



Energy Training for Building Construction Workers for Low Energy Buildings

BUILD Up Skills QualiBuild



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Executive Summary

The QualiBuild project is part of the EU's Build Up Skills programme which is aimed at upskilling the construction workforce 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. 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.

1. 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.
2. Second, the development of a course to train-the-trainer and upskill those charged with delivering the FES programme.
3. Finally, the development and piloting of a skills register for construction workers.

While these were the three key elements of the project, however, another important element of the project was to examine how the programmes developed and piloted during the project would be rolled out at a national level. A summary of the approach to this roll-out and of the responses received is set out below.

The successful rollout of the training programmes requires a number of key things –

- 1) An organisation willing and able to take on the responsibility and coordination function for the roll-out
- 2) Finance to pay for the programme delivery
- 3) Organisations willing to deliver the training courses

- 4) The development of a mechanism, such as the Construction Worker Skills Register, which would make it worth the while of construction workers participating in the courses and
- 5) The continuous promotion and highlighting of the programme and the register and of their importance.

This report details key elements of the national roll-out including identifying the most appropriate body to take responsibility for this, the Construction Works Skills register, support from other relevant bodies and a national communication campaign.

Having consulted with many individuals and groups and having examined the capacity of various relevant organisations, the main recommendation of this report is that SOLAS, which is the public agency with responsibility for funding, planning and co-ordinating Further Education and Training (FET) in Ireland, assume responsibility for the long-term National Roll-Out of the Foundation in Energy Skills (FES) training programme. The scale of the project (upskilling between 60,000 and 100,000 Building Construction Workers in the area of energy efficiency) requires the involvement of a major national public organisation with functions, skills, capacity and a coordinating role in this area. The approach required will be a 'top-down' one where the requirements and the organisation of delivery is carried out at a national level and is likely to require a wide range of providers. SOLAS with its network of Education and Training Boards (ETBs) is the body with the greatest experience and capacity to mobilise such a programme.

During the QualiBuild project, a number of meetings were held with SOLAS at an operational level but various complications regarding the precise nature of what would be asked of the organisation meant that a meeting with senior SOLAS staff which was held close to the completion of the QualiBuild project suggested that SOLAS would, if the circumstances were appropriate, consider bringing the FES and Train the Trainer programmes within its remit. These circumstances would include the provision of funding to allow SOLAS to undertake the project and a consensus amongst the relevant Government departments that the programme should be implemented.

In the short-term, however, and pending the confirmation of the organisation which is in a position to take responsibility for the national roll-out, the FES training programme will

continue to be run in the same manner as during the Pilot Phase though with a wider range of programme providers. Therefore, Limerick Institute of Technology (LIT) and the Institute of Technology Blanchardstown (ITB) will continue to deliver the FES course to interested parties until such time as SOLAS or some other body is in a position to assume overall control of the National Roll-Out. In the event SOLAS are unable to act as a national coordinating body for the roll out of FES, a number of parties have expressed an interest in taking on this key role, including a number of Institutes of Technology (IOTs), ETBs and Construction Products Suppliers/Manufacturers

Support for the National Roll-Out of FES was sought through meetings and discussions with various government bodies (including local authorities and the Sustainable Energy Authority of Ireland - SEAI) and professional institutes such as the Royal Institute of Architects of Ireland (RIAI), Society of Chartered Surveyors Ireland (SCSI), Engineers Ireland (EI) and the Irish Building Control Institute (IBCI). The focus of these discussions was to ascertain the possibility of inserting the requirement of providing proof of quality training (such as FES) into the procurement selection criteria for construction projects, the intention being that this might act as a stimulus for contractors to send their employees on training courses such as FES and also bring pressure to bear on the Government to provide the necessary legislation which would make FES mandatory for all Building Construction Workers. A final response to these discussions has not been received at the time of writing.

The Construction Workers Skills Register is developed and is in the process of being piloted. The majority of the QualiBuild consortium members recognise the importance of the continued operation of the register until an organisation willing to assume long-term responsibility for it has been identified. To that end, an agreement between the project partners has been drawn up to manage the site for a period of two years. During this time work will continue on the identification of a long-term management organisation though SOLAS, with its experience of managing the Safe Pass Register, is the preferred choice to manage a construction workers skills register.

The QualiBuild Communication and Information campaign achieved and exceeded the target metrics for the proposed project key performance indicators set out in Annex 1 of the contract documents. The main focus of this campaign was to promote the idea of low-energy quality

building amongst those involved in the construction sector and the general public through a variety of means including: - the provision of a Quality Building e-book, the production of videos, the organisation of promotional events etc. The other focus was the recruitment of trainees for both the FES and Train the Trainer courses.

A number of approaches were examined as to what might be the best method for continuing the Quality Building Communication and Information Campaign post-QualiBuild. Some of these approaches included: - Industry Led, Policy Led, Market (Consumer) Led and Training Led. The conclusion drawn was that a bilateral approach of Policy and Training would be required.

REPORT 6.4

HANDOVER AND NATIONAL ROLL-OUT

Report 6.4 Handover and National Roll-Out

1.1 Present the Learnings, Outputs and Results from the Build UP Skills

QualiBuild Project

A fundamental aspect of the QualiBuild project is that the insights and outputs are shared with others. The following are the principle elements of the project.

1.1.1 Foundation Energy Skills - Learnings, Outputs & Results

- The Foundation Energy Skills learning materials were developed
- There were fourteen deliveries of the FES course.
- The venues for these courses were as follows:- Dublin (ITB), Cork (CIT), Galway (Partel), Limerick (LIT), Waterford (WIT), Cavan (St. Gobain), Belmullet and Portlaoise.
- The facilities that had Air Tightness demonstration cubicles were:- ETB Training Centre Ballyfermot, Cork Institute of Technology, Saint Gobain Technical Academy, Kingscourt, County Cavan and Partel Ltd, Claregalway, County Galway.
- 232 Construction Workers registered to participate in the pilot
- 195 Construction Workers completed the programme
- The course was validated by LIT and ITB as part of a Special Purpose Award
- The training programme was designed as the equivalent of three days of face-to-face training
- The course was offered with a day time option or a part-time evenings and Saturdays option
- Resource materials for the trainers were also developed to aid and support them
- The Communications Partner employed a range of promotional activities and advertising to disseminate course information directing potential participants to the online application system
- Awareness about quality, low-energy building amongst the construction industry and home owners was communicated via email, newsletters, text message campaigns, outreach on social media, press releases to local and national media, promotion on local radio, advertisement in local newsletters and parish news, select print advertising (including one in a national Polish language newspaper)

- Other informational content was developed by the Project Team including videos, case studies and a Quality Building e-book and these materials were promoted on the project's YouTube Channel, Slide Share and on the project website.
- Feedback from the evaluation of the pilots was unanimously positive with consensus from participants that such a course is a necessity for all construction workers as an information giving and awareness raising exercise
- Unanimously positive feedback received from trainees and their employers

1.1.1.1 Conclusion

One of the main benefits resulting from the National Roll-Out of FES arising from this Work Package will be the fitting-out of demonstration areas in the proposed ETB training centres. Also, if SOLAS are to assume the responsibility for the National Roll-Out then the present qualifications will need to be re-validated from QQI Level 6 to the more appropriate QQI Level 5.

1.1.2 Train the Trainer – Learnings, Outputs & Results

- Training Materials were developed
- Course validated as Special Purpose Award NFQ Level 7
- 88 trainers trained (original target being 100)
- 57 participants successfully completed the course
- There were 5 deliveries of this course
- The venues were:- Dublin (ITB), Sligo (IT Sligo) and Cork (Cork Institute of Technology)
- The main target group for the programme were trainers of construction related craft apprenticeship from the Institutes of Technology and Education and Training Boards
- The take-up from the ETBs was lower than hoped for a variety of reasons – low number of trainers still active or engaged in construction training (mainly because of the recession, non-renewal of temporary contracts, retirements and re-deployment to other duties)
- Many of the IOT lecturing staff had been re-deployed and were reluctant or not interested in engaging with up-skilling in the construction field
- A decision was made between the Project Partners to extend the offer of places to private training providers
- The course duration was 8 days including 3 site visits
- One site visit involved carrying out a BER survey
- The second site visit was to a Building Products Manufacturers training facility

- The third site visit was to an Eco-Village
- Lack of formal framework of CPD for trainers of construction skills to keep their skills and knowledge up to date

1.1.2.1 Conclusion

The main issues for the National Roll-Out arising from this Work Package are the limited number of trainers drawn from the Further Education Sector who successfully completed the Train the Trainer course. The long-term National Roll-Out Plan is for SOLAS to co-ordinate the roll-out and deliver the course through the ETB network. The likelihood is that additional Train the Trainer courses will have to be run to ensure that the ETBs have the necessary trainer resources that will meet the programme requirements.

1.1.3 Quality Building Training Registration System – Learnings, Outputs & Results

1.1.3.1 Background

The Construction Industry Register of Ireland is an important contribution to enhancing the quality of building in Ireland and, if and when it is put on a statutory basis it will have an even greater importance. However, during the course of the countrywide consultations associated with the QualiBuild project it became clear that the CIRI register did not meet the needs of all of those within the sector. In particular, the CIRI register structure is aimed at accommodating building construction companies and the cost of registration is high for an individual construction worker.

In the light of this feedback, it was decided that it was important that a register for individual construction workers be developed. This register was developed and piloted before the end of the project. The nature of the register is set out in the following which was part of the brief used for the recruitment of the register's designers.

1.1.3.2 Specification

The QualiBuild Registration system proposed will involve the entering and storage of personal (name, address, contact details) and professional details of construction workers. This data will include details of key competency & skills training which has been completed, with expiry dates of training certification clearly shown. Other training profiles such as a Foundation

Energy Skills Course, Safe Pass credentials and tax clearance approval will also become part of the registration system. The system is to include an integrated online fees collection and payment system which can be reviewed annually by the administrators.

All relevant data protection and legal issues concerned with storage and use of such data will need to be adhered to. The relevant legal and expert advice will be provided to assist the appointed contractor with this matter. Submissions should indicate how the tenderer will approach this issue.

The system must be designed with ease of use for both the construction workers and general users as a core functionality. Typical users are expected to have relatively low level IT skills and the system will have to meet current accessibility standards which respond to this situation.

It is anticipated that the registration system will be launched by May 2016 and driven by industry on a voluntary basis. The on-line system will be accessed through the QualiBuild web-site and the hosting requirements will have to be specified and designed as part of the design project. . It is envisaged that the registration system may move to becoming a statutory requirement in due course. It is proposed that this national registration system will eventually be managed by a 'best placed' but yet to be decided public body following consultation. It is intended to gain a minimum of 2000 individual construction workers during the life time of the QualiBuild project (June 2016) leading to up to 100,000 registrations in the future. Tenderers should indicate how they will address the issues of scalability and transferability which these objectives require.

The system will consist of -

A secure database, hosted on a cloud platform, which stores all data and documentation relevant to the register

A suitable User Interface which facilitates different levels of data access

Core requirements of the Registration System are as follows:

The User Interface should be simple to use with a particular focus on ensuring that construction workers and the general public can input and access data efficiently.

Have a strong visual presence and branding in line with the QualiBuild website

Should ideally be hosted on a cloud based platform with a scalable capacity to store, review, print and recall all appropriate information

Include an integrated online fees collection payment and payment recording system

Provide a complete 'quality building training' history of an individual which can be viewed, located, and printed speedily.

Allow for data transfer to and from other databases, particularly Government databases which are also used for registration purposes.

Allow for flagging in the database to be replicated on other relevant databases and vice versa.

Include flexibility for expansion and development. The register will evolve over time and therefore the site needs to be flexible enough to add content and new sections as the registration process progresses.

1.1.3.3 Implementation

The register was duly developed and, following a number of amendments, was demonstrated at the June 2016 QualiBuild Conference and launched the following week. The launch marked the commencement of the piloting phase of the register which can be found at <https://www.constructionworkerskillsregister.ie/>.

The piloting of the register has been very useful. The registration has been limited to those who have completed the FES programme and there is no cost for registration. Nevertheless, it proved a challenge to encourage eligible construction workers to register. They were contacted by letter to advise them that the register was in operation. In addition a press release was issued to highlight the fact that the register was launched.

The pilot programme has identified a number of issues which will need to be addressed in any final version of the register. Some of the issues which need to be addressed are the following

–

- Clarity as to who is entitled to be included in the register. This question has arisen with respect to some potential applicants who are not currently employed as building construction workers

- The holding of a current Safe Pass was identified as a requirement for inclusion on the register. This, however, has given rise to some anomalies particularly with regard to those who do not hold a current Safe Pass due to employment or their involvement in other forms of employment as a short-term necessity. This suggests that, while the holding or not of a Safe Pass should be recorded, it should not be a requirement for inclusion on the register
- Instructions for using the register would be more effective if they were associated with each step of the registration or interrogation processes rather than being listed in a particular section of the website
- The register has significant data management and protection requirements which add to the cost of its operation
- Some of those who attempted to register encountered difficulties and these were contacted individually and provided with support. The provision of support in the long term could be difficult in terms of resources.

There are also a number of technical matters to be addressed but these are not particularly problematic.

The next phase of the register development process is to address the identified issues, maintain the operation of the register through the co-operation of members of the QualiBuild consortium and continue to engage in discussions regarding its handover to an appropriate national organisation.

1.1.4 Quality Building Communication Campaign – Learnings, Outputs & Results

1.1.4.1 Initial KPIs for Communications Campaign

- Target Group Database – 3,842 entries (1000)
- Project Presence at Industry Events – 20 (5)
- Stakeholder Engagement at Events – 3,586 (1,000)
- Success of Communication Campaigns – 902 consumers reached, 1,130 professionals and craftsmen reached (700 & 1000)
- Briefings – 10 Coffee Talks (10), 201 attendees (200)
- Stakeholder Surveys – TBC
- Web Portal Visits – 14,445 (10,000)
- Training Material downloads from Web Portal – 9,885 (1,000)
- Radio Interviews – 10 (10)
- Press/Journal/Magazine Articles – 20 (20)

- Case Studies – 20 (20)
- Video Interviews with relevant Stakeholders – 37 (30)

Note: Figures in brackets are the target figures.

1.1.4.2 Breakdown of Training Material downloads from Web Portal

| | |
|--|-------|
| FES materials (on QualiBuild website) | 313 |
| FES demonstration videos (on the QualiBuild website and YouTube) | 732 |
| FES animated videos (on the QualiBuild website and YouTube) | 175 |
| QualiBuild Train the Trainer artefacts downloadable from Moodle | 3,225 |
| Other videos (on the QualiBuild website and YouTube) | 2,969 |
| Quality Building e-book (on QualiBuild website) | 465 |
| QualiBuild e-book (direct mailing) | 437 |
| QualiBuild presentation slide deck views (on SlideShare) | 1,569 |
| Total | 9,885 |

1.1.4.3 Social Media Results

- Twitter – 878 followers
- Facebook – 186 likes
- YouTube – 3,845 video views
- SlideShare – 1,569 views

1.1.5 Conclusions

The success of an awareness raising communications campaign is difficult to quantify as calls to action are typically not sales or booking related. However, the targets for KPIs (the key performance indicators) for the campaign that were proposed at the outset of the project were all met or exceeded as evidenced by the above metrics.

The primary method for reaching consumers was through the Quality Building e-book. This contained articles and information about low-energy and quality building that is intended as a guide for homeowners considering building or renovation. The e-book remains available for downloading on the QualiBuild website at <http://www.qualibuild.ie/quality-building/>.

During the project it was decided that using an online platform was not appropriate for the cohort enrolled in the FES programme. Instead they received their materials in hard copy and through hands-on learning. The Train the Trainer participants used Moodle (an online learning platform) to access training materials.

Videos were made for the FES demonstration activities and were posted on the QualiBuild website and QualiBuild YouTube channel for use as a training resource (<https://www.youtube.com/channel/UCJ4M9QT3-EacgWofNYPg1pg>). Animated videos were also developed for the FES course and were also posted on the QualiBuild website at www.qualibuild.ie

Normally, after materials are published online, it takes a certain amount of time for these materials to gain traction, to be indexed by Google for example or to show up in recommended video lists. The expectation is that there will be continued impact in the two years post-project that the QualiBuild website is kept live. As mentioned previously in this report the intention is to continue rolling-out FES in the short-term on a limited basis while discussions are ongoing over the long-term National Roll-Out.

1.2 Define the parties responsible for future implementation of the key

Roadmap actions

1.2.1 Background

An important element of the QualiBuild project is the identification and agreement of the mechanisms through which this course will be rolled out nationally to between 60,000 and 100,000 construction workers. A project of this scale will clearly require the involvement of a major national public organisation with functions in this area. The sheer scale of upskilling 60,000 to 100,000 building construction workers points in the direction of SOLAS. SOLAS is the only body with the capacity for co-ordinating the rolling out of FES and for coordinating the delivery of the add-on FES+ type course on the scale that is required. It is also the only organisation with a geographically dispersed network of providers (the ETBs) which would, between them, be in a position to run the training courses at the number and frequency required. Finally, given its experience in operating the Safe Pass register it may be the most

appropriate body to operate the CWSR in the immediate future and pending Government decisions on the structure of the construction sector in Ireland.

1.2.2 Introduction

SOLAS is the official Further Education and Training Authority in Ireland and operates under the aegis of The Department of Education and Skills¹. It is responsible for the funding, planning and co-ordinating the wide range of training and further education programmes in Ireland. The Education and Training Boards (ETBs) are responsible for the delivery of Further Education and Training programmes. The ETBs work in partnership with SOLAS and receive their funding from SOLAS. Funds for training programmes are derived from the Irish Exchequer and The European Social Fund.

Education and Training Boards (ETBs) have responsibility for vocational education and training within their areas². ETBs manage and operate a number of further education and training centres delivering education and training programmes. ETBs assumed responsibility for the former FAS training centres in 2014. ETBs are an education and training service and see themselves 'as being best placed to respond to the change in educational, training and work life needs in the local community.' See appendices for ETB locations and contact details

1.2.3 Why SOLAS is the appropriate body to undertake the roll-out

In addition to its scale and national reach, the FES training programme aligns well with SOLAS' Further Education and Training Strategy (2014-2019)³. SOLAS were required under the Further Education Training Act of 2013 to produce this strategy. One of the five strategic goals is to provide 'Skills for the Economy' which fits well with the BUSI Roadmap. This document in its Executive Summary and under the section Economic and Labour Market Context states "An expanding range of FET related skill-needs are emerging such as: the 'greening' of operatives, skilled workers and skilled trades in construction." It also references Build Up Skills Ireland (BUSI) in **footnote 9 on p. 24**.

¹ <http://www1.solas.ie/Pages/WhoWeAre.aspx>

² <http://www.etbi.ie/etbs/what-is-an-etb/>

³ <http://www1.solas.ie/SolasPdfLibrary/FETStrategy2014-2019.pdf>

The recent Action Plan for Housing and Homelessness – Rebuilding Ireland identifies SOLAS as the body/agency charged with responsibility for ensuring education and training initiatives to support the supply of skills required to deliver the Action Plan.

The document Construction 2020 A Strategy for a Renewed Construction Sector⁴ produced by the Department of the Environment, Community and Local Government as part of the Programme for Government also identifies the Department of Education and Skills (and by association SOLAS) as the responsible body for addressing the skills gaps relating to the ‘greening’ of construction by ensuring the implementation of the Build Up Skills Ireland roadmap actions. Specifically, [see Action Point 60 p.55](#)

The document National Energy Efficiency Action Plan 2014⁵ produced by The Department of Communications, Energy and National Resources under the section Build Up Skills Ireland [\(p.7\)](#) states “...Transfer Project Outcomes to the relevant national agencies for National Roll-Out.” It also states under NEEAP1 Actions [\(p.125\)](#) “We will support the Build Up Skills Ireland (BUSI) initiative” and lists DES/FAS as owner of this action.

The document A National Renovation Strategy for Ireland⁶ [\(p.70\)](#) states “...in the construction trade, training and supports are in place to facilitate the development of the required additional skills. These initiatives include training through the national training and employment agency (SOLAS)...Build Up Skills is an EU-wide initiative focused on the continuing of further education and training of craftsmen, construction workers....To deliver this objective DCENR, along with other government departments and agencies, will work with the Build Up Skills Ireland (BUSI) Consortium.”

1.2.4 Conclusions/Recommendations

With many official Policy Documents outline the Government’s acknowledgement for the need for upskilling construction workers, it is clear the Government have tasked the Department of Education and Skills and by default SOLAS the responsibility of being central in the roll-out of future upskilling construction training programmes.

⁴ <http://www.merrionstreet.ie/en/wp-content/uploads/2014/05/Construction-Strategy-14-May-20141.pdf>

⁵ <http://www.dcenr.gov.ie/energy/SiteCollectionDocuments/Energy-Efficiency/NEEAP%203.pdf>

⁶ <http://www.dcenr.gov.ie/energy/SiteCollectionDocuments/Energy-Efficiency/Renovation%20Strategy%20for%20Ireland.pdf>

Initial meetings have been held with SOLAS to seek its commitment to this process and these meetings will continue even after the QualiBuild project has been completed.

A meeting held with senior SOLAS staff, close to the end of the QualiBuild project, indicated that in the right circumstances SOLAS would be willing to considering including the FES course within its remit. These discussions will continue to be pursued and attempts made by the consortium to assist in creating the right circumstances for SOLAS so the organisation will be in a position to accept the handover of the programme and possibly the CWSR also.

In the interim and pending a decision by SOLAS the FES course will continue to be delivered at a small scale and the CSWR will be managed and maintained by project partners.

1.3 Transfer the training content developed by project partners to relevant National organizations

The training content for the FES and Train the Trainers courses is available and can be handed over electronically to the National Organization/Body that will take charge of the National Roll-Out. Both ITB and LIT who developed these resources are the points of contact for any future onward transmission of these materials.

The Construction Workers Skills Register developed as part of the QualiBuild Project has been designed in such a way that it can be handed-over as a stand-alone register or be 'plugged-in' to another database or register (such as CIRI or SEAI).

These handovers will be made at no cost to the receiving bodies beyond the acknowledgement of their source.

1.4 Define future funding requirements therefore allowing Government Departments, Industry and other stakeholders plan for implementation to 2020 and beyond

The BUSI Roadmap by way of its proposed National Roll-Out Plan is aimed at training 60,000 to 100,000 building construction workers in Foundation Energy Skills by 2020. The cost data arising from the FES Pilot Schemes suggests that this training could be self-funded. Once this objective is achieved the focus of attention can then be turned on training unemployed building construction workers and preparing them for a return to the industry.

If the recently unveiled Action Plan for Housing and Homelessness-Rebuilding Ireland⁷ and Better Building – A National Renovation Strategy for Ireland⁸ are implemented output in the construction sector will have to be significantly increased. Employment in the sector will need to grow substantially to meet supply and all construction workers will need to have the necessary skills to deliver housing to the latest building standards. The Action Plan identifies SOLAS as the agency with responsibility for the education and training initiatives that will ensure the supply of skills required for delivery. However, the Action Plan also states that direct employment in the Construction Sector is currently 140,000 and is set to grow to 170,000 over the next few years. The BUSI Project estimated that there were 60,000 building construction workers employed in 2011 who required training although this document notes that could be as high as 100,000. The 140,000 figure probably includes workers involved in the civil engineering sector and construction professionals. The real figure for building construction workers currently employed and requiring training is probably closer to 80,000. If this current workforce is required to pay for FES training and based on our cost analysis then the funds generated would go a long way towards covering the cost of the future training of unemployed construction workers.

It is likely, however, that state funding will be required in the early stages, particularly to fund capital costs and to support the costs of delivery until the programme is well established and in a position to meet most if not all of its own costs.

⁷ http://rebuildingireland.ie/Rebuilding%20Ireland_Action%20Plan.pdf

⁸ <http://www.dcenr.gov.ie/energy/SiteCollectionDocuments/Energy-Efficiency/Renovation%20Strategy%20for%20Ireland.pdf>

1.5 Identify how the communication and information campaign focus on Quality Building can be continued, developed and funded

1.5.1 Introduction

In the short-term LIT will continue to maintain and operate the QualiBuild website. After July 31st 2016, the QualiBuild Project finished and there was no further funding available to continue the campaign (and for making videos, brochures, newsletters etc.). However, LIT in conjunction with its partners will endeavour to continue to update and add content (such as information details for the forthcoming short-term roll-out of FES etc.) but this work will be contingent on the availability of resources and will be on a voluntary basis.

A future communication information campaign will in all probability differ from the QualiBuild Project by creating separate roles to focus and distinguish between Quality Building information awareness and Quality Building training requirement.

There are four potential approaches to how the Quality Building Communication and Information Campaign could be continued, developed and funded in the long-term.

1.5.2 Industry Led

This approach has the potential to have the greatest impact. A Quality, low-energy construction message shared with and supported by builders, contractors and other design and construction professionals could result in real changes to the industry including improvements in quality construction on site. This would also have an impact on consumers and customers as they begin to differentiate between those offering quality low-energy construction and those that do not. To implement this approach a large national body (such as CIF or ICTU) would need to commit to and resource a Quality Building communication programme. The call to action would be to encourage the target market to be aware of quality, low-energy construction, to seek upskilling and training opportunities, to apply these principles in their work and on-site and finally to promote this to their clients.

As this campaign should ultimately result in improved work on site, more skills in the trades and professional and a more positive perception from the consumer, it is reasonable to suggest that the organisations involved may be able to increase membership and members may increase their revenue. Therefore, the organisations should consider self-funding this

activity but could look to specific members, national agencies or funding programmes for sponsorship and support.

Possible disadvantages to this approach would be challenges in coordinating the message and activity between the organisations and the difficulty of reaching those professional who are not affiliated. As there is no direct revenue generation from the campaign, it may be difficult to justify the expenditure.

1.5.3 Policy Led

This approach has the potential to have the widest reach as the campaign would be led by a government department such as the Department of Housing, Planning, Community and Local Government (DHPCLG). Depending on the message and target markets for the campaign other departments could also lead or support the campaign such as the Department of Communications, Climate Action and Environment, the Department of Education and Skills and the Department of Jobs, Enterprise and Innovation. Calls to action would align with building regulations and other national policy actions, allowing for joined up activities between the campaign and other programmes. This approach also enables the participation of other state and semi-state agencies such as SEAI and the EPA.

To implement this approach the government department leading the campaign would relate the concept of Quality Building to areas such as building regulations and building control (amendment) regulations. The call to action would be to encourage the target market to be aware of quality, low-energy construction in relation to policy and regulation, to seek upskilling and training opportunities, to apply these principles in their work and on-site to ensure a project that complies with all regulations. There is also an opportunity to embed these principles into public procurement, as well as an opportunity for a call to action for citizens to ask for quality, low energy construction on their projects, thus reaching both the public and private construction markets.

As this campaign should ultimately result in improved work on site and a direct alignment between Quality Building and Building Regulations, it would fit with the remit of DHPCLG, and could be run by the Department under their budget.

The disadvantage to this approach is the amount of time it would take to get a campaign developed, approved and funded under the budget of any government department. The campaign is likely to be contracted out under public procurement and would not have a guaranteed life span past the original contract. Additionally, the campaign would be vulnerable to changing political views and priorities.

1.5.4 Market (Consumer) Led

This approach has the potential to have the quickest impact on the industry. When a segment of consumers expresses a desire for a product or service, suppliers are quick to respond. There is already a growing market for low-energy products and services due to both building regulations and market trends, so a Quality Building campaign would capitalise on this and align low-energy construction with Quality.

To implement this, a national body (such as SEAI or IGBC) would need to commit to and resource a Quality Building communication programme which could be supported by other associations such as the Association of Combined Residents Associations (ACRA) and the Consumers Association of Ireland (CAI). Both SEAI and IGBC have other programmes that they could promote in conjunction with Quality Building thus expanding the reach of the campaign. The call to action would be to encourage consumers (especially property owners) to be aware of quality, low-energy construction and to require upskilled, competent design and construction professionals when constructing work on any property.

This campaign would have a trickle-down effect – if consumers are unwilling to hire professionals who do not demonstrate a commitment to quality, low-energy construction, it will encourage construction and design professionals to be aware of quality, low-energy construction, to seek upskilling and training opportunities, to apply these principles in their work and on-site and to promote this to their clients. Depending on the organisation that would lead the Quality Building campaign, it could be funded under communication activity budgets (in the case of SEAI) or through sponsorship and support from specific members, national agencies or funding programmes (in the case of IGBC).

Possible disadvantages to this approach would be the time and cost for a truly national campaign. The desired impact would need to be developed in advance and the budget and activities planned accordingly. Additionally, the desires of consumers can be fickle and often

desired elements are overridden due to cost considerations. Also, as there is no direct revenue generation from the campaign, it may be difficult for the organisations to justify the expenditure.

1.5.5 Training Led

This approach has the most potential to be implemented quickly and for the campaign to be funded as it is directly connected to the provision of training. A quality, low-energy construction message leading to upskilling would be shared with builders, contractors and other design and construction professionals. This could result in improvements in quality construction on site as well as an understanding of quality building in design.

To implement this a national training body (such as SOLAS/ETBs) would need to commit to and resource a Quality Building communication programme which could be supported by industry organisations (such as CIF, RIAI, EI, SCSi, CIOB etc.) and possibly private training organisations. The call to action would be to encourage the target market to be aware of quality, low-energy construction, to seek upskilling and training opportunities and to apply these principles in their work on site.

As this campaign should result in participants completing training courses, the organisations involved may be able to increase their training numbers and revenue. Therefore the organisations should consider self-funding this activity.

Possible disadvantages to this approach would be challenges in coordinating the message and activity between the organisations and potential conflicts among the organisations all promoting their own quality low-energy training.

1.5.6 Conclusions

If the responsibility for rolling-out the FES course nationally is taken on by say SOLAS then in all probability they will have to implement an Information Campaign to alert building construction workers of course details etc. In tandem with this, the promotion of the message for the importance of Quality Building would most likely be taken up by the Department of Housing, Planning, Community and Local Government. Therefore, the likelihood is that a bilateral approach between Training and Policy will be required to maintain the Quality Building Information Campaign into the future.

1.6 Recommend a range of supporting measures which are needed

The obvious supporting measure needed which would ensure that all building construction workers are upskilled in the area of Near Zero Energy is for it to become Government Policy that all construction workers be required to possess a Construction Workers Skills Ticket before they are allowed to work on site. If that were the case then there would be no shortage of interested bodies who were prepared to take on the responsibility for the national roll-out of FES. Both Public Sector and Private Sector training agencies would clearly see the commercial value in delivering this training course because of the very large numbers involved. If this legislation was in place it would also help to resolve issues around the long-term location and management of the Construction Workers Skills Register, support a proper structure for trainer's CPD, programmatic review, review of apprentice curricula and other necessary activities.

It is envisaged that in the short-term construction workers who continue to successfully complete the FES training course and who have a Safe Pass ticket will be able to register on the Construction Workers Skills Register developed as part of the QualiBuild Project. The intention for the short-term is to accommodate the CWS Register on the QualiBuild Website which LIT are contracted to maintain for two years post project. Discussions are ongoing as to how the responsibility for maintaining and operating the Register in this period is apportioned among the project partners.

When a long-term location is found for the CWS Register it has been designed so that it can be 'unplugged' from the LIT Website and 'plugged-in' to another website/ register or it can 'stand-alone'. At the time of writing the report some of the options being considered for the final destination of the register include SOLAS, CIRI and even privately run organizations.

SOLAS is mentioned because of its long-time experience of operating and managing the SAFE PASS and Construction Skills Certification Scheme (CSCS) Registers. And also because it is hoped that they will take on the responsibility of co-ordinating the National Roll-Out of FES.

CIRI is mentioned as a potential home for the CWS Register because the two registers are complementary. In simplistic terms: CIRI concerns itself with skills from the 'top-down'

whereas CWSR is concerned with skills from the ‘bottom-up’. CIRI’s Continued Professional Development (CPD) focuses mainly on management and supervisory staff whose input is essential to legislative and regulatory compliance⁹ whilst training courses such as FES focus on addressing the existing knowledge gaps of the blue-collared building construction workers in the area of Energy Efficiency and Near Zero Energy Buildings. In the future all building construction workers training records could be retained on a platform such as that offered by CWSR. Furthermore, CWSR supplements the assistance provided by CIRI to the public when procuring construction services. At the moment, although CIRI has the backing of the Government and is still a voluntary register; it is hoped that CIRI will be on a statutory footing by 2018.

Some examples of privately run registers include those run by the Professional Institutes and trades registers such as those for gas installers (RGI) and electrical contractors (RECI). Because of the scale of numbers requiring construction training a privately run company with experience of managing and operating a register may be attracted by the commercial opportunities offered by the CWSR.

Future training actions such as FES+ type courses will also need to be rolled-out nationally if momentum is to be maintained and building construction workers are to build on knowledge gained from FES. If SOLAS (for example) were to take on the role of co-ordinating the National Roll-Out of FES then they would be the organization best placed to roll-out the Specialist FES+ Type training courses into the future.

1.7 Plan for additional actions and developments beyond 2020

It is expected that Building Regulations and Standards in the area of Energy Efficiency won’t continue to evolve. Therefore, a Programmatic Review Plan needs to be put in place for this eventuality. Costs will be incurred as a result of updating resources and will need to be planned and budgeted for. A structured CPD Plan for trainers will also need to be in place to cater for upskilling of trainers. Again, there will be costs incurred for this additional training and they will need to be planned for.

⁹ <http://www.qualibuild.ie/wp-content/uploads/2014/08/7.-Robert-Butler-CIRI-Qualibuild-Presentation.pdf>

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