



Inbuilt Strategic Sustainability Services

Adding value through sustainability



Whether you are planning a new development or wanting to improve the performance of your existing stock we can help determine and deliver your sustainability objectives and aspirations. We can assist from project inception, design, construction, through to occupation and beyond.

Beyond buildings, we are also experienced at embedding sustainability into organisational goals and procedures.

Navigate through this booklet to get a better feel for what we have to offer.

If you have a specific opportunity in mind, or just want to find more out about what we do, please email sarah.royse@inbuilt.co.uk or call on 01923 277062.

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Carbon Management Consultancy

Government and business are leading on the transition to a low-carbon economy. For the built environment, this means focussing on decarbonisation; taking opportunities to reduce the energy consumed in buildings and investing in the supply of low-carbon energy.

Investing in energy-efficiency measures is usually the most cost-effective way to reduce CO₂ emissions and business costs; however, it is often not easy to identify and implement the most effective measures.

We can help you to:

- Save money on your utility bills;
- Benchmark your buildings' energy use to identify how they are performing and where to target investments for improvement;
- Develop Marginal Abatement Cost (MAC) Curves, to identify the most cost-effective measures for reducing your carbon footprint;
- Comply with the requirements of BS EN 16001 by developing and implementing an Energy Management System;
- Take positive action on the CRC Energy Efficiency Scheme; and
- Improve awareness in your organisation of energy efficiency and management, with bespoke training courses targeted at the needs of your staff. See our training webpage for details.



Low Carbon Futures

Inbuilt are helping Royal Mail Group with their corporate commitment to become carbon neutral by 2015. Our work so far has involved undertaking a strategic review of the potential to use fuel cells to provide heat, power and cooling to their mail centres, utilising bio-methane as a potential fuel source.

We are also assisting with the development of a Marginal Abatement Cost Curve to provide Royal Mail with an assessment of the level of carbon emissions reduction that a range of measures could deliver for their existing building stock.

"We have been delighted with the work undertaken by Inbuilt – they have been imaginative, practical and highly innovative. Their analytical skills are superb and they are highly customer focused. I look forward to continuing to work with them in helping to deliver our target of making Royal Mail carbon neutral, by 2015."

Dr Martin Blake, Head of Sustainability, Royal Mail Group

Cut costs. Gain competitive advantage.



Sustainability Management Consultancy

Sustainability often appears a complex web of interrelated issues, with the emphasis shifting between projects and stakeholders.

Sustainability management is as much about understanding motivations and the most desirable outcomes as it is about employing the best strategies and the right level of expertise.

We can help you to:

- Engage and consult with key stakeholders;
- Determine the vision and objectives for sustainability;
- Develop strategies for embedding sustainability and innovation;
- Develop management procedures for challenging sustainability targets; for instance, how to manage the collaborative achievement of CO₂ reductions, or how to balance lower CO₂ emissions against higher embodied carbon content of materials;
- Manage and audit the performance of your strategies;
- Review the performance of your supply chain.

We are supported by our guiding principles and working methodologies:

- Inbuilt's Sustainability MAP (S-MAP) (p 10)
- Inbuilt's Framework for Sustainable Development (IFSD) (p11)
- Inbuilt's Sustainability Forums (p 7)

We are also approved to use the Soft Landings Framework, as promoted by BSRIA (the Building Services Research and Information Association). Appointing us to champion and manage the use of Soft Landings can give you extra creditability when bidding for public sector programmes, such as BSF, Academies or ProCure 21.

Realise additional value using sustainability.

SUSTAINABILITY POLICIES | STAKEHOLDER ENGAGEMENT | SUSTAINABILITY FRAMEWORKS | SUSTAINABLE PROCEDURES & DESIGN PROCESS | MANAGEMENT AND AUDIT OF SUSTAINABILITY

**Sir Robert
McALPINE**

Building Schools of the Future (BSF)

Since the commencement of the BSF programme, sustainability has risen dramatically up the agenda for the nation and for Local Authorities. The challenge increases with almost every BSF output specification.

Inbuilt has embedded sustainability into the policies and strategies of the Local Education Partnership. We led on the formation and operational function of a LEP Sustainability Group, as an effective process to manage and audit the collaboration of the experts within the team.

We have hosted several sustainability forums with each consortium, to enhance collaboration and to gain consensus on the strategies to be used.

"Inbuilt's contribution has been invaluable in terms of ensuring that our school developments are highly sustainable whilst also being commercially viable. Their input at an early stage of the project ensured that the sustainability targets we set, whilst being challenging, were affordable and realistic. They are now an integral part of our delivery team –I would recommend them without hesitation."

Robin Oram, Head of BSF, Sir Robert McAlpine PFI Ltd



Post Occupancy Evaluation

Academic studies have identified that buildings designed with sustainability in mind typically have a higher quality internal environment. This can lead to more satisfied and productive occupants, which brings significant financial reward.

However, although your building might have been designed to be sustainable, it is important to know how it is performing in reality and if you are getting the maximum rewards possible from occupant satisfaction.

We can help you to:

- Establish how satisfied the building occupants are;
- Identify where investments should be targeted to improve the quality of the internal environment;
- Produce Building User Guides and induction packs to help the occupants understand how to get the best from their building;
- Close the performance gap between your Energy Performance Certificate (EPC) and your Display Energy Certificate (DEC);
- Improve the sustainability in operation by, for example, reducing the carbon footprint, water consumption and saving money on utility bills; and
- Collate and implement schedules of lessons learned that can prove invaluable on future projects.

We are supported by our guiding principles and working methodologies:

- Inbuilt's Sustainability MAP (S-MAP) (p 10)
- BSRIA's Soft Landings Framework (p 4)
- Inbuilt's Sustainability Forums (p 7)

welcometrust

Energy audit of an iconic building

The Wellcome Trust are the UK's largest medical research charity. They commissioned us to undertake an energy review of their iconic 28,000m² ten-storey headquarters building at 215 Euston Road, London. Inbuilt's role was to identify possible opportunities for operational improvement by reviewing the actual in-use energy performance.

Our recommendations included low or zero cost improvements to optimise occupant comfort and energy consumption, such as the fine-tuning of the temperature control settings of the Building Management System. We also proposed adding evaporative meshes to dry air coolers, and making greater use of free cooling. The Wellcome Trust is currently implementing a number of our recommendations.

"Even though 215 Euston Road had been assessed as Excellent under BREEAM, it was important for the Trust not only to validate the original design but also to enhance the building's green credentials wherever possible. We were pleased to work with Inbuilt to identify and evaluate the opportunities."

Charles Griffin, Wellcome Trust

More satisfied occupants and reduced operating costs.

OCCUPANT SURVEYS | BUILDING PERFORMANCE ASSESSMENTS | FINE TUNING OF SYSTEMS | BUILDING USER GUIDES | LESSONS LEARNED SCHEDULES | BSRIA'S SOFT LANDINGS FRAMEWORK

Sustainability for Master Planning

Planning Authorities are taking an increasingly sophisticated approach to the sustainability requirements and appraisals of major development schemes.

Our objective is to assist the team with integrating and optimising pragmatic sustainable design measures throughout the planning submission and beyond.

We can help you to:

- Undertake a review of local, regional and national sustainability requirements, identifying the key targets;
- Assist with the stakeholder engagement and consultation process;
- Demonstrate a robust project response to these requirements as part of the formal Planning Submission;
- Develop an energy strategy for the master plan;
- Develop a strategy for integrating Code for Sustainable Homes and BREEAM;
- Provide reassurance to the planning authority that these requirements will be delivered in the constructed project;
- Provide agreed and clearly defined sustainability targets for the design team to work towards during the detailed design, and a route-map for achieving these targets; and
- Assess the scheme against BREEAM Communities criteria, which focus on multi-residential and mixed-use developments.

We are supported by our guiding principle and working methodologies:

- Inbuilt's Community Stakeholder Forums (p 7)
- Inbuilt's Sustainability MAP (S-MAP) (p 10)
- Inbuilt's Framework for Sustainable Development (IFSD) (p 11)



Holistically Sustainable Lifestyles

Inbuilt are independent sustainability consultants to a leading national housing developer. Their mixed use masterplan in the south of the UK includes more than 2000 homes, employment areas, leisure facilities and green infrastructure.

We are developing a Sustainability Statement for submission as part of the Outline Planning Application. This will clarify how the masterplan will enable the local authority to lead in the area of sustainable communities. Key to the strategy is the application of Inbuilt's Framework for Sustainable Development (IFSD).

As part of this process we are hosting an Energy Workshop with the development team and surrounding councils to formulate a Carbon Reduction Strategy that meets the needs of all. We are also developing a strategy that balances the delivery of Code and BREEAM with additional sustainability measures. This optimises the developer's investment into improving the sustainability of the existing and future community.

Optimise what sustainability means for your master plan.



Sustainability Forums

Delivering challenging sustainability targets can depend on gaining the support of all key stakeholders, who will each have their own motivations and objectives to fulfil. This requires a strategy for stakeholder collaboration.

Independently facilitated forums enable the meritocracy establishment of the sustainability objectives, an holistic test of the implications of each, and the formation of a collaborative route-map for delivery.

We can help you to:

- Promote awareness of holistic sustainability among stakeholders including key decision makers;
- Understand what success means for each stakeholder and explore the relationship between individual and collective needs;
- Promote inclusion, trust and collaborative engagement;
- Support the delivery of your Statement of Community Involvement (SCI);
- Encourage lateral thinking across specialisms to unlock regions of untapped potential;
- Review and commit to sustainability performance targets; and
- Collectively review the implications of decisions as they are made and resolve any conflicting issues in a participatory manner.

We are trained in a variety of innovative and democratic facilitation techniques. For instance, we are qualified to use the community engagement approach promoted by the National Charrette Institute (NCI). NCI are a non-profit educational institution dedicated to creating successful and sustainable community plans using the Charrette planning process.

Sustainability Vision

As part of their commitment to significantly reduce their carbon emissions by 2020, a large multinational chemical company wants to ensure that their new UK headquarters is sustainable.

To assist with this process, Inbuilt facilitated a one-day visioning forum for the company's UK board. The forum helped the team to explore all aspects of sustainability and to generate and refine the sustainability aims and aspirations for the development.

The forum provided a unique opportunity for the senior management team to create a sustainability vision for their new HQ.

Inspire, envision and gain stakeholder support.



Sustainability Training

Sustainability drivers such as Corporate Social Responsibility and the UK's transition to a low-carbon future are placing additional requirements on the skills required by your organisation.

You can improve business efficiency by empowering your organisation with the necessary new skills and expertise required to make the most informed decisions.

We can help you by:

- Identifying the learning needs of your organisation;
- Developing a learning programme that targets the necessary skills and expertise;
- Developing course material to support classroom-based learning or interactive on-line learning; and
- Facilitating training sessions and CPDs.

We make use of a variety of facilitation techniques to engage delegates and promote a collaborative learning environment.

We can host training sessions at Beaufort Court; the award winning low-energy headquarters of our parent company RES. The venue provides a unique environment to inspire sustainable learning.

Example topics include:

- BREEAM process management
- Holistic sustainability strategies
- Energy-efficiency strategies
- Passivhaus design and construction
- Renewable energy selection and retrofitting

Empower your staff and improve business efficiency.

TRAINING COURSES WITH MAXIMUM IMPACT | BESPOKE COURSE MATERIAL



CEM Framework for Lifelong Learning

Inbuilt were approached by CEM to research and develop course material content for its new course in Energy, Carbon and Emissions in Commercial Property.

Inbuilt's role was to advise on the proposed content and structure of the course material, such that it covered the key issues of most relevance to CEM's client base, and to then research and develop the content.

With our expert knowledge in this field, we were able to quickly identify the type of skills development needs to be targeted by the course and then structure the course scope and content such that it was logical, concise and satisfied the client's requirements.

"Inbuilt adopted an intelligent, diligent and highly professional approach to undertaking this work. The quality of course material produced exceeded our expectations and I look forward to working with them in the future."

**Steve Bickell, Corporate Services & Sustainability Manager,
College of Estate Management**



BREEAM AP and Certification

The Building Research Establishment Environmental Assessment Method (BREEAM) is a leading system for assessing the range of environmental impacts associated with buildings.

Assessments are currently not mandatory, however may be required for funding purposes, planning applications or client request.

Inbuilt's approach offers innovative integration of design advice and BREEAM experience to ensure the targeted rating is achieved post construction. Inbuilt has two BREEAM Accredited Professionals (AP) who can ensure that BREEAM requirements are incorporated into the design at an early stage, to help reduce the additional costs associated with sustainable buildings.

Management of the BREEAM strategy throughout the detailed design and construction stages is essential to ensure that the targeted rating and initial sustainability objectives are managed and maintained.

Currently held assessor licenses:

- BREEAM Offices
- BREEAM Retail
- BREEAM Education
- BREEAM Industrial
- BREEAM Multi-Residential
- BREEAM Other Buildings (including Courts and Prisons)
- Code for Sustainable Homes

For further information please email victoria.burrows@inbuilt.co.uk or alternatively call **01923 277089**.



Beyond BREEAM

Inbuilt are involved in several YMCA projects, supporting the client to deliver their targets for innovative, sustainable and educational environments for young people. The redevelopment of North Staffordshire YMCA is targeting performance across the site of BREEAM Outstanding and Code for Sustainable Homes Level 4.

Inbuilt's involvement on this project includes BREEAM consultancy and assessment, and M&E concept design. Our Sustainability MAP helped us to identify the challenges and opportunities of the project, and proved extremely successful in tracking the progress of the project and managing the BREEAM credits and other sustainability objectives throughout the construction phases to retain the rating post-completion.

"Inbuilt's approach brings added value to standard BREEAM assessments to ensure that the highest standards of performance are achieved on our YMCA developments. Their support to the design team is essential to ensure the targets are met."

**Andrew Farrell, Head of Development & Asset Management,
YMCA England**

Deliver challenging BREEAM ratings.

BREEAM ACCREDITED PROFESSIONAL | CERTIFICATION | RISK ANALYSIS | COST ANALYSIS | CONTRACTOR SUPPORT | DESIGN TEAM BREEAM WORKSHOPS

S-MAP

Modern construction projects are expected to perform against an increasing number of sustainability indicators that cut across traditional disciplines and often require new ways of working. This presents a significant challenge for clients and project managers to ensure the right actions are taken by the right people, at the right time.

Inbuilt's Sustainability MAP (S-MAP) integrates a sustainability management function alongside the new roles, collaborations and actions required to deliver exemplary new-build and refurbishment projects.

We illustrate the principle as shown, as the 'sustainability DNA' running through the design process. We suggest that our Sustainability Forums be used at key points in time to review progress against the indicators.

Key to our success in applying S-MAP is that it:

- Works in tandem with your existing management procedures during briefing, design, construction, handover and post-occupation;
- Focuses attention on defining performance indicators;
- Enables appropriate priority to be given to each sustainability objective throughout the project timeline; and
- Employs effective feedback loops to rapidly progress improvements.

S-MAP can integrate and help deliver, among other things:

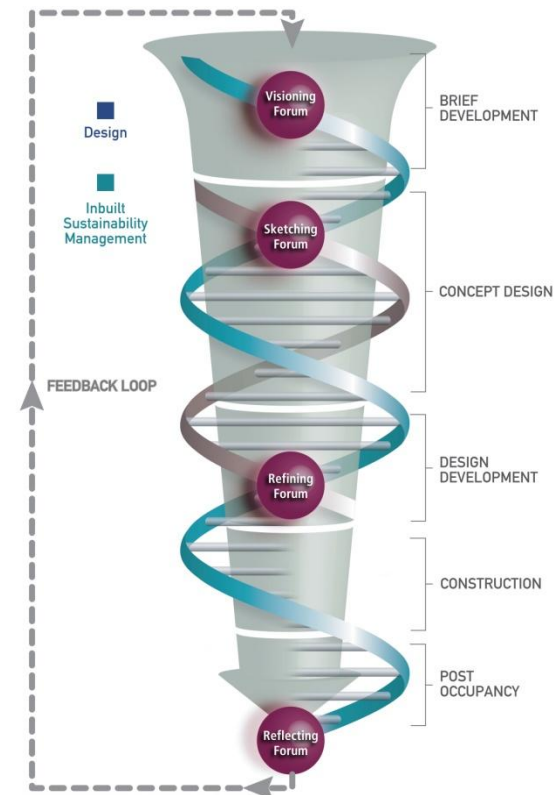
- Your strategic and/or detailed sustainability objectives
- Regional and local planning requirements
- The Government's Sustainable Construction Strategy
- BREEAM / LEED / Code for Sustainable Homes
- BSRIA's Soft Landings Framework

Our guiding principles.

S-MAP | INBUILT'S FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

The following Inbuilt services refer to S-MAP:

- Sustainability Management Consultancy (p 4)
- Sustainability for Master Planning (p 6)
- Sustainability Forums (p 7)
- BREEAM AP (p 9)



IFSD

Inbuilt has adapted and applied the proven principles of The Natural Step to the built environment. From this we have developed the Inbuilt Framework for Sustainable Development (IFSD).

This allows us to consider and assess **12 important sustainability dimensions** (see opposite).

The IFSD enables economic, environmental and social sustainability issues to be considered in a way which is specific to every project. Underpinning each of the 12 dimensions is a comprehensive and very detailed knowledge framework.

It's **unique to Inbuilt**, and it means our approach to sustainability is holistic, pragmatic and grounded in best practice.

Contact us to get a demonstration of the IFSD in action and to see how it can deliver you more intelligent and holistic outcomes.

The Natural Step in an NGO in Sweden that apply their principles for sustainability with businesses and communities.



Our guiding principles.

S-MAP | INBUILT'S FRAMEWORK FOR SUSTAINABLE DEVELOPMENT



How can we help you?

Our clients range from those wanting to improve their organisational performance to clients wanting to procure a sustainable development, win tender bids with sustainability, or gain a certified award for their sustainability performance.

Take a moment to browse through the menu below to get a feel for what we offer. If any of our services interest you please email sarah.royse@inbuilt.co.uk or call **01923 277062** to discuss how we can work together.

www.inbuilt.co.uk

	Carbon Management	Sustainability Management	Post Occupancy Evaluation	Sustainability for Master Planning	Sustainability Forums	Sustainability Training	BREEAM AP and Certification
Reduce the carbon footprint of existing buildings	•						
Prepare for the CRC Energy Efficiency Scheme	•						
Appreciate where money would be best spent	•	•	•	•			•
Have a building to be proud of with happier occupants	•		•				
Gain a sustainability certificate for your building or development (for instance BREEAM, LEED, EPC or DEC)	•						•
Integrate sustainability into a master plan				•	•		
Include and take account of broad stakeholder groups		•	•	•	•		
Understand how sustainability affects organisational goals and working procedures		•					
Manage the effectiveness of the sustainability outcomes		•					•
Enhance the awareness of sustainability within your team		•			•		•
Motivate those you rely on to fulfil sustainability goals					•	•	
Develop the skills for 'doing sustainability' in-house						•	

