to implement, follow and identify areas for improvement of organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
CI-4	Levels of information necessary to perform tasks with construction products without making assumptions	Follow, understand and implement the organisation's rules on levels of information needed including construction product characteristics, performance requirements and dependencies to select construction products to create standard system solutions without making assumptions.
CI-5	Developing organisational rules about levels of information necessary to perform tasks about construction products without making assumptions	Propose areas that require new or amended organisational rules for what the appropriate level of information would be to perform tasks with construction products or product information without making assumptions.
CI-7	Organisational rules on product information management	Define the content of product information to ensure that it is clear and accurate according to the organisation's rules.
CI-8	Developing and approving built environment systems solutions	Define required performance and / or product characteristics to develop a standard system solution using the organisation's agreed design rules and recognised standards, ensuring built environment safety, minimising personal and organisational liability and reputational risks.
CI-10	Defining, approving and implementing methods to confirm project-led system solutions are appropriate	Understand and implement or coordinate approved level of testing or assessment for project-led systems solutions.

**Table 4: CPC Level C (cont'd)**

<b>Construction product performance and characteristics</b>		
C2-1	Construction products and their application	Identify requirements for a construction product (including substitutions) and apply approved rules at a project level.
C2-2	Content of product information management	Review the content of product information to ensure it remains complete, traceably up-to-date, accessible and accurate e.g. when there are changes in standards and regulations.
C2-3	Scopes and limitations	Identify where there are no approved rules of application for a construction product at a project level and seek appropriate guidance for resolution.
<b>Regulations, standards and certification</b>		
C3-1	Regulatory oversight	Understand and apply knowledge of how to demonstrate compliance with the regulations when developing specifications and product information.
C3-2	Regulation and guidance	Understand how to apply and comply with the relevant regulations using the approved documents or corresponding guidance, including materials and workmanship. Understand where the application sits outside of this guidance, to seek appropriate guidance for resolution.
C3-4	Verifying product information	Apply expectations of the Code for Construction Product Information.
C3-5	Conformity marking	Identify whether the contents of the Declaration of Performance meet the product specification. Identify what performance characteristics in addition to the Declaration of Performance would be necessary to confirm the performance requirements of a product specification.
C3-6	Absence of conformity marking	Identify which construction products cannot be conformity marked.
C3-7	Third party certification	Identify the content of a third party certification scheme field of application report (where available) and be able to compare products intended for the same scope of application.
C3-8	Test reports	Identify the content of a test report (where applicable) and be able to compare products intended for the same direct scope of application.
<b>Installation</b>		
C5-1	Installation	Identify installation requirements for the specific application.
<b>Durability, life and maintenance</b>		
C6-1	Consideration for durability, service life and maintenance requirements	Assess the environment of the application and identify a construction product / built environment system that will meet the necessary durability and service life requirements, and taking into consideration the access and maintenance requirements.
C6-2	Setting durability, service life and maintenance requirements	Understand and identify data trends from actual use of the construction product / built environment system over time and communicate to others for review.

**Table 4: CPC Level C (cont'd)**

Warranties and guarantees		
C7-1	Setting warranties and guarantees	Identify and collect the data from actual use of the construction product / built environment system and measure it against the limitations to issue or achieve requirements of a warranty / guarantee.
C7-2	Communicating warranties and guarantees	Identify, refer to and explain the relevant terms and conditions particular to what is included, excluded and required to maintain standard warranties and guarantees that should be considered when selecting a construction product / built environment system.
C7-3	Selecting and achieving warranties and guarantees	Identify where warranties / guarantees may have impacts on cleaning, maintenance and / or installation requirements of construction products / built environment systems and seek approval that these are appropriate to the project requirements.
C7-4	Assessing risks of deviation from standard warranties and guarantees	Identify where a bespoke solution for warranties and guarantees may be required and seek advice as appropriate.
Storage and handling		
C8-1	Information for storage and handling	Define and prepare the storage and handling requirements and documentation.
C8-2	Actions of storage and handling	Where doubts as to the requirements of the storage and handling being met are raised, assess the construction products as to the suitability of their use and make recommendations as how to proceed.



**Table 5: CPC Level B**

Level B		
Individual competent to be (example capabilities):		
<ul style="list-style-type: none"> <li>Responsible for developing product information within extended scopes of application that meet client requirements and its project specific application</li> <li>Accountable for the accuracy of product information within a direct scope of application</li> </ul>		
Activity #	Activity name	Competence requirement
Responsibility and accountability		
BI-2	Scope of selecting and proposing construction products	Understand at this level you may select or propose a construction product for an extended scope of application or a bespoke construction product, and this should be according to the organisation's design rules and recognised standards but where this deviates the construction product proposal should be referred for the appropriate competent approval.
BI-3	Responsibilities and accountabilities regarding organisational rules	Understand your responsibility to develop, define, implement and follow organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
BI-4	Levels of information necessary to perform tasks with construction products without making assumptions	Follow, understand, implement and monitor the organisation's rules on levels of information needed including construction product characteristics, performance requirements and dependencies to select construction products to create project-led system solutions without making assumptions.
BI-5	Developing organisational rules about levels of information necessary to perform tasks about construction products without making assumptions	<p>Develop the organisation's rules on levels of information needed including</p> <ul style="list-style-type: none"> <li>construction product characteristics, performance requirements and dependencies to select construction products to create standard system solutions;</li> <li>supply or use a construction product and / or product information; and</li> <li>propose for consideration an alternative construction product within a direct scope of application;</li> </ul> <p>without making assumptions.</p>
BI-7	Organisational rules on product information management	Develop the organisation's rules for the content of product information to ensure that it is clear, up-to-date, accessible, accurate and unambiguous.
BI-8	Developing and approving built environment systems solutions	<p>Define required performance and / or product characteristics to develop a project-led system solution using the organisation's agreed design rules and recognised standards to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.</p> <p>Approve as appropriate built environment system solutions developed using construction products in their direct scope of application.</p>

**Table 5: CPC Level B (cont'd)**

BI-9	Setting organisation's design rules	Develop and define the organisation's design rules for standard system solutions to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
BI-10	Defining, approving and implementing methods to confirm project-led system solutions are appropriate	Define the appropriate level of empirical assessment and / or physical testing required for project-led system solutions within the organisation's design rules.
<b>Construction product performance and characteristics</b>		
B2-1	Construction products and their application	Define the rules for a construction product for general / universal application, and construction product substitutions.
B2-2	Content of product information management	Evaluate catalysts that may impact product information and implement appropriate changes to ensure that it is clear, traceably up-to-date, accessible, accurate and unambiguous.
B2-3	Scopes and limitations	Define the limitations / scope of application for a construction product.
B2-4	Rules of application	Review project specific requirements where there is no approved rule currently available and propose solutions for construction products and / or built environment systems.
<b>Regulations, standards and certification</b>		
B3-1	Regulatory oversight	Identify when additional steps are required to collaborate with regulatory oversight bodies to agree appropriate solutions to meet regulatory obligations.
B3-2	Regulation and guidance	Apply and comply with the building regulations using appropriate methods, including those outside of the approved documents or corresponding guidance.
B3-3	Future responsibilities	Where changes are highlighted from upcoming regulations, industry standards, guidance, and corporate and social responsibilities (e.g. carbon reduction), define how these changes will impact future requirements.
B3-4	Verifying product information	Approve product information in accordance with the Code for Construction Product Information.
B3-5	Conformity marking	Identify the performance requirements that would need to be declared on the Declaration of Performance.
B3-7	Third party certification	Identify and propose third party certification schemes that can be used to assure performance in accordance with the specification.
B3-8	Test reports	Identify and propose appropriate tests that can be used to assure performance in accordance with the specification.

**Table 5: CPC Level B (cont'd)**

Products as part of a built environment system, including substitution / value engineering		
B4-1	Holistic built environment systems	Review compatibility of product interfaces and interactions (both direct and indirect) with other construction products within that built environment and their impacts on the built environment system in accordance with the project specific requirements.
B4-2	Managing performances satisfy application in different levels of scopes of application	Where selecting a construction product (including a substitution) understand the performance requirements of an application, the dependencies placed on individual construction products with an extended scope of application, and what performance characteristics are necessary to satisfy those dependencies.
B4-3	Managing performance dependencies where characteristics do not clearly satisfy the performance requirements of application	Evaluate missing, conflicting or lower performance characteristics to determine if a construction product (including substitutions) satisfies the performance requirements of an application.
B4-4	Managing risks of substitution	Evaluate any unacceptable risks identified in reasonably foreseeable conditions (including risks to, for example, performance, buildability, maintenance, or the organisation) for construction product substitution and determine solutions to mitigate those risks.
Installation		
B5-1	Installation information	Define requirements for installation of construction products and / or built environment systems, including associated product information and reference to appropriate legislative and regulatory requirements and standards.
Durability, life and maintenance		
B6-1	Consideration for durability, service life and maintenance requirements	Analyse and assess that the construction products and / or built environment systems meet the durability, service life, access and maintenance requirements as appropriate to the operation, environment and client requirements and / or project specific application.
B6-2	Setting durability, service life and maintenance requirements	Review data trends, examine and test the limitations of performance over time of the construction product / built environment system and develop methods to maintain that performance.
Warranties and guarantees		
B7-1	Setting warranties and guarantees	Review data trends, examine and test the limitations of performance over time of the construction product / built environment system and develop methods to maintain warranty / guarantee performance.
B7-2	Communicating warranties and guarantees	Identify, refer to and explain the relevant terms and conditions particular to what is included, excluded and required to maintain a non-standard or bespoke warranty or guarantee that should be considered when selecting a construction product / built environment system.

**Table 5: CPC Level B (cont'd)**

B7-3	Selecting and achieving warranties and guarantees	Assess, review and approve as appropriate the impacts of warranties / guarantees on cleaning, maintenance and / or installation requirements of construction products / built environment systems to ensure these meet client requirements and the project specific application.
B7-4	Assessing risks of deviation from standard warranties and guarantees	Review available data and test evidence to develop bespoke solutions for warranties and guarantees that sit outside of the organisation's policy.
<b>Storage and handling</b>		
B8-1	Information for storage and handling	Approve as appropriate storage and handling requirements.
B8-2	Actions of storage and handling	Approve as appropriate any operation to be applied to ensure the fitness for use of affected or damaged construction products.
<b>Competence maintenance</b>		
B9-2	Competence of others	Implement organisation's competence requirements to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.

**Table 6: CPC Level A**

<b>Level A</b>		
Individual competent to be (example capabilities):		
<ul style="list-style-type: none"> <li>• Accountable for construction product decisions, assessment, selection, change, recommendations and approvals</li> <li>• Accountable for product information and its accuracy</li> <li>• Accountable for an organisation's construction products rules (e.g. rules relating to design, substitution, product information etc.)</li> </ul>		
<b>Activity #</b>	<b>Activity name</b>	<b>Competence requirement</b>
<b>Responsibility and accountability</b>		
A1-2	Scope of selecting and proposing construction products	Understand that at this level you may approve as appropriate product selections or proposals of construction products to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
A1-3	Responsibilities and accountabilities regarding organisational rules	Understand your responsibility and accountability to develop, define, implement, approve as appropriate and follow organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.

**Table 6: CPC Level A (cont'd)**

AI-5	Developing organisational rules about levels of information necessary to perform tasks about construction products without making assumptions	<p>Approve the organisation's rules on levels of information needed including</p> <ul style="list-style-type: none"> <li>• construction product characteristics, performance requirements and dependencies to select construction products to create standard system solutions;</li> <li>• supply or use a construction product and/or product information; and</li> <li>• propose for consideration an alternative construction product within a direct scope of application</li> </ul> <p>without making assumptions.</p> <p>Define the organisation's rules for what the appropriate level of requirements should be captured regarding performance, construction product characteristics and dependencies to create project-led system solutions without making assumptions.</p>
AI-7	Organisational rules on product information management	Approve the organisation's rules for the content of product information to ensure that it is clear, up-to-date, accessible, accurate and unambiguous.
AI-8	Developing and approving built environment systems solutions	Approve as appropriate project-led system solutions to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.
AI-9	Setting organisation's design rules	<p>Develop and define the organisation's design rules for project-led system solutions to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.</p> <p>Approve as appropriate organisation's design rules for standard system solutions to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.</p>
AI-10	Defining, approving and implementing methods to confirm project-led system solutions are appropriate	Review, assess and approve the empirical assessment and / or physical testing for project-led system solutions.
<b>Construction product performance and characteristics</b>		
A2-1	Construction products and their application	Approve as appropriate the rules for a construction product for general / universal application, and construction product substitutions.
A2-2	Content of product information management	Approve the content of product information to ensure that it is clear, traceably up-to-date, accessible, accurate and unambiguous.
A2-3	Scopes and limitations	Approve as appropriate the limitations / scope for a construction product.
A2-4	Rules of application	Approve as appropriate or reject project specific solutions for construction products and / or built environment systems.

**Table 6: CPC Level A (cont'd)**

Regulations, standards and certification		
A3-1	Regulatory oversight	Approve solutions required to meet regulatory obligations in regard to construction products (or the use of) and engage with the regulating bodies as appropriate both proactively and reactively.
A3-2	Regulation and guidance	Approve methods of how to apply and comply with the building regulations using appropriate methods outside of the approved documents or corresponding guidance.
A3-3	Future responsibilities	Engage with upcoming relevant regulations, industry standards, guidance, and corporate and social responsibilities (e.g. carbon reduction), review how this will impact construction product choices, identify necessary changes and as appropriate define and approve organisational rules to respond to future requirements.
A3-4	Verifying product information	Define organisational approach to conforming with the Code for Construction Product Information.
A3-5	Conformity marking	Approve the performance requirements that are declared on the Declaration of Performance.
A3-7	Third party certification	Approve the choice of the third party certification scheme that can be used to assure performance in accordance with the specification.
A3-8	Test reports	Approve the choice of tests that can be used to assure performance with the specification.
Products as part of a built environment system, including substitution / value engineering		
A4-1	Holistic built environment systems	Approve compatibility of construction product interfaces and interactions (both direct and indirect) with other construction products in the built environment and their impacts on the built environment system in accordance with project specific requirements.
A4-2	Managing performances satisfy application in different levels of scopes of application	Approve as appropriate that construction products (including substitutions) satisfy performance dependencies of an application.
A4-3	Managing performance dependencies where characteristics do not clearly satisfy the performance requirements of application	Review, assess and approve as appropriate that missing, conflicting or lower performance characteristics of a construction product selection (including substitutions) satisfies the performance requirements of an application.
A4-4	Managing risks of substitution	Approve as appropriate solutions to mitigate risks identified in reasonably foreseeable conditions (including that to e.g. performance, buildability, maintenance, the organisation) for construction product substitutions.

**Table 6: CPC Level A (cont'd)**

Installation		
A5-1	Installation information	Review, assess and approve as appropriate the requirements for installation of construction products and / or built environment system, including associated product information and reference to appropriate legislative and regulatory requirements and standards.
Durability, service life and maintenance		
A6-1	Consideration for durability, service life and maintenance requirements	Review and approve as appropriate that the construction products and / or built environment systems meet the durability, service life, access and maintenance requirements as appropriate to the operation, environment and client requirements and / or project specific application.
A6-2	Setting durability, service life and maintenance requirements	Review evidence of data trends and tested performance to define and set the limitations of performance over time of the construction product / built environment system with requirements needed to maintain that performance.
Warranties and guarantees		
A7-1	Setting warranties and guarantees	Review and assess evidence of data trends from in use performance and / or test evidence and liaise with appropriate third parties to define and set the limitations of a warranty / guarantee in a format that is clear, up-to-date, accessible, accurate and unambiguous.
A7-3	Selecting and achieving warranties and guarantees	Assess, review and approve as appropriate the impacts to include extended warranties / guarantees on cleaning, maintenance and / or installation requirements of construction products / built environment systems to meet client requirements and the project specific application.
A7-4	Assessing risks of deviation from standard warranties and guarantees	Assess the commercial risks, technical risks and liability for bespoke solutions that sit outside of the organisation's policy and liaise with appropriate third parties to define and set the limitations of a warranty / guarantee in a format that is clear, up-to-date, accessible, accurate and unambiguous.
Competence maintenance		
A9-2	Personal competence	Develop organisation's competence requirements to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.

### 4.4.3 CPC methodology

**4.4.3.1** The CPC core level criteria are written to be applicable to a wide range of industries within the built environment sector; but they alone will not ensure construction product competence. They will need to be combined with further requirements that will be specific to the construction products and the functions.

**4.4.3.2** The aim of the methodology is to create industry specific 'CPC profiles'. A CPC profile describes how a function will demonstrate CPC by mapping the CPC core level criteria and any further function specific criteria against existing or new qualifications and training.

**4.4.3.3** Those describing CPC profiles can be broadly described in two categories:

- a) Individual companies who wish to describe how their particular functions will demonstrate CPC
- b) Industries who wish to come together in consensus to agree how their key functions will demonstrate CPC and publish CPC profiles for the use of the entire built environment sector

**4.4.3.4** For individual companies the methodology will identify the following for consideration:

- a) How to clearly identify the topic (i.e. the function and construction product families they are using) for a CPC profile
- b) How to create a CPC profile and the considerations they should apply

**4.4.3.5** For industries who wish to come together in consensus to create CPC profiles, the following methodology will provide guidance:

- a) How to clearly identify the topic (i.e. the function and the construction product families they are using for a CPC profile)
- b) Assigning a working group to create a CPC profile
- c) How to create a CPC profile and the considerations they should apply
- d) Peer review and public consultation for a CPC profile
- e) Publishing a CPC profile
- f) Reviewing a CPC profile

## **4.5 CPC core level criteria and methodology for competence frameworks: form of the proposed standard**

**4.5.1** It is proposed that the CPC level criteria and methodology be published as an industry agreed standard via BSI, preferably as part of the 8670 series.

**4.5.2** The intention is that this will:

- i) Ensure a thorough public consultation process that tests the proposals set out within the core level criteria and methodology
- ii) Assure the credibility and recognition of the approach through the British Standards Institute's (BSI) chartered status and industry recognised consensus mechanisms
- iii) Assure the longest possible reach of the standard throughout the built environment sector

## **5.0 STEP 2: Commit to CPC principles**

**5.1** Once the standard has been published, the next step will be for built environment industries to commit to the principles of CPC.

**5.2** Commitment will be the recognition that those interacting with construction products must be competent to do so and that organisations understand this requirement.

**5.3** Organisations should establish basic rules which can both control the application of CPC to functional activities and facilitate the interaction needed to ensure that decisions are always made by those who are competent to do so. This will ensure that subsequent mapping and demonstration requirements can be both identified and applied.

**5.4** It is intended that organisations pay note to the core level criteria to support the development of processes, particularly around responsibility, accountability and communication.

## 6.0 STEP 3: Agree how to demonstrate CPC

### 6.1 Ownership of CPC profiles

**6.1.1** As identified in 4.4.3 those describing CPC profiles can be broadly described in two categories:

- a) Individual organisations (e.g. companies) who wish to describe how their particular functions will demonstrate CPC
- b) Industries who wish to collectively come together through consensus (e.g. via trade associations, chartered bodies, standards bodies etc.) to agree how their key functions will demonstrate CPC and publish CPC profiles for the use of the entire built environment sector

i.e the 'individual' vs 'collective' approach to describing CPC profiles.

**6.1.2** Each approach has advantages and disadvantages as expressed in the table below.

**Table 7: Individual vs collective approaches to describing CPC Profiles – advantages and disadvantages**

For the 'individual' approach to describing CPC Profiles	
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Faster production of CPC profiles and demonstration</li> <li>• More specific to company's functions</li> <li>• Fewer assumptions or generalisations about functions</li> <li>• More bespoke</li> <li>• Likely to gain a more immediate uptake</li> <li>• Identifying the industry a company may belong to can sometimes be complex</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• Some companies may lack the resources to describe CPC profiles</li> <li>• Training and qualifications may not be available</li> <li>• Potential conflicts of interest</li> <li>• Potential inconsistency of interpretation of standards</li> <li>• Could be deemed less authoritative</li> </ul>
For the 'collective' approach to describing CPC Profiles	
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Collective resources</li> <li>• Consensus will bring consistency of interpretation of the standard and remove conflicts of interest</li> <li>• Published profiles will give dutyholders, regulators etc. further confidence that CPC has been verified</li> <li>• Better participation from SME's that may need a clear route to demonstrate CPC</li> <li>• Includes a public consultation and / or peer review</li> <li>• Bolsters public view of an industry's commitment to competence</li> <li>• Will enable industries and regulators to better identify gaps in training and qualifications, allowing it to be monitored and improved</li> <li>• More likely to result in recognition of existing training and creation of new or amended training infrastructure</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• Process of creating CPC profiles and subsequent demonstration will be slower</li> <li>• Results may not be relevant to all companies</li> <li>• Less flexible</li> </ul>

**6.1.3** The quickest route is for organisations to map against the core level criteria for their workforce. This will achieve a huge step forwards in how construction product competence is considered.

**6.1.4** It is recommended wherever possible, both the individual and collective approach is adopted. Organisations can take the steps towards achieving competence, and this work will inevitably inform collective approaches and help identify any additional or amended training and qualification routes necessary.

**6.1.5** Where industries decide to create CPC profiles through consensus, the aim will be for recognised bodies to take ownership over how these are demonstrated, by creating CPC profiles for functions within their industry. Recognised bodies might be (not an exhaustive list):

- chartered institutions or bodies
- trade associations
- recognised educational bodies
- standards committees
- cross-industry working groups

**6.1.6** It is recommended that the recognised body be such that any decisions over routes to achieving CPC will have appropriate authority for recognition by the built environment sector, regulators, and any others posing enquiry.

**6.1.7** The recognised body will then take ownership over the creation, publication, management and maintenance of the CPC profiles for their industry.

## 6.2 Gap analysis

**6.2.1** Whether through the individual or collective approach, industries will have to undergo a process of gap analysis in mapping the standard to their training and qualifications.

**6.2.2** While it is anticipated that there will be existing training and qualifications available to map the standard against, there may be examples where an adjustment will be required to meet the standard.

**6.2.3** It is also anticipated that there will be areas where no training opportunities or qualifications exist, particularly in functions where CPC has not been historically identified as necessary.

**6.2.4** Where gaps are identified, the Industry Competence Committee (ICC)<sup>4</sup> should be advised to ensure these are suitably monitored.

## 6.3 Publication of CPC profiles

**6.3.1** Where an individual approach is taken, organisations will be encouraged to publish their CPC profiles.

**6.3.2** Where a collective approach is taken, it is key that the CPC profiles created by the recognised bodies are published, to ensure:

- their industry has a clear route to achieving CPC; and
- other industries, regulators and the public can recognise how CPC is demonstrated within that industry.

## 6.4 Examples of CPC profiles

**6.4.1** Draft examples of CPC profiles are available in Appendix 2.

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<sup>4</sup> In England and Wales

## 7.0 STEP 4: Demonstrate CPC

**7.1** Once the method of demonstration is described, it is then for individuals to achieve, maintain and demonstrate their appropriate CPC.

**7.2** Individuals with appropriate CPC should be able to utilise it to:

- understand the limits of their own competence;
- understand when to pass along information, seek advice or raise concerns; and
- make appropriate, informed decisions according to their level of accountability and responsibility.

**7.3** Organisations should ensure individuals in their workforce achieve their CPC.

**7.4** Organisations should ensure that their employees only work within the scope of their competence.

Verification will normally be assessed by the employing organisations. The method of verification may be interrogated by clients, regulators and other relevant parties.

**7.5** Organisations can then clearly describe and communicate the competence of their work force transparently throughout the supply chain.

## 8.0 STEP 5: Utilise CPC

**8.1** The CPC may be used in various ways, including but not limited to the following:

**8.2** Clients and employers can require that their supply chain should demonstrate CPC and reference this as part of their contract requirements.

**8.3** Dutyholders can use the CPC core level criteria to demonstrate the competence of their work force.

**8.4** Contractors (designers, constructors, maintainers or others) can use it to qualify the competence of their supply chain.

**8.5** Manufacturers can use it to demonstrate their competence for the Code for Construction Product Information (CCPI)<sup>5</sup> accreditation and may require CPC be demonstrated to honour terms of warranties and guarantees.

**8.6** Insurers may use CPC to appropriately assess the risk of an organisation.

**8.7** Regulators can use CPC to assess that the competence of a workforce has been verified.

**8.8** For further information on how CPC may be utilised, please refer to 10.0 User Cases.

## 9.0 STEP 6: Review CPC

**9.1** The standard for CPC and the mechanisms to assure implementation will be reviewed to ensure that requirements and competency levels remain appropriate to the industries within the built environment sector as it progresses. This will include:

- 1) Periodic review of the CPC core level criteria standard
- 2) Periodic review of CPC Profiles in different industries in the built environment
- 3) Periodic review of individuals achieving and demonstrating CPC

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<sup>5</sup> The Code for Construction Product Information helps organisations drive higher standards in the presentation of product information, prioritising building safety. <https://www.cpcode.org.uk/>

## 10.0 User cases

**10.0.1** This section lists a variety of stakeholders that should consider CPC. This list is not exhaustive, and is displayed in alphabetical order.

### 10.1 Clients

**10.1.1** The client, appointing party or employer for a project should have suitable arrangements in place to ensure that the design work and the building work can be completed in accordance with building regulations, (and where it applies to the Building Safety Act). In practice, this means appointing the right people, with the right competences (the skills, knowledge, experience and behaviours or organisational capability) for the work, and ensuring those they appoint have appropriate systems in place.

**10.1.2** As part of their duty they will need to demonstrate that those they appoint who will be interacting with and utilising construction products, have the appropriate level of CPC to fulfil their obligations throughout the life of the asset.

### 10.2 Chartered institutions for the built environment sector

**10.2.1** The chartered institutions are generally the professional bodies for those using construction products and product information, be they designers, constructors, commissioning engineers, facility managers or project managers.

**10.2.2** Chartered institutions may help channel the collected requirements of an industry, such as structural engineering, architecture, building services engineering or landscape architecture.

**10.2.3** Chartered institutions could be considered as a recognised body for the creation and management of CPC profiles and how those within their professions demonstrate CPC. They may also put processes in place detailing how to deal with the supply chain and check the CPC of their supply chain.

### 10.3 Contractors

**10.3.1** Contractors are responsible and accountable for ensuring that the design is constructed in accordance with the design and performance requirements in a fully compliant manner. They may take on design as well as procurement, contracting, installation and maintenance functions. As such, contractors will need to demonstrate CPC and identify the CPC of others they employ or appoint. They may also need to identify that there is appropriate supporting information to prove the performance of the systems they are installing or for which they are overseeing the installation.

**10.3.2** Contractors are often involved in change control which may include construction product substitutions either as a result of product unavailability, amended design or value engineering. When the contractor is involved in product substitution, appropriate CPC is essential to ensure that the design intent is maintained and that performance and building safety is not diminished.

**10.3.3** Furthermore, contractors play an essential role in aggregating construction product and built environment systems information, which will require appropriate CPC to ensure all pertinent information is captured in a consistent manner and exchanged as required.

### 10.4 Designers

**10.4.1** Designers be they architects (and technologists), consultant engineers, contractors, landscape architects or others, will need to demonstrate CPC. The designers require the ability to identify the performance requirements and select appropriate construction products and systems to work and interface with the built environment. They also need to identify that there is appropriate supporting information to prove the performance of the systems they are specifying.

**10.4.2** Being able to appropriately identify the CPC of others within their team, those who specify construction products, and within the supply chain is an essential element of their duties.

## 10.5 Dutyholders under the Building Safety Act

**10.5.1** Dutyholders include the Client, Principal Designer, Designers, Principal Contractor, Contractors and the Accountable Person.

**10.5.2** Dutyholders will need to work together to plan, manage and monitor the design work and the building work, ensure they cooperate and communicate with each other, coordinate their work and have systems in place to ensure that building work, including design work, complies with all relevant building regulations.

**10.5.3** Dutyholders must demonstrate that they meet specific competence requirements (i.e. the skills, knowledge, experience and behaviours) and that those they appoint are also competent to carry out that work.

**10.5.4** Dutyholders should use the CPC profiles to ensure that those working with them have the appropriate CPC according to their function, responsibility and accountability.

## 10.6 Facility managers and maintainers

**10.6.1** Facility management (FM) is a profession that encompasses multiple disciplines to ensure functionality, comfort, safety and efficiency of the built environment. The maintenance of construction products and built environment systems is vital to ensure their ongoing performance. FM and maintainers may oversee planned preventative or unplanned maintenance, statutory inspections, remediation, and installation of new built environment systems or refurbishment. They may also have to undertake discovery to identify what construction products or built environment system are within their assets where that information is missing or incomplete.

**10.6.2** It is necessary for all those maintaining or otherwise looking after construction products or built environment systems in operation, demonstrate CPC to ensure ongoing performance and that any changes do not detrimentally impact the performance of the existing built environment systems.

## 10.7 Manufacturers

**10.7.1** The CPC of those supplying, marketing, selling and giving technical advice around construction products should be clear and demonstrable to assist the supply chain in utilising construction products appropriately.

**10.7.2** Manufacturers may also demonstrate that their construction products are marketed correctly by registering to the CCPI, for which there is a requirement to demonstrate the appropriate training of their staff. The proposals within this white paper will assist in demonstrating that they are fulfilling those requirements.

**10.7.3** Manufacturers may recommend appropriate demonstration of CPC in the use of their construction products.

**10.7.4** Manufacturers may also use those recommendations to underwrite warranties and guarantees. Manufacturers may require users of construction products to appropriately demonstrate CPC in order to honour the terms of those warranties or guarantees. This would serve as another lever to ensure the appropriate level of competence in the use of construction products.



## 10.8 Suppliers (wholesalers, merchants, distributors and resellers)

**10.8.1** Suppliers are construction product aggregators, bringing together construction products and product information from various manufacturers whose equipment they supply to contractors. It is essential that suppliers have the appropriate CPC when providing advice.

**10.8.2** Where the supplier takes on the responsibility for placing the construction product on the market, they take on the same responsibilities and accountabilities as the manufacturers and require the appropriate CPC.

## 10.9 Trade associations

**10.9.1** Trade associations bring together organisations that operate in their industry, and have a focus on collaboration between members.

**10.9.2** Trade associations could be considered as recognised bodies for the creation and management of CPC profiles and how those within their industry demonstrate CPC. They may also put processes in place detailing how to interact with the supply chain and check its CPC.

## 10.10 Product specifiers

**10.10.1** Product specifiers are those who make or influence a decision to use a specific construction product. The specifier can sit anywhere within the supply chain, including (but not limited to) manufacturers, distributors, architects and designers, engineers, specialist consultants, design and build organisations and contractors. Procurers may also inadvertently specify when making a decision about or a change to a construction product, which incurs design responsibility under the Construction (Design and Management) regulations (CDM).

**10.10.2** Specifiers should demonstrate CPC and be aware of what the scope of their ability extends to when making decisions, as these decisions have consequences on the performance of built environment systems.

## 10.11 Procurement and supply chain management

**10.11.1** Procurement and supply chain management involves sourcing construction products and services and / or managing contracts and relationships with the supply chain. A procurer must carefully approach procurement and purchase supplies, considering factors like compliant performance, availability, quality of product, and budget, while ensuring that design requirements are met.

**10.11.2** For those procuring and managing supply chains for services using construction products, they should assess that the service providers can demonstrate the appropriate CPC according to their function, responsibilities and accountabilities.

**10.11.3** Procurers are often involved in sourcing and suggesting alternative construction products and systems either as a result of product unavailability, amended design or value engineering. Procurers should be able to demonstrate CPC and be aware of what the scope of their ability extends to when making decisions. Where changes are made outside of that scope, decisions should be referred to those with the appropriate level of CPC.

# 11.0 Next steps

**11.1** This paper has been developed to give those within the built environment sector the opportunity to ready themselves for the proposed standard on CPC, and where possible to implement the principles of the standard.

**11.2** The intent is to develop the principles within this paper into an industry-agreed standard, preferably via BSI as part of the 8670 series. This will be the point at which the built environment sector will have the opportunity to submit feedback via the BSI public consultation mechanism.



# Appendix I – CPC core level criteria activity journeys

Individual competent to be (example capabilities):			<ul style="list-style-type: none"> <li>Responsible for performing tasks with and about construction products under supervision</li> <li>Responsible for relaying information about construction products without interpretation</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for proposing a construction product for a direct scope of application</li> <li>Responsible for using a construction product as per direct scope of application or under supervision</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for developing product information for construction products within a direct scope of application</li> <li>Responsible for relaying product information within an extended scope of application</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for developing product information within extended scopes of application that meet client requirements and its project specific application</li> <li>Accountable for the accuracy of product information within a direct scope of application</li> </ul>	<ul style="list-style-type: none"> <li>Accountable for construction product decisions, assessment, selection, change, recommendations and approvals</li> <li>Accountable for product information and its accuracy</li> <li>Accountable for an organisation's construction products rules (e.g. rules relating to design, substitution, product information etc.)</li> </ul>
Activity name / Level	Sub-activities	ref	E	D	C	B	A
<b>Responsibility and accountability competences</b>	Hierarchy of competence	I-1	Recognise the organisation's construction products competence hierarchy and how to operate within it.	Understand the organisation's construction products competence hierarchy and how to obtain advice and raise concerns as appropriate within it.			
	Scope of selecting and proposing construction products	I-2	Understand that at this level that you cannot make a construction product choice, substitution or recommendation.	Understand that at this level that you may propose alternative products within a direct scope of application meeting the stated requirements but cannot make a product selection or substitution recommendation as this incurs a design responsibility.	Understand that at this level you may select or propose a construction product for a direct scope of application, but for construction products for extended scopes of application or bespoke products, choices should be referred to the appropriately competent individual.	Understand at this level you may select or propose a construction product for an extended scope of application or a bespoke construction product, and this should be according to the organisation's design rules and recognised standards but where this deviates the construction product proposal should be referred for the appropriate competent approval.	Understand that at this level you may approve as appropriate product selections or proposals of construction products to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
	Responsibilities and accountabilities regarding organisational rules	I-3	Understand your responsibility to follow organisational rules about construction products.	Understand your responsibility to follow organisational rules to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.	Understand your responsibility to implement, follow and identify areas for improvement of organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.	Understand your responsibility to develop, define, implement and follow organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.	Understand your responsibility and accountability to develop, define, implement, approve as appropriate and follow organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.

**Appendix I – CPC core level criteria activity journeys (cont'd)**

Activity name / Level	Sub-activities	ref	E	D	C	B	A	
<b>Responsibility and accountability competences</b>	Levels of information necessary to perform tasks with construction products without making assumptions	1-4	Follow the organisation's rules on levels of information needed to supply or use a construction product or product information without making assumptions.	Follow and understand the organisation's rules on levels of information needed to supply or use a construction product, product information or propose for consideration an alternative construction product within a direct scope of application without making assumptions.	Follow, understand and implement the organisation's rules on levels of information needed including construction product characteristics, performance requirements and dependencies to select construction products to create standard system solutions without making assumptions.	Follow, understand, implement and monitor the organisation's rules on levels of information needed including construction product characteristics, performance requirements and dependencies to select construction products to create project-led system solutions without making assumptions.		
	Developing organisational rules about levels of information necessary to perform tasks about construction products without making assumptions	1-5			Propose areas that require new or amended organisational rules for what the appropriate level of information would be to perform tasks with construction products or product information without making assumptions.	Develop the organisation's rules on levels of information needed including <ul style="list-style-type: none"> <li>- construction product characteristics, performance requirements and dependencies to select construction products to create standard system solutions;</li> <li>- supply or use a construction product and / or product information; and</li> <li>- propose for consideration an alternative construction product within a direct scope of application without making assumptions.</li> </ul>	Approve the organisation's rules on levels of information needed including <ul style="list-style-type: none"> <li>- construction product characteristics, performance requirements and dependencies to select construction products to create standard system solutions;</li> <li>- supply or use a construction product and/or product information; and</li> <li>- propose for consideration an alternative construction product within a direct scope of application without making assumptions.</li> </ul> <p>Define the organisation's rules for what the appropriate level of requirements should be captured regarding performance, construction product characteristics and dependencies to create project-led system solutions without making assumptions.</p>	
	Communicating information on construction products	1-6	Know that it is your responsibility to accurately reflect the construction product(s) according to the relevant competent information or authority and not go beyond that.					
	Organisational rules on product information management	1-7				Define the content of product information to ensure that it is clear and accurate according to the organisation's rules.	Develop the organisation's rules for the content of product information to ensure that it is clear, up-to-date, accessible, accurate and unambiguous.	Approve the organisation's rules for the content of product information to ensure that it is clear, up-to-date, accessible, accurate and unambiguous.

**Appendix I – CPC core level criteria activity journeys (cont'd)**

Activity name / Level	Sub-activities	ref	E	D	C	B	A
<b>Responsibility and accountability competences</b>	Developing and approving built environment systems solutions	1-8			Define required performance and / or product characteristics to develop a standard system solution using the organisation's agreed design rules and recognised standards, ensuring built environment safety, minimising personal and organisational liability and reputational risks.	Define required performance and / or product characteristics to develop a project-led system solution using the organisation's agreed design rules and recognised standards to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.  Approve as appropriate built environment system solutions developed using construction products in their direct scope of application.	Approve as appropriate project-led system solutions to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.
	Setting organisation's design rules	1-9				Develop and define the organisation's design rules for standard system solutions to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.	Develop and define the organisation's design rules for project-led system solutions to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.  Approve as appropriate organisation's design rules for standard system solutions to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.
	Defining, approving and implementing methods to confirm project-led system solutions are appropriate	1-10				Understand and implement or coordinate approved level of testing or assessment for project-led systems solutions.	Define the appropriate level of empirical assessment and / or physical testing required for project-led system solutions within the organisation's design rules.
<b>Construction product performance and characteristics</b>	Construction products and their application	2-1	Recognise the requirement for a construction product, locate information from approved sources and recite what the construction product is, what it is made of, its performance and characteristics.	Understand and explain the requirements for the construction product and its performance, characteristics and approved uses for various built environment scenarios or situations.	Identify requirements for a construction product (including substitutions) and apply approved rules at a project level.	Define the rules for a construction product for general / universal application, and construction product substitutions.	Approve as appropriate the rules for a construction product for general / universal application, and construction product substitutions.
	Content of product information management	2-2	Duplicate and relay product information and identify missing product information, where appropriate seeking guidance for resolution.	Recognise where product information is incomplete, inaccurate or out of date and where appropriate seek guidance for resolution.	Review the content of product information to ensure it remains complete, traceably up-to-date, accessible and accurate e.g. when there are changes in standards and regulations.	Evaluate catalysts that may impact product information and implement appropriate changes to ensure that it is clear, traceably up-to-date, accessible, accurate and unambiguous.	Approve the content of product information to ensure that it is clear, traceably up-to-date, accessible, accurate and unambiguous.

**Appendix I – CPC core level criteria activity journeys (cont'd)**

Activity name / Level	Sub-activities	ref	E	D	C	B	A	
<b>Construction product performance and characteristics</b>	Scopes and limitations	2-3	Identify and recite construction product limitations and scope.	Understand and explain performance scope / limitations of a construction product.	Identify where there are no approved rules of application for a construction product at a project level and seek appropriate guidance for resolution.	Define the limitations / scope of application for a construction product.	Approve as appropriate the limitations / scope for a construction product.	
	Rules of application	2-4				Review project specific requirements where there is no approved rule currently available and propose solutions for construction products and / or built environment systems.	Approve as appropriate or reject project specific solutions for construction products and / or built environment systems.	
<b>Regulations, standards and certification</b>	Regulatory oversight	3-1	Be aware that there is a framework of legislation, regulations and standards that should be worked to when using construction products and the consequences of not operating within these requirements.	Be aware of the regulatory oversight associated with construction products and the consequences of deviating from guidance and regulations.	Understand and apply knowledge of how to demonstrate compliance with the regulations when developing specifications and product information.	Identify when additional steps are required to collaborate with regulatory oversight bodies to agree appropriate solutions to meet regulatory obligations.	Approve solutions required to meet regulatory obligations in regard to construction products (or the use of) and engage with the regulating bodies as appropriate both proactively and reactively.	
	Regulation and guidance	3-2		Confirm as necessary that instructions, controls and procedures for construction products are compliant with relevant regulations, including those for materials and workmanship.	Understand how to apply and comply with the relevant regulations using the approved documents or corresponding guidance, including materials and workmanship. Understand where the application sits outside of this guidance, to seek appropriate guidance for resolution.	Apply and comply with the building regulations using appropriate methods, including those outside of the approved documents or corresponding guidance.	Approve methods of how to apply and comply with the building regulations using appropriate methods outside of the approved documents or corresponding guidance.	
	Future responsibilities	3-3					Where changes are highlighted from upcoming regulations, industry standards, guidance, and corporate and social responsibilities (e.g. carbon reduction), define how these changes will impact future requirements.	Engage with upcoming relevant regulations, industry standards, guidance, and corporate and social responsibilities (e.g. carbon reduction), review how this will impact construction product choices, identify necessary changes and as appropriate define and approve organisational rules to respond to future requirements.
	Verifying product information	3-4	Be aware of the Code for Construction Product Information and how it is utilised.	Understand the Code for Construction Product Information and how it is utilised.	Apply expectations of the Code for Construction Product Information.	Approve product information in accordance with the Code for Construction Product Information.	Define organisational approach to conforming with the Code for Construction Product Information.	
	Conformity marking	3-5	Be aware that the CE / UKCA / UKNI marks demonstrate that the manufacturer has declared a performance level against required characteristics.	Understand the content of the Declaration of Performance (where available) and be able to compare products intended for the same direct scope of application.	Identify whether the contents of the Declaration of Performance meet the product specification. Identify what performance characteristics in addition to the Declaration of Performance would be necessary to confirm the performance requirements of a product specification.	Identify the performance requirements that would need to be declared on the Declaration of Performance.	Approve the performance requirements that are declared on the Declaration of Performance.	
	Absence of conformity marking	3-6	Be aware that not all construction products can be conformity marked.	Understand that not all construction products fall within the scope of a harmonised or designated standard or a European or UK assessment document and therefore cannot be conformity marked.	Identify which construction products cannot be conformity marked.			

**Appendix I – CPC core level criteria activity journeys (cont'd)**

Activity name / Level	Sub-activities	ref	E	D	C	B	A
<b>Regulations, standards and certification</b>	Third party certification	3-7	Be aware that third party certifications schemes assure a stated level of performance for certain characteristics.	Understand that third party certification identifies a construction product's fitness for use in specific applications when following appropriate levels of workmanship.	Identify the content of a third party certification scheme field of application report (where available) and be able to compare products intended for the same scope of application.	Identify and propose third party certification schemes that can be used to assure performance in accordance with the specification.	Approve the choice of the third party certification scheme that can be used to assure performance in accordance with the specification.
	Test reports	3-8	Be aware that certain construction products are supported by direct test reports.	Understand that a test report identifies a construction product's performance in a single application when following appropriate levels of workmanship.	Identify the content of a test report (where applicable) and be able to compare products intended for the same direct scope of application.	Identify and propose appropriate tests that can be used to assure performance in accordance with the specification.	Approve the choice of tests that can be used to assure performance with the specification.
<b>Products as part of a built environment system, including substitution / value engineering</b>	Holistic built environment systems	4-1		Understand and explain how the construction product's performance contributes to built environment safety according to the application.	Understand and apply knowledge of product interfaces and compatibility (both direct and indirect) with other construction products within that built environment and their impacts on the built environment system in accordance with the project specific requirements.	Review compatibility of product interfaces and interactions (both direct and indirect) with other construction products within that built environment and their impacts on the built environment system in accordance with the project specific requirements.	Approve compatibility of construction product interfaces and interactions (both direct and indirect) with other construction products in the built environment and their impacts on the built environment system in accordance with project specific requirements.
	Managing performances satisfy application in different levels of scopes of application	4-2		Know that systems are tested with specific construction products and that substitution may impact the conformance or compliance of that system; and that review, evaluation and approval must be sought.	Where selecting any product (including a substitution) understand the performance requirements of an application, the dependencies placed on individual construction products with a direct scope of application, and what performance characteristics are necessary to satisfy those dependencies.	Where selecting a construction product (including a substitution) understand the performance requirements of an application, the dependencies placed on individual construction products with an extended scope of application, and what performance characteristics are necessary to satisfy those dependencies.	Approve as appropriate that construction products (including substitutions) satisfy performance dependencies of an application.
	Managing performance dependencies where characteristics do not clearly satisfy the performance requirements of application	4-3			Identify all performance dependencies and compare these to the relevant construction product characteristics to determine they satisfy the application, and where these are unclear, inconsistent or missing seek advice.	Evaluate missing, conflicting or lower performance characteristics to determine if a construction product (including substitutions) satisfies the performance requirements of an application.	Review, assess and approve as appropriate that missing, conflicting or lower performance characteristics of a construction product selection (including substitutions) satisfies the performance requirements of an application.
	Managing risks of substitution	4-4			Identify product substitution requirements and assess risks of identified reasonably foreseeable conditions (including that to e.g. performance, buildability, maintenance, the organisation) is appropriate to the application, communicate any unacceptable risks or concerns and/or seek advice where appropriate.  Identify where a product substitution is agreed (via change control processes), and communicate changes to appropriate relevant interested parties.	Evaluate any unacceptable risks identified in reasonably foreseeable conditions (including risks to, for example, performance, buildability, maintenance, or the organisation) for construction product substitution and determine solutions to mitigate those risks.	Approve as appropriate solutions to mitigate risks identified in reasonably foreseeable conditions (including that to e.g. performance, buildability, maintenance, the organisation) for construction product substitutions.

**Appendix I – CPC core level criteria activity journeys (cont'd)**

Activity name / Level	Sub-activities	ref	E	D	C	B	A
<b>Installation</b>	Installation information	5-1	Recite and relay installation methods according to the relevant competent information or authority.	Explain the installation method for the construction product.	Identify installation requirements for the specific application.	Define requirements for installation of construction products and / or built environment systems, including associated product information and reference to appropriate legislative and regulatory requirements and standards.	Review, assess and approve as appropriate the requirements for installation of construction products and / or built environment system, including associated product information and reference to appropriate legislative and regulatory requirements and standards.
<b>Durability, service life and maintenance</b>	Consideration for durability, service life and maintenance requirements	6-1	Know that construction products will have maintenance requirements and where to find them.	Explain maintenance requirements, limitations and service life of a construction product over time in a direct scope of application.	Assess the environment of the application and identify a construction product / built environment system that will meet the necessary durability and service life requirements, and taking into consideration the access and maintenance requirements.	Analyse and assess that the construction products and / or built environment systems meet the durability, service life, access and maintenance requirements as appropriate to the operation, environment and client requirements and / or project specific application.	Review and approve as appropriate that the construction products and / or built environment systems meet the durability, service life, access and maintenance requirements as appropriate to the operation, environment and client requirements and / or project specific application.
	Setting durability, service life and maintenance requirements	6-2	Recite and relay maintenance requirements according to the relevant competent information or authority.		Understand and identify data trends from actual use of the construction product / built environment system over time and communicate to others for review.	Review data trends, examine and test the limitations of performance over time of the construction product / built environment system and develop methods to maintain that performance.	Review evidence of data trends and tested performance to define and set the limitations of performance over time of the construction product / built environment system with requirements needed to maintain that performance.
<b>Warranties and guarantees</b>	Setting warranties and guarantees	7-1			Identify and collect the data from actual use of the construction product / built environment system and measure it against the limitations to issue or achieve requirements of a warranty / guarantee.	Review data trends, examine and test the limitations of performance over time of the construction product / built environment system and develop methods to maintain warranty / guarantee performance.	Review and assess evidence of data trends from in use performance and / or test evidence and liaise with appropriate third parties to define and set the limitations of a warranty / guarantee in a format that is clear, up-to-date, accessible, accurate and unambiguous.
	Communicating warranties and guarantees	7-2	Identify whether the product comes with a warranty or guarantee, and relay information without interpretation.	Understand and explain the principles of warranties / guarantees, what would be included, excluded and required to maintain them.	Identify, refer to and explain the relevant terms and conditions particular to what is included, excluded and required to maintain standard warranties and guarantees that should be considered when selecting a construction product / built environment system.	Identify, refer to and explain the relevant terms and conditions particular to what is included, excluded and required to maintain a non-standard or bespoke warranty or guarantee that should be considered when selecting a construction product / built environment system.	
	Selecting and achieving warranties and guarantees	7-3			Identify where warranties / guarantees may have impacts on cleaning, maintenance and / or installation requirements of construction products / built environment systems and seek approval that these are appropriate to the project requirements.	Assess, review and approve as appropriate the impacts of warranties / guarantees on cleaning, maintenance and / or installation requirements of construction products / built environment systems to ensure these meet client requirements and the project specific application.	Assess, review and approve as appropriate the impacts to include extended warranties / guarantees on cleaning, maintenance and / or installation requirements of construction products / built environment systems to meet client requirements and the project specific application.
	Assessing risks of deviation from standard warranties and guarantees	7-4		Understand that there may be bespoke warranties or guarantees available, but that you cannot offer any such solution without direct confirmation from the individual with appropriate authority as this impacts an organisation's liability.	Identify where a bespoke solution for warranties and guarantees may be required and seek advice as appropriate.	Review available data and test evidence to develop bespoke solutions for warranties and guarantees that sit outside of the organisation's policy.	Assess the commercial risks, technical risks and liability for bespoke solutions that sit outside of the organisation's policy and liaise with appropriate third parties to define and set the limitations of a warranty / guarantee in a format that is clear, up-to-date, accessible, accurate and unambiguous.

**Appendix I – CPC core level criteria activity journeys (cont'd)**

Activity name / Level	Sub-activities	ref	E	D	C	B	A
<b>Storage and handling</b>	Information for storage and handling	8-1	Recite and relay storage and handling requirements according to the relevant competent information or authority.	Understand and explain product information regarding requirements on the storage and handling of construction products.	Define and prepare the storage and handling requirements and documentation.	Approve as appropriate storage and handling requirements.	
	Actions of storage and handling	8-2	Follow storage and handling requirements according to the relevant competent information or authority.	Confirm the requirements of storage and handling are met and the performance of the construction products is not compromised.	Where doubts as to the requirements of the storage and handling being met are raised, assess the construction products as to the suitability of their use and make recommendations as how to proceed.	Approve as appropriate any operation to be applied to ensure the fitness for use of affected or damaged construction products.	
<b>Competence maintenance</b>	Personal competence	9-1	Demonstrate a commitment to ongoing learning and development, undergo periodic review of competence and undertake training and development as required.				
	Competence of others	9-2				Implement organisation's competence requirements to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.	Develop organisation's competence requirements to the extent of good practice within the built environment sector to achieve built environment safety, minimising personal and organisational liability and reputational risks.

# Appendix 2 – Examples of CPC Profiles

## Example 1: Warehouse operating for architectural ironmongery

<b>Owner:</b> Guild of Architectural Ironmongers		<b>Version:</b> 0.1 DRAFT		
<b>Topic information</b>				
<b>Covering function(s):</b> Warehouse operating		<b>Function Description:</b> Acting as warehouse operative, such as piking orders, delivering product		
<b>Covering construction products / systems containing construction products:</b> Architectural Ironmongery		<b>Covering specialisms:</b> N/A		
<b>Level: E</b>				
<b>Method of demonstration</b>				
Training	Experience	Qualifications	Competence maintenance / CPD	Other
Training from company on in-house operating system	Trade counter experience	Foundation in hardware (GAI)	In house annual review	N/A
Training from company on in-house operating system	Relevant warehouse experience	Forklift drivers licence	Renewal on exppiry of Forklift licence	N/A
in house training on procedures		Manual handling training	Ongoing Review	N/A

**Example 1: Warehouse operating for architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
EI-1	Recognise the organisation's construction products competence hierarchy and how to operate within it.		
EI-2		Understand that at this level that you cannot make a construction product choice, substitution or recommendation.	
EI-3		Understand your responsibility to follow organisational rules about construction products.	
EI-4		Follow the organisation's rules on levels of information needed to supply or use a construction product or product information without making assumptions.	
EI-6	Know that it is your responsibility to accurately reflect the construction product(s) according to the relevant competent information or authority and not go beyond that.		
E2-1		Recognise the requirement for a construction product, locate information from approved sources and recite what the construction product is, what it is made of, its performance and characteristics	
E2-2	Duplicate and relay product information and identify missing product information, where appropriate seeking guidance for resolution.		
E2-3	Identify and recite construction product limitations and scope.		
E3-1	Be aware that there is a framework of legislation, regulations and standards that should be worked to when using construction products and the consequences of not operating within these requirements.		

**Example 1: Warehouse operating for architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
E3-4	Be aware of the Code for Construction Product Information and how it is utilised.		
E3-5	Be aware that the CE / UKCA / UKNI marks demonstrate that the manufacturer has declared a performance level against required characteristics.		
E3-6	Be aware that not all construction products can be conformity marked.		
E3-7	Be aware that third party certifications schemes assure a stated level of performance for certain characteristics.		
E3-8	Be aware that certain construction products are supported by direct test reports.		
E6-1	Know that construction products will have maintenance requirements and where to find them.		
E6-2	Recite and relay maintenance requirements according to the relevant competent information or authority.		
E7-2		Identify whether the product comes with a warranty or guarantee, and relay information without interpretation.	
E8-1	Recite and relay storage and handling requirements according to the relevant competent information or authority.		
E8-2		Follow storage and handling requirements according to the relevant competent information or authority.	
E9-1	Demonstrate a commitment to ongoing learning and development, undergo periodic review of competence and undertake training and development as required.		

**Example 1: Warehouse operating for architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
function specific		Unloading of delivery vehicles for goods in process	
function specific	Checking in of stock		
function specific		Sorting and placing materials or items on to racks, and shelves	
function specific		Collecting items from throughout the warehouse	
function specific		Preparing and completing warehouse orders for delivery or pickup	
function specific	Pack orders from picking lists		
function specific		Moving goods around warehouse	
function specific	Keep records of stock.		
function specific	Knowledge of in-house computer system for checking in of goods		
function specific	Knowledge of in-house computer system for dispatching orders		
function specific		Delivery of product to site	
function specific	Assisting at trade counter		
BS 8670			Understand and respect duty of care to others
BS 8670			Manage own competence

# Appendix 2 - Examples of CPC Profiles

## Example 2: Specifying architectural ironmongery

<b>Owner:</b> Guild of Architectural Ironmongers		<b>Version:</b> 0.1 DRAFT		
Topic information				
<b>Covering function(s):</b> Specifying architectural ironmongery		<b>Function Description:</b> Preparation of full and accurate product specification from supplied detail such as door schedule and joinery details.		
<b>Covering construction products / systems containing construction products:</b> Architectural Ironmongery		<b>Covering specialisms:</b> N/A		
<b>Level: B</b>				
Method of demonstration				
Training	Experience	Qualifications	Competence maintenance / CPD	Other
Training from company on in-house operating system	Experience in specification of architectural ironmongery, access control and electric hardware	DipGAI Diploma from Guild of Architectural Ironmongers - essential training for ironmongery specification	RegAI Continuing professional Development - highly recommended by GAI as demonstration of ongoing CPD	N/A
Company in house training on ironmongery scheduling software systems	Experience of working within the architectural ironmongery and/or door industry generally	Foundation in hardware (GAI) - optional	N/A	
Product training from supply chain and manufacturers	Experience of working with main contractors/ joinery sub-contractors/installers	Training in doors such as GAI Diploma in Door Solutions - optional	RegDS Continuing Professional Development - optional	
	Experience in doors and systems	Training in industry standards and regulations such as GAI CertSRA - preferred	CertSRA CPD which will be essential to retain CerttSRA post nom	
	Experience of working with quantity surveyors in respect of project budgets	Training in access control such as Diploma in Electric Hardware and Access Control from GAI, - optional	RegAC Continuing Professional Development - optional	

**Example 2: Specifying architectural ironmongery (cont'd)**

Method of demonstration				
Training	Experience	Qualifications	Competence maintenance / CPD	Other
		Training in fire doors from Trade Associations such as BWF/BRE/FDIS	Ongoing CPD	
		Training in door automation from associations such as ADSA	Ensuring qualification is kept up to date at renewal	
Criteria				
Ref	Knowledge	Skills	Behaviour	
BI-2		Understand at this level you may select or propose a construction product for an extended scope of application or a bespoke construction product, and this should be according to the organisation's design rules and recognised standards but where this deviates the construction product proposal should be referred for the appropriate competent approval.		
BI-8		Define required performance and / or product characteristics to develop a project-led system solution using the organisation's agreed design rules and recognised standards to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.  Approve as appropriate built environment system solutions developed using construction products in their direct scope of application.		
B2-3		Define the limitations / scope of application for a construction product.		
B2-4	Review project specific requirements where there is no approved rule currently available and propose solutions for construction products and / or built environment systems.			
B3-2		Apply and comply with the building regulations using appropriate methods, including those outside of the approved documents or corresponding guidance.		

**Example 2: Specifying architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
B3-5	Identify the performance requirements that would need to be declared on the Declaration of Performance.		
B4-1		Review compatibility of product interfaces and interactions (both direct and indirect) with other construction products within that built environment and their impacts on the built environment system in accordance with the project specific requirements.	
B4-2		Where selecting a construction product (including a substitution) understand the performance requirements of an application, the dependencies placed on individual construction products with an extended scope of application, and what performance characteristics are necessary to satisfy those dependencies.	
B4-3		Evaluate missing, conflicting or lower performance characteristics to determine if a construction product (including substitutions) satisfies the performance requirements of an application.	
B4-4	Evaluate any unacceptable risks identified in reasonably foreseeable conditions (including risks to, for example, performance, buildability, maintenance, or the organisation) for construction product substitution and determine solutions to mitigate those risks.		
B6-1	Analyse and assess that the construction products and / or built environment systems meet the durability, service life, access and maintenance requirements as appropriate to the operation, environment and client requirements and / or project specific application.		
B7-2		Identify, refer to and explain the relevant terms and conditions particular to what is included, excluded and required to maintain a non-standard or bespoke warranty or guarantee that should be considered when selecting a construction product / built environment system.	

**Example 2: Specifying architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
CI-3		Understand your responsibility to implement, follow and identify areas for improvement of organisational rules to the extent of good practice within the built environment sector to achieve built environment safety, balanced value assessment and support for early supply chain engagement and collaboration, together with minimising personal and organisational liability and reputational risks.	
CI-7		Define the content of product information to ensure that it is clear and accurate according to the organisation's rules.	
CI-10	Understand and implement or coordinate approved level of testing or assessment for project-led systems solutions.		
C2-1	Identify requirements for a construction product (including substitutions) and apply approved rules at a project level.		
C2-2	Review the content of product information to ensure it remains complete, traceably up-to-date, accessible and accurate e.g. when there are changes in standards and regulations.		
C3-1	Understand and apply knowledge of how to demonstrate compliance with the regulations when developing specifications and product information.		
C3-4		Apply expectations of the Code for Construction Product Information.	
C3-6	Identify which construction products cannot be conformity marked.		
C3-7	Identify the content of a third party certification scheme field of application report (where available) and be able to compare products intended for the same scope of application.		
C3-8	Identify the content of a test report (where applicable) and be able to compare products intended for the same direct scope of application.		

**Example 2: Specifying architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
C5-1		Identify installation requirements for the specific application.	
C6-2	Understand and identify data trends from actual use of the construction product / built environment system over time and communicate to others for review.		
C7-4		Identify where a bespoke solution for warranties and guarantees may be required and seek advice as appropriate.	
D1-1	Understand the organisation's construction products competence hierarchy and how to obtain advice and raise concerns as appropriate within it.		
D8-1		Understand and explain product information regarding requirements on the storage and handling of construction products.	
function specific	High level and detailed knowledge of ironmongery products and their impact on the correct operation of doors as well as the wider built environment	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific	knowing the importance of electronic hardware, door automation and their impact on an ironmongery specification.	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific	Knowledge of harmonised/ designated and voluntary standards and which products must be conformity marked. Also the role of a Declaration of Performance. Knowledge of third party certification schemes, as well as other industry schemes such as CCPI	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific	Knowledge of doorsets and assemblies and how ironmongery interacts with them	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific	Knowing life cycle costs and making judgement calls on the correct product for the application	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific	Knowing the impact of budget on a project and what is the correct level of product to specify	Apply this knowledge to specifying a project accurately and in compliance with building regulations in accordance with budget set for the project	

**Example 2: Specifying architectural ironmongery (cont'd)**

Criteria			
Ref	Knowledge	Skills	Behaviour
function specific	knowing the importance of testing in respect of fire, acoustics and security and the implications of this on the specification of ironmongery	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific	knowing the importance of master keying and its importance to the ironmongery specification	Possessing the ability to schedule master key systems accurately to clients requirements	
function specific	Knowledge of implications on a project of factors such as accessibility, acoustics, fire safety, security, anti-ligature and how these can be translated in to effective specification of compliant ironmongery product	Apply this knowledge to specifying a project accurately and in compliance with building regulations	
function specific		Analyse, utilise and apply data such as numbered architect's drawings, door schedule and joinery details to compile a specification of ironmongery drawing on industry experience, training and product knowledge	
function specific		Use communication skills to work closely and communicate effectively with key stakeholders such as architects, designers, end users and quantity surveyors to produce a specification	
function specific		Utilise problem solving skills to provide an in depth solution in the form of an ironmongery specification	
BS 8670			Manage own competence
BS 8670			Demonstrate personal responsibility and accountability
BS 8670			Understand and respect duty of care to others
BS 8670			Act ethically and contribute to safe outcomes

## Appendix 3 - Bibliography

Anderson and Krathwohl Bloom's Taxonomy – Revised Understanding the New Version of Bloom's Taxonomy – LO Wilson 2016

[https://quincycollege.edu/wp-content/uploads/Anderson-and-Krathwohl\\_Revised-Blooms-Taxonomy.pdf](https://quincycollege.edu/wp-content/uploads/Anderson-and-Krathwohl_Revised-Blooms-Taxonomy.pdf)

Building Safety Act 2022 – <https://www.legislation.gov.uk/ukpga/2022/30/enacted>

BS EN 15269-1:2019 + C1:2020, Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware Part 1: General requirements – published 31 May 2020 - <https://knowledge.bsigroup.com/products/extended-application-of-test-results-for-fire-resistance-and-or-smoke-control-for-door-shutter-and-openable-window-assemblies-including-their-elements-of-building-hardware-general-requirements-1/standard>

BS EN ISO 9000:2015, Quality management systems, fundamentals and vocabulary – published 30 September 2020 - <https://knowledge.bsigroup.com/products/quality-management-systems-fundamentals-and-vocabulary-1/standard/preview>

BSI Flex 8670 v3:2021-04 Built environment. Core criteria for building safety in competence frameworks. Code of practice – 30 April 2021 <https://knowledge.bsigroup.com/products/built-environment-core-criteria-for-building-safety-in-competence-frameworks-code-of-practice/standard>

CITB CDM 2015 Industry Guidance to Designers – first published 2015 - <https://www.citb.co.uk/media/ndlbn5v/cdm-2015-designers-interactive.pdf>

Code for construction product information – published September 2021 - <https://www.cpicode.org/wp-content/uploads/2021/09/Code-for-Construction-Product-Information-v1-0.pdf>

Functional Standards Common Glossary, Cabinet Office – published 16 July 2021, last updated 2 September 2021 - <https://www.gov.uk/government/publications/functional-standards-common-glossary>

Independent Review of Building Regulations and Fire Safety: final report – Dame Judith Hackitt – Ministry of Housing, Communities and Local Government – 17 May 2018 <https://www.gov.uk/government/publications/independent-review-of-building-regulations-and-fire-safety-final-report>

ISO 29481-1:2016 Building information models – information delivery manual – Part 1: Methodology and format – published May 2016 - <https://www.iso.org/standard/60553.html>

ISO 30300:2020 Information and documentation – Records management – core concepts and vocabulary - <https://www.iso.org/obp/ui/fr/#iso:std:iso:30300:ed-2:v1:en>

ISO/IEC Guide 2:2004 Standardization and related activities — General vocabulary – published November 2004 - <https://www.iso.org/standard/39976.html>

PAS 8671:2022 Built environment – Framework for competence of individual Principal Designers and designated individuals working under the Organization Principal Designer – Specification – published 26 July 2022 - <https://knowledge.bsigroup.com/products/built-environment-framework-for-competence-of-individual-principal-designers-specification/standard>

PAS 8672:2022 Built environment – Framework for competence of Individual Principal Contractors and Designated Individuals working under Organisational Principal Contractors – Specification – published 26 July 2022 - <https://www.bsigroup.com/en-GB/industries-and-sectors/construction-and-the-built-environment/built-environment-competence-standards/pas-8672/>

PAS 8673:2022 Built environment – Competence requirements for the management of safety in residential buildings – Specification – published 31 July 2022 - <https://knowledge.bsigroup.com/products/built-environment-competence-requirements-for-the-management-of-safety-in-residential-buildings-specification/standard>

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