

# TOWARDS LARGE SCALE DEEP RENOVATION - UNLOCKING IRELAND'S POTENTIAL

ECCOPRO – Workshop I  
Dublin, 19<sup>th</sup> October 2017



ECCoPro Report

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[www.igbc.ie](http://www.igbc.ie)

## About the Irish Green Building Council

The Irish Green Building Council (IGBC), is the leading authority on sustainable building in Ireland. With a network of over 100-member organisations, the IGBC is working to transform the Irish construction and property sector into a global leader in quality and sustainability.

To do so, the IGBC has developed several sustainable building tools, including the [Home Performance Index](#) - Ireland's first national certification system for quality and sustainable residential development – and an [Environmental Product Declaration Platform](#). The IGBC has also developed an extensive green building education programme, which includes BREEAM, LEED and LCA training courses.

See [www.igbc.ie](http://www.igbc.ie) for further details.

## Acknowledgment

Thanks to all the organisations and individuals who attended and contributed to this workshop. These are listed below. Thanks also to our workshop facilitator, [Chris Chapman](#).

Finally, we would like to thank the various organisations who took part in [Ireland's National Renovation Strategy Consultation Process](#) as part of the Build Upon project. Their feedback on the building industry energy efficiency upskilling needs directly led to the ECCoPro initiative.

## Project Overview

As construction workers and building professionals interact with end-users at key moments in time (e.g. when a building is sold or refurbished), they have a key role to play in driving energy renovation. However, depending on training and engagement they can act as advisor or as negative influencer; hence the necessity to better incentivise them to upskill in energy efficiency and sustainability.

The aim of this project is to explore the opportunity of introducing a customer-friendly energy efficiency accreditation system for construction professionals - [ECCoPro](#). This accreditation system would support closer alignment between professionals, allow end-users to clearly identify professionals who have upskilled in energy efficiency related skills, and thus incentivise professionals to upskill in the area.

The ECCoPro initiative primarily targets employed and unemployed building professionals. Nevertheless, it is hoped that some of the key findings of this project would be used by higher education institutions to ensure a multidisciplinary approach to energy efficiency and sustainability in their degrees.



## The Dialogue Journey

In September 2017, the Irish Green Building Council released the "[Construction Professionals' energy efficiency knowledge and upskilling - A short review](#)" report. The document is intended to be used as a source of reference by all organisations involved in the development of a customer-friendly environmental accreditation for building professionals in Ireland.

The IGBC is now hosting a series of workshops focusing on the potential design and delivery of this certification system.



Note: Workshop dates are provided for information only and may be subject to change. Please visit [www.igbc.ie](http://www.igbc.ie) for further details.

Organisations and individuals interested in getting involved in this process should [contact Marion](#).

## Summary

The following bullet points sum up the workshop key learnings and outcomes.

- All building professionals need greater awareness of energy renovation and of their needs to upskill in that area.
- Developing a culture of quality must be at the centre of this project.
- Confidence and trust in the system are key to its success. It must hence be supported by organisations (e.g. SEAI, professional bodies) who can provide leadership and authority.
- Building professionals may need to be split into 2 groups: Construction Professionals and Property Professionals.
- Beyond profession specific skills, all building professionals need multidisciplinary skills, risk identification skills and good communication skills. They must be able to communicate effectively with members of the supply chain and building users. Furthermore, they should have a good understanding of what other members of the supply chain know.
- The scheme should be practical and not overly burdensome. To facilitate building professionals' upskilling workshop participants suggested to develop a flexible accredited pathway to upskilling. This would help professionals in identifying where to start and where to go.
- Although business opportunities should drive the demand for upskilling in the longer term, introducing financial support for upskilling and/or minimum upskilling requirements as part of public tenders and SEAI funded projects would allow the scheme to have a faster and greater impact.
- Strong connections must be built between this project and all initiatives aiming at upskilling construction workers.
- Further engagement with the financial sector is needed.

## Introduction

Marion Jammet of the Irish Green Building Council opened the workshop with a brief overview of the project and progress to date. A copy of her presentation is [available here](#).

Participants were subsequently asked to introduce themselves and based on their understanding of the project and previous presentation to reflect on what some of their most cynical colleagues would say about this initiative.

### What would some of your most cynical colleagues say about [ECCoPro](#)?

Climate change is rarely a driver. It's unlikely that many people will upskill only to make our building stock more sustainable.

The scheme may be perceived as burdensome. If you upskill in energy efficiency, you need to know more about indoor air quality, etc. Where do you draw the line? For historic buildings, you need to think about conservation if you add on energy efficiency on top of that, you may face strong objections.

The word that is missing here is quality. Developing a culture of quality must be at the heart of the process. How do you motivate people to perform at very high-quality standard? How do find the right balance between quality and quantity?

How do you ensure that it is not only the people who least need upskilling who take part in the process? How do you upskill all building professionals to a minimum level?

This can only work with full support from government. However, they do not perceive the real level of upskilling required. Most energy efficiency upskilling initiatives are currently driven by some individuals' goodwill. There is no clear coordinated strategy.

It is not good enough for construction professionals to know what technologies are available. They need a good understanding of the building stock. This is key for historic buildings, where you cannot simply apply the same techniques as on new built.

How do you make upskilling comprehensive enough so that building professionals know how to transfer effectively their knowledge to end-users and tradesmen?

Energy efficiency and renewable technologies are changing very quickly. How can we upskill trainers and lecturers to ensure they have the most up-to-date knowledge at all time?

There is a huge level of fragmentation in the industry. How could the system improve the links between educational institutions and businesses?

## Session I: Better Identifying Industry Skills Needs

For the first session, participants were divided into four groups: Building-users (e.g. home-owners and landlords), construction professionals (e.g. architects, engineers and building surveyors), other built environment professionals (e.g. valuers and facilities managers), as well as lenders, investors and insurers. They were subsequently asked to answer a set of questions about the specificity of the groups they were representing.

- **Building-users**

This group is extremely diverse both in terms of needs and perspectives. For instance, local authorities are very policy oriented and concerned about legal requirements and targets. On the other hand, small private landlords may not know or care as much about energy efficiency.

All building-users need to gain a better understanding of energy efficiency, its co-benefits, minimum legal requirements, as well as buildings operation and maintenance. In fact, with a higher level of awareness and banded into consumer organisations, they could become a powerful force in driving quality.

It can be extremely difficult for this group to start renovating buildings. Access to simple relevant information in terms of technologies, potential risks, maintenance and sources of funding is thus key. They also need to know that there are competent builders, energy and building professionals, that can help them in the construction and maintenance phases.

Awareness raising campaigns and some degree of mandatory measures through building regulations should drive the demand from all building-users.

- **Construction Professionals**

Awareness raising is key for construction professionals as many of them are not aware of what they do not know. Although upskilling should lead to new business opportunities, some extra incentives (e.g. financial support) may be required initially.

Construction professionals are “interdependent specialists” who require multidisciplinary skills. They need to better identify risks and to gain a better understanding of the performance gap, as well as clients’ needs and motivations. Furthermore, they should upskill in BIM and communication to better communicate with both the construction chain and end-users.

As it might be difficult for construction professionals to know where to start, defining a clear (mandatory?) pathway to upskilling would be useful. This should include structured and auditable CPDs. As flexibility in delivery is key, a blend of online and traditional delivery was suggested.

*“Most practices across Ireland are small. Their objective is to keep their clients’ happy and to comply with legislation. That’s as simple as that and that’s why I believe a pathway to compliance is the best option”.*

- **Other Built Environment Professionals**

This group was subdivided it into 2 categories: Facilities managers and valuers, auctioneers, agents.

Facilities managers actions are driven by efficiency, costs and end-users’ needs. Their upskilling needs are very similar to those of construction professionals (e.g. risk identification, building regulations and communication with end-users). More specifically, they need to know about building fabric, end-users’ behaviour and post-occupancy evaluation / monitoring.

Valuers, auctioneers and estate agents provide information about buildings daily. They could play a key role in raising awareness about energy efficiency and BERs. Yet, to do so they need to gain a better understanding of the value of energy efficiency (reduction in energy usage and long-term value of a property) and its co-benefits.

- **Lenders, investors and insurers**

New business opportunities and regulation should drive the demand for upskilling in this sector. This group must gain a better understanding of the financials of energy efficiency. They need quality data on the impact of energy efficient on buildings and simple standardised ways of assessing environmental and energy risks. Examples of successful Energy Performance Contracts (EPCs) may be useful in raising awareness among these stakeholders.

As nobody from the financial sector took part in that discussion, further consultation is required.

### **Session 1 - Summary**

A broad range of stakeholders must be upskilled to make large scale energy renovation a reality in Ireland. Although all of them have their own specific needs, raising awareness of energy-efficient renovation and of the need to upskill in that area is key. When doing so, one should not forget that the message must be tailored to the different target audiences.

As building users’ trust in the system is critical, the scheme should be supported by organisation(s) who can provide leadership and authority. The Sustainable Energy Authority of Ireland (SEAI) was mentioned.

Greater public awareness should lead to new business opportunities for building professionals who have upskilled in the area, thus incentivising more of them to upskill. However, higher legal requirements and financial support for upskilling may be required in the short term. Some participants felt we should also work on the fear of missing out (FOMO) among building professionals: How can we build FOMO for the framework?

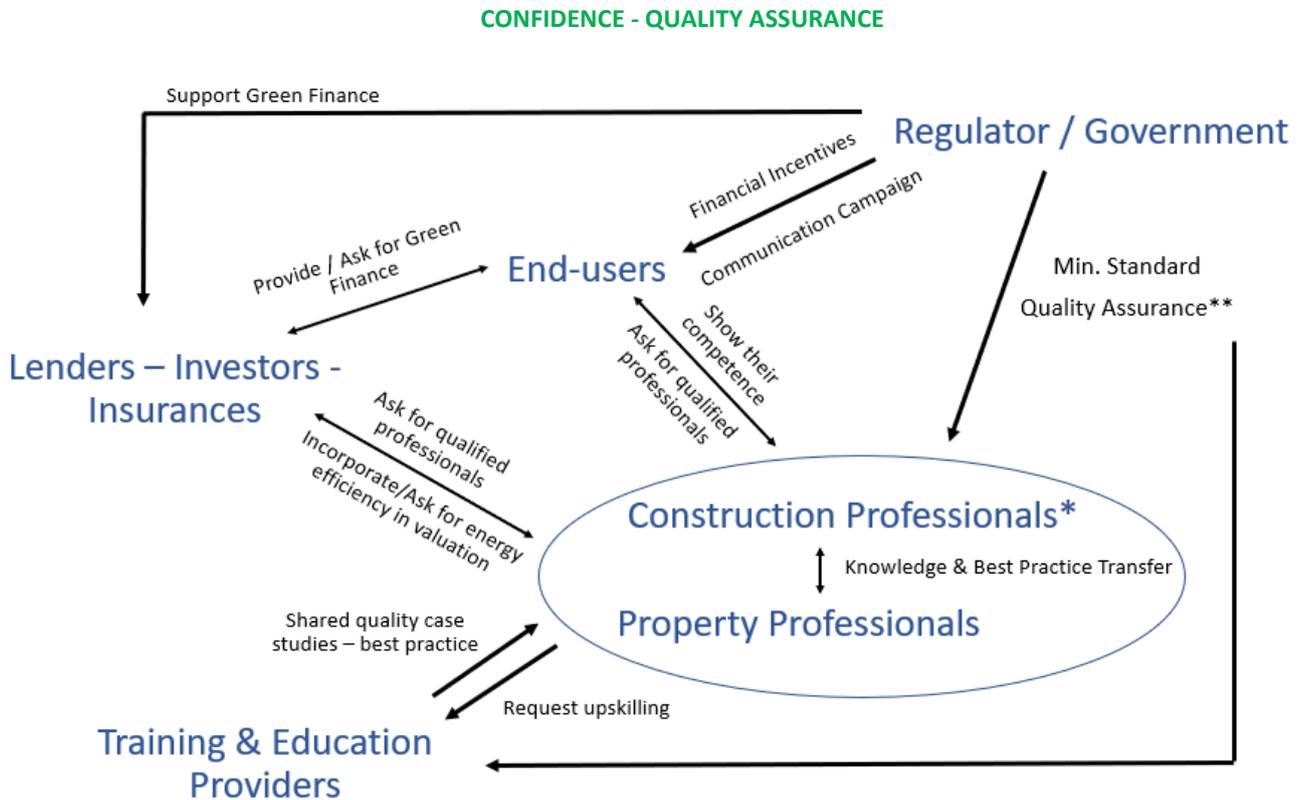
Specific upskilling needs relating to various professions were identified during that session. Broadly speaking building professionals could be split into 2 groups: Construction and property professionals. Multidisciplinary skills and a clear understanding of what other members of the supply chain know are key. While it might be tempting to look at each profession’s specific upskilling requirement, it was suggested to think of the framework as a tree and to focus on the trunk and branches instead of getting lost into details i.e. leaves.

As it might be difficult for building professionals to know where to start, participants felt that an accredited flexible pathway to upskilling for building professionals should be developed.

## Session II: Driving Demand for Upskilling

In the second part of the workshop, participants were asked to help us in gaining a better understanding of the system: Who are the key players? Who influences whom and when?

Below drawing is an attempt to incorporate all participants' views into a single diagram.



\* Beyond architects, engineers, surveyors, facility managers and valuers, clerks of work and BCAR assessors also have a key role to play in that process.

\*\* The quality assurance methodology used by Tipperary Energy Agency under the [SuperHomes scheme](#) was mentioned as a best practice.

ECCoPro does not target construction workers. However, as their upskilling is key to quality large scale energy renovation, strong connections must be built between this project and initiatives targeting tradesmen such as the [Construction Worker Skills Register](#).

Workshop participants were subsequently asked to work in four groups (building-users, construction professionals, other built environment professionals and investors, lenders, insurers) and to discuss how to have the biggest impact in the short term.

### How to have maximum impact?

- **Building-users**

According to workshop participants, targets and quality will be the main driver for local authorities and public bodies. In the private sector, raising awareness among tenants, landlords and homeowners should be the priority. Tailored awareness campaigns should be run on an ongoing basis to keep building-users' motivation high.

To create a momentum around this process, participants felt public authorities (including local authorities) should be the first target as they must lead by example under current regulations. The second step should be to focus on funded projects and to require minimum energy efficiency skills for all works undertaken as part of these schemes.

As end-users' confidence in the process is critical, minimum standards and regular upskilling of building professionals are needed. Furthermore, all building users need to be able to easily find building professionals who have upskilled in the area.

- **Construction professionals**

The introduction of the NZEB standard from 2019 onward will be the main upskilling driver in the next few years. However, introducing minimum energy efficiency upskilling requirements as part of tender submissions would have a faster and stronger impact.

Comprehensive information campaigns on NZEB and the need to upskill in that area are critical. Participants felt that these campaigns should be run by construction professional bodies, hence the necessity to fully engage them in this process. Organisations such as the Construction Industry Council, RIAI, CIF, SCSI and the Building Materials Federation were mentioned.

SEAI, NSAI, industry and academia should all be involved in defining key skills. Yet, a specific focus on pedagogy and designing a practical (not overly burdensome) scheme is needed.

Some financial support may initially be required to incentivise construction professionals to upskill in that area.

- **Other built environment professionals**

Awareness campaigns targeting other built environment professionals are needed. High quality case studies (possibly from British, Canadian and US facilities managers' organisations) should be used to inspire them.

However, specific attention should be given to the complexity of the information to be communicated (e.g. Construction Operations Building Information Exchange - COBie) and how it is communicated.

- **Lenders, investors and insurers**

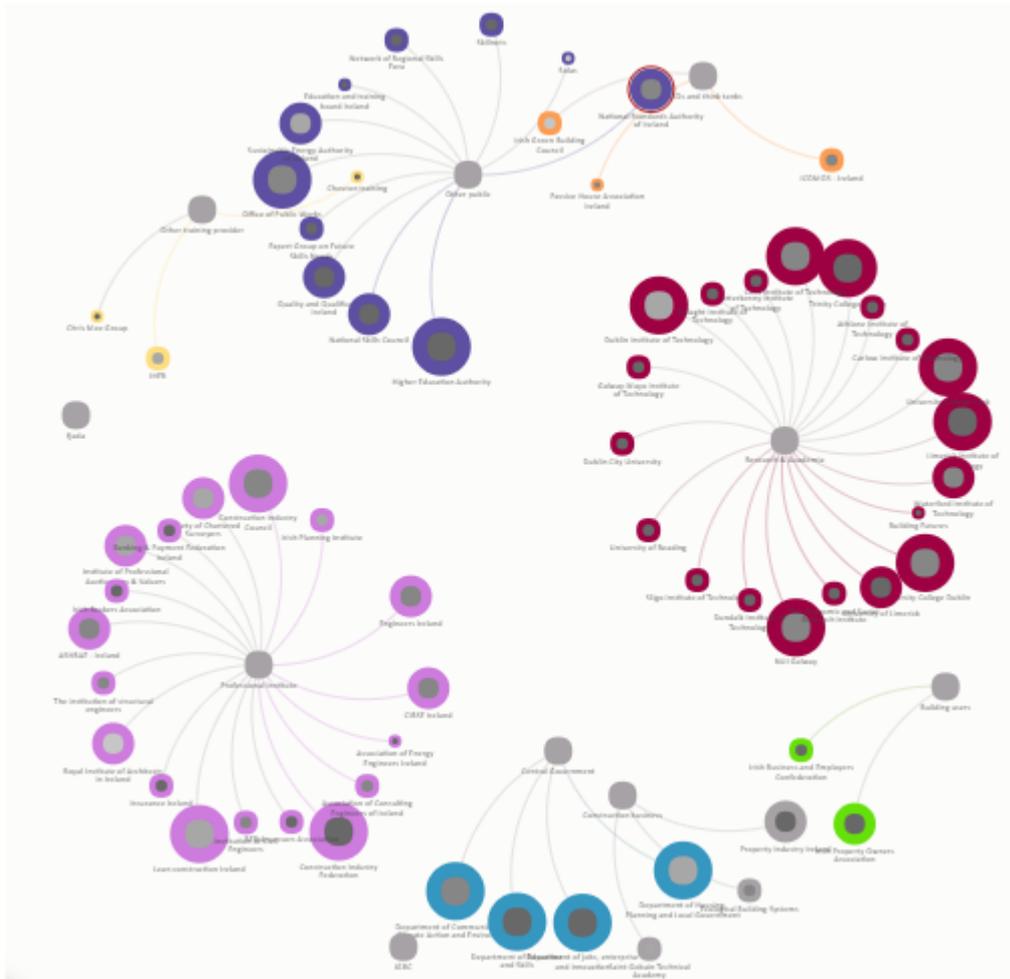
Corporate social responsibility, risk mitigation and new business opportunities are the main drivers for this sector.

To achieve results in the short term, we should target market segments with the highest business opportunities (following SWOT and cost-benefit analysis) and work with the early adopters (the willing to).

As this group hasn't been highly involved in the process to-date, it is critical to engage with investors, borrowers and industry experts to collect their views.

## Stakeholders

Check out who's who in [our interactive stakeholder map](#) and send your feedback to [Marion@igbc.ie](mailto:Marion@igbc.ie).



## Collaborating on Workshops and events

A series of 4 workshops will bring key stakeholders together during the project. The workshops are supported by the Sustainable Energy Authority of Ireland (SEAI) and are a must for anyone interested in large scale energy renovation and building professionals upskilling in Ireland.

Organisations and individuals interested in getting involved in this process should contact Marion - [Marion@igbc.ie](mailto:Marion@igbc.ie).

Website: [www.igbc.ie](http://www.igbc.ie)

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