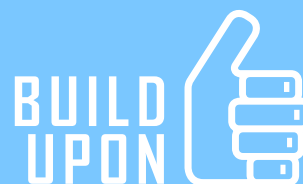


IMAGINE A BUILT ENVIRONMENT
THAT ENABLES A HIGH QUALITY OF
LIFE FOR ALL



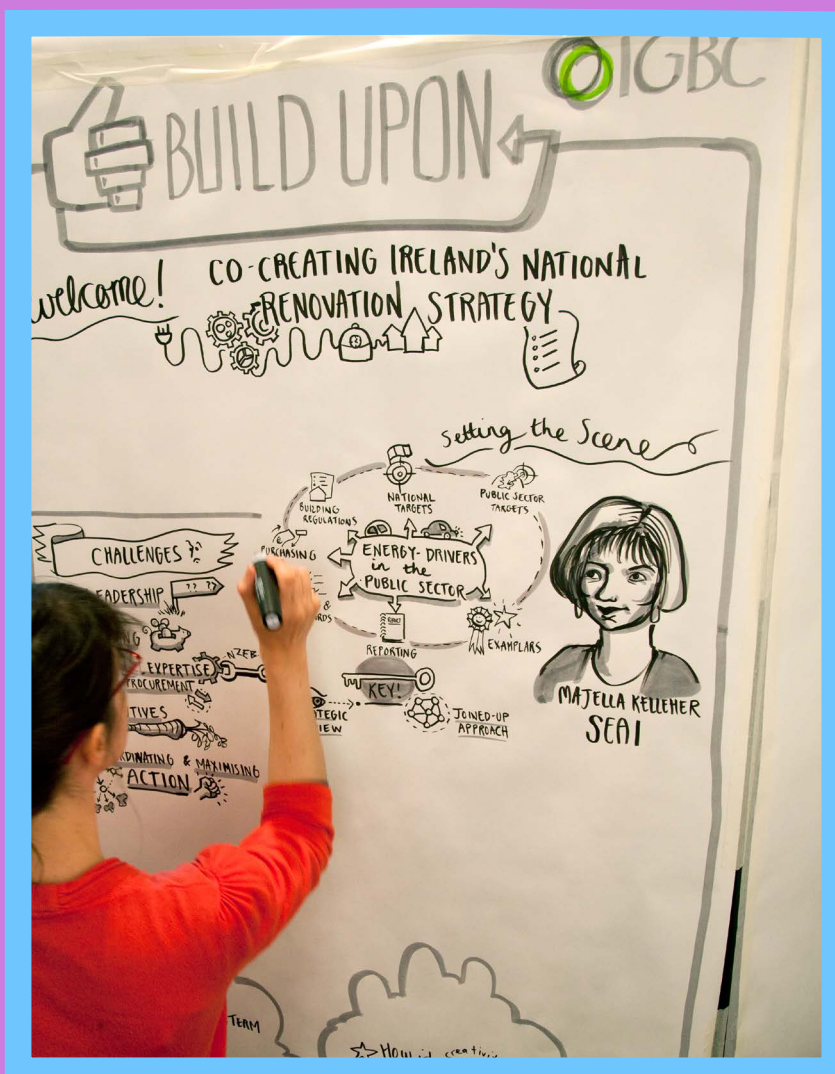
CO-CREATING AN AMBITIOUS NATIONAL RENOVATION STRATEGY FOR IRELAND

Initial Public
Buildings Sector
Workshop

4

Farmleigh House – Dublin
Thursday, 16th June 2016

www.buildupon.eu/ireland
#BuildUpon



Funded by the Horizon
2020 Programme of
the European Union



Roinn Cumarsáide,
Fuinnimh & Aerhainní Náidórttha
Department of Communications,
Energy & Natural Resources

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 80 member organisations, the IGBC is working to transform the Irish construction and property sector into a global leader in quality and sustainability.

As well as leading the *Build Upon* project in Ireland, the IGBC has developed the *Home Performance Index (HPI)* - Ireland's first national certification system for quality and sustainable residential development, provides BREEAM, LEED and other green building education programmes, and is a partner in the Qualibuild project to upskill Irish construction workers.

See: www.igbc.ie

A special thanks to our change makers.



Mark Bennett



Tony Day



Kevin O'Rourke



Fiona Tutty

Acknowledgements

The IGBC team would like to thank all the participants who attended and contributed to the workshop. These are listed page [18](#). In particular, we would like to thank our workshop facilitator, Chris Chapman, our visual facilitator, Eimear McNally, our rapporteur Lisa Ryan, and all the speakers documented in this report.

ABOUT THE VENUE: FARMLEIGH HOUSE – DUBLIN



The workshop took place in Farmleigh House, Dublin.

Farmleigh is the official Irish State guest house for visiting heads of State and dignitaries. Originally a small Georgian house built in the late 18th century, Farmleigh was purchased by the Guinness Family in 1873. The estate of now 78 acres consists of extensive private gardens with stands of mature cypress, pine and oak trees, a boating pond, walled garden, and a herd of rare native Kerry cattle. Farmleigh House was purchased by the Government of Ireland in 1999 and fully refurbished in 2001.

SUMMARY



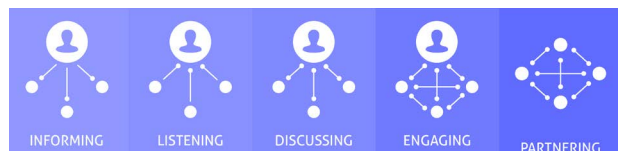
Co-Creating Europe's National
Renovation Strategies

WE BELIEVE THAT OUR BUILDINGS CAN BE BETTER THAN THEY ARE TODAY

BUILD UPON is the world's largest collaborative project on building renovation – bringing together over 1,000 organisations, across 13 countries, at over 80 events in 2016-17.

It aims to create a renovation revolution across Europe by helping countries to deliver strategies for renovating their existing buildings, by the 30 April 2017 EU deadline.

These strategies are critical to cutting Europe's energy use, reducing the impacts of climate change, and creating buildings that deliver a high quality of life for everyone.



BUILD UPON IN IRELAND

The [Irish Green Building Council](#), in conjunction with the Department of Energy (DCENR) is working to build [a community of experts and stakeholders to develop the v2.0 national renovation strategy](#) Ireland must deliver by April 2017 under the [Energy Efficiency Directive](#).

The details of this strategy are critical to deliver a [“fully decarbonised built environment that delivers a better quality of life for all”](#). How will we finance the long term investment strategy required for our building stock over the next 35 years? How will we reach our climate targets? All these questions will be answered by Ireland's National Renovation Strategy.

AIMS OF THE WORKSHOP

The aim of this workshop was to explore all measures that could be taken in Ireland to move towards large-scale deep renovation in the Public Buildings Sector.

There are more than 10,000 buildings in the public sector, including almost 5,000 schools, 3,000 offices and 2,000 health care facilities. The total energy spend across the public sector is approximately €600 million /year - c.50% of which is from buildings. The Irish Government set a 33% target for energy savings in the public sector to be achieved by 2020. The diversity of public buildings stock means that it's a microcosm of what will need to happen in other sectors.

A number of potential solutions were discussed to overcome particular barriers to renovation in this sector. These include behaviour changes and awareness. The workshop also explored different business models to help scale up the level and ambition of public buildings renovation in Ireland.

[A copy of the workshop agenda is available here.](#)

KEY OUTCOMES

In line with the ambitious public sector 33% target in energy savings, there was a clear agreement among participants that public bodies should play a leadership role in promoting deep retrofit.

Several barriers to large scale deep renovation in the public sector were identified, including funding, public procurement rules, a lack of leadership and accountability, as well as a lack of awareness at all staff levels. The split incentive that exist between landlords and tenants and a lack of technical expertise, were also mentioned as significant obstacles.

According to the workshop participants, these issues will only be tackled through a holistic long-term approach that would focus on much more than energy savings. Renovating public buildings would also have a positive impact on jobs creation and a myriad of social benefits (e.g. better health, community development). These co-benefits need to be better measured, and the Department of Energy are working in close cooperation with other departments and agencies to highlight these wider benefits and find ways to better demonstrate them.

OUR CHALLENGE

Measures would need to be taken to raise retrofit awareness at all employee levels. While, there is a need to better communicate on the 2020 targets (and potential fines), talking about renovation co-benefits is also important. The information should be communicated in an accessible manner (e.g. through exemplar projects), making sure all staff are fully engaged in the process.

When it comes to implementation, a combination of carrots and sticks is required. Public bodies could be incentivised through:

- New support mechanisms to make retrofit projects, including deep retrofit as simple as possible (e.g. up-to-date and readily accessible guidelines for retrofit of different building types, end-to-end projects support).

- New financing mechanisms, such as multiannual budgets, free interest loans based on the Salix model and ring fencing.
- Changes in public procurement rules to incorporate social return on investment (SROI) and to streamline the process ([see page 9](#))

On the “accountability” side, participants favoured the introduction of energy efficiency targets at entity level, and full accountability of senior management. They also suggested to introduce minimum renovation and energy efficiency standards.

[The workshop presentations can be downloaded here.](#)

OUR CHALLENGE

EU requires each country to establish a ‘national renovation strategy’: a long-term strategy for renovating the nation’s homes and commercial buildings to high standards of energy efficiency. This had to be done for the first time by 30 April 2014, with strengthened strategies to be delivered every three years thereafter, with the next by 30 April 2017. So, how are we doing?

Project Overview



Today, many of the individuals and organizations who have a stake in this challenge are not actively engaged in the national renovation strategy debate. The absence of large scale structured collaboration between renovation stakeholders and initiatives means countries are not currently delivering the renovation revolution Europe needs.

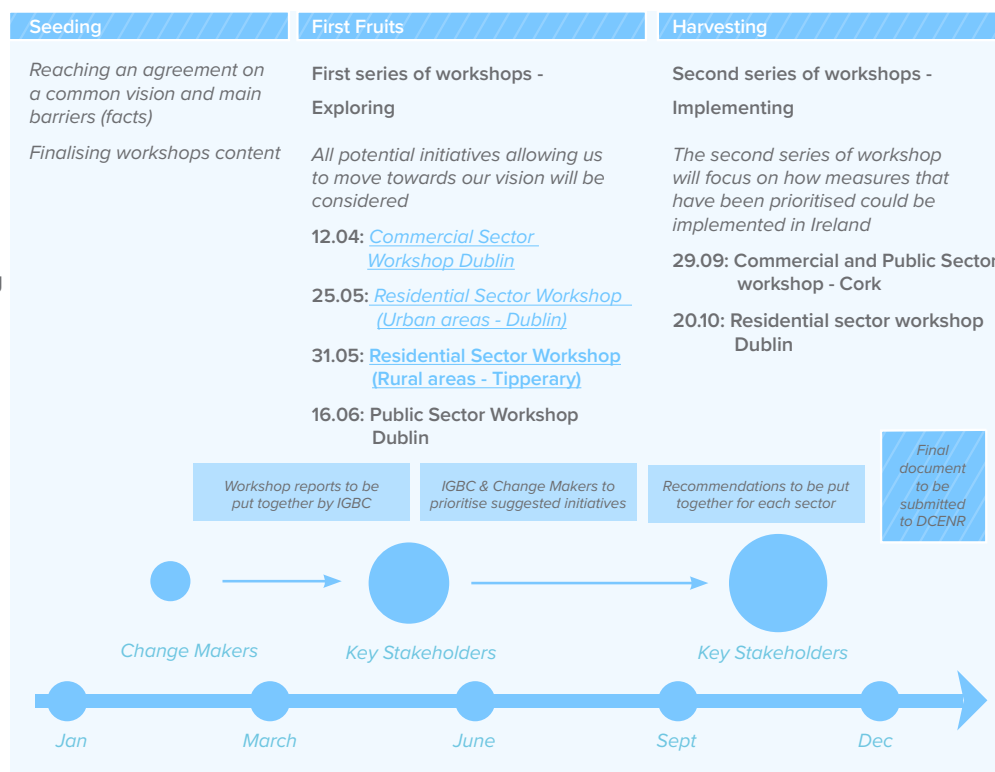
The European Commission in its Roadmap for moving to a competitive low carbon economy in 2050, established a long-term objective of decreasing the CO₂-emission levels for the building sector by 88%-91% in 2050, compared to 1990 levels.

Since the publication of this document and the adoption of the first version of Ireland’s National Renovation Strategy in April 2014, significant changes have occurred. Most notably, urban areas are now facing housing shortages and a landmark agreement to fight climate change was reached at COP21. In May 2015, the EPA highlighted that Ireland was not on track to reach its 2020 emissions’ target. The goal set in Paris of limiting global warming to 1.5°C puts even more pressure on the country. The construction sector is expected to compensate for the projected increases in emissions from agriculture and transport. This represents both enormous opportunities and challenges.

THE DIALOGUE JOURNEY

Ireland will host a series of workshops in 2016-17 focused on the design and delivery of the national renovation strategy. These will be a mixture of national events, local events and European events connecting national leaders with other European leaders working on their national renovation strategies.

[A copy of the workshop agenda is available here.](#)



SESSION 1: SETTING THE SCENE

Pat Barry, Executive Director at the IGBC welcomed guests and highlighted the importance of designing an ambitious national renovation strategy v.2 for Ireland. This was followed by a short presentation by Marion Jammet from the IGBC on the Build Upon process. Ms Jammet also gave an overview of the first results of a survey on deep renovation in the public building sectors that was conducted among 20 experts.

[Majella Kelleher](#), Head of Energy Demand Management, SEAI set up the scene, through a presentation on the main energy efficiency drivers in the public sector and programmes that have been implemented by SEAI so far to help the sector reaching its 33% energy saving target.

[Rebecca Minch](#), Energy Efficiency & Affordability Principal Officer at the Department of Energy highlighted that the public sector should take a national leadership role



in deploying energy efficiency projects and initiatives. In particular, Ms Minch introduced the new “Strategy for Public Sector Energy Efficiency” the department is working on and detailed the challenge ahead.

What do we need to make large scale deep renovation happen in the public buildings sector?

Long term strategy and thinking,

Better Communication

- Between policy makers and operation / facility managers
- But also to secure buy-in from top management, and not only those involved in energy issues
- High quality case studies

New governance structure ...

to ensure accountability of senior management (e.g. through annual progress reviews)

A Holistic Approach...

that should not only be technical, but also encompasses social and political aspects

Financial Incentives

- Develop a clear protocol to follow for financing deep renovation
- “Ring Fencing” savings achieved for service improvement rather than reducing budgets due to savings
- Improve public procurement frameworks for energy efficiency works in public building



NATIONAL RENOVATION STRATEGY BY SECTOR

SESSION 2: THE WICKED AND WILD CHALLENGES OF FOSTERING ENERGY EFFICIENCY ENGAGEMENT IN ORGANISATIONS

In session two, participants looked at awareness and behaviour changes. Taking into account the diversity of the public buildings stock, they also explored the various strategies that may be required. The session kicked off with a presentation from [Dr. Richard Bull from De Montfort University \(UK\)](#) on the challenge of energy and behaviour in non-domestic buildings – with a specific focus on public sector buildings.

SUGGESTED STRATEGIES BY SECTOR

EDUCATION

According to participants, the first thing to do to promote deep renovation in the education sector is to raise awareness about its co-benefits (e.g. indoor air quality, good natural daylight).

The potential skill shortage to manage low energy technologies that exist in many schools was mentioned. Yet, participants believe this issue could be tackled through more partnerships, including with facility management companies.

Deep retrofitting educational institutions could have a broad societal impact. In fact, transforming schools into “centres of excellences” for energy efficiency could have a multiplier effect on renovation levels in Ireland. The social return on investment (SROI) method should therefore be used when designing procurement guidelines for educational institutions.

Finally, allowing retention of financial savings made from energy efficiency improvements by educational institutions where not already facilitated would most likely contribute to an uptake of retrofit measures in this sector.

HEALTH

While a single sector approach is required at national level, this should be complemented by local / regional strategies - fully supported by central government. Setting long term targets at entity level would also be helpful.

Perhaps more than in any other sectors, the focus should be on health and wellbeing as opposed to energy savings. One participant suggested to introduce a “well-being” badge as opposed to an “energy” badge for health institutions.

From a financial point of view, the process should be made simpler – EPCs currently appears as complex. Some participants suggested to look at the [Scottish Non Domestic Energy Efficiency Framework](#). Allowing retention of financial savings made from energy efficiency improvements by health institutions and changing the annual calendar rules would also contribute to an uptake of deep retrofit measures in this sector.

In terms of project development and implementation, participants supported partnerships with institutions such as the OPW and the outsourcing of project development. Nevertheless, staff would need to receive adequate training in implementing the new technologies.

NATIONAL RENOVATION STRATEGY BY SECTOR

LOCAL AUTHORITIES

Raising awareness in this sector is vital. This could be done through clear political commitments, emphasis on targets, as well as on monetary and non-monetary benefits of deep renovation.

However, explaining why deep retrofit is important is not sufficient to make it happen. Exemplar projects and “off the shelf” solutions by building types are key. When designing the strategy, practical impediments such as occupied buildings should be taken into account.

According to the workshop participants, full accountability of senior management for energy efficiency improvement and upskilling of energy and architecture staff are key.

In terms of funding, participants felt that giving local authorities’ discretion to re-deploy budgetary resources no longer needed within their annual budget allocation to pay for energy to other areas of their operational budget would significantly contribute to an uptake of energy efficiency measures.

OFFICES

There was a clear agreement among participants that specific targets at entity level – as opposed to the generic 33% target – were required. Once the target is set, each institution could develop a full business plan to reach it.

In order to make renovation in public offices easier, participants suggested various changes in legislation. These included:

- Allowing multiannual budgets
- Ensuring that energy efficiency performance is given appropriate weight in all procurement evaluation and decision making
- Introducing minimum NZEB retrofit regulations and minimum standards for refurbishment cycles
- Making ISO 50,001 compulsory for all offices over a certain size, e.g. 250 square metres
- Specifying standards for energy performance in all new / long term leases

Generally speaking, participants supported a higher uptake of energy performance contracts. They also believed that some quick-win measures could be implemented first. In particular, sources of energy use and vampire loads should be clearly identified. Building Management Systems could subsequently be implemented. This should be complemented by programmes targeting behaviour changes. However, these measures would only reach their full potential if they are fully supported by top management.



What can be done to raise deep renovation awareness through the public sector?

After identifying different strategies for different building types, participants looked at awareness and behaviour changes in the public sector.

Participants highlighted that a first step is to clearly identify the target audience: Is it limited to public servants or should it be part of a broader awareness campaign targeting the general population? Most of them believed that although a specific campaign should target public servants, this should be part of a wider awareness effort. The general PR campaign should use public figures as champions as well as citizen / community champions. There is also a lot to be learnt from the successful Road Safety Authority's campaigns and the water charges PR failure.

When it comes to raising awareness about energy use in public buildings among public servants, there is a clear need to better communicate on EU 2020 fines and the co-benefits of deep renovation. Behavioural changes could be achieved through workshops, exemplar projects and expansion of programmes such as "[Optimising Power @ Work](#)". Yet, employee engagement from the design stage to implementation is key to create a sense of ownership - Apps and social media could play a role in that regard.

Finally, public sector's successes should be used to reach a wider audience - and promote deep renovation in Irish society. This could be done for instance through an "Open House" day for energy efficient public buildings e.g. through an "Open House" day for energy efficient public buildings.



SESSION 3: DRIVING ENERGY CONSERVATION RETROFITS WITHIN PUBLIC SECTOR BUILDINGS

Public procurement rules and access to funding are often presented as two of the main barriers to large scale deep renovation in the public sector. The session opened with a presentation by [Glyn Mountford, Director, Re:fit PIU Team Wales on the Re:fit programme](#), which was followed by a world café discussion.

Groups were first asked to discuss the opportunity to introduce a scheme similar to Re:fit in Ireland, using the PMI technique. The PMI technique is a thinking technique originally developed by Edward de Bono to find the Plus, Minus and Interesting points about an issue before forming an opinion.



PLUS



Re:fit is an up & running scheme with an excellent track record.

It streamlines the procurement process, through an OJEU compliant structured approach and templates.

It allows for central procurement expertise and end-to-end support.

It brings a specialised skillset (e.g. management and maintenance skills) to public entities at a minimum cost.

It mitigates risks / and risks perceptions in procurement and energy efficiency - as a transparent and rigorous framework is in place.

It's a market and project enabler - It enables clusters for finance.

It allows for better monitoring of buildings' energy performance after renovation work completion.

It could contribute to local jobs creation, construction industry upskilling and other social benefits.

MINUS



The scheme was designed for a much larger market, can it work in Ireland?

The complexity / inflexibility of the scheme makes it unattractive for small projects and grouping might be questionable: Is there enough expertise in Ireland (e.g. service providers, tradesmen) to plan, execute and implement such a scheme?

So far, Re:fit has only focused on low hanging fruits and mid-range retrofits.

Its energy efficiency focus is too narrow.

Accounting restrictions (Eurostat accounting rules) may make its implementation challenging.

It took a long time for this programme to achieve success in the UK, implementing it in Ireland would also be time/resource intensive. Furthermore, If it's such an attractive product, why hasn't the uptake reached full potential in the UK?

INTERESTING



It provides the public sector with extra skills and resources.

Bundling projects allows for more joined-up thinking.

The scheme could be used for a wider scope of works.

It has the potential to drive market changes.

Further research would be required to tackle specific Irish issues, such as accounting restrictions: Who is borrowing the money? Which balance sheet does it appear on? Could a "ring fencing" mechanism be set up to allow public entities to keep their energy savings? Could a 100% interest-free loan such as [Salix](#) be made available to the Irish public sector?

For the last round of discussion, participants had the option to keep working on the Re:fit model or to suggest any other topics they saw as relevant. Six topics were suggested.

INTRODUCING MINIMUM RETROFIT STANDARDS

One group of participants discussed the opportunity of introducing minimum retrofit standards. According to them, a mix of incentives and regulation is required to make large scale deep renovation happen in the public sector.

They believe that the majority will only meet the bare minimum and that high standards are thus needed. In particular, statutory minimum standards should be defined for insulation, air tightness, thermal bridging, renewables, MVHR, heat pumps, BMS, plug load controls, sensors, air quality and thermal comfort.

However, regulation alone won't be enough and incentives are needed too. These could include bonuses for saving energy (energy credits), as well as energy efficiency competitions and rankings. Substantial upskilling of staff is also required.



REAL BARRIERS TO DEEP RENOVATION IN PUBLIC BUILDINGS

According to this group, the main barriers relate to civil servants' risk aversion and public procurement rules. In order to mitigate risk, employees tend to repeat processes that they know and that have worked before. There is a need for more flexibility in public procurement as one size does not fit all. Nevertheless, before rushing into EPCs, the issue should be clearly defined.

MAKING DEEP RETROFIT DESIRABLE FOR PUBLIC SECTOR BODIES

To make deep retrofit desirable for all public sector bodies substantial communication efforts are required. The narrative has to change to better explain the "why", including beyond 2020. It's also important to link it to other narratives, such as public sector reform and efficiency management. All departments should be involved, and not only the department of energy. This is the only way to make it a top management priority. Some public sector bodies felt they would be more likely to prioritise achieving energy efficiency targets and retrofit if and when that became a priority for their parent department to whom they report. Once it has become a priority, one should make sure public bodies have the people to make it happen.

Furthermore, renovation should be made as easy as possible. Exemplar projects and step-by-step guidance for various building types would be useful. Free-interest loans as mentioned in the Re:fit presentation would also be a step in the right direction.

Finally, participants mentioned the importance of reputation and recognition. Deep retrofit in public buildings will be seen as desirable, once it is associated with successful, effective and responsible organisations. Promoting successful deep retrofit in public buildings could therefore have a multiplier effect: It would encourage more retrofit in the public sector and in Irish society.

BARRIERS TO ENERGY PERFORMANCE CONTRACTS IN IRELAND

Several barriers to a significant uptake of energy performance contracts (EPCs) were identified by participants.

First of all, the lack of project facilitation and centralised technical / procurement expertise mean EPCs are often perceived as highly complex. The capacity to borrow is extremely limited across the public sector and there is a reluctance to pay to transfer the risk. Finally, there is a fear of measurement and verification: "It can easily go wrong and it's expensive to get it right".

FINANCING DEEP RENOVATION IN PUBLIC BUILDINGS

A smaller group focused on the broader topic of financing deep retrofit in public buildings. They believe that procurement facilitation would be a first step. European Investment Bank (EIB) funding and further partnerships with the private sector should also be explored. Yet, one major obstacle to it is the public sector risk aversion, which means they may not fully consider alternative sources of funding. Another suggestion was to outsource investment grade proposals.



HOLISTIC RETROFIT PROGRAMMES

One group worked on the importance of a holistic approach to deep retrofit of public buildings - beyond energy savings. They highlighted that renovating public buildings could have a positive impact on job creation and a myriad of social benefits (e.g. better health, community development). Involving the departments of education, health and jobs in designing and implementing the national renovation strategy is thus key. Better quality public buildings would contribute to better public services and education for Irish children. Yet, impacts on health, wellbeing, productivity and jobs creation need to be better measured. Taking EU fines, energy savings and the co-benefits of deep renovation fully into consideration could significantly contribute to the deep renovation business case. Nevertheless, mistakes made with water charges and wind farm projects should be avoided, i.e. all benefits of each retrofits should be clearly assessed. Finally, participants reiterated that energy savings made in a public institution should be held within that organisation.



CLOSING REMARKS



Lisa Ryan, Senior Researcher, Energy Institute, University College Dublin

This brief report was presented at the end of the workshop by Lisa Ryan, rapporteur. The report is based on the plenary discussions, the outputs from the table discussions and the points recorded by the real time cartoon artist. Given the structure of the workshop, the results are a reflection of what occurred to the rapporteur to be the salient points made.

Based on the presentations and group discussions, Mrs. Ryan identified four main barriers to large scale deep renovation in public buildings: Finance, the split incentive between tenants and landlords, and a lack of awareness and information at all staff levels.

These issues could be tackled through a simplification of public procurement rules, awareness-raising campaigns and more accountability. With regards to public procurement rules, the Re:fit scheme could provide exemplar in setting up contracts that streamline processes. Although awareness-raising campaigns are important, they won't achieve their full objectives on their own. Carrot and stick approaches are clearly needed. In particular, top management's accountability in terms of energy targets is key.

Ms Ryan concluded her remarks mentioning the high number of programmes already in place in Ireland. However, she expressed her concerns that programmes to date are mainly aimed at low hanging fruit. Much bigger effort and coordination are thus required to achieve a deeper retrofit at scale.



**THANK YOU
TO ALL OUR
SPEAKERS**



“Excellent workshop, well-paced to keep the ideas flowing and well facilitated”

*Declan Alcock,
Varming Engineering*



“Change needs to be at scale, not just exemplars”

*Mark Bennett,
Ambie - Energy for
Everything*



“The graphical representation of the workshop feedback was inspiring... Well attended with a wide range of stakeholders and healthy, open discussions”

*Paula Butler, Energy & Management
Consultant*



“Energy Savings are the least interesting aspect of deep retrofit”

*Darragh Lynch,
Darragh Lynch
Architects*



“With regard to energy conservation in buildings, an area often overlooked is the potential savings from encouraging behavioural change of the building occupants, optimising the

existing control systems and eliminating energy wastage. Over the past number of years the OPW has been targeting these savings in its portfolio of buildings. The results have been very impressive (currently approximately 20% energy savings per annum) with a very high return on investment (4 to 1)”.

Conor Clarke, Conservation Unit, OPW



“High quality building renovation is a national imperative. If the public sector go ahead with this and lead by example, it can help be a catalyst for that change”.

*Dr. Tony Day, International Energy Research
Council (IERC).*



SETTING THE SCENE



SETTING THE SCENE

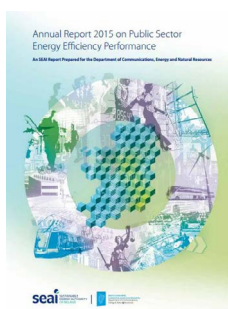
Majella Kelleher, Head of Energy Demand Management, SEAI opened the workshop with a presentation of the challenge ahead in the public buildings sector. After listing the main energy drivers in the sector, Ms Kelleher gave an overview of all the existing support programmes.

The 324 Public bodies which report to SEAI reached a 17% energy efficiency improvement in 2014. Yet, the focus so far has been primarily on the low hanging fruits and reaching the 33% target will be challenging.

Ms Kelleher added that the economics of deep retrofit don't always add up in terms of energy savings, and the co-benefits associated with it need to be taken into consideration. She concluded her presentation by highlighting the importance of standards such as ISO50001.

[A copy of Majella Kelleher's presentation is available here.](#)

Energy Drivers in the Public Sector



Roinn Cumarsáide,
Fuinnimh & Acmhainní Nádurtha
Department of Communications,
Energy & Natural Resources

PUBLIC SECTOR ENERGY EFFICIENCY STRATEGY

Rebecca Minch, Principal Officer - Energy Efficiency & Affordability Division, Department of Energy presented on the Public Sector Energy Efficiency Strategy.

Ms Minch first drew attention to the leadership role that should be played by public bodies. The delivery of the strategy is a shared, whole of Government, effort where all Departments, and the bodies under their aegis, should play their part in embedding best practice in energy management as part of their business delivery.

Furthermore, substantial efforts will be put into communicating the policy message, developing a large project pipeline, enhancing projects support and establishing a robust governance structure.

Ms Minch closed her presentation with a list of challenges that remain, i.e. the need for stronger leadership, funding and incentives, as well as technical and procurement expertise.



[A copy of Rebecca Minch's presentation is available here.](#)

SETTING THE SCENE

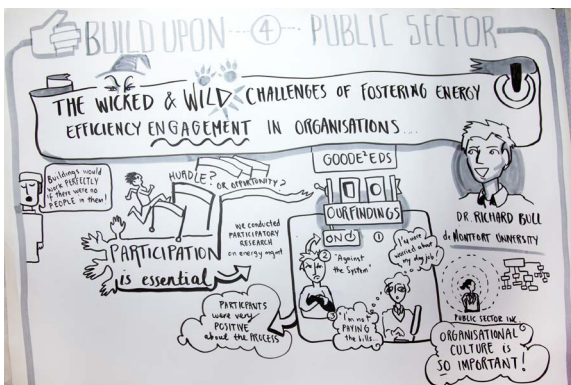


THE WICKED AND WILD CHALLENGES OF FOSTERING ENERGY EFFICIENCY ENGAGEMENT IN ORGANISATIONS

Dr Richard Bull, Principal Lecturer and Deputy Head of School of Engineering & Sustainable Development at De Montfort University (UK) presented on the importance of behaviour change. According to Dr Bull, too often decision makers perceive people as barriers to energy efficiency (“buildings would work perfectly if there were no people in them”), while they should see them as enablers.

As shown by the Ladder of Citizen Participation (Amstein, 1969) providing people with information is not good enough. Only full engagement of all employees from the very start can lead to full collaboration. Furthermore, project managers can then benefit from different perspectives of technical and non-technical groups. In particular, Dr Bull gave the example of the Gooddees² research project he conducted. The aim of the project was to explore a participatory approach to the development of a web-application to help building-users reduce energy consumption in non-domestic buildings (see case study section for full details).

[A copy of Richard Bull's presentation is available here.](#)



CASE STUDY

Research in the wild – Leicester City Council

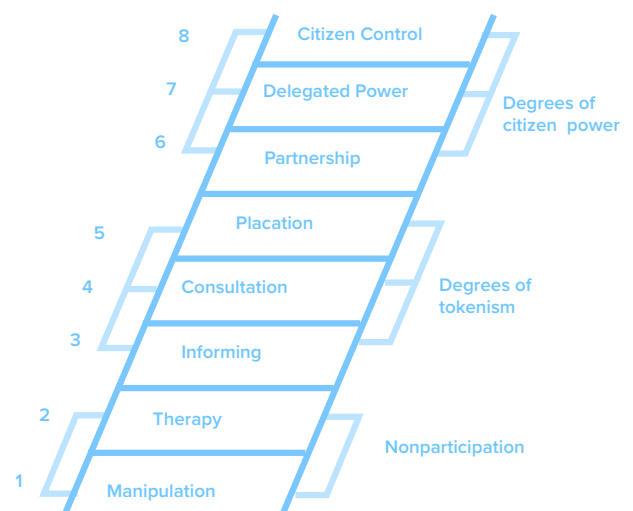
Almost 20% of the UK's energy consumption and CO2 emissions arise from non-domestic buildings. Behaviour change initiatives could have a significant impact given current estimates that around 30% of energy in buildings is wasted.

The aim of the research was to work with Leicester City Council (UK) to develop a set of social media/smartphone tools that the local authority could use to reduce the energy demand across its building stock. This research aimed to explore the opportunities for and impact of digital technologies on user-behaviour and energy demand reduction in the non-domestic setting through enabling building users to both understand the environmental impact of their activities and to act in networks through social media applications of the digital technology.

Most employees were extremely positive about engagement. In particular, they liked exchanging with people from other departments with whom they had not interacted before. It also allowed project managers to gain a better understanding of barriers to full staff participation.

[Read more](#)

The Ladder of Citizen Participation





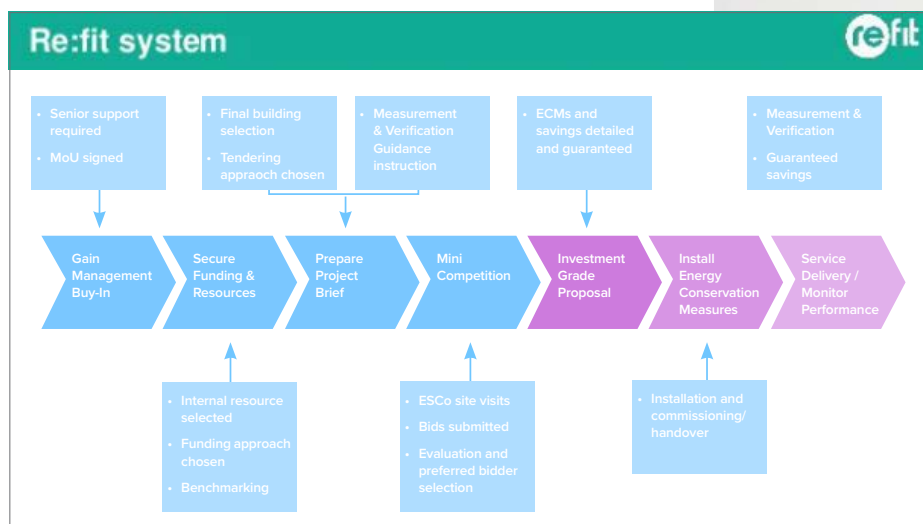
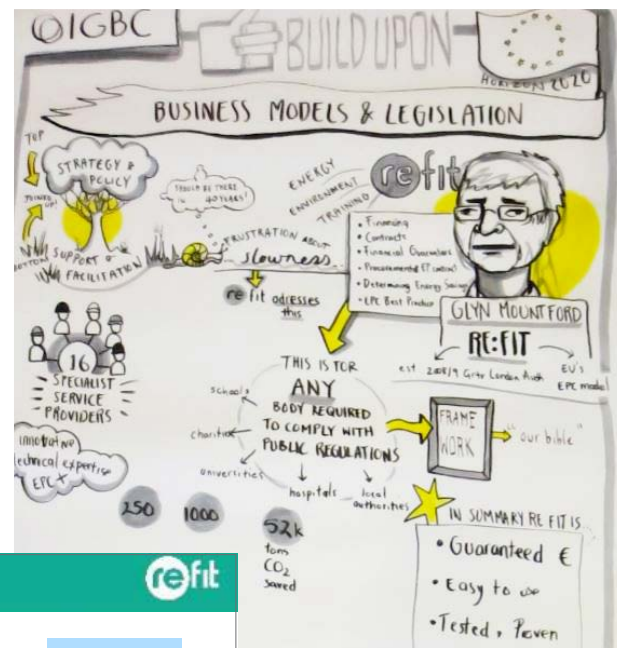
RE:FIT

RE:FIT – DRIVING ENERGY CONSERVATION RETROFITS WITHIN PUBLIC SECTOR BUILDINGS

Glyn Mountford, Re:fit PIU Team Wales Director presented on this award-winning programme. Established by the Greater London Authority in 2008/9, Re:fit was recently extended to other UK's jurisdictions, including Wales.

Re:fit is a programme designed to help public sector and charitable organisations achieve substantial financial savings, improve the energy performance of their buildings and reduce their CO2 footprint based on the principle of Energy Performance Contracting (EPC). In particular, it streamlines the procurement process for energy services by providing pre-negotiated, EU-regulation compliant contracts that can be used with a group of pre-qualified Energy Service Companies (ESCOs) for the design and implementation of energy conservation measures.

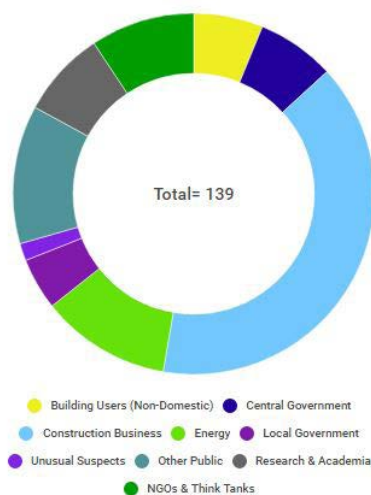
[Read more](#)



WORKSHOP PARTICIPANT ANALYSIS

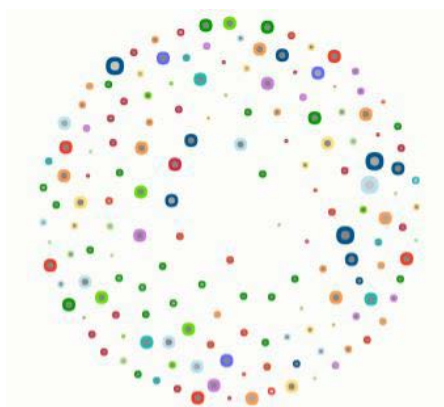
The majority of participants were from the public (including a substantial number of representatives from local authorities) and construction sectors. Energy providers, as well as research and academia, were also strongly represented.

WS4 Invitees



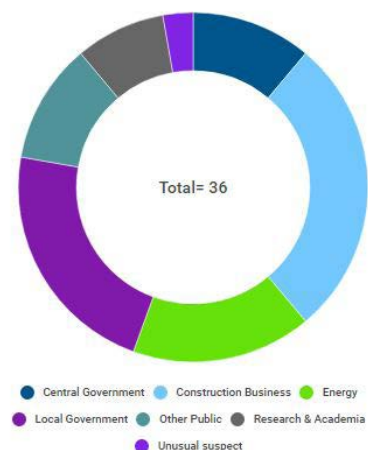
STAKEHOLDERS

Discover who's who in renovation with our interactive map.



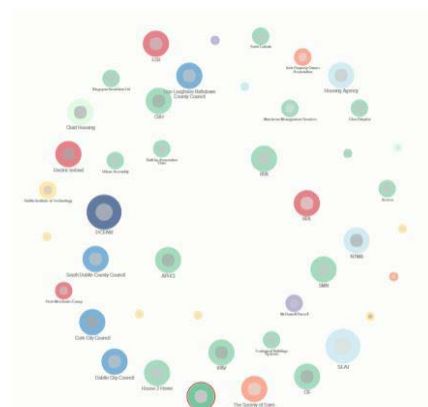
Public sector representatives accounted for more than 50% of participants. In particular, Local Government were the strongest represented community on the day, followed by Research & Academia, Energy Providers and Construction Businesses.

WS4 Attendees



PARTICIPANTS

Discover who attended our workshop on large scale deep renovation in the public buildings sector with our interactive map.



WORKSHOP PARTICIPANT ANALYSIS

PRIOR TO BEING CONTACTED BY THE IRISH GREEN BUILDING COUNCIL:

- Approximately two third of participants knew Ireland had a National Renovation Strategy
- Approximately 50% of them knew the strategy had to be updated
- 66% believe they have a moderate level of influence on their organisation's involvement in the strategy

To make sure the workshop had a real impact, participants were asked before leaving, to write down what is the biggest contribution they could make this year to help large scale deep renovation in the public sector happen. Below are some of their answers. .



We aim at characterising the system of stakeholders that are part of deep renovation sector. It is also used to track the system's evolution along year 2. Participants were asked to provide their subjective assessment on how advanced the stakeholders are relating to deep renovation... The following table represents their answers.

SECTOR	Not aware	Aware but...	Understands and accepts	Is interested	Follows	Paticipates	Subscribes	Does
Central Government								
Local Government								
Financial Services								
Building Users: domestic								
Design Firms								
Builders								
Developers								
Construction Services								
Consulting services								
Manufacturers								
Energy Sector								
Research Bodies								
Media								
NGOs								

HOW CAN YOU ENGAGE?

Key areas where stakeholders are able to engage and input during the BUILD UPON process include:

Renovation stakeholder systems maps: Over 1,000 individual key stakeholder organisations have been mapped across the project countries. Your input is welcome to help ensure they are a representative picture of the key organisations that need to collaborate on Ireland's National Renovation Strategy V.2.

"RenoWiki" is a groundbreaking online portal which allows individuals to upload real-life initiatives on building renovations in Europe in order to share best practice and successful initiatives. To date, there are more than 550 initiatives (including 59 Irish initiatives) on the RenoWiki. Examples include Latvia's 'Lets Live Warmer', an award-winning awareness raising campaign that has led to greater uptake of housing insulation, and Ireland's "QualiBuild", a training programme to ensure a construction force capable of delivering quality energy efficient renovation.

COLLABORATING ON WORKSHOPS AND EVENTS:

A series of over 80 events in the 13 project countries will bring stakeholders together during the project. As part of this process, six high level Building Renovation Workshops will be organized across Ireland by the Irish Green Building Council. The workshops are supported by the Department of Communications Energy and Natural Resources and are a must for anyone who wants to ensure their voice and views are heard in Ireland's the national renovation strategy process. If you have any comments on the content of this report, please contact us.



Email Us: Marion@igbc.ie



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