BUILD UP SKILLS
ENERGY TRAINING FOR BUILDERS

Energy Training for Construction Workers for Low Energy Buildings

BUILD UP SkillsQualiBuild

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Report Title: Research Paper on Implications of Mandatory Registration Requirements

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Contents

1.0 Executive Summary

The QualiBuild project is part of the EU's BUILD UP Skills programme which is aimed at up-skilling the construction work-force across Europe, particularly with regard to energy efficiency in building construction. The BUILD UP Skills Ireland (BUSI) project which preceded the Qualibuild Project identified the need for enhancing the knowledge of construction workers in Ireland and of those who train them. A key finding was that *'at operative and craft level, all workers involved in building construction and renovation will require training'*. It also identified the need to develop a mechanism or register, through which those with the required knowledge and skills could be identified and acknowledged by others in the construction sector, or those who would require their services.

The Qualibuild project which was a response to the BUSI review, was, therefore, primarily focused on three key areas. First, the design and piloting of a training programme – Foundation Energy Skills (FES) - for construction workers to upskill their knowledge in energy efficiency and associated construction techniques. Second, the development of a course to train-the-trainer and upskill those charged with delivering the FES programme. Finally, the development and piloting of a skills register for construction workers. While these were the three key elements of the project other important elements relate to future national roll-out, communication and promotion.

A specific change occurs when the Irish State determines that builders must be registered. This is expected to happen within the next 12 months - significantly later than expectations at the time the Qualibuild project was first proposed. One change that flows from this is the requirement that all builders, even at construction craft worker and semi-skilled and unskilled site operatives levels, engage in training and upskilling (i.e. continuous professional development (CPD)), meeting minimum targets.

When the Construction Worker Skills Register was first proposed there was a debate as to whether annual training requirements should be mandatory regardless of the parallel progress of the (full-featured) statutory register of builders and its timeline. The conclusion reached was that (a) a primary skill qualification (typically a national craft certificate) and (b) a certificate in either *Foundation Energy Skills* training or *QualiBuild Train the Trainer* should be mandatory requirements for those applying to become a registered member, but that annual CPD training beyond this, in the early stages, should be left voluntary. By allowing the future statutory register (most likely the CIRI Register), once in place, to drive minimum training requirements one area of possible conflict between the two Register would be removed. By putting a credible repository of training in place that sits well beside the CIRI, it is hoped that the latter will drive the training requirement while the

former becomes the universally accepted location to save and display those records. The future lies with harmony and cooperation!

2.0 Aim and context

2.1 Aim/Purpose of report

The main aim of this report is to look at the impact, a mandatory versus a voluntary registration system for construction workers would have on the Industry. A detailed review of all of the Irish registration bodies in the broad sense of the construction industry in Ireland has been completed and a comparison matrix developed. This has been presented to the consortium and also to the Steering Committee for review. Although the review was primarily at national level, it did however look at a number of EU examples and one from outside of the EU also for comparison.

Work package 4 was primarily focused on the suitability and inclusion of having a registration of craftworkers in Ireland. The current numbers involved in the Industry total approximately 60,000 people and to date there are but a few registers for this cohort, mainly in electrical and plumbing/heating.

2.2 Objectives

The objectives of this report are to;

- Establish the impact of a mandatory versus a voluntary registration system
- Establish the implications of mandatory registration requirements

2.3 cope of document

This report deals with the registration system only but is produced with the complete background awareness of the work taking place within the other work packages. The registration system development is very much an integral part therefore of the overall QualiBuild programme and has been the subject of many discussions and meetings in trying to resolve some key challenges that arose.

2.4 Background to Irish Construction Sector
- The sector employs 96,300 people directly, accounting for 5.2 percent of total employment, and indirect employment of circa 48,000
- The sector is fragmented, as is the case globally and occupationally diverse.
- The majority of employees are involved in construction trades (c. 60 percent) with the remainder occupied across a range of other professional services and other activities.

The Construction Industry Federation (CIF) was invited by the DoECLG to submit proposals, relating to a voluntary registration process for builders and contractors. The proposal put forward, developed and operated by the CIF is the Construction Industry Register Ireland (CIRI). This comprises the following;

- Construction Industry Registration Board

- Complaints and Appeals Committee

- Executive and Administration Office

The register is designed for all construction practitioners and will include annual registration to include the following

- Main contractors and builders who deliver overall projects

- Specialist contractors and sub-contractors who deliver overall projects and/ or elements of projects

- Other trades who may be engaged by other contractors, sub-contractors or by domestic clients

3.0 Working paper and overview of compatibility

A common ground working paper between QualiBuild registration and CIRI was developed. This document has been produced after much discussion internally within DIT and also after independent conversations with two members of the CIRI committee and more recently from a Department of Environment, Communication and Local Government (DECLG) presentation. It sets out the two approaches or options open to QualiBuild at this time.

3.1 Approach 1: go it alone
Option 1 is to go it alone as a QualiBuild (QB) only register, knowing that it will be a voluntary scheme for a long time ahead based on the Departments requirements for a national register. This would give us complete independence to set up and manage the register however getting Industry 'buy in' could be extremely difficult as QB will not be a statutory body whereas CIRI is. It is against department policy and could have a divisive effect within the industry.

3.2 Approach 2: common ground approach
From the above conversations and discussions and from extraction of information from the CIRI CPD papers, it is worth noting some points in relation to CIRI, which is significant for how QB progresses;

- CIRI supports accredited upskilling within its CPD requirements and could be a significant ally to QB as the exemplar of standards achieved through structured learning and verified assessment.

- Manager / Supervisor level CPD is more within the existing culture of education. Craft and operative CPD although difficult to implement is a marvellous opportunity if the right vehicle is presented

- Outside of CIRI it is clear that QB has enormous potential to effect long term 'culture change' if it is integrated formally within apprentice education.

- Also outside CIRI, the unique selling point for QB is that it would regulate those workers who operate solely outside BC(A)R and within the 40m^2 rule / domestic retrofit market in which the consumer is most vulnerable, and in which CIRI has no interest

- CIRI does cover individuals, albeit with their CPD needs stated at the discretion of their employer rather than being set centrally and to a given standard as required by QB. It is difficult to know how many of the 40,000-60,000 target market will be within the CIRI chain of contractors / subcontractors. I think QB could do well to target and occupy this space

- There are two pillars within the CIRI CPD requirements that QB may target i.e. 'Regulations' and 'Technology & Innovation', If QB were to go down the common ground route with CIRI, thereby improving its currency.

- CIRI CPD also requires structured CPD which in itself could be aligned with the quality and outcomes-based QB programme. The goal should be to ensure that outcomes are actually achieved, by verified assessments, which demonstrate that the learner has developed the understanding required. An argument could certainly be made that all craft workers and operatives within CIRI-registered companies should be required to complete specific CPD which clearly achieves the stated outcomes, for example the QB Foundation Energy Training, and with CPD in the first year being more than the 10/10 or 5/5 currently listed for Trades and Operatives respectively. But any such mandatory requirement would certainly require that the relevant CPD is easily available. There is an opportunity then perhaps for the 10/10 CPD requirement to be provided by QB for the CIRI CPD.

3.3 The view of the Department of the Environment

The Departments view is that any statutory scheme proposed must take account of the following

- o   EU recognition/Mobility requirements
- o   Existing statutory arrangements
- o   Public interest
- o   Consensus of industry stakeholders
- o   Competition (rights of new entrants and existing operators)
- o   Consumer protection
- o   Accountability
- o   Stakeholder consultation

4.0 SWOT Analysis

From all of the above information and discussions a SWOT analysis of the current registration systems was established as follows;

4.1 Strengths
What are the **strengths** of existing registration systems applicable to the proposed registration system?

- Improved professional standards

- Free unlimited access to knowledge portal

- Discounts to CPD events.

- Professional recognition.

- Networking opportunities

- Discounts for professional fees.

- Discounts for tools and equipment

4.2 Weaknesses
What if any are the **weaknesses** of some or all of the existing systems?

- No dispute resolution mechanism.

- No robust auditing system.

- No mandatory Insurances necessary.

- No legislative enforcement.

4.3 Opportunities
Are there **opportunities** for registered craftworkers, outside of that already identified?

- Recognition of qualifications in other EU countries, allowing mobility of workers across all countries.

- Job opportunity potential is enhanced

- Opportunity to exchange ideas through networking and forums

- Opportunity for business development.

4.4.Threats
Does registration pose any **threats** to Industry/Organisations/Bodies or Individuals?

- Over specialisation can lead to lack of joined up thinking often leading to poor overall building performance.

- Poor worksmanship by individuals leading to an undermining of the value of the registration system

- Registered workers losing faith in the professionalism of the body due to perception of irrelevancy and inadequacy.

5.0 Key Questions

Following on from these discussions and analysis, a set of key questions were put forward for discussion in an effort to get some answers. The key questions addressed were as follows:

5.1 Why should craftworkers need to register?

- To ensure a level of quality assurance

- To provide client security of satisfaction in knowing that a level of required standard will be met.

- It is seen to promote best practice.

- For the promotion of their own competence and ability.

- Craftworkers may become more employable with better employment opportunity.

- For self-employed craftworkers there is the potential for reduced fees ie, insurance costs, better deals on equipment and services, e.g accountancy and tax returns.

- To give employers confidence of the craftworkers competence and ability.

- To raise the level of those craftworkers who are underperforming, to see and meet the required standards.

- To enable craftworkers to have greater awareness to have access to up-to-date information and training.

Ultimately the purpose of the register is to ensure that anyone using the term carpenter, electrician, plumber etc., has the required relevant and updated qualifications training and experience that will deem them to be competent craftworkers.

5.2 What advantages do registration systems have?

- Access to up-to-date regulations, standards and changes occurring in the industry.

- Accessibility for the client/employer to check on a registered members list.

- It gives an indication/assurance of a particular or a minimum acceptable standard of quality or professionalism to potential clients or employers.

5.3 What would be seen as a reasonable cost for registration?

- Minimum cost of €50 per year.

- Mid-range value of €100 per year.

- Standard national agreed daily rate for craftworkers payable per year.
- Apprentice rate as it is extremely important to get apprentices in on the registration system, it is thus envisaged that a flat rate of say €25 per year as an introductory level registration fee would suffice for apprentices.

5.4 What role should employers play in registration?

- To employ only people from the registered list of craftworkers.
- To ensure as an employer that all of their staff are registered members.
- To keep an up-to-date record of their registered list of craftworkers.
- To promote the idea of their workforce been fully registered craftworkers

5.5 For what period of time should a person stay on a registration list before it becomes renewable?.

Number of years before renewal	Advantages	Disadvantages
5.5.1	Continuous engagement	Danger of seen as 'money maker'
	Steady funding mechanism	Availability of up to date CPD s nationwide
	Regular updating of information	Limited new material nationwide
5.5.2	Less finanvial outlay for members	A sense of disengagement
	CPDs can be spread over two years	Possibility of not working with up-to-date material or required standards
5.5.3	Less financial burden	A definite sense of this engagement
		Much greater possibility of workers not been up-to-date with standards
5.5.4	none	Lack of up-to-date training and awareness
		Disengaged from current industry standards
		Disengaged from craftworkers community

Figure 1. Advantages and disadvantages of years of renewal

5.6 What are the minimum entry requirements necessary for craftworkers to meet, before registration?

Overall we see two main bands of craftworkers namely 'qualified' and 'non-qualified' and it is absolutely essential that both of these strands are incorporated into any registration system proposed. One of the major difficulties /failings of the built environment as a whole is the disparate and fragmented nature of the industry therefore nobody working in the skills craft area should be omitted. There may however, be classifications of skilled craftworkers within the registration system.

Classification of craftworkers for registration purposes	
Qualified	**Non-qualified**
1 National Craft certificate	People employed as craftworkers without recognised qualifications
2 Junior and senior trades certificate	
3 City and Guilds of London	
4 Other recognised craft qualifications -UK	
5 Equivalent Craft qualifications -EU level	
6 Worldwide craft qualifications	

Figure 2. Two strand classification of craftworkers

5.7 Who should manage the proposed registration system?

Management of registration system proposed		
Organisation	Advantages	Disadvantages
Institutes of Technology (IoT)	Already involved in student management	Lack of resources
	Good expertise in student registration management	Possible lack of commitment from higher management
	Direct links to possible progression routes	Leaning against current government policy of moving all training and further education to the Educational Training Boards (ETPBs)

	Direct links to CPD provision for registered candidates	HEA funding mechanism to be extended
Solas	Well-established current recognised national training providers	Past inability to make change quickly
	Good experience of managing registration systems in the Construction Industry	Past lack of motivation to keep craft education progressive relevant and at the cutting edge.
	Very well resourced	
	Better national distribution of offices	
	Craft training and further education in Solas domain. from the government perspective.	
Others	Specific purpose definition	Little experience in managing national registration system
	Management body set up with clear defined and targeted outcomes	Initial funding and resources for setup could be high unless it comes under the umbrella of another registration system.

Figure 3. Management of the proposed structure

5.8 By what means should registration occur?

The following image depicts the proposed registration setup. It is important however to realise that of equal importance is the very necessary awareness campaign which is required. This may be in the form of information leaflets and other awareness campaigns. The process will therefore be from information to form filling with certification to validation
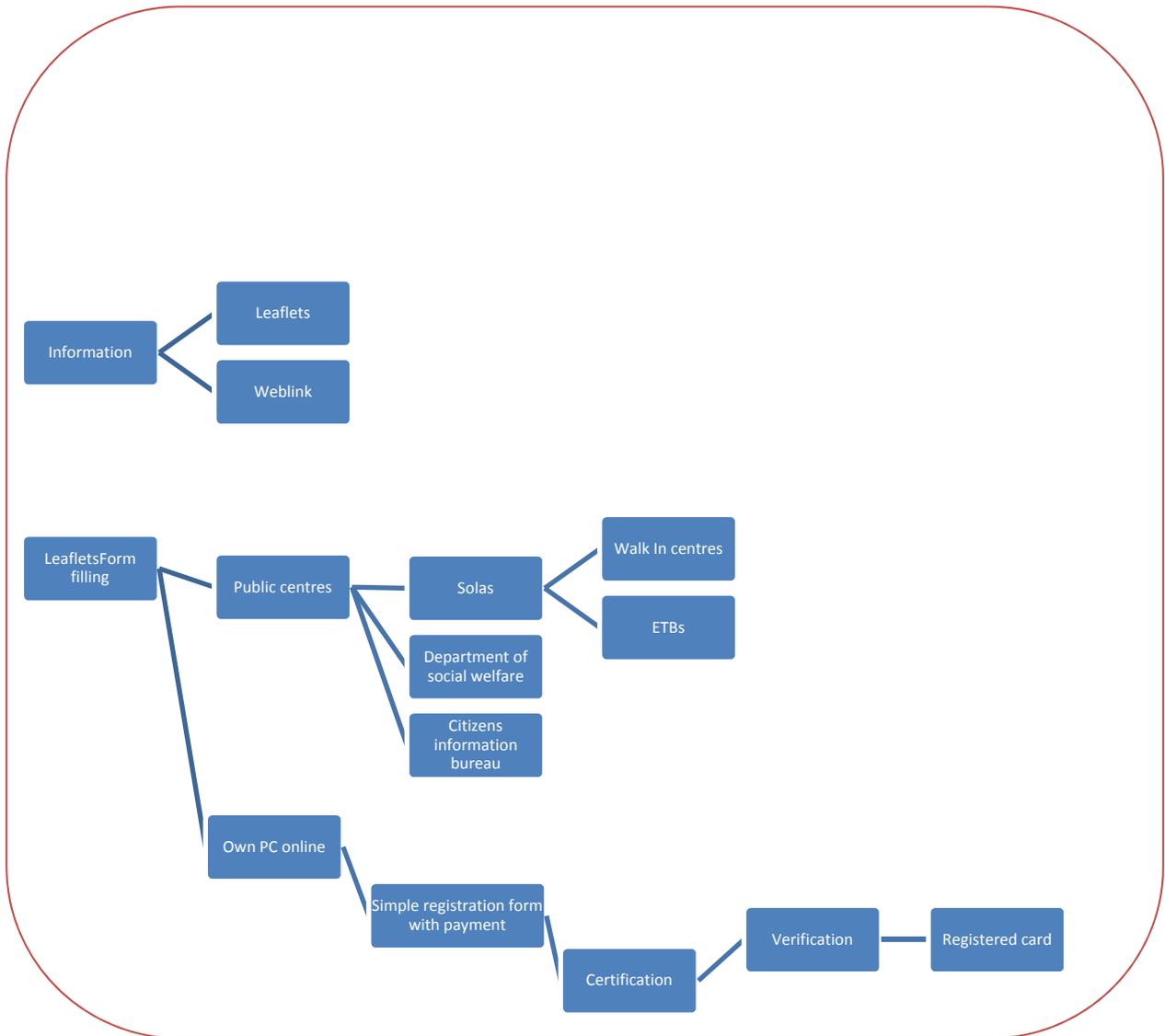
Figure 4. The registration process

5.9 Identify suitable CPD programmes.

The following is a non-exhaustive list of possible CPD programmes that are relevant to all craftspeople to help them maintain up-to-date knowledge and information on standards and regulations

- Trade specific programs
- General awareness programs.
- Legislative programme such as the latest standards, codes of practices and regulations.
- Technical programs such as programs in new materials, methods of installation, new government or EU directives or energy efficiency measures.

- Ethical programs in areas such as social responsibility, environmental significance and cultural areas such as conservation.
- Applied Sustainability modules for example consequences of poor planning, waste management awareness, corporate responsibility for employers and environmental awareness.

These structured CPD programmes could be generally classified under the four pillars mentioned above that is Legislative, Technical, Ethical and Sustainability.

5.10 How do we deal with non-officially certified craftworkers currently working in the areas in industry?

It is imperative that the proposed registration should capture everybody involved in skills both on and off site. The justification for this is that for any missing group, there is the risk of oral quality being sabotaged due to the proverbial weakest link. The main criteria therefore is to

- Have all to be included in the process.
- Identified the total numbers involved.
- Provide details (to be included in information awareness leaflets) on how to progress.
- Identify routes that allows craftworkers to progress to certified craftworker status, which may include
  - assessments (practical and theory)
  - a minimum number of CPT points
  - interview process for a gap analysis
  - and or combination of the above.

5.11 How can one distinguish/differentiate between registered and nonregistered craftworkers on site?

The outcome of the member been from an approved registration scheme should have two distinguishable characteristics from the present disparaged non-registration system, bought from the tangible and intangible prospective.

- The registered person will carry on their possession a registration card that will be clearly marked with the status of this individual in his or her respective area of expertise. It will also have the person's photograph, expiry date and unique registration number.

- The less tangible area, but equally important is in the professional approach, attitude and response to the needs of the client.

5.12 Are there implications for industry partners?

There is a possibility of existing registration groups seeing this new umbrella group as

- Conflicting with their philosophy and taking away from their own status.
- Somehow giving a feeling of being micromanaged.
- Taking away some of their members and potential revenue stream

6.0 Voluntary, Mandatory and Statutory

While it is hoped that statutory registration will be the ultimate outcome of this process, it is nonetheless going to take some time and effort to achieve this but as ''every one-thousand-mile journey starts with a single step'' so too does the registration of construction workers have to take this first step. It must not be forgotten that this singularly largest grouping within the Built Environment has been identified as the forgotten cohort when it comes to training and upskilling with no structured continuing professional development. With the rate of change in new materials, systems, technologies, equipment and regulations being relentless, it can be argued that this is the cohort that needs the greatest amount of cpd training and upskilling at both a structured and unstructured level. The fragmented nature of the Industry, a black economy and a willingness often by clients to seek the 'basement price' are contributory factors in the reduction in standards. The emphasis ought to be on quality across all of the Built Environment from design to build to post occupancy performance with quality at the forefront, fully recognised by the client

6.1 Voluntary.

For voluntary registration, a substantial 'building-up' process within the Industry is thus required which would include the following;

- Building momentum
- Building trust
- Building a brand
- Building recognition on-site
- Part of a 'Rising Tide' of standards

6.2 Mandatory

For mandatory registration, a substantial 'building-up' process would also be required within the Industry which would include all of the above plus the following;

- Company participation/buy-in

- Acceptable to the Industry as a whole

- Accountability

- This would require all company's big and small to get behind the raising of standards nationally and its subsequent promotion.

6.3 Statutory

Statutory registration would require the register be written into law with Department/Government and the Industry fully in agreement. This would provide many challenges in the current state of the Industry, namely:

- Many individuals have left the sector to gain employment/retrain in other sectors, through emigration, or through retirement.

- Overall, this points to a significant skills drain as expertise is lost to the sector and skills are not being maintained.

- The sector employs 96,300 people directly, accounting for 5.2 percent of total employment, and indirect employment of circa 48,000

- The sector is fragmented, as is the case globally and occupationally diverse.

- The majority of employees are involved in construction trades (c. 60 percent) with the remainder occupied across a range of other professional services and other activities. The sector employs 96,300 people directly, accounting for 5.2 percent of total employment, and indirect employment of circa 48,000

- The sector is comprised of over 40,500 enterprises, with the vast majority (96.7 percent) engaging less than 10 people.

However, all statutory registers will/should contain at least the following items:

- Legislative powers

- CPD requirement

- Entry requirements

- Consumer protection

- Recognition on site

- Identify for whom

- Cost associated

- Duration of membership/renewal

- Website

- Different avenues of entry identified

- Code of conduct

- Numbers

- Membership card

Further criteria to be assessed for entry may include the following

- Practical experience of working in construction,

- Completion of the FET training

- Knowledge and understanding of the construction regulations.

- Adherence to Code of Ethics and Member Obligations

- Commitment to CPD /ongoing training and development for renewal of registration

- An acceptable record

If statutory registration is implemented, then the following items (which are part of other registers e.g. CIRI) are also a necessary part of this process

7.0 Control

7.1 Quality Assurance Checks

Commitment that registered members:

- Only undertake works that they are competent to undertake and complete to a high quality.

- Registered people to be competent to undertake the works for which they are engaged

- Adhere to delivered construction drawings where appropriate

- Understanding and cooperation with any inspection programmes in place both on-site and nationally

- When necessary, registered people may have to certify that the work carried out meets with the Building Regulations.

7.2 Consumer Protection

- Written quotations submitted to clients/contract

- For 'small works', full amounts or day rates given to client in advance

- Provide guarantees as to quality of workmanship in accordance with the contract

- Commitment to be on time

- Commitment to start and finish dates

- Commitment to use the materials quoted

- Commitment to appropriate behaviour on site

- Commitment to use materials as per manufacturer's instructions

- Commitment to respect others materials, equipment, systems, property etc.

- Commitment to explain the implications of their work on others

- Commitment to respect and uphold the QualiBuild logo and registration number

- Commitment to the promotion of 'Quality in Building' to their peers and apprentices

An elected board will be appointed to endorse the registration system and its processes; this could comprise members from Education, relevant Government agencies, Trade representatives from the different trade areas, SME and private trainers. There will also be a requirement for an appeals and complaints committee whose decisions should be binding, to oversee such procedures.

7.3 Member Information

- Name and address of Registered Member including craft area

- Contact Details updated

- Regional location

- If a Company- Registration No

- Website where applicable

- Period of time in business

- Qualifications in chronological order

- Specific trade area e.g. fitted kitchens, painter etc...

- Other non-craft area qualifications

- Testimonials where necessary

- Experience and competence skills

7.4 Member Obligations

- Code of Ethics to include:
    - Regulatory and Legal Compliance
    - Integrity and Disciplinary Compliance
- CPD Requirements annually or every two years to be confirmed
- FET completion