An overview of the project

Aberdeen City Council (ACC) is a partner in a three-year EU Interreg project, Build with CaRe (BwC), which aims to mainstream energy-efficient building design across Northern Europe. Aberdeen City Council is working with partners from 5 other European North Sea Region countries.

The BwC project comprises of four main Work Packages (WPs), as follows:

- WP1 (Marketing and Publicity) promotes the adoption of low energy building design.
- WP2 (Education and Training) aims to ensure that craftsmen, technicians, builders, system designers, architects and developers have the knowledge and skills training to produce energy efficient buildings throughout the North Sea Region.
- WP3 (Planning and Policy), which is led by Aberdeen City Council, focuses on ensuring that planners and policy makers facilitate mainstreaming energy efficient buildings by providing appropriate policy, planning and regulatory frameworks.
- WP4 (Evidence Base) aims at providing research that supports the mainstreaming of low energy buildings and housing- covering both new and existing buildings.

Aberdeen City Council, as the lead for WP3 (Planning and Policy) has a responsibility for coordinating actions with other project partners in order to:

- Supply input to discussions surrounding EU directive on buildings
- Facilitate drafting of regional energy efficiency strategies
- Ensure local planning policies and building regulations encourage low energy building design.

The expected outputs of the work package are to: influence ongoing debate at EU level for forthcoming Directives; draft regional energy strategies; and share successful policy interventions and good practice.

To date the BwC project has worked closely with Robert Gordon University (RGU) and together developed “A baseline review of standards” describing the current position across Europe regarding energy efficiency in buildings and developments. BwC has also developed a policy paper highlighting the challenge of mainstreaming energy efficient buildings in the North Sea Region and the significance of the existing building stock. This paper has gained support from the North Sea Commission and will be presented to the Conference of Peripheral Maritime Regions (CPMR) later this year.

The project has also recently appointed Jean Lambert, Green MEP for London as a BwC Ambassador who will serve as an overall figure head in Europe acting as a spokesperson for the project and promoting the aims of the partnership. Moreover, the BwC conference was organised as a part of facilitating the outputs of WP3.

Build with CaRe conference

The aim of the conference was to discuss the planning and policy issues related to supporting the implementation of energy efficiency practices in buildings. The conference focused on European policy and how this translates into both UK and local legislation, whilst also looking at the policy issues in other EU countries such as Germany, Sweden and France. Not only was the conference an opportunity for dialogue between policy makers, planners and the construction industry at an EU-level, but also it provided insights into how some of the policy issues may be addressed in practice.

The conference was organised and chaired by Dr. Mohamed Abdel-Wahab and Dr. David Moore, Scott Sutherland School of Architecture and Built Environment, RGU.

1 An Interreg project aims at stimulating transnational cooperation in the EU. Further information on Interreg projects, including Build with CaRe, is available at: www.northsearegion.eu/ivb/home

Villa Malmborg (Lidköping, Sweden) is the first private house in Scandinavia to be built according to the Passive House principle. As part of the Build with CaRe project a comprehensive online tool has been developed which tracks the evolution of the building from the initial concept, planning and construction to what it is like to live in. The website provides plans and technical information as well as insights from a range of experts. Further information can be found by following this link: Villa Malmborg, Sweden.

The conference programme included an overview of the ‘Build with CaRe’ project and was divided into two broad themes, namely: ‘planning and policy issues’ and ‘policy in practice’ respectively. The former theme was presented from an EU perspective cascading down to transnational, national, and local level. The latter theme relates to case studies across various EU countries. The conference was supported by both the CIOB and RICS. The conference webcast can be accessed by following the link below.

Webcast of the Build with CaRe conference at RGU.
An evaluation of the conference

The conference was attended by 50 delegates, who represented a wide range of stakeholders in the construction industry. Stakeholders included Scottish Government, ACC Officers, Consultants, Contractors and Architects. An online post-conference questionnaire was emailed to all delegates, which returned a 28% response rate. Below is a short synopsis of the key findings of the questionnaire. It has to be noted that the questionnaire was not only limited to the evaluation of the conference day, but also it was aimed to elicit the views of stakeholders on key issues pertaining to the implementation of energy efficiency practices in the construction industry.

Overall, the delegates regarded the conference as a positive experience and they found the content relevant. They also regarded the conference as being well-organised. The key highlights for delegates, in relation to specific things they have learnt from the conference, included the following:
- Government carbon reduction targets and its implications to building standards;
- Similarities of issues faced by European countries;
- Deeper understanding of sustainable design especially air tightness and passive house standards;
- Practical examples of energy efficiency building policies in Scotland;
- Monitoring the performance of low carbon buildings; and
- Learning about the Construction Improvement Club (CIC) project.

Delegates unanimously supported an overall European target of decreasing greenhouse gas emissions by 30% by 2020, in addition to more stringent carbon reduction targets for refurbishment of buildings. However, the delegates’ view, in relation to the viability of carbon neutral target for all new buildings in Aberdeenshire by 2016, was divided where 57% thought that the target was achievable whereas 43% thought it was not. An inconsistency in delegates’ views may be attributed to an endorsement of the bigger picture by-virtue but when it comes to the detail of actually implementing the targets at a local level, then challenges crop-up. It was thus reported that the top barriers to the adoption of low/zero energy technologies were cost effectiveness (47%) and lack of know-how (20%) respectively.

Moreover, 77% of respondents regarded that the current planning system and building standards do not support the aim of mainstreaming low energy buildings. Nonetheless, it was thought that Local Authorities could use incentives (33%) to encourage developers to build/refurbish buildings to meet low/zero energy standards, in addition to providing training support (27%). This finding is interesting because the support required, for buildings to meet low/zero energy standards, is in-tune with the top barriers identified by delegates, namely cost effectiveness and lack of know-how.

Finally, delegates acknowledged unanimously the pivotal role that has to be played by higher education in supporting the implementation of carbon reduction targets. This could be summed-up by the following quote:

“I think that Universities not only have the ability to demonstrate leadership but through both teaching and research and development can demonstrate excellence and influence not only to students but the sector as a whole.”
Strategist (Sustainable Development)

As such, the expectation on universities is to develop their curriculum to reflect the evolving needs of the industry, in addition to carrying out relevant research that would support the construction industry to become greener. Indeed education and training has an important role to play in making the construction industry greener and more receptive to new practices – as indicated by the following quote from a delegate.

“Introducing technologies to students will mean that future professionals are familiar with technology. This will hopefully reduce the inbuilt resistance to change present within many organisations”.
Technician

Summary and conclusion

An overview of the BwC project was presented in this paper with a specific focus on the conference held in Aberdeen at RGU. The overriding message is that incentives and training are vital parts of implementing the carbon reduction agenda in construction.

A rethink of the approach adopted for policy formulation, which is aimed at carbon reduction, should be considered. A top-down approach appears as the dominant paradigm which has its shortcomings that primarily relate to challenges being met at a local level, such as planning and building regulations. Unless targets are being reviewed within a local context, the chances for meeting high-level and arbitrary targets seem remote. Indeed such targets would become meaningless.

Moreover, 77% of respondents regarded that the current planning system and building standards do not support the aim of mainstreaming low energy buildings. Nonetheless, it was thought that Local Authorities could use incentives (33%) to encourage developers to build/refurbish buildings to meet low/zero energy standards, in addition to providing training support (27%). This finding is interesting because the support required, for buildings to meet low/zero energy standards, is in-tune with the top barriers identified by delegates, namely cost effectiveness and lack of know-how.

3 This was also reflected in the discussions that took place at the conference.