CONTENTS

1  Foreword 3

2  The Green Construction Board 4

3  The Low Carbon Routemap for the Built Environment 5

4  Working Group Updates
   i  Valuation and Demand 6
   ii  Infrastructure 9
   iii  Buildings 12
   iv  Greening the Industry 17
   v  Knowledge and Skills 20
   vi  Promotion 23

5  The Low Carbon Construction Action Plan 25

6  The Industrial Strategy for Construction: 26
   Construction 2025
We are delighted to introduce the second annual report for the Green Construction Board. It sets out the progress the Board, through its working groups, has made over the last twelve months. We are both extremely grateful for the support we continue to receive from the industry and from across government.

The last year has been a challenging one but there are now signs that prospects for the construction industry are improving. As markets for construction improve in line with the wider economy, so will the business opportunities for green construction.

The global green and sustainable building industry is forecast to grow at an annual rate of nearly 23% between now and 2017. This represents a tremendous opportunity.

July saw the publication of *Construction 2025* – the industrial strategy for construction. This places a strong emphasis on low carbon and sustainable construction, as the potential business opportunities from low carbon construction are huge and will drive future markets to 2025 and beyond. Green and sustainable construction is central to the industry’s growth prospects.

We have therefore decided to extend the life of the Green Construction Board for a further two years and to continue to act as co-Chairs. It is well placed to take this important growth agenda forward. The publication in March last year of the *Low Carbon Construction Routemap* creates a real focus. It provides a better understanding of the opportunities, risks and key interventions on the road to 2050. But that work needs to continue and the better we understand the opportunities and risks, the better the prospects for growth.

We look forward to continuing to work with you to ensure that the industry makes the most of the growth offered by potential green and sustainable construction.

Michael Fallon
Minister of State for Business and Energy

Mike Putnam
President and CEO, Skanska UK
The Green Construction Board (GCB) was established in October 2011 as a consultative forum for government and the UK design, construction, property and infrastructure industry. It was established to ensure a sustained high-level conversation and to develop and implement a long-term strategic framework for the promotion of innovation and sustainable growth in this sector. In the shorter term, its key priority is to provide improved focus, direction and clarity to the business and growth opportunities which are being created by the shift to a green economy.

The purpose of the Green Construction Board is to:

- Provide co-ordinated leadership across government and industry on the issues contained in the Low Carbon Construction Action Plan
- Monitor the delivery of that action plan and, through its development, ensure it remains relevant and appropriate
- Act as a sounding board for government departments for new or challenging green construction issues, to facilitate effective policy making and better informed commercial decisions
- Advise on the implementation of policies related to green construction, identifying sector specific implications and consequences
- Promote UK achievements in the field of green construction and provide a strong public voice on its wider value to the economy, to society and to the environment.

The Board represents a close co-operation between government and senior figures from the construction, infrastructure and property industries. This is embodied in the co-Chairs – the Rt Hon Michael Fallon MP, Minister of State for Business and Energy and Mike Putnam, President and CEO of Skanska UK.

The Green Construction Board set up a number of working groups to consider key issues and deliver a comprehensive programme of activity. Two working groups have a sector focus – infrastructure and buildings – and a third group is looking at the valuation process for different market sectors and the potential to stimulate demand. These groups are taking, and will continue to tackle, particular issues in those market sectors which the Board has agreed are priorities.

In parallel, there are three working groups looking at key cross-cutting themes which apply generically across the industry recognising however, that each market sector will have its own particular challenges and solutions. These are Knowledge and Skills, Greening the Industry and Promotion.
3 The Low Carbon Routemap for the Built Environment

The Green Construction Board has developed the *Low Carbon Routemap for the Built Environment* to serve as a visual tool enabling stakeholders to understand the policies, actions and key decision points required to achieve the UK Government target of 80% reduction in greenhouse gas emissions in the built environment versus 1990 levels by 2050. The Routemap also sets out actions, together with key performance indicators that can be used to deliver and measure progress in meeting the 2050 target.

The Routemap covers both infrastructure and building sectors, and addresses segments of operational and capital (embodied) carbon emissions. The emissions covered by the Routemap are as follows:

- **Operational carbon in buildings**: emissions from regulated energy use (excluding plug loads) for all domestic and non-domestic building sectors except industrial
- **Operational carbon in infrastructure**: emissions from outdoor lighting, waste from construction, demolition and excavation, and water/wastewater. The use of transport infrastructure (by cars by example) is excluded. Some components of infrastructure that include buildings (such as railway stations) are included in the analysis, but appear under buildings
- **Capital carbon**: covers emissions arising from the production and manufacture of materials (in the UK and abroad), transport of materials and people, all industry design and consultancy activities, and the emissions from on-site activities for the construction and demolition of buildings and infrastructure.

The Routemap includes four key components which are available for download:

- A visual routemap with policies, actions and targets needed to achieve an 90% reduction in carbon emissions by 2050
- A model in which users can see the effect of different scenarios and insert their own inputs and assumptions
- A report which summarises the approach, methodology, scenarios, challenges and opportunities
- An infographic that displays the Routemap’s findings.

To find out more on the Routemap, please visit: www.greenconstructionboard.org/index.php/resources/routemap
4 Working Group Updates

i Valuation and Demand

Chair’s message

The work of the GCB Valuation and Demand Working Group in 2013 has been to provide focus on the areas identified by the group during its first year of operation as key to the generation of demand for more sustainable, low carbon real estate.

We commissioned three research projects in Spring 2013 and jointly commissioned a fourth, all of which intend to drill into the issues facing the industry when it comes to really understanding the drivers for a low carbon future.

The first project provides a comprehensive overview of the real estate lifecycle and its key participants and intervention points, the objective being to establish the most effective points for carbon reduction policies to target.

Two other projects will review the existing policy landscape: one domestic and one non-domestic in focus, with the aim of using evidence from existing and previous policies to gain a better understanding of the policy characteristics that generate the most effective outcome.

A significant point to note is that the research focusing on the non-domestic market is jointly funded by the industry through members of the Property Industry Alliance, underlining the clear private sector engagement now being achieved.

Our final project will examine the proposed Minimum Energy Performance Standards in detail so as to help industry to better understand the potential impact of these regulations on the commercial real estate markets.

Together these projects will provide significant insight into the drivers behind the demand for low carbon, energy efficient commercial real estate.

Louise Ellison, Hammerson
Principal Projects

Project 1: Mapping the Real Estate Lifecycle for Effective Policy Interventions

Having established a comprehensive overview of the real estate life cycle, this project is using over 40 interviews with stakeholders to understand how sustainability affects individual roles and how it is managed. This has provided qualitative detail on the motivations and drivers behind key decisions pertaining to sustainability, energy efficiency and carbon emissions. Groups included within the sample include financiers, valuers, contractors, architects and other design team consultants, planners and industry bodies.

The emerging findings from the project suggest that there are key points at which interventions are most effective and reveals behavioural, process, relationship and skills issues which are currently weakening impact and which, if left unaddressed, will continue to undermine the effectiveness of sustainability policies.

These include:

- The skill set within the planning community
- The relationship between client and consultant
- The lack of any single, strategic level, point of responsibility for ensuring sustainability and energy efficiency is delivered
- The perception of conflict between sustainability and viability.
Project 2: Mapping the Impacts of Energy Efficiency Standards for Commercial Real Estate
This project will analyse the potential impact of Minimum Energy Performance Standards on the commercial property markets across England and Wales. Using the full database of EPCs for commercial buildings, the research team have analysed the geographical spread and will focus on the critical E, F and G ratings so as to understand whether any particular market, sector or location will be unduly affected by the regulations as they are currently set out.

Project 3: Energy Efficiency Policies in the Domestic Real Estate Sector
This project has reviewed 23 policies aimed at promoting energy efficiency in domestic properties and, using 37 descriptors, compared them on quantitative and qualitative metrics to draw lessons for effective, future policy. These lessons take the form of seven “COMPASS” principles:

• **Consistency and longevity should be assured through a realistic timetable**
• **Objectives should be coherent and clearly communicated**
• **Market needs should be assessed and guide scheme design**
• **Performance gaps should be recognised and real savings ensured**
• **Awareness-raising and consumer engagement should be built in**
• **Simple policy designs are most effective**
• **Scrutinise, monitor and evaluate progress, with reference to baseline data.**

We aim to publish details from this project shortly.
Infrastructure

Chair's message

The Infrastructure Working Group’s main focus throughout the year has been on the *Infrastructure Carbon Review* (ICR), a report that makes clear to industry that reducing carbon reduces cost.

The report was jointly launched by HM Treasury and BIS in November 2013, aimed at making carbon a key part of infrastructure investment decision-making in the UK.

Major industry leaders joined Commercial Secretary Lord Deighton and Business and Energy Minister Michael Fallon in committing to a joint initiative which could save as much as 24 million tonnes of carbon and £1.46 billion a year by 2050.

The report and accompanying technical document target UK infrastructure leaders, namely those who hold the power to effect real change. They make the business case for this by demonstrating that carbon reduction in construction generates tangible benefits. It reduces overall project costs, unlocks innovative solutions, provides competitive advantage and business opportunities, and delivers wider societal and environmental benefits.

Government and industry are now committed to working together to promote further support for the initiative from infrastructure companies in the UK; and will encourage individual, specific voluntary commitments against which we will review progress.

The Infrastructure Working Group also plans to hold a conference in June to publicise the report to a wider audience and to share industry experiences of putting commitments into practice and to generate a series of exemplar case studies.

The Infrastructure Working Group’s other achievement in 2013 was to complete an update to the Green Construction Board’s Fundamental Truths. This work included a series of new case studies that illustrate, in an interactive way, the actions and plans required to deliver low carbon designs in UK construction.

*Chris Newsome, Anglian Water*
Principal Projects

The Infrastructure Carbon Review

This work was carried out by the Infrastructure Working Group on behalf of the Green Construction Board and published in November 2013 as a sister document to the Treasury’s Infrastructure Cost Review.

The review is targeted at leaders across the industry’s value chain to prompt the imperative and environment for change. Its goal is to help release the value of lower carbon solutions across UK infrastructure, and to be a catalyst for change as the industry begins to address the low carbon aspirations set out in the industrial strategy for construction: Construction 2025.

Research which shaped the review included over 100 senior interviews and a literature review of over 200 documents. Focus is specifically on the carbon associated with the construction, operation and maintenance of the UK’s infrastructure assets.

The overall message is very simple: “Reduce carbon, reduce cost”. Irrespective of one’s position on climate change, cutting carbon in the construction, operation and maintenance of infrastructure makes good business sense. This result is partly because carbon can be seen as a proxy for resource and energy efficiency, but also because a lower carbon agenda can stimulate innovation and better solutions.
Leading clients and their supply chains have already achieved reductions in capital carbon of up to 39%, and 34% in operational carbon. These carbon reductions have been achieved in association with average capital expenditure reductions of 22%.

The *Infrastructure Carbon Review* offers recommendations to help individual organisations and their supply chains improve performance but it also makes broader recommendations to effect wider change.

The ‘carbon maturity matrix’ of 16 key enablers for implementing carbon reduction enables individual organisations to locate their current position on the carbon journey and to define what their next steps should be.

The maturity matrix includes:

- **Effective leadership**: Having a vision of how to address carbon reduction and provide clear and consistent policy
- **Communication and culture**: Articulate carbon reduction as a core organisational value; change behaviours, share best practice and develop carbon skills
- **Metrics and governance**: Make your carbon visible, set clear reduction targets, report progress transparently and build carbon into decision making
- **Innovation and standards**: Unleash new thinking by challenging your supply chain to reduce carbon
- **Commercial solutions**: Embed carbon reduction into your procurement process and a prerequisite for winning work. Integrate your supply chain and align it with your carbon objectives. Share carbon-related risk and reward and incentivise performance.

The overarching recommendation of the ICR is that government and industry clients should work together to make carbon reduction a requirement in all their infrastructure projects and programmes by 2016.

The keys to releasing the value of lower carbon are:

- Leadership – to create the environment and the imperative for change
- Innovation – to be the engine of change
- Procurement – to provide the mechanisms that enable the supply chain to respond.
The Buildings Working Group aims to build a joint public-private sector commitment to ensure that growth goes hand in hand with low carbon and resource efficient building construction and use.

Looking ahead, our work programme will be fully aligned with the Construction 2025 objective of a 50% reduction in greenhouse gas emissions in the built environment by 2025, as the Green Construction Board aligns itself to the work of the Construction Leadership Council and implementation of the Construction 2025 strategy.

Building on work to date, in early 2014, we will pursue the next steps related to three principal projects described below. These include:

- The planning and establishment of a support mechanism or ‘hub’ for up-scaling of energy efficient retrofit
- Commissioning of an Operational Energy Use in Buildings scoping study and identify next steps in the development of common protocols for operational energy data collection, management and accessibility for research, benchmarking and policy-making – because, put simply, ‘If we can’t measure it, we can’t manage it’
- Prioritisation of next steps in relation to the ‘Closing the Performance Gap’ work undertaken in 2013, initially focusing on opportunities for mainstreaming best practices for energy efficiency in the retail sector.

Paul King, UK Green Building Council
**Principal Projects**

**Project 1: Energy Performance Gap in Non-Domestic Buildings**
Evidence has shown that operational energy use in buildings can often be more than double the amount predicted, but given the lack of awareness and understanding of why this happens, the Group prioritised activity to highlight and communicate the so-called energy ‘performance gap’ in non-domestic buildings. Following expert discussion, the Group decided to commission a report and a presentation of findings for wider dissemination to a non-expert audience. As a result, Arup produced a situation and solutions report and promotional material titled: *The Performance Gap: Causes & Solution*, describing how the gap arises and how it can be reduced. These materials were distributed and presented to a wide range of industry stakeholders at events over the course of the year.

**Project 2: Exploring the Case for an Existing Buildings’ Hub**
Given the success of the Zero Carbon Hub in providing an independent vehicle to help overcome the barriers to implementation of the target for all new homes to be zero carbon from 2016, the *Low Carbon Construction IGT* had asked whether it would be beneficial to apply the lessons learnt and establish an existing homes ‘buildings’ hub. The Working Group commissioned a scoping study to explore the possible roles and functions of an existing homes ‘buildings’ hub, and how it might be established, funded and operated, recognising there are already a number of...
organisations and initiatives that are active in this space. Following an extensive stakeholder consultation exercise a report was produced by Sweett/Verco. The GCB welcomed the report's findings and asked the Working Group to propose how a ‘hub’ or other support mechanism might be established. However, given on-going development of stakeholder forums to support the development and delivery of the Green Deal, next steps for this project will be revisited early in 2014.

Project 3: Operational Energy Use in Buildings

It is widely accepted that if we are to tackle carbon emissions and realise the energy savings associated with non-domestic buildings we must develop a better understanding of their energy use in operation. Yet currently, relatively few organisations outside a small group of leaders measure their operational energy use, and fewer still take active steps to reduce it. Much of the measurement and reporting that is done is undertaken in an inconsistent way, spread across a range of different schemes, policies and proprietary databases. At the same time, this lack of consistent, centralised measurement and reporting also inhibits the industry at large. Without suitable access to good, sector-wide data, it is hard to develop meaningful benchmarks that might be used by owners, occupiers and investors to identify energy saving opportunities; highlight examples of genuine good practice; or design effective policies. An urgent challenge, therefore, is to encourage more widespread and consistent measurement and reporting of operational energy use in buildings, and to find a way to make this data accessible to industry and policy-makers to benefit all.

The Group reviewed and supported a proposal from the UK Green Building Council, supported by a wide range of industry partners to assess the need and demand for a common data collection protocol and platform. The GCB endorsed the project and committed funding for an initial scoping study which is due to commence early in 2014.
Exemplar “Focus” projects which demonstrate the business case for green construction

Project 1: Marks & Spencer, Cheshire Oaks

This is the Marks & Spencer’s largest and most carbon efficient store to date and was opened on 20 August 2012.

The building incorporates seven key areas of sustainable design consideration:

1. Carbon
2. Water
3. Biodiversity
4. Materials
5. Waste
6. Travel and access
7. Community

As a result of an holistic approach, the operational energy is predicted to be 30% lower and carbon 35% lower than a peer store. This has been achieved by using low carbon measures such as rainwater tanks to supply the toilet; biomass boilers heating the store; a recycled aluminium ceiling covered entirely in recycled glass bottles.

In addition the design features soil-filled walls providing natural insulation; huge underground ducting to provide natural air-conditioning; and hemp-based walls that ‘breathe’.

Customers will also benefit from the latest electric car charging points and improved cycle facilities including cycle stands, storage and segregated lanes.
Project 2: Mayville Community Centre, London

The Mayville Community Centre is located in one of London’s most deprived areas within Islington and being uninsulated, inaccessible and with only 60% of the property in a usable condition, was in urgent need of total renovation.

The project focused on increasing the building’s usable space while ensuring it was refurbished to a much higher quality but while maintaining the original building footprint so as to maximise the efficiency of the investment.

Feedback from initial post-occupancy monitoring indicates that the community centre is performing as predicted in the design, consuming over 90% less total energy than previously.

The project promoted a ‘fabric first’ approach whereby the brick walls were saved and wrapped in external insulation. The windows were replaced with Passivhaus certified triple glazed windows to ensure net heat gains even through winter.

The performance of this building will now be monitored over the next two years with funding from the Technology Strategy Board’s Building Performance Evaluation programme.
Chair's message

The Greening the Industry Working Group has taken a holistic approach to green construction by considering not only carbon but also waste and resource efficiency, water, materials, biodiversity and measurement of sustainability performance.

The Group has pursued these topics via a number of subgroups and in so doing has engaged with a wide array of participants from across the construction industry, as well as with government departments and regulators.

The Group absorbs and continues work begun under the *Strategy for Sustainable Construction* to deliver a variety of actions and on this journey has developed measurement methodologies, baselines, annual assessments, action plans, good guidance, commitments and case studies.

Moving forward our priorities will be reviewed to ensure close alignment with *Construction 2025*, how we can contribute to the GCB *Low Carbon Routemap*; and how we can emphasise the business case and opportunities for market growth of low carbon, resource efficient practices.

The approach and membership of the Group will be refreshed to ensure improved dialogue, coherence and complementarity across all sectors of construction. Many sectors have their own initiatives on green construction and so we will work to provide a forum to improve synergy when required.

Deliverables in 2014 will include final analysis of the work to achieve the 2008-2012 industry targets and a conference mid-year to discuss and disseminate the findings and the learning to a wider audience.

Our successful ‘Top Twenty Tips for greening the industry’ will be further promoted, especially to SMEs and new work will look at why construction waste still persists given its cost. The Group will explore the business benefits of designing for a circular economy.

We will also start work to investigate the business risk of water availability and water stress to all phases of the construction lifecycle, as well as the carbon impact of water management.

Finally, the challenge of ensuring the industry understands that doing more with less and designing for climate adaptation and deconstruction must become prime drivers for innovative new products and manufacturing processes.

*Rob Pearce, Marks & Spencer*
Project 1: Top Twenty Tips Guidance

The detailed work from the Greening the Industry subgroups was brought together into our Top Twenty Tips guidance which was produced in a visually attractive way that has greatly helped in its dissemination.

A number of major companies, such as Cemex, have now reported actions against the Top Tips. The CITB has helped disseminate the guidance to SMEs. More promotion work will be undertaken.

Project 2: Measurement Assessment and Best Practice Guidance

Research was conducted to assess progress in the delivery of targets to reduce waste to landfill and to reduce water usage and carbon emissions on construction sites; all of which will have a beneficial carbon impact. This was accompanied by guidance designed for easy dissemination on site.

Theme focused activity:

- Waste: The Waste Subgroup’s annual assessment of construction, demolition and excavation waste identified a sudden rise in excavation waste and further detailed study, supported by WRAP, has looked into the causes of this rise (available at www.wrap.org.uk/node/16505). Waste has a carbon impact so its elimination is essential.
• **Water management:** Members from the UK Contractors Group working with the Water Research Centre (WRc) developed detailed guidance on how to plan for better water management on construction sites. This can be found on the GCB website at: www.greenconstructionboard.org/index.php/resources/water-management-planning/introduction

• **Materials:** The industry led *Resource Efficiency Action Plan* programme (REAPs), produced another three plans – making nine in total. These were led by the relevant trade association with support from WRAP and in collaboration with the Construction Products Association.

• **Measurement:** The adoption of the European standards for measuring sustainability performance (CEN 350), and especially the adoption of the European standard for producing Environmental Product Declarations (EN 15804) was widely promoted and will provide the consistent and comparative data required for BIM and the new tools for helping designers design greener buildings from the outset.

• **Carbon reduction on construction sites:** The carbon subgroup developed a number of attractive posters to disseminate guidance of best practice for reducing carbon emissions on construction sites. These can be found on the GCB website at: www.greenconstructionboard.org/index.php/working-groups/greening-the-industry/carbon

• **Biodiversity:** The subgroup contributed to development of a BSI standard for biodiversity surveys and manufacturers, especially aggregate, cement and brick actively enhanced biodiversity through restoration of landscape.
Knowledge and Skills

Chair’s message

Meeting the challenge of transitioning to a green economy requires a comprehensive range of knowledge and skills. This has been the focus of my Working Group’s activity over the last two years.

There have been a number of important developments in the industry. The Supply Chain Sustainability School was launched last year and continues to go from strength to strength increasing membership and learning collateral available; the GCB will continue to support its development. We also supported the development of the Build Up Skills report which was published in 2013, and, which made an important contribution to understanding the knowledge and skills’ landscape in the built environment.

Looking forward, we have identified a number of key steps for the group to address to ensure we have the knowledge and skills necessary to meet the sustainability challenges and carbon reduction:

- Understanding of knowledge and skills needs
- What are the drivers? (business case)
- Provision of knowledge and skills training
- Resources and funding available to address the challenges.

Over the last two years we have made progress in tackling these issue with a series of projects and other initiatives. Two projects have now concluded with a third due to report in mid-2014.

We will work to improve development of Higher Education provision through working with the Construction and Built Environment Higher Education Forum. This new group will look to improve engagement and collaboration across education stakeholders.

Further work will also be undertaken around the Green Deal, to understand whether sufficient capacity exists within the supply chain to meet the present demand for domestic energy efficiency assessments and installations.

Rob Lambe, Willmott Dixon
Principal Projects

**Project 1: Understanding of Knowledge and Skills Needs - Supply and Demand**

The working group commissioned Sweett Group to investigate the knowledge and skills challenges to deliver sustainable outcomes in the built environment; a clear understanding of these is critical if we are to future-proof the industry against rapidly changing demands and expectations.

The project found there is currently a gap in the knowledge and skills in required to meet the government’s future Carbon Budgets, both in the harder, technical knowledge and the softer skills. It identified a group of actors perceived to have the most influence over low carbon/energy outcomes and those with the greatest gaps in associated knowledge/skills. A number of barriers and challenges facing these actors, preventing them from taking action on carbon and energy outcomes, were also identified. The report will help the working group prioritise its future activity.

![Barriers to improving low carbon / energy knowledge and skills](image)

**Project 2: Standard Protocols for Data Collection and Knowledge Acquisition**

One of the key gaps identified in knowledge and skills is the lack of a common language, protocols, metrics and methods of defining and assessing performance. The first step was the production of a Lexicon which has been led by the Greening the Industry Group to complement the work of the knowledge and skills group. The working group then commissioned BSRIA to draw together existing best practice and make recommendations for standard protocols for data collection.

The aim of the project is to explore the potential to stimulate more voluntary data collection, and the production of comparable data to inform a variety of industry players. The main output of the project is the production of a data acquisition, measurement and survey systems matrix, and it provides a key input into the Working Group’s third project.
Project 3: The Knowledge Capture and Dissemination Project
The Knowledge and Skills Working Group has commissioned the Sustainable Development Foundation to establish the current position within the UK construction and property sectors in relation to sustainability data capture, availability and accessibility.

Specifically it will:

- Identify what/where substantive data exists that is not being used to its’ potential to influence change, and establish what is preventing better use of such data
- Quantify the opportunity and benefits of improved data capture and dissemination based upon objective and subjective perspective and develop a business case for action.

The diagram below shows the classical data-information-knowledge hierarchy, with an additional fourth stage of behaviour change through the application of knowledge.

The hierarchy from data capture to behavioural outcome

The project will deliver intelligence not only on the existence and quality of data sets and how these might be improved, but it will also investigate the quality of the interfaces between each of the steps in the hierarchy. It will report and findings and recommendations by mid-2014. These will inform the work of the Buildings Group on operational energy use.
vi  Promotion

Chair's message

The role of the Promotion Working Group is to raise awareness of the activities of the Green Construction Board and the benefits of ‘green construction’. At its heart is the encouragement and sharing of best practice in sustainable construction and promoting the expertise of UK construction overseas.

Across the year the Group has led activities to promote the GCB across a range of platforms and media including live events, awards ceremonies and a reception to launch and promote the output of the GCB’s activities. This included the hosting of a stand and presentation sessions at the 2013 Ecobuild show and this will continue in 2014 where the Group will ensure the GCB’s work is represented.

We will also be supporting the sustainability category of the British Construction Industry Awards again in 2014 and aim to continue to showcase the wider value of green construction to the economy, highlighting exemplar projects, products and services. We will also use case studies to show how UK construction is delivering on the joint Government and industry Low Carbon Construction Action Plan.

The Group will continue to liaise with the other Working Groups to coordinate the launch of their initiatives and identify opportunities to promote the overall benefits of sustainable construction.

As last year, we also plan to arrange further SME events in different locations around the country, and using venues which promote sustainable construction. Economic pressures may have resulted in sustainability slipping on some peoples agenda, even more need to communicate the business case for green construction and promote the message from the Infrastructure Carbon Review, that ‘reducing carbon, reduces cost’.

The GCB’s work was also promoted and represented last year beyond the shores of the UK. Working in conjunction with UKTI and as part of our overall objective to promote UK construction, presentations were made in Hungary, Portugal and Poland.

But of course, maintaining communication with the industry must also include a focus on digital channels and the group plans to boost efforts to enhance the GCB digital information delivery throughout 2014. Resources and reference material on the work of the GCB and its various Working Groups can be found at our GCB website: www.greenconstructionboard.org

Colin Courtney, J Murphy & Sons
Principal Projects

Project 1: Ecobuild
In March the Group organised the GCB’s presence at the UK’s premier construction exhibition, Ecobuild. The objective was to promote the outputs of the GCB to a wide cross-section of the construction supply chain as well as seeking opinion and input to future activities. In addition to manning an exhibition stand, centrally located on a main thoroughfare for the hall, a number of speaker events were arranged both in the main conference arena and in the ‘Big Tent’ located adjacent to the stand.

This investment delivered high profile exposure for the GCB in terms of visitors to the stand, great interaction with stakeholders at speaker events and visits to the GCB website.

Project 2: Government Construction Summit
The Group represented the GCB at the Government Construction Summit in July providing a Knowledge Hub, where Top Tips for sustainability were distributed and enquiries about the role of the GCB and its initiatives were answered.

Project 3: Marks & Spencer, Cheshire Oaks
The first of a series of events intended to engage with SMEs was held at Marks & Spencer Cheshire Oaks in October. This used a venue which had been recognised for its sustainable construction. There was a good attendance and we were able to gain a better understanding of the issues and challenges facing SMEs as well as taking advantage of the excellent press coverage to communicate the wider GCB objectives.

Project 4: Prime Ministers’ Awards
The Group worked with the organisers of the British Construction Industry Awards (BCIA) to develop the criteria for the Prime Ministers Better Public Building Award winners, and to introduce a new award category - the Sustainability Award. The Group also created a series of case studies from BCIA winning projects and worked with the awards organiser to promote sustainable lessons at the BCIA Prime Ministers’ Award summit.
5 The Low Carbon Construction Action Plan

For the last two years, the Green Construction Board has monitored the delivery of the Low Carbon Construction Action Plan. That plan was developed in response to the Low Carbon Construction Innovation and Growth Team report and is set out under the key themes of:

- Leadership and co-operation
- Public best practice
- Overcoming complexity
- Affordability and funding
- Incentivisation
- Capacity and skills
- Research and innovation
- International opportunities.

Of its 162 actions, 110 have been completed. A further 49 are in progress, leaving only 3 which have not yet been started.

![Pie chart showing completion status of actions](chart.png)

[A full account of specific actions will be published on the Green Construction Board website.]

So while these themes all remain highly relevant, the Plan has run its course.

The publication of Construction 2025 gives the Green Construction Board a new focus – delivering the ambition of a 50% reduction in greenhouse gas emissions by 2025. That will be the Green Construction Board’s focus going forward.
6 The Industrial Strategy for Construction: *Construction 2025*

The challenge and opportunity

The transition to a low carbon economy presents the UK construction industry with terrific opportunities for growth. There are also opportunities through greater resource efficiency and from adaption of our built environment to deal with climate change. These opportunities reach into every part of the construction supply chain and there is significant potential to exploit huge export markets.

*Construction 2025*

__Construction 2025__, published in July 2013, is a partnership between industry and government to transform the construction industry. The strategy sets out a vision and four long-term ambitions, jointly shared by the construction industry and government:

- A 33% reduction in both the initial costs of construction and the whole life cost of assets\(^1\)
- A 50% reduction in the overall time from inception to completion for new build and refurbished assets\(^2\)
- A 50% reduction in greenhouse gas emissions in the built environment\(^3\)
- A 50% reduction in the trade gap between total exports and total imports for construction products and materials\(^4\)

These ambitions are underpinned by a plan for strategic action. Many of these actions are owned and driven by a range of key bodies across the full breadth of the construction industry.

Sustainability is one of five key elements of *Construction 2025*’s vision, where the industry leads the world in low carbon and green construction exports. Industry and Government strongly support the continuation of the Green Construction Board.

The Green Construction Board will take forward a number of the *Construction 2025* actions including development of a series of market based and technology based plans which set out the programme for investment in energy low carbon construction. Consideration will also be given of the scope to develop a climate change adaptation plan.

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1 Based on 2009/2010 benchmarks in line with the Government Construction Strategy.
2 Based on the Industry’s performance in 2013
3 Versus a 1990 baseline. This is set out in the Green Construction Board’s Low Carbon Routemap for the Built Environment.
4 The UK imports £12 billion of construction products annually and exports £6 billion. ONS monthly statistics of building materials and components: February 2013.
Wider environmental considerations will transform what we build, what we build with, and how we build it. There will also be enormous pressure to improve the energy performance of our existing building stock. Tackling this issue represents a real opportunity – with global growth forecast in green and sustainable building construction to be on average 22.8% pa between 2012 and 2017.

Construction 2025
To find out more about the work of the Green Construction Board, please visit:

www.greenconstructionboard.org