

# WALES LOW/ZERO CARBON HUB

## DELIVERY STRATEGY 2010 - 2013



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## **FOREWARD**

I am delighted to support the Wales Low/Zero Carbon Hub and recognise that it has a key role to play in the delivery of the Climate Change Strategy for Wales, with regards to the built environment.

The Welsh Government is committed to reducing green house gases in Wales by 3% a year from 2011 in the areas of devolved competence that are Transport, Residential, Business, Agriculture and Land Use, Waste and Public sectors. In doing so, it is our aspiration that in the future all new buildings in Wales shall achieve a zero carbon standard.

The Hub will be:

- An opportunity for Wales to deliver new technology, skills and products that will enable us to meet the challenge of a zero carbon world in the built environment.
- A catalyst for innovation in meeting the challenge of a 20 to 27% reduction of CO2 emissions by 2020 for residential and non-domestic buildings <sup>1</sup>
- A vehicle for engagement between industry and the Welsh Government that will be used as a sounding board for any proposed changes to the Welsh Building Regulations

- An opportunity to add value through schemes such as Arbed by actively disseminating the lessons learned, and where necessary, instigating further research. The formation of the five work streams will help to drive this forward.
- A provider of connectivity across sectors and stakeholders, encouraging convergence and consensus in industry.

I wish the team every success.



**John Griffiths AM**

**Minister for Environment and Sustainability**

<sup>1</sup> Ref Climate Change Strategy, Sector targets: Residential emissions reduced to between 5.46 and 6.04 MtCO<sub>2</sub>e against a baseline of 7.48 MtCO<sub>2</sub>e. Business emissions (that fall within Wales' 3% target) reduced to between 8.33 and 10.30 MtCO<sub>2</sub>e against a baseline of 11.24 MtCO<sub>2</sub>e. Public sector reduced to a maximum of 0.83 MtCO<sub>2</sub>e against a baseline of 1.13 MtCO<sub>2</sub>e

## **INTRODUCTION**

We pretty much all live in a way that is not sustainable and that is causing the climate to change in a way that will have a dramatic impact to life on earth. Because the change is relatively slow, we don't notice it on a day to day basis, so we by and large ignore it.

However, the science is now overwhelmingly agreed amongst the experts and the question is what do we do about it. It is easy to consider this to be someone else's problem – the government's, the local authority, big business, the developed world (as though that was removed from us), and so on. Actually it is all of the above, and all of us.

*But most of us do not like change.*

However, the biggest component of change that we are proposing is merely to stop being wasteful. If we stop wasting our resources they will go further, last longer and serve us better. If we make processes more efficient we will again remove waste from the way we do things and that will give us more time and help us live in a more sustainable manner. If we change the way we live and work we will require different buildings.

The Welsh Government has made action to address climate change amongst its highest priorities and as such has set out to reduce carbon emissions by 3% year on year so that by 2050 we will have reduced our carbon footprint by 80-90%. In order to ensure that the built environment can make its contribution to this target, the responsibility for the Building Regulations in Wales has now transferred from the UK Government to the Welsh Government, with the first changes to the regulations proposed for 2013.

### **How we live**

We all live in a high consumption way. From the food we buy that comes from all over the world wrapped in extensive throw away packaging, to houses that require a lot of energy to run. It is possible to buy more locally sourced foods, but currently for most people with busy lives that seems difficult to do so we by and large shop in the major supermarkets. Housing design is undergoing a major technical change that means we will hardly need to heat them and if we manage things sensibly, will not require too much power to run. By reducing our domestic use we can reduce the overall demand that we have for energy and thereby make renewable energy a more achievable goal in replacing fossil fuels.

### **How we work**

For most of us our jobs are precious to us. They are the source of our income and all that we depend on generally hangs on our monthly wage coming in. But most of us will also know that there are probably ways that we could work that would stop waste, make things more efficient, and make our work place a better place to be. We often do not realise the change because of 'the ways things are always done'. We need to be able to take advantage of change in a collaborative manner and see how things can improve.

### **Technology, processes and legislation**

Innovation in technology and processes has allowed us to have a higher quality of living than ever before. This drives the economy. Legislation and regulations help keep checks and balances in place. However, when they are not working together change becomes blocked. One of the greatest blockers in accepting innovation will be the very 'norms' that usually serve us in day to day living and working. The Hub will help identify innovation and change that will assist in the move towards a low carbon society and work through the processes and legislation that block that change.

*This strategy document is the output of the dialogue, workshops and other interactions that the Hub has undertaken and we believe it is the appropriate way forward for us to engage on the agenda of working towards a sustainable society. We always welcome input, positive and constructively critical, and would invite you to participate in finding the right solutions in all the different areas of how we live and work.*

## **BACKGROUND**

In 2008 a project was launched by the Sustainable Development Commission and The Design Commission for Wales that aimed to:

- Develop advice and recommendations for the Welsh Government, framed around its aspirations for all new buildings to be zero carbon by 2011 and its target for 3% annual reductions in CO2 as outlined in One Wales.
- Identify areas and a roadmap for progress on which the Welsh Government can deliver, examining and recognising the principal barriers and identifying opportunities, policy options, incentives and measures for overcoming these.
- Create a leadership network or a 'coalition of the willing' of key stakeholders from the private, public and voluntary sector that will take a 'can do' approach to tackling climate change through the built environment

- A project conference to disseminate results and establish a platform for accelerating implementation. A summary report would be disseminated, widely signposting key actions.

On the 12<sup>th</sup> November 2008 at the Sustainable Development Commission Conference, the 'Coalition of the Willing' was established.

The Coalition of the Willing is formed from members of the construction industry who wish to be involved in sharing information, identifying constraints and issues to ensure that future low carbon requirements are met, and that the opportunities created are taken. Members are key stakeholders from the private, public and voluntary sectors that have committed to taking a "can do" approach to tackling climate change through the built environment.

Speaking at the same conference, Jane Davidson, former Minister for the Environment, Sustainability and Housing, announced that Wales would establish a Low Zero Carbon Hub that would take forward the work of reducing carbon emissions from the built environment. The hub would also be the focal point for the 'Coalition of the Willing'

## PURPOSE

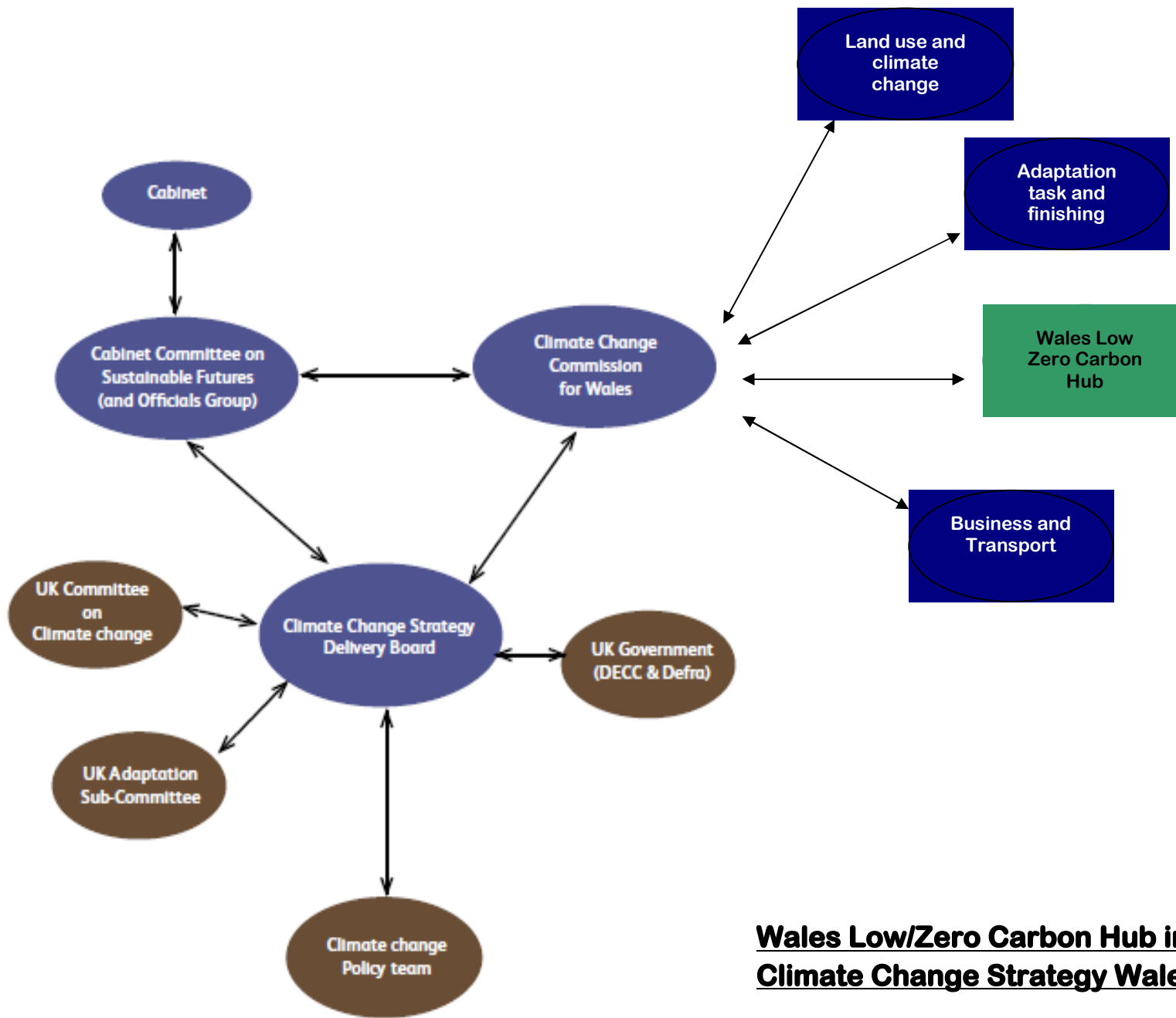
At its launch, the work of the hub was stated as:

- Provide a route map for the achievement of the zero carbon new build aspiration
- Provide a route map for the delivery of the 3% per annum reduction from the existing housing stock
- Act as a focal point via web site, seminars etc.
- Have strong relations with the UK Zero Carbon Hub, Green Building Council, NHBC etc who would contribute to the work in Wales
- Keep up to date with relevant EU legislation
- Support the implementation of the devolution of building regulations
- Coordinate the best possible independent and quality advice for decision makers
- Report through to the Climate Change Commission via annual reports on progress towards low zero carbon

The Hub has been established as a private/public/voluntary sector partnership. It is chaired by Chris Jofeh and has a small core staff led by a funded Director. The managing partnership or 'Steering Group' consists of representatives from key agencies and the private sector.

To ensure that the Climate Change Strategy is delivered across the devolved areas of competence, The Low/Zero Carbon Hub for Wales has been identified as part of a sub group to the Climate Change Commission in Wales.

The Commissions current Sub Groups are: - Land use and Climate Change Group, **The Wales Low Zero Carbon Hub**, The Adaptation Task and Finishing Group and Business and Transport. The role of these Sub Group arrangements will be to provide real expertise and focus within their particular remit.



**Wales Low/Zero Carbon Hub in relation to the Climate Change Strategy Wales**

## **STRATEGIC OBJECTIVES**

The strategic aim of the hub is to:

**‘act as a dissemination mechanism to stakeholders and a source of advice to Welsh Ministers over activities and actions needed to achieve the aspiration of zero carbon new build and the contribution to be made by buildings that will help to deliver the 3% annual target to cut greenhouse gas emission’**

This aim will be delivered via the following actions:

- Advise Welsh Ministers on the most effective way to deliver relevant commitments of the Climate Change Strategy in respect of the built environment and contribute to a related policy review, development and implementation
- Raise awareness among stakeholders about solutions aimed at reducing emissions in new and existing buildings. To disseminate developing best practice and act as a focal point for obtaining the views of industry and wider stakeholders

- To work with existing knowledge networks and organisations working in the field
- Identify, propose and promote practical actions and policy options, including the uptake of research findings
- Identify any gaps in current policies (having regard for the limits of Assembly Government devolved responsibilities) which would usefully contribute to the achievement of policy objectives

In order to operate efficiently within its remit and effectively deliver the aspirations of the Welsh Government, the Hub will target two core areas of the built environment.

The two areas will be:

- New Build
- Existing Buildings (Reduce GHG emissions from the existing stock)

These two core areas of operation will underpin all activity of the Low/Zero Carbon Hub. Potential future work and projects being proposed by the Hub, should consider whether they are aligned with these core areas.

Supporting the core areas of activity are cross-cutting themes:

- **Behaviour Change**
- **Skills**
- **Research and development**
- **Industry engagement**
- **Renewable and Low Carbon Energy Generation**

Having been highlighted within the Climate Change Strategy, it is clear that the cross-cutting themes will influence the whole climate change agenda. Furthermore these are the themes recognised by industry that will cover issues specific to the built environment. The Hub will work collaboratively with other WAG departments who have responsibility in these areas.

## **DELIVERY**

## **GOVERNANCE**

Constructing Excellence in Wales has been identified by the Minister for the Environment, Sustainability and Housing as the administrative centre for the Low/Zero Carbon Hub in Wales. The Hub will operate under CEW contractual terms and conditions.

The Hub will be a private/public/voluntary sector partnership and will embed the 'coalition of the willing', allowing it to grow in size, provide a route way toward zero carbon, link with the UK structure and draw in the key private sector partners. The Hub will also serve to make sense of all the various agencies, bids and funding proposals that are underway.

The Hub will be led by the Chair who will direct the two funded part time members of staff, the Director of the Hub and a Research Assistant.

The key responsibilities of the Director are:

- To support the chair and steering group of the Wales Low/Zero Carbon Hub
- Coordinate and report on agreed work items in accordance with the hub strategy and delivery plan

aimed at looking at barriers and solutions to meet the delivery of new low/zero carbon homes in Wales

- In conjunction with CEW develop a programme of workshops seminars and events
- Direct the activities of research officer as agreed with the Hub Steering group
- Have lead financial responsibility for managing the budget of the Hub

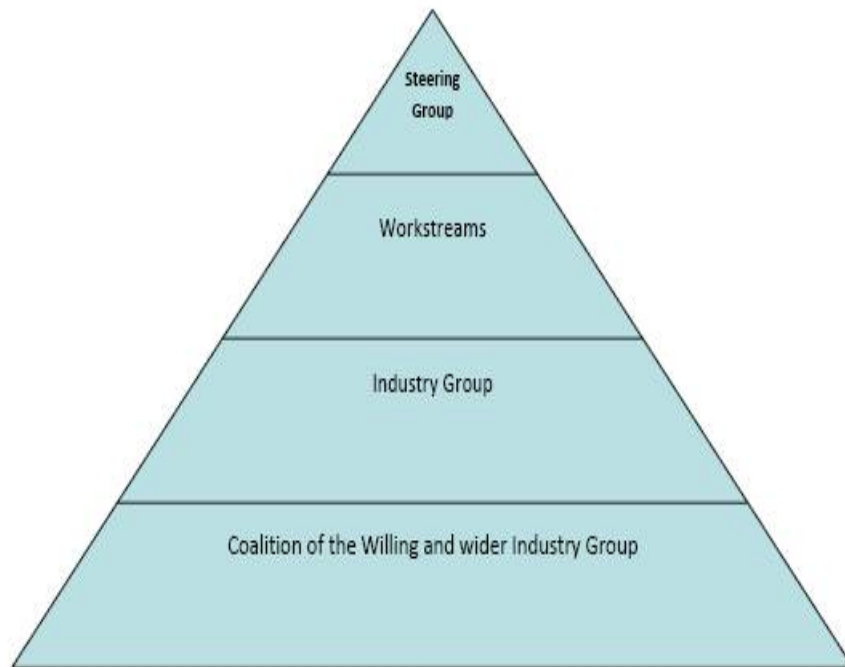
The Research Officer will provide technical support on issues surrounding the transition to a low carbon built environment

On an annual basis the Steering Group will develop a Delivery Plan that will identify projects and funding requirements for the following financial year.

The Chair of the Hub will formally report to:

- Welsh Minister for Environment and Sustainable Development on a bi-monthly basis
- The Climate Change Commission on a half yearly basis

## **STRUCTURE OF THE HUB**



## **STEERING GROUP**

The Wales Low Zero Carbon Hub Steering Group will be made up of the following:

Chair of the Hub-: Chris Jofeh

Funded Posts: - Director of the Hub

Research officer

**Milica Kitson**

**Paul Wong**

**Andy Sutton**

**Wag Observer – François Samuel**

**Wag Observer – Sarah Jane Davies**

**Residential New Build Workstream representative**

**Residential Existing Buildings Workstream representative**

**Non Domestic Buildings Workstream representative**

**Sustainable Living Workstream representative**

**Skills and Training Workstream representative**

The Steering Group will serve in the following manner:

- Steer the overall direction of the work of the Hub and ensure that it is working towards the 3% carbon reduction agenda
- To take reports from the Workstreams and Projects
- To collate and disseminate information to the industry in Wales and promote good practice
- The Group will, from time to time, commission reports as directed by the individual workstreams and/or the wider industry group.
- To measure its own activities and assist other organisations in self-evaluating their progress in carbon reduction

The Steering Group will meet once a month and will cover the following points:

- Hub business – this is administered through CEW and will include events and WAG interactions
- Directors report

- Project reports – Reports from the project leads on progress
- Project proposals – Provided by members of the steering group or the wider hub membership
- Budget update – report on current spend against approved budget

The private sector members of the Steering Group work in an unremunerated capacity.

Notes of all meetings will be posted on the Sustainable Buildings portal and the C E W website.

## **ENGAGEMENT**

## **WORKSTREAMS**

Workstreams have been developed and will be populated by members of the Coalition of the Willing who have a specific interest in a certain area of the Hubs work. The workstreams will seek to identify gaps in knowledge and where necessary items of work will be identified by the workstream teams and recommended to the Hub Steering Group.

## **Residential Existing Buildings Workstream**

### **Objectives:**

- Consult with industry and wider stakeholders to identify the technical and funding barriers that currently exist with an aim to reducing emissions from homes.
- Work to take actions that will reduce emissions from existing homes in Wales in the short and long term by generating momentum and providing leadership to businesses, other organisations and householders in Wales.
- Identify gaps in knowledge or activity and seek ways to plug those gaps.
- Share knowledge and expertise.

### **How it will work**

The objectives of the workstream will be delivered via the Existing Homes Alliance Cymru. This is a group of organisations committed to reducing emissions from existing homes in Wales.

Meetings will be held on a quarterly basis and will cover a diverse range of issues that impact on the existing homes agenda in order to identify areas of further work.

Projects that provide added value will be identified via the meetings and where additional resources are required; recommendations will be made to the Hub Steering Group.

## **Residential New Build Workstream**

### **Objectives:**

- To facilitate the delivery of mainstream low carbon homes through a prioritised programme considering such items as the building fabric, air leakage from within the home, build cost and householder experience.
- To ensure the tools and processes are workable and the industry can scale up in terms of its operation and skills to meet the first changes to the devolved Welsh Building Regulations, which will be out to consultation in 2012.
- To act as an engagement and dissemination tool between industry and the Welsh Government with respect to the proposed changes in the Welsh Building Regulations.

### **How it will work**

The workstream objectives will be delivered by ensuring full communication, engagement and close co-operation with Welsh Government, house builders, manufacturers and key industry stakeholders.

Workshops will be delivered that will address specific technical aspects of the proposed regulations.

Projects will be identified and recommended to the Hub Steering Group in order to address specific issues in order that guidance can be developed.

Demonstration projects and case studies will be examined in order to understand lessons learned and develop best practice.

### **Non Domestic Buildings Workstream**

#### **Objectives:**

- Identify the barriers to low zero carbon buildings, be they technical, funding or institutional.
- In consultation with stakeholders determine solutions to overcome these barriers.
- Identify possible policy interventions that could be made, having due regard to the devolved responsibilities of the Welsh Government.
- To act as an engagement and dissemination tool between industry and the Welsh Government

How it will work

The workstream will seek to engage with stakeholders from both the public and private sector in relation to improving standards in the non domestic market.

It will consider the work necessary for developing solutions for fabric efficiency, equipment replacement and low carbon energy supply.

As a result of the consultations, the workstream will consider the actions needed in Wales to stimulate low-zero carbon building, including stimulating demand for low or zero carbon buildings and how to generate positive momentum amongst influencers (including industry, planners and the media). Suitable projects will be identified and recommended to the Steering Group.

### **Sustainable Living Workstream**

#### **Objectives:**

- To help householders and building users to live in/use their low or zero carbon homes/buildings/developments in a sustainable way

#### **How it will work**

The workstream will consider how the behaviour of people impacts on the emissions a building produces. By identifying relevant behaviour change projects the workstream will seek to inform the

Hub Steering Group on how this agenda can be developed, with particular reference to the building environment.

Projects will be identified through engagement with stakeholders and experts in this area, and with due regard to wider behaviour change research being undertaken by other organisations such as the Welsh Government.

### **Skills and Training Workstream**

#### **Objectives:**

- By engaging with industry, contribute to the work of Construction Skills and other agencies in areas specific to the Low/Zero Carbon Agenda.

#### **How it will work**

The workstream will seek to identify areas of work where the Hub can provide added value to the works already being undertaken by organisations such as Construction Skills.

Through engagement, the workstream will seek to understand and gather information relating to existing initiatives in the low/zero skills sector in order that this information can be disseminated to all stakeholders via the Hub.

As and when required, items of work will be identified and recommended to the Hub Steering Group.

### **INDUSTRY GROUP**

This will be made up of representatives from industry professional bodies, trade federations, institutions etc working in and having responsibility for members in Wales.

This group will meet on a quarterly basis in facilitated sessions in order to ensure information is shared in a two way process. When appropriate items of work will be identified and recommended to the Steering Group. The outcomes of each meeting will be written up and posted on the Sustainable Buildings portal and the C E W website.

### **COALITION AND WIDER INDUSTRY GROUP**

This will include signatories of the Green Building Charter, together with individuals not captured within the Industry Group.

Meetings will be as for the Industry Group above.

### **OTHER STAKEHOLDERS**

In order to progress the Low/Zero Carbon agenda in Wales in a way that is joined up and working efficiently, it is essential that the Hub Steering Group has an understanding of the activities (direct/indirect) from other organisations operating within this agenda.

Therefore, it is proposed that the Steering group meet with the wider members of the Hub Group on a quarterly basis. The quarterly meetings will be scheduled to coincide with Steering Group meetings.

It is important that industry engagement is thorough and well structured in order that the Hub keeps up to date with activities going on in the industry. This will help formulate strategy and avoid the possibility of reproducing/duplicating work.

## **PROCUREMENT**

In order to undertake projects as identified above, it may be necessary to procure a range of services. This process will be managed in the following manner:

**1. Concept stage.** Projects may be identified and proposed by the Steering Group, the workstreams, the Industry Group or the wider stakeholder group. Proposals will be considered by the Steering Group and if approved the Director and/or Research Assistant will be asked to produce a draft outline of the project.

**2. Scoping stage.** At this point the Steering Group will formally scope the project in order to provide the technical detail that will allow project programmes and outcomes to be defined.

The Director will manage the scoping stage and present a formal, detailed proposal to the Steering Group. If accepted the services needed to undertake the identified works will be procured in accordance with the CEW/Hub procurement policy

## **BUDGET AND FINANCE**

The funds for the Hub will be administered via Constructing Excellence in Wales.

Each year a delivery plan will be developed that will identify proposed projects for delivery and development for the forthcoming financial year. The plan will also allocate budgets to known and anticipated projects and delivery programmes, and provide anticipated outputs.