Competence Steering Group

Working Group 2

Competence Framework – Installer Pilots Report (Phase One)

Date of issue: 17 May 2022

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1. Background

Following the Grenfell Tower fire, Working Group Two (WG2) was established as one of the Competence Steering Group (CSG) working groups to look at the competence of those installing fire safety systems. This remit subsequently expanded to cover all installers working in construction and the built environment. WG2's recommendations, included in the Setting the Bar report, were:

The industry should adopt a framework for all the installer sectors working on in-scope buildings that can be applied to other project types. The framework will consist of:

1. *Accredited third party certification of companies*
2. *Level 2 or 3 qualifications for individuals*
3. *A card scheme such as, but not limited to, the CSCS*
4. *CPD refresher training and the maintenance of individual skills*
5. *All installers have a core knowledge of fire safety in buildings – training to be standardised and made mandatory*

In line with these recommendations, WG2 has completed the first phase of its work benchmarking the existing competence arrangements of six pilot installer sectors which have the potential to significantly impact on life safety. The six pilot sectors are:

1. Domestic Plumbing and Heating
2. Dry Lining
3. Fire Detection and Alarms
4. Fire Stopping Specialist
5. Rainscreen Cladding
6. Roofing

The objective of 'Pilots – phase one,' was to establish the current competence arrangements, compare them to the WG2's recommendations and BSI Flex 8670: Core criteria for building safety in competence frameworks – Code of practice and identify any gaps.

WG2 will now move to phase two and the six pilot installer sectors will reconvene with their own Chairs and Terms of Reference, to develop their sector-specific competence frameworks to meet the recommendations set out in Setting the Bar. This work is expected to last between six to nine months with each sector developing a timeline and implementation plan for addressing the shortcomings.

WG2 would strongly encourage other installer sectors to review their existing competence arrangements in line with this report.

2. Competence Arrangements in Pilot Sectors

2.1 Accredited Third Party Certification of Companies

The majority of pilot installer sectors have some form of accredited third party certification scheme for companies whereby their operations and services are checked by an independent organisation, usually accredited by the United Kingdom Accreditation Service (UKAS). These schemes typically look at a broad scope of work but do not cover more specific activities, something the sector groups now want to address.

Accredited third party certification of companies is not mandatory in any of the pilot installer sectors. The requirements set, and the audit processes followed by the different accredited third party certification schemes, vary significantly as does the number of organisations certified in each of the pilot installer sectors. In some cases, there are also differences between schemes across different parts of the UK, mainly related to the devolution of building control.

A major weakness of most of the accredited third party certification schemes in the pilot installer sectors is the lack of assurance on individual competence including no minimum qualification requirements and a lack of clarity on competence requirements for those responsible for confirming compliance. Checks on how an organisation ensures the competence of its workforce are also limited. These shortcomings are a consequence of a lack of clarity or agreement of the requirements for individual competence, and the accreditation scheme's interpretation of mandatory competence requirements which can lead to a subjective or superficial approach. Clearer and more robust individual competence standards will enable improvements in assurance of organisational competence to be made.

Where accredited third party certification does not exist or falls short of WG2's key principles, the pilot installer sectors are unable to implement the particular recommendation from Setting the Bar which should be a priority consideration for phase two. Some sectors may not be able to introduce a UKAS accredited scheme in line with ISO 17065 straightaway, and interim arrangements involving the relevant trade association(s), may offer a more pragmatic and realistic way forward.

One way that could assist businesses to demonstrate organisational competence is through being certified against the Common Assessment Standard. Whilst not accredited, the Common Assessment Standard comprises an industry-agreed question set based on existing pre-qualification questionnaires, including Publicly Available Specification (PAS) 91, and corresponding assessment standards, and companies are certified against it by a Recognised Assessment Body of their choice. With some modification to the question set in the Common Assessment Standard with consideration of sector specific standards, which could be identified during phase two, specialist subcontractors could rely on it to demonstrate their organisational competence as in interim measure in line with the WG2 key principles. The Common Assessment Standard is reviewed on an annual basis by the Common Assessment Review Panel who propose amendments to the Common Assessment Standard which are then signed-off by Build UK. This ensures the question set and assessment standards are reactive and continuously meet the needs of the industry.

2.2 Individual Competence

Amongst the six pilot installer sectors, there are a range of existing mechanisms for the validation of competence including apprenticeships, qualifications and assessments. Whilst some sectors have established apprenticeships in place, in the majority of sectors apprenticeships are limited as they continue to be difficult for these sectors to implement and deliver.

All pilot sectors reported a substantial number of individuals continuing to enter the workforce without undergoing a recognised and robust, competence assessment process. Phase one highlighted that:

- Commercial short courses are widespread where content is often simplified and/or shortened and do not offer any meaningful work experience.
- The prevalence of knowledge-only courses and qualifications is also a significant issue, falling short of what is required to develop competence.
- In some pilot installer sectors there are questions about current quality controls on assessments of Competence Based Qualifications (CBQs).

A significant gap in all six pilot installer sectors is the absence of an established experienced worker route (EWR) to enable individuals already working in the industry to validate their competence. Where elements of an EWR in one sector have recently been introduced, the take up so far has been low however that is expected to change once the requirement for competence is clear.

The competence requirements of task supervisors and team leaders will require further consideration during phase two as they are critical to fire and building safety, with responsibility for supervising and signing off work carried out by others, some of whom may be new entrants or working towards a qualification. Each sector should consider who these competencies would apply to as different sectors use different terminology to describe those undertaking the role of overseeing or monitoring the work of an installer.

The consensus among almost all those taking part in phase one was that each installer sector requires industry-endorsed qualifications, a clear definition of competence at the various levels in the occupation and a delivery system that ensures appropriate training, experience and assessment of individuals. All installer sectors need to consider a standardised and robust system of revalidation of competence as even in those pilot installer sectors with more robust standards, there is an ongoing reliance on qualifications achieved years earlier which need refreshing and updating.

2.3 Card Schemes

Card schemes that recognise individual's qualifications operate in all pilot installer sectors. All but one of the schemes carries the Construction Skills Certification Scheme (CSCS) logo either as part of, or as one of its CSCS partner schemes in the CSCS Alliance. Cards carrying the CSCS logo are required on the majority of commercial construction sites, and it is anticipated that all partner schemes will continue to recognise the skills, training and qualifications deemed as acceptable by each sector. The recently launched CSCS Smart Check enables the majority of cards carrying the CSCS logo to be verified using one app. Cards can also hold information on additional training and qualifications achieved and have the potential to record CPD or refresher training.

2.4 Continuing Professional Development

Continuing Professional Development (CPD) arrangements are quite varied across the pilot installer sectors. Whilst a range of training provided by trade associations, institutions or manufacturers, could be considered to be upskilling or CPD, it is not

mandatory in any of the pilot installer sectors. There are no criteria or standards in place, no validation or assessment of delivery and is usually undertaken on an ad hoc and voluntary basis.

2.5 Core Knowledge of Fire Safety in Buildings

The availability, content and take up of fire safety awareness training for installers is limited. In response to the recommendation from WG2, and following consultation with the industry, the Construction Industry Training Board (CITB) is developing on an online fire safety awareness training course. The aim of this course is to provide all installers with an awareness of fire safety in buildings, the principles of compartmentation and how to avoid compromising the fire safety strategy of the building. It is expected that this training will be rolled out across the construction and built environment sector by the end of 2022.

Sector groups will also need to include sector specific fire safety awareness as part of their competence requirements and incorporate it into their training, qualification and CPD framework. The Institute for Apprenticeships and Technical Education (IfATE) in England has confirmed that these and other building safety elements will be incorporated into IfATE's 2022 Construction Route Review of all construction and related apprenticeships.

3. Lessons Learnt

Members of all the pilot installer sectors demonstrated a strong commitment to collaborate on the benchmarking and development of their competence frameworks. All sectors also indicated the need for their frameworks to cover installers across all types of building and infrastructure and not just original installation itself, but also testing, commissioning, repairs, maintenance and improvements.

WG2 anticipated that the different pilot installer sectors would progress at different speeds with unique challenges based on the nature of their workforce and how their sector operates. However, there have been some underlying factors that impact how quickly and effectively a sector is able to benchmark its current competency arrangements:

- How easy it is to determine the scope of the occupation or occupations to be covered by the framework.
- The level of detail known about the specific activities individuals undertake; what is core to the occupation and required by everyone and what may be deemed to be additional for particularly specialist areas of the occupation.
- The maturity of existing competence requirements. Legacy issues such as a lack of qualifications, unqualified or under-qualified installers in the workforce and a lack of capacity in the education and training system will not be fixed overnight.
- The number of organisations in the sector, how collaborative they are, the resources they have and their commitment to addressing any competence challenges. During phase one, those sectors with weaker institutional arrangements struggled to progress their benchmarking as fast as those sectors with more established representative organisations. The existence of one, or a small number of trade bodies in a sector is more likely to lead to consensus and make the implementation of changes easier; sectors with competing institutions, interests and visions will find it more difficult.
- The overlap between occupations and/or jurisdictions where differences of opinions or views can arise. WG2 is able to engage with and support sectors where there are overlaps, however, it is for installer sectors to work collaboratively and determine their own competence arrangements in line with the Setting the Bar recommendations.
- The size of businesses and the employment model in a sector. Low levels of direct employment or the prevalence of small sole traders and micro businesses may mean that competence requirements struggle to penetrate across the sector.

The level of support offered by stakeholders to assist in overcoming cross cutting and sector specific barriers is also key including:

- The Department for Education (DfE) and further education institutions working with industry to improve the availability and quality of entry level and upskilling training.
- Main contractors, clients, frameworks etc. aligning their procurement and supply chain management requirements to engage competent organisations and individuals in accordance with sector framework requirements.
- CITB and ECITB supporting individual in-scope sectors with the development of qualifications and a training delivery network.
- Independent training providers offering suitable and sufficient training and qualification infrastructure.
- Construction Leadership Council (CLC) representing the sector where policy changes are required.
- The new Building Safety Regulator, Health and Safety Executive (HSE) and Interim Industry Competence Committee (IICC) monitoring and promoting compliance and competence.

4. Phase Two

Each of the six pilot installer sectors now has responsibility for progressing the development of its own competence framework. The first step for each sector is to establish a group with a Chair, Secretariat and members which appropriately represents the sector and agree a plan and timeline to complete the work required.

Other installer sectors are advised to follow a similar process beginning with benchmarking their current competence arrangements against the competence framework set out by WG2. A blank copy of the documents used to assist with this are listed in the annex at the end of this report.

WG2 will offer support and guidance and oversee the completion of work in each sector and will report progress on a regular basis. The objective will be to confirm the agreed frameworks to the IICC for as many sectors as possible by end of 2022.

5. Domestic Plumbing and Heating

5.1 Overview

The Domestic Plumbing and Heating (DP&H) sector is responsible for the design, installation, commissioning, maintenance and testing of plumbing and heating systems in people's homes. It overlaps and intersects with other engineering services disciplines, including electrical, gas, heating, industrial/commercial plumbing, mechanical pipework and ventilation and air conditioning (HVAC).

Institutional arrangements in the DP&H sector are mature with separate trade associations for England/Wales and Scotland/Northern Ireland; two CSCS-compliant individual certification card schemes carrying the CSCS logo with a similar jurisdictional split; company certification schemes (except in Northern Ireland); a professional body and a sector skills partnership. Whilst there is dialogue and collaboration between the various organisations, there is still some way to go before the sector can claim to have a joined up approach to competence.

There is a high proportion of sole traders in this sector, low take up for some accredited third party certification schemes that do not cover gas and a range of routes for individuals to be deemed competent which do not meet the competence framework set out by WG2.

The benchmarking undertaken during phase one confirmed that existing training and assessment resources are currently insufficient to meet the competence framework set out by WG2.

5.2 Summary of Findings

- Whilst organisational competence arrangements are in place, further work is required to:
    - Define both a common set of organisational competence requirements for all types of DP&H work and more specific requirements for specialist activities and working environments.
    - Improve checks on how the competence of individuals conducting DP&H for the organisation are managed.
    - Establish appropriate and consistent sector standards for fire safety training and CPD.
- The sector is currently covered by JIB-PMES and SNIJIB cards as part of the CSCS alliance.
- Agreement is required on the following:
    - Competence requirements of heating fitters.
    - Extending revalidation to other (non-gas) aspects of DP&H work.
    - Dealing with non-compliant qualifications and training.
    - Developing and rolling out EWR arrangements, including potential transitional provisions for the existing level two workforce.

5.3 Next Steps

Phase one participants have confirmed their willingness and intention to move to phase two and will establish a working group. The first challenge will be bringing the sector together and agreeing on the core requirements of its competence framework.

Pilot installer sector lead: to be confirmed.

For a more detailed breakdown of the findings for the domestic plumbing and heating sector, please refer to Annex A.

6. Dry Lining

6.1 Overview

Dry lining installation is an occupation within the finishes and interiors sector, responsible for the construction of internal walls, linings and ceilings, including erection of timber and metal frames (fixer), the fixing of boards creating openings (doors and windows/boarder) and taping, jointing and finishing, which may include a skim plaster coat or spray plaster, of boarded areas (finisher).

Competence arrangements in the sector are in place and the leading trade association is the Finishes and Interior Sector (FIS) which covers the whole of the UK, however there are different requirements across the home nations.

Dry lining was originally completed by construction carpenter joiners building the wooden frames and then finished by plasterers or painter decorators; the division of dry lining into three distinct roles, fixer, boarder and finisher has created a degree of difficulty in identifying if each role has sufficient training and qualifications in place. Apprenticeships in Scotland and Wales continue to distinguish the three occupational roles, or combinations of the roles, while the current English apprenticeship standards do not. The standard for 'interior systems installer' covers the training required to work as a fixer boarder, whilst the activities associated with a finisher are contained in the apprenticeship standard for 'plasterer', which also includes fixer boarder. IfATE have attempted to simplify this by not allowing task duplication between apprenticeships and occupations

It is estimated that just under half of dry liners are working without a validated level of competence.

6.2 Summary of Findings

The sector has the foundations on which to build a coherent competency framework but does face several unique challenges:

- The tendering and procurement practices in the sector have short lead times pushing the sector to rely on relatively high levels of Labour-Only Sub-contractors (LOSC).
- The sector has become heavily reliant on European Union (EU) Workers and changes to immigration policy in the UK has created a shortage of workers in many sectors particularly in the finishes and interiors sector.
- An accredited third party certification of companies scheme does exist but is not specific to dry lining.
- The sector has level two qualifications in place. However, the proportion of the workforce that has achieved these is low at 49%. It is possible that dry lining work is being completed by workers with qualifications in other occupations and/or those registered with CSCS green labourer cards.
- The sector is currently covered by the CSCS card scheme.
- No revalidation of competence is undertaken in the sector except for mandatory health, safety and environment training.
- The sector does not have any CPD courses for operatives beyond manufacturer-specific product training.
- Fire safety is included in dry lining training, but the delivery of these elements is inconsistent. The existing National Occupational Standards (NOS) have been adapted to emphasise the importance of fire safety.
    - During phase two, the sector group will also need to establish higher and more consistent sector standards for both fire safety training and CPD, and to consider how best to ensure widespread adoption of these standards by organisations and individuals.

6.3 Next Steps

Phase one participants have confirmed their willingness and intention to move to phase two and will establish a working group.

Pilot installer sector lead: Iain McIlwee, FIS.

For a more detailed breakdown of the findings for the dry lining sector, please refer to Annex B.

7. Fire Detection and Alarms

7.1 Overview

The Fire Detection and Alarms (FD&A) sector is responsible for the design, installation, commissioning, maintenance and testing of fire detection and alarm systems. It overlaps and intersects with other engineering services disciplines, especially electrical contracting, security and emergency systems.

Institutional arrangements in the sector are quite mature. While governance and representation are split between several different sector bodies, dialogue between most of these bodies is good and there are examples of successful sector wide collaboration on competence including the development of specialist apprenticeships and EWRs. However, there is disagreement regarding the roles in the initial validation of competence by apprenticeships/CBQs/EWRs, and individual third-party certification.

The sector has relatively high levels of direct employment, due to the requirement for on-going maintenance of installed systems in most FD&A businesses' workloads which should make it easier to implement a sector-wide approach to a competence framework as set out by WG2. However, there are self-employed and agency workers in the sector and a great number of micro and small businesses.

The benchmarking undertaken during phase one confirmed that existing training and assessment resources are currently insufficient to meet the competence framework recommendations set out by WG2.

7.2 Summary of Findings

- Although the FD&A sector already has well established schemes for the accredited third party certification of companies, phase two must ensure that recent improvements to these schemes include how the organisation checks the competence of the individuals they employ.
- There has been good progress in rolling out new specialist apprenticeships and EWRs for the sector. However, more consideration should be given to increasing the number of workers initially achieving qualifications.
- The sector needs to reach a consensus on how certification of individuals can be used to validate individual competence and any consensus ensures it is at least equivalent to an apprenticeship/CBQ/EWR.
- The current approach to the periodic revalidation of individual competence is inconsistent.
- The sector is currently covered by the ECS card scheme, under CSCS, and the NAPIT ID card.
- There are no minimum CPD requirements.
- Current fire safety awareness training arrangements require substantial improvement.

7.3 Next Steps

Phase one participants have confirmed their willingness and intention to move to phase two and will establish a working group. Direct employer and business owner involvement is felt to be especially important, and Helen Yeulet of Actuate UK been confirmed as independent Chair of the group. It will be particularly important to manage the conflict of interests and areas of disagreement in this sector.

Pilot installer sector lead: Helen Yeulet, Actuate UK.

For a more detailed breakdown of the findings for the fire detection and alarms sector, please refer to Annex C.

8. Fire Stopping Specialist

8.1 Overview

The Fire Stopping Specialist (FSS) sector is responsible for sealing openings to prevent fire, including smoke and heat, from passing through building compartments, preserving the building's structure and enabling safe means of escape in the event of a fire through proper compartmentation.

There are several types of fire stopping, which is just one of a range of passive fire protection measures required to protect buildings and their users. Businesses that operate as FSSs may specialise in just one type of fire stopping whilst others undertake a wider range of passive and active fire protection work.

Fire stopping may also be carried out by other non-specialist installer occupations (see 'Boundaries/overlaps' in Annex D). Such non-specialist activity currently sits outside the scope of the FSS framework, which is intended to apply to dedicated specialist installers only. WG2 will, however, facilitate constructive dialogue between the FSS group and other relevant installer sector groups to ensure a sufficiently consistent approach to fire stopping competence, whether undertaken by specialists or non-specialists.

The Association for Specialist Fire Protection (ASFP) is the leading trade body in the FSS sector and its membership of 271 firms spans manufacturers, distributors, certification bodies and tier one contractors as well as over 100 installation contractors.

The benchmarking undertaken during phase one confirmed that the existing arrangements for individual competence, including an existing level two diploma qualification in passive fire protection, are not fit for purpose. There is a shortage of specialist trainers, assessors and further education provision and facilities in passive fire protection.

8.2 Summary of Findings

- Work has already begun to improve the overall quality of third-party certification of companies in the sector.
- The sector group will need to define a new competence standard to replace the current level two passive fire protection diploma.
- The sector is currently covered by the CSCS card scheme.

8.3 Next Steps

Phase one participants have confirmed their willingness and intention to move to phase two and will establish a working group. The ASFP has confirmed that they would be willing to provide the secretariat and could identify a suitable chair from within its membership or from the Institution of Fire Engineers (IFE).

Pilot installer sector lead: Niall Rowan, ASFP.

For a more detailed breakdown of the findings for the fire stopping specialist sector, please refer to Annex D.

9. Rainscreen Cladding Overview

9.1 Overview

The rainscreen cladding sector is responsible for the installation of rainscreen panels that attach to the side and roofs of buildings and were the type of cladding façade used on Grenfell Tower.

The institutional arrangements in the cladding sector are relatively weak and disjointed, with different representative organisations covering various types of cladding and no one body specifically or exclusively covering rainscreen cladding. Rainscreen cladding is a more modern technology and practice compared to the other pilot installer sectors covered in this report, this may partly explain the relatively weak institutional arrangements.

The sector does not have an apprenticeship and whilst there are CBQs in place, the quality, scope and scale of the training, along with the number of trainers and training centres is insufficient to provide the construction industry with the workforce required, both to install rainscreen cladding on new buildings or to remediate existing buildings. Concerns have been raised within government regarding the ability of the sector to meet the timescales set for the remediation of cladding on existing buildings.

9.2 Summary of Findings

- There is no accredited third party certification of companies scheme specific to rainscreen cladding companies.
- The sector has both a level two and three NVQ in place, however, the quality of assessment and penetration of these qualifications is poor.
- The NOS for rainscreen cladding is currently under review and the sector should be working with CITB on this.
- The sector is currently covered by the CSCS card scheme.
- The sector does not have any CPD courses for operatives beyond manufacturer-specific training, some of which have been standardised, but others have not.
- Some generic fire safety training is available but is not mandatory and is insufficient for the purposes of the WG2 competence framework.

9.3 Next Steps

Phase one participants have confirmed their willingness and intention to move to phase two and will establish a working group.

Pilot installer sector lead: To be confirmed.

For a more detailed breakdown of the findings for the rainscreen cladding sector, please refer to Annex E.

10. Roofing

10.1 Overview

There are a wide range of occupations in the roofing sector which are responsible for work on the roofs of new buildings and repair, maintenance and re-roofing of existing structures. Covering many different types of roofs, materials and environments the roofing sector in the UK is vast with around 65,000 workers. Many of these are self-employed.

The institutional arrangements in the roofing sector are strong with a number of employer trade associations covering the various disciplines and an institution for individuals. Collaboration between these institutions is good and phase one of the pilot has engaged with the majority of roofing disciplines. Phase two will look to engage with the remainder, in particular the metal roofing and mastic asphalt disciplines.

One of the sectors main strengths is the presence of the RoofCERT scheme, which facilitates the revalidation of skills in the majority of disciplines. The biggest challenge is the lack of appetite across the industry to voluntarily take part in this process. There are many in the industry who appear to be waiting for legislative changes to force them into better working practices, including the revalidation of competence.

The sector has an apprenticeship and recognised level two and three qualifications however there are significant issues with the infrastructure to deliver the required training and assessment including a lack of trainers and occupational specific assessors. Training standards for CPD are in place but are too wide ranging with 159 different standards available through CITB and it is not clear which of these are being delivered. Like many construction sectors, roofing struggles to attract new talent.

10.2 Summary of Findings

- A good qualification structure for the various roofing disciplines is in place.
- Both the take up for training and completion rates are poor.
- Training infrastructure, including specialist trainers and assessors, remains an ongoing challenge that will need to be addressed to cope with future demand.
- The roofing industry has continued to develop revalidation of competency through RoofCERT with coverage across most disciplines and the addition of an EWR. The roofing industry is considered to be more advanced than other sectors when it comes to revalidation of skills in the built environment.
- A number of training standards are available relating to roofing occupations. However, this can be difficult for installers to navigate and creates difficulties with maintaining the library of standards.
- The sector is currently covered by the CSCS card scheme.
- Manufacturer training exists but is related to specific products and is therefore only relevant to some disciplines within the roofing sector. There is significant potential for manufacturers to deliver training beyond their own products. The sector group should explore the appetite of manufacturers to this type of training to be recognised in skilling the workforce.
- Fire safety training is available however it is unclear how much is available or undertaken.

10.3 Next Steps

Phase one participants have confirmed their willingness and intention to move to phase two and will establish a working group.

Pilot installer sector lead: Richard Miller, NFRC.

For a more detailed breakdown of the findings for the roofing sector, please refer to Annex F.

Annex A – Domestic Plumbing and Heating Sector Breakdown

Number of businesses in sector	Estimated to be approximately 80,000 UK businesses. ONS estimate around 49,000 businesses, 94% of whom are microbusinesses or sole traders, with small businesses accounting for a further five percent.	
Number/% businesses involved with HRBs?	Estimate assumes approximately 10% of businesses (i.e., 4,000-8,000) are regularly involved with Higher Risk Buildings (HRBs). However, any plumbing business might end up conducting work on HRBs from time to time.	
Number of workers in sector – including number/% split between direct employees and indirect	Estimates of 150,000-200,000 (ONS estimate 105,000). Capital Economics estimate for the Homeserve Foundation suggests 50:50 split between employed and self-employed plumbers.	
Number/% workers involved with HRBs?	Best industry estimate is approximately 10% of workers (i.e., 15,000-20,000) regularly involved with HRBs. In practice, however, any individual might end up conducting work on HRBs.	
Recognised sector and stakeholder organisations * Phase one participants	Member-led trade associations	Association of Plumbing and Heating Contractors (APHC)* Building Engineering Services Association (BESA)* Scottish and Northern Irish Plumbing Employers Federation (SNIPEF)*
	Trade union + collective bargaining institutions	Joint Industry Board for Plumbing Mechanical Engineering Services (JIB-PMES) * Scottish and Northern Ireland JIB (SNIJIB)* Unite the Union
	Enterprise certification/registration schemes	Accredited Certifiers of Construction Schemes (Scotland) Competent Person Schemes (England and Wales) Gas Safe Microgeneration Certification Scheme (MCS)
	Certification organisations	APHC* Blue Flame Building Engineering Services Competent Assessment (BESCA) Certsure HETAS NAPIT OFTEC SNIPEF* (*see description of Scottish ACC Scheme, below*)
	Sector skills organisations	BSE Skills IfATE Low Carbon Heating Technician apprenticeship employer group IfATE Plumbing and Domestic Heating Technician apprenticeship employer group Plumbing and Heating Skills Partnership
	Awarding organisations	BPEC City & Guilds EAL LCL Awards Qualifications Wales (QW) SQA Awarding (Scotland)
	Skills certification schemes	JIB-PMES* SNIJIB*
	Professional institutions	BEIS – electrification of heat (England) Chartered institute of Building Services Engineers (CIBSE) Chartered Institute of Plumbing and Heating Engineers (CIPHE)*
	Other significant sector stakeholders	Building Safety Regulator (England) Building Standards Division (Scotland) Department for Communities (Northern Ireland) Department for the Economy (Northern Ireland) Department for Levelling Up Housing and Communities (DLUHC) Energy and Climate Change Directorate (Scotland)

		EU Skills Gas Safe Standards Consultation Forum (EU Skills provides secretariat) Ground Source Heat Pump Association (GSHPA) Heat Pump Association (HPA) Heating and Hotwater Industry Council (HHIC) Housing Safety, Regulation and Improvement Division (Wales) HSE (Gas Safe) Institute for Apprenticeships and Technical Education (IfATE) Institution of Gas Engineers and Managers (IGEM) IGEM Large Business Forum Skills Development Scotland (SDS)

	Occupations in scope to the DP&H Sector Framework: • Apprentice • Experienced worker • Labourer/mate • Manager (level four) • Plumbing and domestic heating engineer (including legacy heating fitter occupation) (level two/level three) * • Supervisor (level three) • Trainee * Latterly, both England and Wales have moved towards a single level three entry point for plumbers, bringing them into line with the long-standing position in Scotland. Level two remains a live option in Northern Ireland, however, and a majority of existing plumbers in England and Wales are also qualified only to level two. See below for sector proposals for potentially upskilling level two plumbers to level three. In addition to the above, development of a new IfATE Low Carbon Heating Technician apprenticeship standard may create, in effect, a new level three occupation.	**Boundaries/overlaps with other installer sectors and/or occupations:** • Electrical* • Fire stopping** • Gas service engineer/gas operative*** • Mechanical pipefitter • Specialist PMES related occupations (e.g., those listed here and here) • Various HVAC and industrial/commercial plumbing occupations * DP&H work necessarily involves some overlaps and interfaces with electrical work, and these are likely to multiply with the growth in technologies combining plumbing and electrical elements (e.g., heat-pumps). Constructive dialogue between the DP&H group and (when up and running) the electrical group should ensure a safe and appropriate measure of demarcation in this area. ** Fire stopping is widely recognised as both a specialist installer discipline in its own right and as a generic function conducted by many other installer disciplines, including within the DP&H sector. WG2 will facilitate constructive dialogue between the Fire Stopping Specialist (FSS) group and other relevant installer sector groups, including DP&H, to ensure a sufficiently consistent approach to fire stopping competence, whether undertaken by specialists or non-specialists in fire stopping. *** Current plans are for this framework to cover the full range of DP&H work, including gas, when conducted by competent plumbers and/or heating fitters. It is not intended to cover enterprises and individuals competent in gas only. The DP&H group nevertheless intends to maintain open communications with gas industry stakeholders as development of the framework proceeds.

1. Organisational Competence

ISO 17065 scheme(s) in place?	Alternative trade association scheme(s)?	Scheme(s) scope?	Scheme(s) coverage?	WG2 comments
Gas (UK wide) DLUHC recognise Gas Safe as equivalent to Competent Person Scheme (CPS), but for WG2 organisational competence purposes this may be open to question, given relatively light touch Gas Safe requirements around management systems and auditing. **Other domestic plumbing and heating (England & Wales)** Four distinct CPS exist for domestic work in England and Wales, with seven recognised CPS operators. Feedback from sector is that existing CPS qualification requirements and provisions concerning enterprise's management of wider workforce competence fall short of WG2 recommendations. CPS review of DP&H Minimum Technical Competencies (MTCs) under way at time of writing (March 2022) and expected to conclude quite soon. **Other domestic plumbing and heating (Northern Ireland)** Feedback from sector is that there is nothing comparable to either CPS or ACCS in Northern Ireland.	**Other domestic plumbing and heating (Scotland)** SNIPEF operates an Approved Certifier of Construction Scheme (ACCS), in accordance with Section 7(2) of the building (Scotland) Act 2003. Feedback from sector is that ACCS qualification requirements for designated certifiers are in line with WG2 recommendations, but that ACCS provisions concerning qualifications of wider workforce and enterprise's management of competence fall short of WG2 recommendations. **Other domestic plumbing and heating (Northern Ireland)** Feedback from sector is that there is nothing comparable to either CPS or ACCS in Northern Ireland.	**Gas** Multiple work types divided by one or more of the following: • Domestic/commercial • Function • Fuel type • Appliance type • Work setting. **Other domestic plumbing and heating (Great Britain)** CPS and ACCS work types broadly similar –including: • Combustion appliances (oil, including liquid biofuels; solid fuel, including biomass) • Heating and hot water systems • Plumbing and water supply systems • Microgeneration and renewable technologies (including heat-pumps and solar thermal). Following the current MTC review, CPS and MCS business and competence standards are expected to be fully aligned in England and Wales. Less alignment currently in Scotland. An important limitation on the scope of both CPS and ACCS is that although they broadly cover installation and related activities (including retrofit), ongoing maintenance activities (e.g., servicing, fault-finding, repair) are mostly excluded.	**Gas** Because of statutory underpinning, Gas Safe coverage understood to be extremely high (Gas Safe website states 131,600 registered individuals and 76,800 registered enterprises). **Other domestic plumbing and heating** Feedback from England and Wales is that coverage is uneven between different CPS. Generally higher coverage for renewables and technologies historically perceived as higher risk (e.g., oil, solid fuel, unvented), lower coverage for water systems and drainage.	Organisational competence arrangements are already well established within the sector, albeit these are split between different schemes. There is considerably lower take-up for some schemes than for others, and some important aspects of DP&H work (e.g., non-gas maintenance) are excluded from coverage at present. There would also appear to be some shortfalls in individual qualification and competence requirements, including assessment of individuals responsible for technical compliance and scrutiny of how each organisation manages the training, qualifications, competence and supervision of its DP&H installer workforce as a whole. Priority actions for the sector group during phase two include: • To define a common set of organisational competence requirements for all types of DP&H work, plus additional requirements for particular work types and/or work environments • To bridge gaps in the requirements and checks relating to management of the competence of individuals conducting DP&H for the organisation. Given the sector group's confirmed ambition for a UK-wide framework for DP&H, two other issues for consideration during phase two include: • Whether non-UKAS-accredited arrangements (e.g., those already operating in Scotland) might nevertheless qualify as 'equivalent,' and therefore compatible with WG2 *Key Principles* organisational competence provisions • How to address Northern Ireland's apparent 'outlier' status on organisational competence, with reportedly no recognised arrangements currently in place.

2. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence	**Gas** Initial Gas Safe individual registration is based on successful completion of (EU Skills) recognised level three qualifications covering relevant work type(s), including associated	**Gas** Gas Safe model has sometimes been criticised for adopting an unduly narrow approach to competence (i.e., breaking competence up between too many different work types). DP&H sector	**Gas** Coverage is understood to be extremely high (131,600 individuals registered with Gas Safe). Sector representatives have confirmed, however, that unregistered/unqualified individuals do	Current DP&H individual initial competence validation arrangements present a mixed picture. On the one hand, there is a well-established apprenticeship tradition in plumbing, with an emerging consensus in favour of a single level three entry route. Exposure to the Gas Safe revalidation regime also provides the DP&H sector with a stronger foundation on which to build than most other installer disciplines.

	assessments. These gas qualifications can be obtained either inside or outside of an apprenticeship. **Plumbers** Historically, initial validation of competence was through completion of industry CBQ level two/three and/or apprenticeships. England and Wales have now aligned with Scotland by closing down alternative level two entry routes. Only Northern Ireland has currently preserved preserves a level two entry routes. Current plumbing apprenticeships and qualifications throughout the UK consist of both core content (approx. 75% of the whole) and options, the latter including gas, renewables, etc. An extra mechanism for validating competence may become available in due course through development of an EWR. **Heating fitters** Historically, a separate occupation, but, in practice, all previous level three qualifications are now understood to have been discontinued, with only one (City & Guilds) level two qualification still 'live.' Feedback from Scotland is that their level three qualification is still current. During phase one, it was proposed to incorporate heating fitter as one variant of otherwise a consolidated plumbing and domestic heating role. **Low carbon heating technician** Not yet in place, but potential level three apprenticeship standard currently in development, with end point assessment (England only). **Supervisors/managers** Card scheme VQ level three/four requirements now in place for PMES cards in England and Wales, with supervisors/managers expected to come into compliance between now and 31 December 2024. Equivalent arrangements previously already in place in Scotland.	feedback about competent plumbers' interactions with Gas Safe is broadly positive, however, and there is no apparent appetite for any major change of approach. **Plumbers** With the exception of Northern Ireland, level three for new entrants appears to enjoy widespread support, and preferably through an apprenticeship. Concerns in England that the new level three apprenticeship is not fit for purpose for some (mostly smaller) firms might now about to be resolved by the proposed development of an alternative non-fuel pathway. In Northern Ireland, there are concerns that the DP&H sector's own views about appropriate competence standards tend to carry less weight with Government than those of the further education establishment. **Heating fitters** Given the situation described in the previous column, some further work is required during phase two to reach a consensus on the status of this occupation and future competence arrangements. **Supervisors/managers** In common with other disciplines, the DP&H sector group will need to consider the management implications of BSI Flex 8670, including the 'core competence criteria' in Tables 1-5.	still carry out gas work 'under supervision.' **Plumbers** Reliable estimates for percentage qualified *versus* non-qualified individuals in the workforce seem difficult to establish. Sector representatives have expressed particular concerns about the growth of unqualified and semi-qualified individuals in England and Wales becoming sole traders and undertaking DP&H work, which current CPS arrangements do not necessarily prevent. Another factor driving this trend has apparently been an increase in the number of individuals studying plumbing full-time (i.e., without adequate or any work experience) and proliferation of commercial 'fast-track' training courses. These problems are believed to be less acute in Scotland, but not unknown. Another issue, if the sector confirms VQ level three as the sole future competence level for plumbers, are large numbers of existing plumbers in England and Wales currently qualified only to VQ level two. According to cardholder figures from JIB-PMES, this is likely to be the majority. This is likely to be a significant issue in Northern Ireland as well.	However, recent plumbing apprenticeship uptake appears to have suffered from the variety of alternative entry routes. Discussions during phase one have also highlighted significant differences of opinion about issues concerning the future status of heating fitters and the absence currently approaches to of an effective EWR. Phase two offers the DP&H group an opportunity to work through these issues and reach a consensus with regard to: • Heating fitters. • Extending revalidation to other (non-gas) aspects of DP&H work. • Tackling non-compliant qualifications and training. • Developing and rolling out an effective EWR, including potential transitional/bridging provisions for the existing level two workforce. As with organisational competence, the sector group will also need to turn its mind to the seemingly growing divergence between Northern Ireland and the rest of the UK on qualification levels.

Periodic revalidation of competence	Individuals wishing to maintain Gas Safe registration must undergo reassessment for each applicable work type every five years. Apart from checks on currency of qualifications and HSE competence as part of PMES/SNIJIB card renewal process, no standard revalidation process for individuals carrying out other aspects of DP&H work.	Sector representatives broadly positive about Gas Safe reassessment process. N/A for other DP&H work.	High for gas although exact figure unknown. N/A for other DP&H work.	This section is rated amber overall as the approach to the revalidation of competence differs between Domestic Plumbing and Heating. Exposure to the Gas Safe revalidation regime provides the DP&H sector with a stronger foundation on which to build than most other installer disciplines. The primary action for phase two, therefore, will be to extend periodic revalidation to other (non-gas) aspects of DP&H work.
Technical knowledge assessment	Knowledge elements incorporated into sector-recognised apprenticeships and CBQs.	Some qualifications fulfil sector-recognised knowledge standards, whilst others (e.g., VQ level two) do not. Sector representatives say they are engaging with awarding organisations in order to close down those qualifications which are not fit for purpose.	Knowledge coverage likely to be higher than for other aspects of competence because some, though not all, full-time/self-funded qualifications meet sector knowledge requirements at least.	See comment above about addressing non-compliant qualifications and training during phase two.
Level two vocational competence-based qualification *(excluding Scotland)*	Various still in place.	Given sector consensus in favour of VQ level three, these qualifications are viewed by the group as no longer fit for purpose and therefore to be discontinued.	New VQ level two entrants now in decline, but for historical reasons majority of existing plumbers in England and Wales currently remain qualified to VQ level two rather than VQ level three (see above).	This row has been rated as amber as these courses could still be undertaken at level two and therefore represent a risk that some people would not be trained to the proposed higher level of competence. See comment above about addressing non-compliant qualifications and training during phase two.
Level three vocational competence-based qualification	Sector-recognised VQ level three available in England Wales and Northern Ireland. Plumbing and heating at SCQF level seven also available.	Yes.	As explained above, not all qualifications comply with industry recognised standards. Also, significant legacy issue in England Wales and Northern Ireland from past preference for VQ level two. New entrants, however, now predominantly VQ level three.	See comment above about addressing non-compliant qualifications and training during phase two.
Apprenticeship	**Plumbing and Domestic Heating Technician (England).** **Plumbing and Heating (Scotland).** **Plumbing & Heating (Wales).** A new level three about to replace existing framework in Wales. Northern Ireland now an outlier in continued attachment to level two.	Generally, yes (although see above for as yet unresolved still to be confirmed non-fuel pathway issue with level three standard in England).	Plumbing remains one of the strongest construction-related apprenticeships in terms of take up. Sector representatives express concern about declining numbers relative to the past and variety of alternative, non-robust entry routes (e.g., full-time, self-funded and 'fast-track' commercial courses).	See comment above about addressing non-compliant qualifications and training during phase two.
Experienced worker route (EWR)	No current EWR in place. 'Recognition of prior learning' routes previously established but, in England and Wales, uptake was low, and initiative has been discontinued.	N/A	N/A	CIPHE is currently leading a new initiative to develop an EWR to be used to upskill existing plumbers qualified to level two, as well as others currently holding lesser or incomplete qualifications. No timescale on when this is to will be rolled out as yet and not all key stakeholders yet participating. Phase two offers an opportunity to build further support for this development and make it fully inclusive.

3. Other Training and Assessment

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Generic fire safety training	Some generic fire safety elements have previously been incorporated into apprenticeships and CBQs.	Almost certainly gaps around new fire safety training standard. Mapping may be required and/or simple reliance on WG2's proposed all-industry awareness training.	Coverage incomplete because of non-recognised routes described above.	Fire safety training exists, but the coverage is inconsistent, both in terms of the content and workforce take-up. More consistent sector standards are required for fire safety training, and to consider how best to ensure widespread adoption of these standards by organisations and individuals. During phase two, sector needs to define current gaps and how these will be filled.
Sector-specific fire safety training	Some sector-specific fire safety elements have previously been incorporated into apprenticeships and CBQs.	Mapping of current apprenticeship/CBQ fire safety content against BSI Flex 8670 and any other enhanced requirements will probably be required at some point.	Coverage incomplete because of non-recognised entry routes described above.	During phase two, sector needs to define current gaps and how these will be filled.
Sector-specific CPD/upskilling training	Upskilling for gas relatively straightforward. Individual undertakes training and takes assessment to achieve applicable (EU Skills) qualification for new work type and then amends Gas Safe registration. Otherwise, plenty of DP&H CPD available, with attempts in some areas to adopt common approach, for example: • Installer skills matrix (Scotland) • Plumbers' heat-pump upskilling pathway (England). However, apart from the above, no standardised sector-wide approach or set of minimum CPD requirements.	No, because of lack of standardisation and minimum requirements.	Patchy and ad hoc coverage outside of gas.	During phase two, sector needs to define a standardised approach, including minimum CPD requirements. CPD exists, but coverage is inconsistent, both in terms of the content and workforce take-up. Attempts at consistency have been made, but further action is required to consider how best to ensure standards are adopted across the sector.

4. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	Yes: the JIB-PMES and SNIJIB, both members of the CSCS Alliance operating as separate schemes covering respectively England/Wales and Scotland/Northern Ireland.
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	JIB-PMES is already compliant with existing CLC 'smart' card requirements and preparing to participate in the roll-out of the CSCS Alliance 'Smart Check' app from April 2022. SNIJIB likewise on track to implement modern technology in line with CLC requirements.

Annex B – Dry Lining Sector Breakdown

Number of businesses in sector	Number of businesses currently involved in the dry lining sector is approximately 2,000.	
Number/% businesses involved with HRBs?	Approximately one third of the above number are involved with HRB's.	
Number of workers in sector – including number/% split between direct employees and indirect	Approximately 60,000 workers in sector, of these, 29,497 hold either a blue or gold CSCS card. FIS estimate 70% of the workers in this sector to be LOSC.	
Number/% workers involved with HRBs?	Unknown as most of the workforce is transient.	
Recognised sector and stakeholder organisations * Phase one participants	Member-led trade associations	Association of Specialist Fire Protection (ASFP) Finishes and Interiors Sector (FIS)*
	Certification organisations	FIRAS International Fire Consultants (IFC)
	Sector skills organisations	CITB*
	Awarding organisations	City & Guilds Glass Qualifications Authority (GQA) National Open College Network (NOCN) ProQual Scottish Qualifications Authority (SQA)
	Skills certification scheme	Construction Skills Certification Scheme (CSCS)
	Other significant sector stakeholders	Scottish Decorators Federation Worshipful Company of Plaisterers

	Occupations in scope to the dry lining sector framework: • Apprentice • Boarder • Dry liner • Experienced worker • Finisher • Fixer • Labourer • Supervisor	**Boundaries/overlaps with other installer sectors and/or occupations:** • Carpenter and joiner • Ceiling installer • Fire stopper • Mechanical and electrical (penetrations) • Painter and decorator • Plasterer • Structural framing systems

1. Organisational Competence

ISO 17065 scheme(s) in place?	Scheme(s) scope?	Scheme(s) coverage?	Alternative trade association/other scheme(s)?	WG2 comments
FIRAS and IFC both offer installation certification schemes.	Schemes are generic in nature and only cover installation.	Roughly two percent of businesses.	Members are vetted prior to FIS member application acceptance and subject to ongoing vetting every three years, but this is not equivalent to certification.	Individual members of FIS may be accredited; however, the low take up rates of these schemes suggest they are not always recognised in procurement process and consequently they can add cost and overhead without tangible reward. Priority actions for the sector group during phase two therefore include:

				• To define a common set of organisational competence requirements for all types of dry lining work, plus additional requirements for particular work types and/or work environments • To bridge gaps in the requirements and checks relating to management of the competence of individuals carrying out dry lining for the organisation.

2. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence	Formal CBQs available in all four home nations.	Yes, widely accepted. However, Reservations exist over the inconsistent quality of the assessment for CBQs.	49% based on data from CSCS, numbers are increasing because of the number new entrants entering the occupation.	Reservations exist over the inconsistent quality of the assessment for CBQs. Changes to the Occupational Work Supervisor qualification registration criteria will make employers responsible for the occupational competence of their site occupational work supervisors in future. Data from CSCS shows that there are: • Dryliner fixer – 24,156 blue card holders, 118 gold card holders • Drylining boarder – 385 blue, zero gold • Dryliner finisher – nine blue, 175 gold • No card holders exist for the card titles sticker operative or tacker operative originally CSCS Construction Related Occupation (CRO) cards. For the fixer, finisher and fixer/finisher card titles, it is important to note that following consultation with employers the level three qualification was withdrawn by the regulatory authorities in 2009. CSCS labourer cards do not depict a 'link' to an occupation. These numbers do not include individuals working on 'green' labourer cards, plasterers and carpenter joiners working as dry liners.
Periodic revalidation of competence	CSCS card renewal testing for health, safety and environment knowledge only.	N/A	N/A	Only an operative's knowledge of health and safety is reassessed. Revalidation of individual competence is the main area where there is no sector standard or system currently in place. Closing this revalidation gap therefore needs to be one of the priorities for the dry lining sector development group during phase two.
Technical knowledge assessment	FIS site guides and best practice guides. There is a textbook published by Hodder Education in partnership with City and Guilds for plastering, but no clear link to assessment.	Not consistent, different assessor and assessment centres provide varying levels of quality. BSI 8000 part eight workmanship (dry lining) revision in progress.	Approximately 50% and rising.	Whilst best practice published by a trade association is helpful, it does not constitute a recognised system. There is a good amount of information readily available that could form the starting point for some form of technical knowledge assessment. During phase two, the sector development group should consider what a formal, appropriate technical knowledge assessment would look like in their sector.
Level two vocational competence-based qualification	**NVQ diploma in plastering (Construction) level two.** **NVQ certificate in interior systems (construction) level two.** **NVQ diploma in interior systems (construction) level two.**	Yes, accepted by employers. Changes to include fire resistance requested in 2020.	49%.	List of qualifications available below: • England and Northern Ireland • Scotland • Wales There remains a debate around the balance of level two to a potential level three qualification with an outcome linked to higher risk work demands and task outcomes e.g., for curved and vaulted structures. FIS are currently facilitating an employer working group investigating the need for dry liner qualifications with a level three outcome, focused on dry liner (second fix).

Level three vocational competence-based qualification	**NVQ diploma in plastering (construction) level three.**	Legacy qualification which only covers dry liner supervision but is considered by some employers as fit for purpose.	One percent.	Whilst the coverage is low, the fact that it is a legacy qualification and is being phased out should not be a cause for concern from a coverage perspective and has been rated green accordingly.
Apprenticeships	**Interior systems installer (England).** ST0388 has demand and an outcome for dry liner fixer boarder. **Plasterer (England).** ST0096 has demand and outcome for dry liner fixer boarder finisher 'duties 10 and 11'. **Dry liner finisher (Scotland).** Interior systems apprenticeship GM38 22 and includes fixers. **Dry liner fixer (Scotland).** Interior systems apprenticeship GM39 22 and includes finishing. **Dry liner (Wales).** Construction - Dry lining - Fixing | Skills for Wales.	Yes, however there are differences in each home nation. Scotland and Wales have a framework which includes achievement of a competence-based qualification. England and Northern Ireland rely on tested competence and End Point Assessment (EPA). The plastering apprenticeships in Scotland and Wales **do not** contain dry lining elements. Wales are working on the pre-June 2020 apprenticeship framework with single outcomes for each of the three 'sub-occupations'. This is under review and dry lining is one of the occupations moving over to the new level three Apprenticeship in Wales in September 2022. The dry liner apprenticeship is marked as 'fixer.	At the time of writing 90 learners were working towards the new English standard while 62 learners were on the old framework. In Wales and Scotland, a total of 97 learners were registered as working towards the standard in both nations (nine and 88 learners respectively).	Across Great Britain, there are a variety of different apprenticeships with outcomes for different occupations. The sector development group will need to decide whether its ambition is to align the outcomes for the various apprenticeships across Great Britain as a starting point. In addition to this, the group will need to address the current gap in understanding around apprenticeships in Northern Ireland and whether these are fit for purpose.
Experienced worker route	Experienced Worker Practical Assessed Route (EWPAR) is available for finisher and fixer. Onsite assessment available for all 'sub'-occupations. Full list of EWPAR.	Concerns exist over the uneven quality of assessment. Underpinning standard regarded as fit for purpose.	Unknown. Data not collected.	Phase two offers an opportunity to enhance the sector-led controls over the quality of assessment for the EWR.

3. Other Training and Assessment

	Recognised standard/system in place?	**Fit for purpose?**	**Workforce coverage?**	**WG2 comments**
Generic fire safety training	Criteria included in Interior Systems Installer apprenticeship: "K1. How fire spreads through building and how to impede its progress."	Change request submitted to add the following statement to Interior Systems NOS: 'how fire spreads through a building and how to impede it and protect people and the structure'. The NOS are also being amended to include a fire resistant walls option route added for dry liners by including: VR355 v3 Erect fire resisting walls and wall linings to the interior systems recommended qualification structure. Delivered by ASFP targeting fire stopping. No recognised outcome specific to installation at this time.	Limited. Two apprentices are in the process of completing EPA. There are 90 apprentices currently registered on the interior systems installer apprenticeship.	Fire safety is included in dry lining training and is a key element of it. However, inconsistency in the way that the training is delivered can lead to unequal outcomes. The sense is that employers rely on installers to know that they will compromise fire compartmentation if they drill through or alter products on site. There does not appear to be any specific training on this, although it is acknowledged that this is an issue that relates to many roles, not just dry liners. The dry lining sector development group will need to consider how to enhance the coverage of the generic fire safety training available to cover the different occupations in the sector, and not just those covered by the Interior Systems Installer apprenticeship.

Sector-specific fire safety training	Does not exist.	N/A.	N/A.	Fire safety training is included as part of initial validation of competence, but fire safety training it is not specific to the role. The sector development group will need to consider what sector specific training will be required by installers and how this will be implemented.
Sector-specific CPD/upskilling training	There are three manufacturers of interiors and finishes products who run their own manufacturer training: Knauf, British Gypsum and Siniat.	FIS has no recorded complaints regarding manufacturer training delivered for dry lining. If the work of this group is to be taken forward, there will be benefit in surveying the manufacturers.	Unknown. Data not collected.	Manufacturer training is not believed to be underpinned by training standards. FIS are currently developing an eLearning package that will form CPD requirement and assist with demonstrating competence.

4. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	Yes – CSCS.
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	Yes. A new CSCS Alliance Smart Check app will be rolled out from April 2022 which will allow all 2.1 million cards in the construction industry displaying the CSCS logo to be verified using a single app.

Annex C – Fire Detection and Alarms Sector Breakdown

Number of businesses in sector	Approximately 2,000- 3,500 businesses. Some sole traders, but predominantly micro businesses or bigger.	
Number/% businesses involved with HRBs?	Approximately 1,000 businesses representing 30% to 50% of sector businesses. Sector representatives have confirmed an intention for this competence framework to cover all FD&A work, and not just that on HRBs.	
Number of workers in sector – including number/% split between direct employees and indirect	Estimated to be between 25,000 and 35,000 workers, most of whom are directly employed. The numbers self-employed/agency workers are thought to be lower in FD&A than in other sectors more exposed to the difficulties of new-build construction. Subcontracting does occur, but usually to other (typically smaller) enterprises rather than to individuals.	
Number/% workers involved with HRBs?	Approximately 10,000 workers representing 30% to 40% of the sector workforce	
Recognised sector and stakeholder organisations * Phase one participants	Member-led trade associations	British Fire Consortium British Security Industry Association (BSIA) ECA* Fire and Security Association (FSA)* Fire Industry Association (FIA)* Independent Fire Engineering & Distributors Association (IFEDA) National Association of Professional Inspectors and Testers SELECT UK Fire Association
	Trade union	Unite the Union
	Enterprise certification/registration schemes	British Approvals for Fire Equipment (BAFE)*
	Certification organisations	BRE/Loss Prevention Certification Board (LPCB) Certsure/NICEIC International Fire Consultants (IFC) Certification NAPIT Certification Ltd* National Security Inspectorate (NSI)* Security Systems and Alarms Inspection Board (SSAIB)*
	Sector skills organisations	Fire Emergency and Security Systems (FESS) Apprenticeship Employers* National Electrotechnical Training (NET) Northern Ireland Fire and Security Employers' Federation (NIFSEF) Welsh Employer Group for Fire and Security Apprenticeships
	Awarding organisations	City & Guilds EAL Firequal Qualifications Wales SQA Awards
	Skills certification scheme	Electrotechnical Certification Scheme (ECS) – although see note below re: alternative card scheme(s)
	Professional institutions	Institute of Fire Engineers (IFE) Institute of Fire Safety Managers (IFSM) Institution of Engineering and Technology (IET)

	Occupations in scope to the FD&A Sector Framework: • Apprentice • Design/installation/commissioning/maintenance specialists (level three) • Experienced worker • Labourer • Systems operative (sector standards aligned broadly to level two) • Systems technician (level three) • Technical manager (level three/four)	**Boundaries/overlaps with other installer sectors and/or occupations:** • Electrical* • Emergency systems (extinguishing/smoke control/firefighting/escape)** • Fire Stopping*** • Heating and ventilation • Other environmental systems • Plant systems • Security systems** * It is accepted that competent electricians can also be competent to carry out FD&A work, subject to requisite upskilling. What constitutes competence and requisite upskilling for these purposes should be defined by a future electrical sector-specific competence framework and endorsed by FD&A and electrical sector groups. ** While the present framework is currently confined to the FD&A sector only, it is recognised that FD&A is closely aligned with security and emergency systems. Apprenticeship standards and frameworks in England, Scotland and Northern Ireland are common to all disciplines and many businesses and individuals carry out work across more than one. It is the settled intention of FD&A sector representatives to sustain this alignment throughout the present framework development process. ** Fire stopping is widely recognised as both a specialist installer discipline and as a generic function carried out by many other installer disciplines, including within the FD&A sector. WG2 will facilitate constructive dialogue between the Fire Stopping Specialist (FSS) group and other relevant installer sector groups, including FD&A, to ensure a sufficiently consistent approach to fire stopping competence, whether undertaken by specialists or non-specialists.

1. Organisational Competence

ISO 17065 scheme(s) in place?	Scheme(s) scope?	Scheme(s) coverage?	Alternative trade association scheme(s)?	WG2 comments
Three schemes currently in place: • Loss Prevention Standard (LPS) 1014 (Fire) (BAFE SP201) • BAFE SP203-1 • BAFE DS301 Domestic Fire Alarm Systems	LPS 1014: organisation independently assessed for all types of FD&A work and ISO 9001 certified. BAFE SP203- organisation independently assessed for one or more types of work. BAFE DS301: organisation independently assessed for work on Grade D FD&A systems in domestic premises only.	LPS 1014: around 65 businesses with numbers stable. BAFE SP203-1: around 1,350 businesses and growing up to 10% annually. BAFE DS301: launched in August 2021.	N/A	The LPS 1014 and SP203-1 schemes are both already well established. Assuming the FD&A sector consists of 2,000-3,500 businesses in all (i.e., as estimated above), current scheme coverage therefore falls somewhere between 40% and 70%. Among organisations involved in HRRBs, coverage levels may well be higher. As far as the WG2 Key Principles are concerned, the main gaps within existing organisational arrangements would seem to relate to historic shortfalls in the schemes' individual competence requirements, including those relating to persons responsible for technical compliance and scrutiny of how each organisation manages the training, qualifications and competence of its installation workforce as a whole. Whilst some assessment of these matters does take place under existing certification arrangements, most sector representatives take the view that clearer and more consistent benchmarks for individual competence should make the assessors' task easier and enhance the validity and reliability of their findings about organisational competence. In the case of BAFE-owned schemes, BAFE advised in February 2022 that work on revisions designed to address these concerns was now complete, although these were not yet rolled out. In the case of BAFE DS301 Domestic Fire Alarm Systems, currently operated solely by NAPIT, individual requirements are understood to be already in place.

				For other FD&A sector representatives, a priority during phase two will therefore be to assess whether these new scheme individual requirements have been mapped successfully against the apprenticeship/CBQ/EWR standard, and to what extent assessment of particular individuals as 'competent' remains tied to one organisation. According to this body of opinion, organisational competence and individual competence should be treated as autonomous, albeit inter-linked, elements within the FD&A competence framework. One priority action for the FD&A sector development group during phase two, therefore, will be to assess whether gaps remain and if so to close them up.

2. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence	BAFE and NAPIT point to the individual requirements now incorporated/about to be incorporated into BAFE-owned schemes. Supporters of the alternative approach point to competence assessment processes for a wide range of FD&A work now incorporated into specialist apprenticeships available in England, Scotland and Northern Ireland. Activity is now also under way to secure Welsh Government support for a specialist apprenticeship there as well (see further below). For others (i.e., non-apprentices): • UK wide EWR routes have now either been launched or are currently being finalised (see further below). • Systems operative assessments are now in place for those not required to work at level three. • Technical manager criteria have also been updated.	Rival propositions (i.e., individual certification *versus* apprenticeship or EWRs) each have their proponents, but there is yet no consensus on whether either or both can be regarded as 'fit for purpose.'	Given that DS301 is very new, and the enhanced individual requirements planned for other BAFE-owned schemes have still to be rolled out, few if any individuals are likely to have been assessed under these specific arrangements so far. Apprenticeships, EWAs and Systems Operative assessments are also quite new, and so overall sector coverage is currently low. Fewer than 300 FESS apprenticeship standard completions in England to date (as of January 2022). It is hoped that ECS card renewal processes will bring about the re-certification of at least 12,000 individuals against these new qualifications/assessment criteria over the next three years.	Whilst rival propositions have been put forward during phase one (i.e., apprenticeships/CBQs/EWRs versus individual certification), all are relatively new and so workforce coverage for now remains low. A priority action for the FD&A sector development group during phase two, will be to agree: • on a sector-wide approach to initial validation of competence, including any equivalency between these two propositions. • to consider how to maximise the number of individuals who are subject to initial validation of competence against the appropriate baseline. Other potential questions for phase two include: • Given the potential overlap in the work carried out by systems operatives and systems technicians/level three specialists, should there be a timeframe for phasing out a separate Systems Operative category? • Given the management/organisational competences set out in BSI Flex 8670 Tables 1-3, are current competence arrangements for technical managers sufficiently thought through or robust? • Are there respects in which the FESS standard itself also requires updating and improving to align more closely with BSI Flex 8670?
Periodic revalidation of competence	Currently, there is no agreed sector-specific standard or system in place	N/A	N/A	Revalidation of individual competence is the main area where there is no sector standard or system currently in place. Closing this revalidation gap therefore needs to be one of the priorities for the FD&A sector development group during phase two.
Technical knowledge assessment	The sector has a long tradition of specialist knowledge-based qualifications covering various aspects of FD&A work. The content from these has now also been incorporated into apprenticeships in England, Scotland and Northern Ireland, NVQs and UK wide EWRs.	The knowledge elements would appear to be widely accepted, although this will need to be examined and confirmed during phase two.	Knowledge coverage should be higher than for other aspects of competence, because of longer existence of knowledge-based qualifications. The sector group might be able to quantify this more reliably by checking numbers with relevant awarding organisations.	

	Candidates already holding industry recognised knowledge based qualifications can therefore receive an exemption from EWR knowledge assessments, for example. No details of new knowledge requirements under DS301, LPS 1014 or SP203-1 were submitted during phase one. These will therefore need to be examined as part of phase two.			
Level two vocational competence-based qualification	N/A	N/A	N/A	Sector consensus appears to be that level three is appropriate for systems technicians and design/installation/commissioning/maintenance specialists. Separate assessments have now been developed by the sector for systems operatives which are broadly aligned to level two but will not lead to a formal level two qualification.
Level three vocational competence-based qualification	Level three/equivalent CBQs have been incorporated into apprenticeships in Scotland and Northern Ireland but are not currently required for the English apprenticeship or EWRs. A level three CBQ will be required if and when Wales develops its own apprenticeship (see below). NAPIT reported that LCL is working on a fire qualification, but the scope is yet to be confirmed.	Yes, so far for Scotland and Northern Ireland only. Any new qualification for LCL will also need to be considered during phase two.	Numbers in Scotland and Northern Ireland still to be confirmed, but unlikely to be exceedingly high.	
Apprenticeship	**Fire, Emergency and Security Systems Technician (England).** **Providing Electronic Fire and Security Systems (Scotland).** **Fire and security systems – level three (Northern Ireland).** Discussions with Welsh Government about introducing a specialist fire and security apprenticeship in Wales began in autumn 2021.	There have been widespread and recent sector involvement and buy-in for apprenticeships.	Over 1,400 FESS starts in England between launch of standard in 2017 and summer 2021. 224 FESS completions to date (autumn 2021), including 20 fire and 50 fire and security. Numbers in Scotland and Northern Ireland still to be confirmed.	
Experienced worker route (EWR)	FESS EWR for fire was launched in August 2021. It is aligned to the English FESS apprenticeship standard, but with UK-wide application. Alternative EWRs for those specialising just in installation, maintenance or commissioning launched in November 2021.	There has been widespread and recent sector involvement and buy-in for EWRs. Any BAFE/NAPIT alternative proposals should be considered alongside these during phase two.	Zero registrations reported to date (January 2022). Attributed to slow start and limited external drivers. Group expect this may change with the growth in number of EWR providers and increased insurance industry interest in the quality of workforce competence.	

3. Other Training and Assessment

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Generic fire safety training	Some generic fire safety elements have previously been incorporated into apprenticeships and EWRs and Systems Operative assessments. Fire safety content of BAFE/NAPIT alternatives to be confirmed.	Probably partly covered by existing arrangements, but some passive and structural fire safety elements may be required in addition. Mapping may be required and/or simple reliance on WG2's proposed all-industry awareness training.	The comparative novelty of sector individual competence arrangements means overall sector coverage is currently low.	During phase two, sector needs to define current gaps and how these will be filled. Fire safety training does exist, but coverage is inconsistent, both in terms of content and workforce take-up. Accordingly, another priority action for the FD&A sector development group during phase two will be to establish higher, more consistent sector standards for fire safety training and to consider how best to ensure widespread adoption of these standards by organisations and individuals.
Sector-specific fire safety training	Sector-specific fire safety elements are already incorporated into apprenticeships and EWRs and systems operative assessments. Fire safety content of BAFE/NAPIT alternatives yet to be confirmed.	Mapping of existing arrangements against BSI Flex 8670 and any other enhanced requirements will probably be required at some point.	The comparative novelty of sector individual competence arrangements means overall sector coverage is currently low.	During phase two, the sector needs to define current gaps and how these will be filled.
Sector-specific CPD/upskilling training	Significant amounts of FD&A CPD already available, including knowledge-based CPD courses and qualifications, plus manufacturers' accredited CPD for specific equipment.	There is currently no standardised approach or set of minimum CPD requirements.	Unknown, data not collected.	During phase two, sector needs to define a standardised approach, including minimum CPD requirements. CPD does exist, but coverage is inconsistent, both in terms of content and workforce take-up. Accordingly, another priority action for the FD&A sector development group during phase two will be to establish higher, more consistent sector standards for CPD and to consider how best to ensure widespread adoption of these standards by organisations and individuals.

4. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	Card schemes mentioned during phase one include the Electrotechnical Certification Scheme (ECS) and NAPIT's.
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	Both ECS and NAPIT have digital functionality.

Annex D – Fire Stopping Specialist Sector Breakdown

Number of businesses in sector	Approximately 500 specialist businesses. There are approximately 10 companies with a turnover of £10m or more. Many of these businesses will carry out other forms of passive and even active fire protection work.	
Number/% businesses involved with HRBs?	Nearly all the above are likely to have at least some involvement with HRBs.	
Number of workers in sector – including number/% split between direct employees and indirect	Estimated to be around 50,000 workers. Some companies have 100% direct labour, but most companies use a mixture of direct labour and subcontract labour.	
Number/% workers involved with HRBs?	Approximately 5,000 workers representing 10% of the sector workforce. Most operatives do the complete range or almost complete range of firestopping.	
Recognised sector and stakeholder organisations * Phase one participants	Member-led trade associations	Association for Specialist Fire Protection (ASFP)*
	Certification organisations	BRE/Loss Prevention Certification Board (LPCB) International Fire Consultants (IFC) Certification UL Certification Warrington Fire/FIRAS
	Sector skills organisations	CITB
	Awarding organisations	GQA IFE NOCN OCNWM ProQual SQA
	Skills certification scheme	CSCS
	Professional institutions	IFE
	Other sector stakeholders	BESA* Fire stopping manufacturers (approximately 20) FIS*

	Occupations in scope to the FSS Sector Framework: • Contract supervisors (level three) • General operatives • Managers/technical supervisors (level three) • Site supervisors (level two) • Skilled operatives (level two) • Team leaders (level two) • Trainees	**Boundaries/overlaps with other installer sectors and/or occupations:** Fire stopping encompasses a wide variety of techniques, including different linear joint seals, cavity barriers (e.g., in voids in roof spaces, above suspended ceilings, within walls etc) and penetration seals for cables and pipes. Fire stopping is also required as part of some other passive fire protection, including around fire door frames; around fire resisting/smoke control ducts and dampers; and cavity barriers in external walls. Fire stopping is widely recognised as both a specialist installer discipline in its own right and as a generic function carried out by many other installer disciplines. Industry estimates are that non-specialists install between half and two-thirds of fire stopping. WG2 will facilitate constructive dialogue between the FSS group and other relevant installer sector groups to ensure a sufficiently consistent approach to fire stopping competence, whether undertaken by specialists or non-specialists.

1. Organisational Competence

ISO 17065 scheme(s) in place?	Scheme(s) scope?	Scheme(s) coverage?	Alternative trade association scheme(s)?	WG2 comments
Yes. Three established UKAS-accredited installer scheme operators: • BRE/Loss Prevention Certification Board (LPCB). • International Fire Consultants (IFC) Certification. • Warrington Fire/FIRAS. In addition to these, UL Certification has recently entered the market. The above schemes are not always consistent in the standards which they apply or in how they assess organisations' compliance with these standards. For this reason, ASFP has set up a task group, involving the operators, to establish common standards and a consistent assessment approach. Schemes also vary in the degree to which they scrutinise the competence of the individuals who work for an organisation. In some cases, this may consist of no more than a general check of training records. In others, workers are required to complete a questionnaire evaluating their technical knowledge and understanding about what to do in example scenarios.	All current fire stopping and/or passive fire protection schemes cover all types of building. The schemes vary, however, in having different boundaries for the type(s) of fire stopping and/or passive fire protection work encompassed within each scheme or sub-scheme. Another part of the standardisation work being undertaken by the ASFP task group, therefore, is to establish common scope definitions and boundaries.	Sector representatives estimate overall coverage at around 75% of the 500 or so specialist fire stopping firms in the UK.	N/A	Work is already under way to improve the quality and consistency of third-party certification of companies involved in the FSS sector and some other types of passive fire protection. This work can and must continue, preferably joined up with the present FSS competence framework development and should also take account of the applicable section of WG2's *Key Principles* and any organisational implications of *BSI Flex 8670*. One key priority will be to ensure that all scheme operators observe the same robust standards in evaluating both: • The competence of individuals who hold specific responsibilities for technical compliance within their organisation. • How well each organisation manages the competence of the workforce as a whole. Scheme operators should find these matters a lot easier to evaluate once the FSS group has defined a new, fit-for-purpose set of standards for individual competence. Given the substantial weaknesses in current FSS sector individual competence arrangements, another important aspect for the FSS sector group to consider could be minimum supervision ratios and/or the appropriate composition of mixed teams of fully competent and not yet fully competent installers, especially during any transitional period as new arrangements bed in.

2. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence	A level two NVQ diploma (SCQF level five in Scotland) exists in associated industrial services occupations (construction) – passive fire protection. However, sector representatives have made various criticisms of this, including: • Key underpinning knowledge in fire safety may be missing. • The qualification is aimed at experienced workers, measuring achievement through on-site	Not fit for purpose.	Based on awarding body records, over 7,000 individuals are understood to have achieved the level two diploma since 2012, but there is currently no breakdown to identify which of these completed the fire stopping options, rather than other aspects of passive fire protection. Around 6,500 individuals currently hold (blue) skilled worker cards in passive fire protection, but yet again the present records do not differentiate fire	A major priority for the FSS sector group must be to address substantial flaws and gaps in present individual competence arrangements. This will include defining a new competence standard for validation purposes. The large diversity of fire stopping techniques, and the tendency of new entrants to be career-changers rather than school-leavers, may lend itself to a modular approach to training, qualifications and validation, comprising a common core and range of options. This should help individuals to broaden and/or deepen their competences over time, for example as part of ongoing CPD or upskilling. Any timetable for rolling these new arrangements out will need to be realistic and take account of the large gap between where the sector is now and where it needs to be. The FSS sector group should also focus attention on overcoming potential barriers,

	assessment. There is currently no route aligned to a robust training programme for those developing new skill and knowledge in passive fire protection. • The geographical availability of the qualification is unclear.		stopping from other passive fire protection. Some current blue cardholders are also due to be downgraded, having received their 'skilled' status through employer endorsement, rather than from obtaining the level two diploma.	including the present lack of specialist training facilities and competent trainers and assessors.
Periodic revalidation of competence	Apart from limited checks conducted by some scheme operators (see 'Organisational competence' above), there is currently no recognised sector-specific standard or system in place for revalidation of individuals.	N/A	N/A	The FSS sector group will need to design, more or less from scratch, an effective periodic revalidation and experienced worker regimes.
Technical knowledge assessment	Yes. IFE level two and level three certificates in passive fire protection. Both are tested by means of a written examination.	Yes. These qualifications do, however, cover more than just fire stopping.	ASFP records show, so far, approximately 700 successful completions at level two and around 1,000 at level three.	
Level two vocational competence-based qualification	**NVQ diploma in associated industrial services occupations – passive fire protection (construction) level two.**	Not fit for purpose.	Over 7,000.	The development of an initial competence standard for validation purposes may also provide a starting point for developing new, fit for purpose level two CBQ to replace the old level two passive fire protection diploma. Sources of content for the new standard/qualification(s) are likely to include the IFE certificate as well as the old diploma.
Level three vocational competence-based qualification	N/A	N/A	N/A	
Apprenticeship	No apprenticeship available. ASFP wrote an apprenticeship for passive fire protection, including fire-stopping, back in the early 2000s, but the financial crash of 2008 prevented it from developing further.	N/A	N/A	Given that individuals typically enter the FSS sector via another construction discipline, reviving the apprenticeship is not currently considered a priority.
Experienced worker route(s) (EWR)	No routes available.	N/A	N/A	The FSS sector group will need to design, more or less from scratch, an effective EWR.

3. Other Training and Assessment

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Generic fire safety training	None in place. Awaiting training being developed by CITB for WG2.	N/A	N/A	
Sector-specific fire safety training	Yes. ASFP online Introduction to Passive Fire Protection course.	Yes.	Nearly 3,000 people are reported to have taken the ASFP online course since its launch in 2019.	The FSS sector group will need to check that the ASFP online introduction and any alternative fire safety awareness training provision map against the applicable requirements of *BSI Flex 8670* and WG2's *Key Principles*.

Sector-specific CPD/upskilling training	Plenty of courses available, including manufacturer training, but no recognised standard or system and of uneven quality. ASFP reports that it is already looking at developing something more systematic, in line with BSI Flex 8670.	Not fit for purpose.	Unknown, data not collected.	The work that has already begun to develop a standardised and robust approach to CPD and upskilling should continue and preferably be joined up with development of the present FSS sector specific competence framework.

4. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	Yes – CSCS. It is likely that enhancements will be required to current occupational structures and card functionality if CSCS is to maximise its potential value in supporting a future FSS sector-specific framework.
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	Yes. A new CSCS Alliance Smart Check app will be rolled out from April 2022 which will allow all 2.1 million cards in the construction industry displaying the CSCS logo to be verified using a single app.

Annex E – Rainscreen Cladding Sector Breakdown

Number of businesses in sector	Approximately 800 to 1,000 businesses	
Number/% businesses involved with HRBs?	Unknown. Businesses in this sector will work across buildings of all heights. Very few if any work exclusively on HRBs.	
Number of workers in sector – including number/% split between direct employees and indirect.	Estimated to be around 5,000 operatives with about 60% of these estimated to be LOSC workforce.	
Number/% workers involved with HRBs?	Unknown. As above, few operatives will work exclusively on HRBs and due to the make-up of the workforce, estimating these numbers is impossible.	
Recognised sector and stakeholder organisations * Phase one participants	Member-led trade associations	ASFP* Centre for Window Cladding & Technology (CWCT)* FIS* Insulated Render and Cladding Association (INCA)* Metal Cladding & Roofing Manufacturers Association (MCRMA)* National Federation of Roofing Contractors (NFRC)*
	Sector skills organisations	CITB*
	Awarding organisations	ProQual
	Skills certification scheme	CSCS
	Other significant sector stakeholders	DLUHC Pagabo

	Occupations in scope to the rainscreen cladding sector framework: • Apprentice • Experienced worker • Labourer • Specialist Cladding & Rainscreen Operative (level two and three)	**Boundaries/overlaps with other installer sectors and/or occupations:** • Dry lining and other interior fit out trades • Roofing operative • Glazier • Insulation and building treatment operatives

1. Organisational Competence

ISO 17065 scheme(s) in place?	Scheme(s) scope?	Scheme(s) coverage?	Alternative trade association/other scheme(s)?	WG2 comments
None available.	N/A	N/A	N/A	There does not currently appear to be any formal accredited third-party certification of companies operational within cladding and rainscreen. One association referred to quality management ISO standards and fire schemes, but none relating directly to this occupational sector. As a priority, the sector group during phase two will need to determine what level of organisational competence is suitable for the sector and define a common set of organisational competence requirements for rainscreen cladding installation work.

2. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence	NVQ level two in cladding occupations	The NOS is currently being reviewed and will be amended accordingly with identified changes. The qualification remains valid as current until any potential change is identified and implemented.	Very few are thought to hold this NVQ. The rainscreen cladding and cladding sectors had a large number of operatives using the CRO card which was discontinued in 2017 by CSCS.	Some training standards in place for for-building envelope, cladding and External Wall Insulation (EWI) but no coverage for rainscreen cladding training. Some work started on the development of training standards back in 2018 but these were not completed.
Periodic revalidation of competence	Nothing in place.	N/A	N/A	NFRC are currently piloting a supervisor's course to ascertain current levels of knowledge and provide upskilling. In due course this has the potential to expand into a re-validation process and extend across operatives, as there are elements of cross over. However, this is something that would require industry collaboration given the nature of where the cladding sector is currently.
Technical knowledge assessment	CAD workshops for in-house design team, to ensure that the latest Construction Design and Management (CDM) regulations are adhered to. Site visits and workshops by suppliers/manufacturers. On-site tool-box talks by contractor site management for specific works and drawings.	Not fit for purpose.	Unknown. Data not held.	As mentioned above there are a couple of pilots to ascertain current knowledge levels of operatives and supervisors in this sector. However, there is currently no mechanism in place to ascertain knowledge other than those few who go through vocational qualification who must be proving a certain level of knowledge to achieve.
Level two vocational competence-based qualification	**NVQ diploma in cladding occupations (construction) level two.** Rainscreen cladding is included in two of seven optional units.	Room for improvement.	CSCS data shows 2,101 active card holders have the NVQ.	The NOS is currently being reviewed. Whilst it not fair to say that it isn't fit for purpose, it does require some slight changes. Some debate about how extensive these changes are but all were agreed that what does require work is the way they are structured into a qualification. During phase two, the group should assist and contribute to the NOS review to ensure the NVQ is fit for purpose. Additionally, rainscreen cladding is only listed as an optional unit as part of this qualification. The potential exists for operatives to undertake this qualification without ever undertaking any units on rainscreen.
Level three vocational competence-based qualification	**NVQ Diploma in Cladding Occupations (Construction) - Rainscreen Wall Cladding Systems level three**.	Room for improvement.	CSCS data shows 382 active card holders have the NVQ.	As above, however, rainscreen cladding is explicitly included as a mandatory unit in this qualification.
Apprenticeships	None available in England. **Construction Specialist Modern Apprenticeship (Scotland)**. The GM48 22 pathway relates to cladding, but not specific to rainscreen.	N/A	N/A	There are no apprenticeships for rainscreen cladding available, but a roof cladding apprenticeship does exist. A construction specialist apprenticeship framework did exist in Wales at level two but was withdrawn because the qualifications expired.
Experienced worker route (EWR)	No EWR available currently.	N/A	N/A	There is no EWR route for the cladding occupations at present. Experienced workers can do the onsite assessment route to get an NVQ, but they will need to be in a role where they can evidence the requirements of the NVQ. Establishing the requirements for an EWR will need to be considered by the group during phase two.

3. Other Training and Assessment

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Generic fire safety training	Some schemes of a general nature are available FIRAS, IFC, LPCB certifications.	Not sufficient and only partial coverage.	Unknown. Data not held.	Too broadly based. Experience shows that the rate of error on installation is still significant, irrespective of the certification status of the operative.
Sector-specific fire safety training	Installation of fire preventative measures has been a feature of NFRC pilot for a supervisor's course specifically for rainscreen.	Generally, not considered adequate and require improvement as well as wider penetration across the industry.	Unknown. Data not held.	During phase two, the sector needs to define the current gaps and how these will be filled.
Sector-specific CPD/upskilling training	None, of any quality, that we are aware of except manufacturer led initiatives, and the pilot NFRC rainscreen supervisor course.	No recognised courses, a lack of instructors and no places to train.	Unknown. Data not held.	During phase two, the sector needs to define a standardised approach, including minimum CPD requirements. CPD does exist, but coverage is inconsistent, both in terms of content and workforce take-up. Accordingly, another priority action for the rainscreen cladding sector development group during phase two will be to establish consistent sector standards for CPD and to consider how best to ensure widespread adoption of these standards by organisations and individuals.

4. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	Yes - CSCS
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	Yes. A new CSCS Alliance Smart Check app will be rolled out from April 2022 which will allow all 2.1 million cards in the construction industry displaying the CSCS logo to be verified using a single app.

Annex F – Roofing Sector Breakdown

Number of businesses in sector	Approximately 9,000, most of whom would be categorised as micro or small businesses. Most liquid contractors (683) are involved in commercial activities. This number does not include domestic work.	
Number/% businesses involved with HRBs?	Estimated to be around 300. Assume the overall number of businesses involved in high rise/high risk buildings is low, purely based on overhead costings including insurance premiums.	
Number of workers in sector – including number/% split between direct employees and indirect	Approximately 65,000, with 69% of these being self-employed. Previous accessible research suggests construction runs at approximately 40%.	
Number/% workers involved with HRBs?	Estimates range from 2,000 to 5,000.	
Recognised sector and stakeholder organisations * Phase one participants	Member-led trade associations	National Federation of Roofing Contractors (NFRC)* Single Ply Roofing Association (SPRA)* Liquid Roofing and Waterproofing Association (LRWA)* Mastic Asphalt Council (MAC) The Federation of Traditional Metal Roofing Contractors (FTMRC) Lead Contractors Association (LCA) Confederation of Roofing Contractors (CORC)
	Certification organisations	NFRC Competent Person Scheme
	Sector skills organisations	CITB
	Awarding organisations	Numerous bodies in the sector
	Skills certification scheme	RoofCERT
	Professional institutions	Institute for Roofing (IOR)

	Occupations in scope to the roofing sector framework: • Labourer • Apprentice • Experienced worker • Slating and tiling (includes level three) • Roof sheeting and cladding • RBM • Single ply • Liquid applied waterproofing	**Boundaries/overlaps with other installer sectors and/or occupations:** • Cladding (facades) • Mastic asphalt • Lead and hard metals

1. Organisational Competence

ISO 17065 scheme(s) in place?	Scheme(s) scope?	Scheme(s) coverage?	Alternative trade association/other scheme(s)?	WG2 comments
Yes. NFRC CPS self-certification scheme for the domestic repair, maintenance and improvement (RMI) sector. Does support commercial projects too.	Pitched, flat and metal roofing for the domestic and commercial sectors.	500 businesses.	Yes – NFRC Yes – LRWA	NFRC CPS operate the certification scheme under ISO17065 and are ISO 9001 accredited, and TrustMark approved. Some small amendments would likely be required to ensure full alignment. The group are aware of other trade associations with organisational checking processes in place, however these need to be explored in further detail to assess whether they meet the robust standards required.

2. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence	NVQ level two. RoofCERT experienced worker route EWR). Apprenticeship trailblazer for waterproofing, pitched and metal roofing	Yes. The NOS for different disciplines are up for review in some areas and only minor changes are expected.	Approximately 20-25%.	There are differences of opinions when it comes to the apprenticeship standards. Pitched roofing and metals standards are considered off sufficient quality, but some concerns exist around waterproofing when it comes to all three disciplines being contained within one single standard. There are also concerns around the end point assessment for all three routes, specifically about the availability and mechanism for competence validation.
Periodic revalidation of competence	RoofCERT. Accreditation scheme that revalidates competence every three years, taking an evidence based approach to future CPD requirements for upskilling.	RoofCERT considered fit for purpose and is subject to ongoing review to reflect future industry requirements. No revalidation relating to the NVQ, beyond resitting the health, safety and environment test.	RoofCERT has 1,200 operatives currently in the pipeline.	RoofCERT is still officially in its project stage however it remains a challenge to get the industry to utilise these competency measures without external influence through procurement or pre-qualification. Manufacturer training has not been updated recently to ensure it is in-line with NOS. During phase two, the group should consider how it can incorporate elements of manufacturer training into the CITB training standard/Approved Training Organisation model.
Technical knowledge assessment	RoofCERT technical knowledge test is aligned to industry codes of practice. Manufacturer training exists which but is aligned to their specific products only. However, no formal assessment of knowledge is measured as far as the group are aware. The assessment that does take place is based on practical performance during the training and ongoing assessments of completed work on site.	Yes.	The uptake is currently low due as RoofCERT remains in the early project stage and is a voluntary scheme. There are currently no requirements on individuals to revalidate their competence in the roofing sector.	Knowledge questions through examination all relate to the industry codes of practice for the associated disciplines. As noted previously, RoofCERT has suffered to struggle to get businesses and individuals to participate in the programme without external pressure. Whilst any scheme is voluntary, it is dependent on business and individual wanting to do the right thing and achieve a degree of competence. Manufacturer training exists but is aligned to their specific products. No formal assessment of knowledge is available in relation to this training as far as this group is aware.
Level two vocational competence-based qualification	**NVQ Diploma in Roofing Occupations (Construction) level two.** Numerous pathways available at level two.	Yes.	Between 12,000 – 15,000 with approximately 12,000 holding a current qualification.	Vocational qualifications work well for the roofing industry, but the uptake remains low. Companies/individuals follow the path of least resistance and only obtain qualifications to get a CSCS card in order to access site.

Level three vocational competence-based qualification	**NVQ diploma in roofing occupations (construction) level three.** Three pathways available at level three: • Slater • Slater and tiler • Tiler **Roofing Occupations (Construction) SCQF level six.**	Yes.	Approximately 2,000. This is an assumption based on previously seen data.	As above for level two.
Apprenticeships (England only)	**Roofer (England)** Option 1 – Roof slater and tiler Option 2 – Waterproof membranes Option 3 – Roof sheeter and cladder	Yes, for training, no for EPA – see WG2 comments.	Around 200 apprentices currently working towards this apprenticeship.	Issues relating to the EPA methods currently exist for on-site assessment. This is going through a revision process to change the test centre environment. Concerns for on-site is the ability to access all evidence in the timeframe, as different jobs will not necessarily include all the specified requirements to assess. This also includes additional health and safety concern and weather related issues. Apprenticeship frameworks *do exist in devolved nations and the standard is broadly believed to be good. However, this needs to be explored more during phase two. The group should consider whether there are elements of the approach taken in the other nations that can be adopted and if alignment across the UK is desirable.*
Experienced worker route (EWR)	Yes – RoofCERT	Yes - Signed off by the standards setting body and approved by the CSCS board.	EWR is still in the project stage and being rolled out across the industry. The number of operatives that follow the EWR is expected to decrease over time. RoofCERT scheme would require some amendment to ensure that EWR was third party assured.	The RoofCERT EWR helps to transition those formally on industry accreditation to a formal qualification. A minimum of five years' experience is required in the associated discipline as part of the RoofCERT EWR which must be demonstrated with evidence. The EWR includes a profiling process to make sure the people going through have experience in the associated work prior to completing the practical assessment and professional discussion. Applicants must also then take technical knowledge test and provide proof of training (H&S/technical) and proof of competence through a robust assessment. Additional roofing disciplines will be added to the EWR portfolio as the scheme develops.

3. Other Training and Assessment

	Recognised standard/system in place?	**Fit for purpose?**	**Workforce coverage?**	**WG2 comments**
Generic fire safety training	Refer to CITB training standards for fire safety training.	Unknown – sector group will need to work with CITB during phase two to establish.	Unknown. Data not collected.	If any exists, it will be contained within CITB training standards delivered by CITB ATOs. The sector group will need to establish what is contained within existing CITB training as part of phase two.
Sector-specific fire safety training	A standard exists for "Fire safety, fire marshal for built up felt roofing operatives."	Unknown – sector group will need to work with CITB during phase two to establish.	Unknown. Data not collected.	The standard listed is only specific to one roofing discipline and does not cover other roofing disciplines. The group will need to assess whether this standard is fit for purpose during phase two, as well as identify/create standards for other roofing disciplines.
Sector-specific CPD/upskilling training	There are currently 159 results on CITB's training directory in relation to standards approved for roofing. 11 Further Education colleges exist as well as several private training providers, multiple small delivery	Some concerns over quality of standards that underpin courses and course delivery. Training delivered, undertaken on an ad hoc basis.	Unknown. Data not collected.	There is a lot of training in circulation for the roofing sector. Over the years representatives within the industry have continued to push for additional training standards to be developed. Concerns remain that most of the standards available are outdated, incomplete or inaccurate and some serious work is required to review each standard to ensure training that is derived from those standards meets industry standards.

	centres. Manufacturer also have training facilities for their specific product related training. Roofing contractors delivering key skills.			Training infrastructure remains an area for concern, as an increase in training and assessment will require increase in availability with assessors and trainers also in short supply. However, with an increase in demand it is expected that the supply would follow. Another significant problem for certain sectors (e.g., liquids and single ply) is that the cost of materials makes it prohibitive to practically teach them and make a profit in colleges. Hence manufacturers taking the lead originally.

4. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	Yes – CSCS blue card for skilled operatives completed vocational achievement.
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	Yes. A new CSCS Alliance Smart Check app will be rolled out from April 2022 which will allow all 2.1 million cards in the construction industry displaying the CSCS logo to be verified using a single app.

Annex G – WG2 Key Principles for the Development of Sector Specific Frameworks for Installers

WG2's central recommendations in the Setting the Bar report set out the following for organisations and individuals working on higher-risk buildings:

The industry should adopt a framework for all the installer sectors working on in-scope buildings that can be applied to other project types. The framework will consist of:

- *Accredited third party certification of companies*
- *Level 2 or 3 qualifications for individuals*
- *A card scheme such as, but not limited to, the CSCS*
- *CPD refresher training and the maintenance of individual skills*
- *All installers [to] have a core knowledge of fire safety in buildings – training to be standardised and made mandatory.*

Where installer sectors do not currently operate within the above, these will need to be defined and developed.

In proceeding to the next phase of implementing its recommendations, WG2 recognises that there is a particular challenge for installer sectors in seeking greater standardisation of performance; that the task is not easy but does require improvement; and that in order to gain fullest support, any solution arrived at will need to recognise the diversity and variable positions between and within the various installer sectors.

For this first phase, WG2 has supported a series of pilot sector-specific framework developments during the second half of 2021, focussed mainly on disciplines previously identified as priorities for fire and building safety purposes.

In developing these frameworks, pilot groups are expected to use the present Key Principles in conjunction with WG2 recommendations and the *BSI Flex 8670: Core criteria for building safety in competence frameworks – Code of practice*. It is anticipated that the present Key Principles will be amended and improved as a result of the experience, feedback and lessons learned from pilot sector development groups.

Installer Sector Development Groups

Each installer sector shall take responsibility for drawing up a competence framework for that sector, developed by a representative group of employers and other 'built environment actors' from the sector, together with other relevant stakeholders and interested parties.

The following list of potential sector development group participants is purely indicative and not necessarily exhaustive. For example, some stakeholders/ interested parties may legitimately be invited to participate in some meetings and areas of work, but not others. Development groups may also decide to establish sub-committees, task-and-finish groups, working parties, etc., as and when they see fit.

Potential Participants

Built environment actors:

- Sector employers (reflecting different firm sizes, sub-disciplines and positions in the built asset life-cycle)
- Member-led trade associations
- Trade union(s)
- Recognised sector skills bodies
- Professional institutions (where relevant)
- Manufacturers (as and where relevant)

Other stakeholders/ interested parties:

- CSCS/partner card schemes (as appropriate)
- Relevant certification bodies
- Relevant awarding organisations
- Other recognised sector stakeholders (e.g., other relevant sector bodies, safety charities, bodies representing owners, users and/or occupiers of built assets)
- Representatives from Government acting as observers (e.g., HSE, DLUHC, BEIS, DfE, IFATE, UK devolved administrations)

Scope definitions in sector-specific frameworks should also confirm their geographical span (e.g., England only, England and Wales, Great Britain, UK-wide). Given the UK-wide span of built environment businesses and workers, sector development groups should consider securing alignment and buy-in across all parts of the UK.

In establishing and running a development group, sectors should consider core good governance principles, such as those set out in *BS: 0 2016 A standard for standards – Principles of standardization*, especially sections seven and eight.

WG2 will coordinate with sector development group chairs to report on progress, discuss shared issues and, as far as possible, agree common approaches. WG2 will also seek to provide advice, assistance and support at and between sector development group meetings.

Sector development groups should ensure that they keep others suitably informed about their work, and that any proposed sector-specific competence framework is submitted for timely and meaningful consultation with the relevant sector more widely before it is finalised.

Whereas it is for installer sectors to determine the detailed content of their own competence frameworks, WG2 shall be responsible for verifying that each such framework at least fulfils the minimum requirements of BSI Flex 8670 and WG2 recommendations, including these Key Principles.

Organisational Competence

WG2 has recommended that all organisations carrying out installation on higher risk buildings are subject to Accredited Third-Party Certification under the ISO 17065 standard. In leading towards this longer-term aim, we recognise the important role undertaken by trade associations and envisage that the planned pilot groups will help to reconcile this matter and garner installers' views and support. Any proposed alternative to ISO 17065 shall be referred back to WG2 for further consideration.

A fundamental aspect of assuring organisational competence of companies working on higher risk buildings is for organisations to demonstrate that they keep up-to-date records of competent individuals. There also needs to be evidence of the organisation's process for checking individual competence and how the organisation manages the maintenance of competence, including approved technical, regulatory and fire-related CPD content.

Individual Competence

Individuals must go through a process of both validation and revalidation of their competence. All sectors must define how initial validation of an individual's competence will be achieved and the process in which revalidation will take place and the timeframe for this to be achieved within. Revalidation should take place every five years or less.

Installation teams will have a mix of competence levels on most occasions. There always needs to be the correct ratio of competence levels within the working environment which each sector needs to determine and define for itself. Sectors may, for example, consider the use of a risk matrix that compares the risks and demands of an activity and the level of competence of each operative to determine the appropriate ratio for installer teams within that context.

Whilst WG2 recommend the following competence requirements for individual installers working in the sector, it is important to consider for those working towards occupational competence through apprenticeships, qualifications and other trainee programmes. All sector-specific frameworks need to ensure that all work ultimately is done either directly by or under the supervision of someone with current and validated competence for all the activities being undertaken. In the event this cannot be maintained, specific work associated with that level of competence must stop. In cases where this situation is not achievable straight away, any transitional arrangements must be clearly defined, robust and time limited.

Industry Technical Knowledge

It is each organisation's responsibility to ascertain current levels of technical and safety knowledge of its workforce and to ensure this knowledge is maintained. WG2 recommend that each industry sector develops measures that ascertain current knowledge levels and facilitate enhancement of knowledge through formal training, refresher courses, mentoring, supervision and CPD. CPD must be relevant and designed using robust evidence and industry-approved standards. As already stated above, any scheme developed for assuring organisational competence should assess each organisation's processes for validating, maintaining and revalidating knowledge of the installation team.

Knowledge assessment can be determined in multiple formats and WG2 recommend the following approaches, developed with industry:

- Knowledge testing through invigilated examination (multiple choice questions)
- Professional discussion (trained assessor/evaluator) with industry expert
- Other approved method.

Industry-Approved Formal Training

Industry approved formal training is defined within this framework as standardised training with clearly specified learning outcomes and broadly-based industry endorsement and support. This will provide individuals with the required knowledge, skills and behaviours to operate to the required minimum technical and fire safety standards. The below sets out the minimum requirements of industry approved formal training relating to this framework for all sectors working in higher risk buildings:

- Consultation/approval by relevant sector bodies
- Consultation produces a standard that the training is based on
- Minimum training requirements
    - Introduction and scope
    - Learning Outcomes
    - Course instructors' minimum experience and educational achievements
    - Pre-requisites
    - Minimum duration (recommended)
    - Assessment criteria including methods (if applicable)
    - Assessor competence / vocational requirements
    - Environment for delivery
    - Quality assurance
    - Review period for contents
    - Validation period of training
- An established mechanism for approving courses against the standard
- Transmission and recording of training achievement by the relevant industry-approved digital card scheme.

Industry approved formal training may already exist for an occupational area. The relevant sector standard setting and/or skills bodies should always be consulted prior to commencement of any standards creation to avoid duplication or unnecessary work. Ongoing requirements will need to be in place to monitor updates to knowledge and skills as installation techniques and requirements change.

As part of these Key Principles, approved formal training of individuals has been broken down into the following headings:

- **Generic Fire Safety Training** – All individuals working on all roles within scope will be required to complete the approved generic fire safety training. This training will be approved by WG2 and will be updated as required and aims to equip installers with the core knowledge required about fire safety in buildings.
- **Sector Specific Fire Safety Training** – All sectors in scope will be required to design, develop and implement fire specific safety training relevant to operational tasks and with input from a recognised fire expert.
- **Sector Specific Technical Training** – All sectors in scope will identify or develop and implement sector specific technical training in accordance with industry-approved standards.
- **Behavioural Competence** – It is recommended that a collaborative approach to improving behaviour across all sectors is achieved through design, development and implementation of modular training and must include requirements relating to understanding the limits of competence and reference accepted ethical standards and principles.

Sector development groups' activity above should include full consideration of the relevance and appropriateness to installers of the individual competence requirements set out in BSI Flex 8670 table one (behavioural competence for building safety) and tables two to five (core criteria for building safety). For example, groups must consider whether it is appropriate to expect each installer to acquire and demonstrate the competence in question, or if that competence is better expressed as a management and/or organisational responsibility.

Competence Assessment

All individual installers working in scope will be required to go through an industry-approved competence assessment process. The measurement of competence must be assessed against developed assessment criteria and approved National Occupational Standards (NOS) or industry-approved alternative. The following routes are potentially suitable for competence measurement within this framework:

- National/Scottish Vocational Qualifications at minimum level two/SCQF level five
    - This minimum standard may extend to level three/SCQF level six or beyond, dependent on sector requirements
    - Ofqual/Qualifications Wales/SQA regulated qualifications at the minimum level stated above
- Industry-approved apprenticeships (with end-point assessment)
- Industry-approved individual accreditation/certification programmes
- Industry-approved experienced worker route
    - Experienced worker routes must be approved by the sector skills and/or standard setting body (e.g., CITB, skills partnerships in engineering services) and demonstrate alignment to NOS or industry-approved alternative.

Continuing Professional Development

CPD is to be made compulsory to all those working in scope. It is the responsibility of the organisation to ensure that all individuals working on higher risk buildings remain current in their knowledge of fire, regulations, installation techniques and products. As part of this framework CPD must be completed. However, specific CPD content is to be designed and implemented based on evidence of need across each sector.

The following areas must be covered during CPD activities:

- Fire training (generic and sector-specific)
- Regulations and standards
- Technical

All CPD related to the above sections must follow the same process for creation as identified in the industry approved formal training section above.

Maintenance of up to date knowledge, skills and behaviours can be achieved through both formal and informal CPD. The above formal CPD must be achieved at least once in every five-year period to allow for revalidation of competence, must be documented and made available for inspection as part of assurance of organisational competence.

Checking Individual Training & Competence Achievement

All relevant training and competence records associated with an individual installer, both specific to that sector and generic and including all required CPD, must be identifiable through an industry-approved digital card scheme. Information that is contained on the installer's card records must demonstrate compliance with these Key Principles and approved sector criteria. It is recommended that a single common digital portal for checking individuals' credentials is used to assist those undertaking such checks. It is also recommended that the technologies underpinning industry-approved digital card arrangements are further enhanced to support competence – including, for example, a facility for monitoring compliance with workforce competence level/ ratio requirements, as set out in sector-specific frameworks (see 'Individual Competence' above).

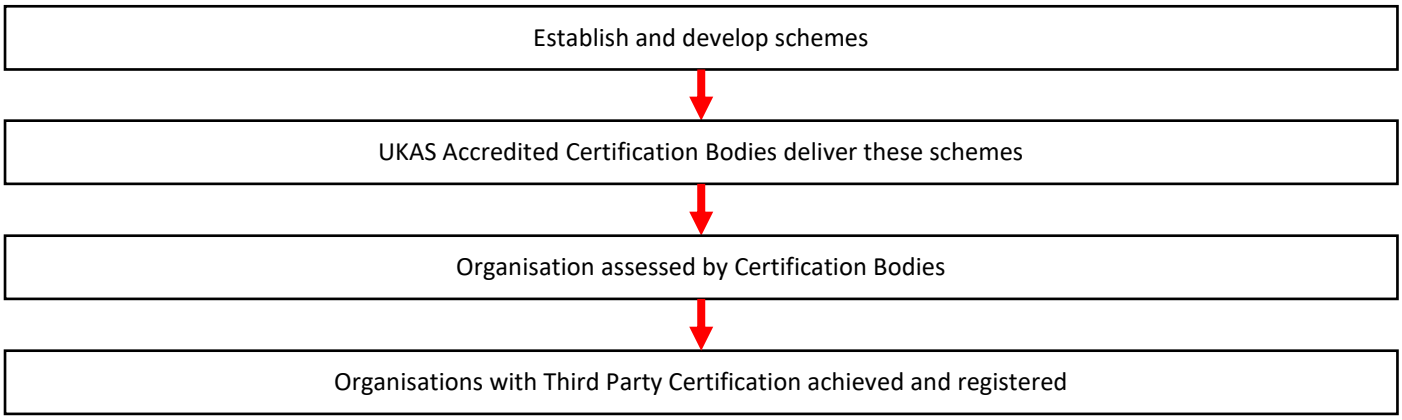
Assuring Organisational Competence

WG2 has recommended that all organisations carrying out installation on higher risk buildings are subject to Third-Party Certification under the ISO 17065 standard.

As part of Third-Party Certification, companies are required to keep an updated record of competent individuals, including demonstrating the process of assuring competence and how the maintenance of competence is managed, including approved sector-specific technical, regulatory and fire-related CPD content.

It is envisaged that all certification bodies under this recommendation will be registered and accredited by UKAS and be subject to their audit process.

Third party certification of companies includes the following process and stages.



As recommended above, any new third-party certification body should ensure that their scheme documents and rules align with ISO 17065 and include:

- Scope
- Objectives
- Definitions
- Application for Certification
- Audit Decision
- Registration of an Organisation
- Surveillance Audit
- Management Systems
- Scheme Requirements and Conformity
- Training & Competence – Organisations as part of the certification process must be able to show they have checked the training and competence of all installers. Training and competence must meet the requirements of the Provisional Industry Adopted Framework following industry-approved criteria.
- Technical reporting
- Claims of conformity
- Revalidation process and timescale (every five years or less)
- Suspension and withdrawal of certification

WG2 realises and accepts that organisational competence schemes through an ISO 17065 regime will be a challenge to many sub-sectors within construction. Therefore, as part of the initial pilot process and for future implementation WG2 supports assurance processes carried out by many trade associations within construction and believes they can play a key role in supporting organisational competence and capability through a robust checking process.

Where an installer sector concludes that an alternative approach to ISO 17065 is appropriate, the use of trade association membership may be adopted using the following guidelines. The installer organisation being assessed will need to demonstrate the following through a robust membership process:

- Financial viability.
- Relevant insurances are in place.
- The business has an organisational structure in place to support operational activity.
- All health, safety and environmental legislative requirements are being met, supported and monitored.
- Robust quality management system/s are in place and operational.
- Essential policies and procedures are in place – for example (but not limited to):
    - Complaints process
    - Appeals process
    - Whistleblowing process
    - Recruitment process (including management of the competence of subcontractors, agency workers, etc.)
- Robust training plans for installers, aligning with BS 8670 and these Key Principles.
- Monitoring of individual competence.
    - This must include observation of working activity by supervision/management.

The trade association shall demonstrate financial viability and relevant insurances and ensure it operates the following:

- Robust membership criteria and application process
- Annual on and off-site checks of work through surveillance and desktop monitoring
- A robust recruitment process for association individual surveying work.
- A robust management system equivalent to ISO 9001.
- Essential operational policies and procedures – for example (but not limited to):
    - Complaints process
    - Appeals process.
    - Whistleblowing process
    - Recruitment process
    - Suspension, termination and withdrawal processes

Annex H – Phase One Questionnaire

The below question set was issued to sector development groups prior to their first meeting to help them source the information they would need to assess their existing competency arrangements. It is recommended that groups answer the below questions as fully as they are able before commencing their benchmarking exercise.

1. Background information

Question	Answer	Additional notes
1.1 Number of businesses in sector?		
1.2 Number of businesses involved with HRBs?		
1.3 Number of workers in sector, including number split between direct employees and indirect.		
1.4 Number workers involved with HRBs?		
1.5 Recognised member-led trade associations or federations?		
1.6 Other recognised sector bodies and stakeholders (e.g., trade unions, skills bodies, professional institutions, manufacturers, card schemes, certification bodies, awarding organizations, etc.?		

2. Organizational competence

Question	Answer	Additional notes
2.1 Schemes for Accredited Third-Party Certification of organizations under the ISO 17065 standard already in place? If so, please provide details and links.		
2.2. Scope of the schemes? (i.e., type of building, activity, etc.)		
2.3 Coverage of the schemes? (i.e., number of businesses certified or registered)		
2.4 Are any of these association or federation membership arrangements accredited under ISO 17065 or any other recognised quality management or similar standard? If so, please provide details in each case.		

3. Individual competence (including validation/ revalidation, technical knowledge, formal training (part) and competence assessment)

Question	Answer	Additional notes
3.1 Recognised system for initial validation of individual competence already in place for sector?		
3.2 Is the system currently considered fit for purpose?		
3.3 Number or percentage of workforce currently validated in accordance with this?		
3.4 Recognised system for periodic revalidation of individual competence already in place for sector?		
3.5 System currently considered fit for purpose?		
3.6 Number or percentage regularly revalidated in accordance with this?		
3.7 Recognised mechanism to determine levels of technical knowledge already in place for sector?		
3.8 Mechanism currently considered fit for purpose?		
3.9 Number or percentage currently assessed in accordance with this?		
3.10 Recognised vocational qualifications at minimum level two already in place for sector?		
3.11 Qualification currently considered fit for purpose?		
3.12 Number or percentage currently (a) holding qualification and (b) working towards it?		
3.13 Recognised vocational qualifications at minimum level three already in place for sector?		
3.14 Qualification currently considered fit for purpose?		
3.15 Number or percentage currently (a) holding qualification and (b) working towards it?		

3.16 Approved apprenticeship routes already in place for sector?		
3.17 Apprenticeships currently considered fit for purpose?		
3.18 Number or percentage currently (a) in possession of completed apprenticeship and (b) working towards it?		
3.19 Approved experienced worker routes already in place for sector?		
3.20 Experienced worker route currently considered fit for purpose?		
3.21 Number or percentage currently (a) in possession of completed experienced worker qualification or certification and (b) working towards it?		

4. Further questions re: training and assessment (including formal training (part) and formal CPD)

Question	Answer	Additional notes
4.1 Generic fire safety training already in place for sector, in line with approved standards?		
4.2 Generic training currently considered fit for purpose?		
4.3 currently undertaking generic training?		
4.4 Sector-specific fire safety training already in place for sector? If so, provide details.		
4.5 Sector-specific training currently considered fit for purpose?		
4.6 Number or percentage of workforce currently undertaking sector-specific training?		
4.7 Sector-specific technical CPD/upskilling training already in place for sector? If so, provide details, including: a. Course modules b. Review dates c. Timeframes d. Costs e. Training standards f. Delivery mechanisms		
4.8 Is there the infrastructure in place to deliver current		

and/or enhanced training and assessment requirements in your sector (e.g., do you have enough good-quality colleges, training providers, trainers, assessors, etc.)?		

5. Checking individual training and competence achievement

Question	Answer	Additional notes
5.1 Sector covered by CSCS (partner) or another card scheme? Please provide details.		
5.2 Relevant card schemes currently linked up to digital recognition of skills and training?		

6. Miscellaneous

Other concerns (if any) in relation to competence overall within your sector?

Annex I – Blank Phase One Report Template

1. Sector Overview

Number of businesses in sector		
Number/% businesses involved with HRBs?		
Number of workers in sector – including number/% split between direct employees and indirect		
Number/% workers involved with HRBs?		
Recognised sector and stakeholder organisations	Member-led trade associations	1.
	Certification organisations	2.
	Sector skills organisations	3.
	Awarding organisations	4.
	Skills certification scheme	5.
	Professional institutions	6.
	Other sector stakeholders	7.

	Occupations in scope to the FSS Sector Framework: •	**Boundaries/overlaps with other installer sectors and/or occupations:**

2. Organisational Competence

ISO 17065 scheme(s) in place?	Scheme(s) scope?	Scheme(s) coverage?	Alternative trade association scheme(s)?	WG2 comments

3. Individual Competence

	Recognised standard/system in place?	Fit for purpose?	Workforce coverage?	WG2 comments
Initial validation of competence				
Periodic revalidation of competence				
Technical knowledge assessment				

Level two vocational competence-based qualification				
Level three vocational competence-based qualification				
Apprenticeship				
Experienced worker route(s) (EWR)				

4. Other Training and Assessment

	Recognised standard/system in place?	**Fit for purpose?**	**Workforce coverage?**	**WG2 comments**
Generic fire safety training				
Sector-specific fire safety training				
Sector-specific CPD/upskilling training				

5. Checking Individual Training and Competence Achievement

Sector covered by card scheme? Which one?	
Card scheme currently linked up to digital recognition of skills and training (apps, online etc)?	

Annex J – Phase One Participating Organisations

Actuate UK

Association for Specialist Fire Protection (ASFP)

Association of Plumbing and Heating Contractors (APHC)

British Approvals for Fire Equipment (BAFE)

Build UK

Building Engineering Services Association (BESA)

Centre for Window Cladding & Technology (CWCT)

Chartered Institute of Plumbing and Heating Engineers (CIPHE)

Construction Industry Training Board (CITB)

Electrical Contractors Association (ECA)

Finishes and Interiors Sector (FIS)

Fire and Security Association (FSA)

Fire Emergency and Security Systems (FESS) Apprenticeship Employers

Fire Industry Association (FIA)

Fire Sector Federation (FSF)

Insulated Render and Cladding Association (INCA)

Joint Industry Board for Plumbing Mechanical Engineering Services (JIB-PMES)

Liquid Roofing and Waterproofing Association (LRWA)

Metal Cladding and Roofing Manufacturers Association (MCRMA)

National Association of Professional Inspectors and Testers (NAPIT) Certification

National Federation of Roofing Contractors (NFRC)

National Security Inspectorate (NSI)

Scottish and Northern Ireland JIB (SNIJIB)

Scottish and Northern Irish Plumbing Employers Federation (SNIPEF)

Security Systems and Alarms Inspection Board (SSAIB)

Single Ply Roofing Association (SPRA)