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# Areas of Expertise

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Centre for  
Construction  
Innovation

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Autumn 2010

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*The Centre for Construction Innovation is part of*

School of the  
**Built  
Environment**  
[www.sobe.salford.ac.uk](http://www.sobe.salford.ac.uk)



# Centre for Construction Innovation: Areas of Expertise

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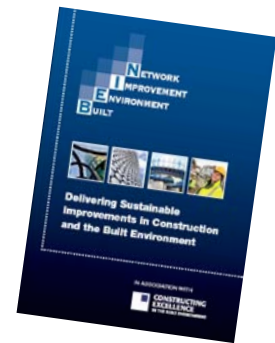
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## Introduction

The Centre for Construction Innovation (CCI) was established in 1999 as a not for profit enterprise centre of the six star rated School of the Built Environment at the University of Salford. It has become the flagship centre for the promotion of the Rethinking Construction agenda in the North West and is host to the regions seven construction best practice clubs. The industry network, which forms the basis of CCI's contact database, continues to grow and currently has over 30,000 organisations of varying sizes across the full spectrum of the construction industry.

CCI is now an established point of reference and advice for organisations wishing to put in place the change promoted by government reports such as Rethinking Construction, Accelerating Change, the National Procurement Strategy and the Strategy for Sustainable Construction. The centre brings together a broad range of industry participants and academics to deliver best practice, education and training, seminars, workshops and in-company events, facilitating change by learning, debate and experience. All CCI seminars, workshops and training sessions are CPD accredited by the member organisations of the Construction Industry Council.

CCI is the North West Centre for **Constructing Excellence** and a founder of the **Built Environment Improvement Network (BEIN)**, a groundbreaking collaboration between the regional and national centres of Constructing Excellence.



A large amount of activity has been undertaken for clients. Much of this work has been previously carried out on a bespoke basis. However, due to the repeat nature of much of this work, product development has been carried and services are exportable to other regions.



Such services are detailed below: -

CCI Services	2000	2003	2005	2007	2009	2010
Seminars/ Conferences - in house	✓	✓	✓	✓	✓	✓
Benchmark audits		✓	✓	✓	✓	✓
KPI audits		✓	✓	✓	✓	✓
Bespoke Training		✓	✓	✓	✓	✓
Industry Reports		✓	✓	✓	✓	✓
External Workshops		✓	✓	✓	✓	✓
Team Integration advice and services			✓	✓	✓	✓
Health & Safety			✓	✓	✓	✓
Regeneration and Sustainability			✓	✓	✓	✓
Procurement advice			✓	✓	✓	✓
Supply Chain Development			✓	✓	✓	✓
Development of Framework Agreements			✓	✓	✓	✓
Digital / Hi Tech show casing			✓	✓	✓	✓
Corporate Change				✓	✓	✓
Sustainability				✓	✓	✓
Community Benefit				✓	✓	✓
3D Visualisation				✓	✓	✓
CUBE / ABEC					✓	✓
Efficiency Gains					✓	✓
Bid Coaching					✓	✓
Corporate Social Responsibility Reporting					✓	✓
Equality & Diversity					✓	✓
Action Learning					✓	✓
Resource Efficiency					✓	✓
Carbon Footprinting						✓
Lean Construction						✓
Building Information Modelling (BIM)						✓
Customer Satisfaction Surveys / Reports						✓
Archaeology Services						✓

## Procurement and bid coaching workshop

CCI can provide either a ½ day or a full day workshop around understanding the drivers behind public sector procurement and the public sector procurement process, looking to add value to the PQQ/ITT process and understanding what it is that clients want.

The principle of ‘Compulsory Competitive Tendering (CCT)’ – accepting the lowest price for a job – was introduced in to the public sector in the UK in the 1980s in an attempt to bring greater efficiency to local government through the use of competition. CCT failed to deliver this and was replaced in 1999 by the concept of ‘Best Value’ – providing the statutory basis upon which councils now plan, review and manage their performance in order to deliver continuous improvement in all services and to meet the needs and expectations of service users.

The ½ day CCI workshop would be give you:

- an understanding of the drivers behind public sector procurement;
- an understanding of the procurement process;
- an indication of how you can add value to your tender responses and meet and exceed your clients requirements;
- a framework to deliver continuous improvement.

The 1 day CCI workshop would encompass the elements indicated above and, in addition, would include an Action Learning Set<sup>1</sup> to identify key action areas from within the organisation for further development and to exchange existing knowledge between key members of your team: what is it that the company do well now? And how do we replicate this across the organisation? What is it that the company does not do well? And how can we improve in what we do?

CCI would be delighted to discuss the opportunity of undertaking a procurement and bid coaching workshop. The costs for the workshops described above would be as follows:–

- ½ day workshop - £2,750;
- 1 day workshop - £3,750.

Such a workshop could be undertaken at your own offices or in our own CUBE conference and meeting facilities (figures quoted above would be plus VAT and expenses).

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<sup>1</sup> More details of our Action Learning Sets can be found on [Page 14](#) of this document

## Other Services Offered by CCI

These services are explained in more detail below: -

### Value Procurement

Procuring construction utilising 'value' is a legislative requirement for public projects. Public bodies who are successful in developing and implementing strategies for value procurement have achieved proven results. The use of value procurement is becoming increasingly prevalent in the private sector as value realisation becomes a key factor in the delivery of commercial projects. Value is derived in many differing topics and procurement strategies should be chosen carefully to ensure the desired outcomes.



CCI offer the following procurement services: -

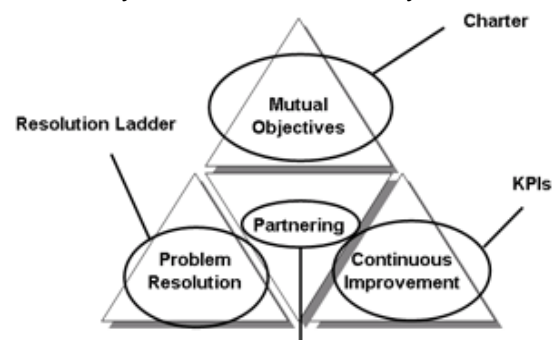
- Stakeholder Workshops
- OJEU Notices
- Procurement Workshops
- PQQ & ITT Workshops and Documentation
- Interviews
- Validation of Tenders
- Tender Scoring
- Tender Feedback
- Tender Selection & Management
- Risk Management Workshops
- Sustainable Procurement/Construction Workshops

### Partnering

Partnering is the main form of relational contracting and is widely used in the public sector. Partnering can be viewed as an umbrella term for different tools and techniques such as problem resolution ladders, open book accounting and stakeholder analysis - all of which are designed to help manage out potential risk of relationship failure within contracts. CCI has supported the delivery of partnered contracts for more than 8 years on a wide variety of civils and building projects.

CCI offer the following partnering services: -

- Partnering Workshops
- Partnering Charters
- KPI Services
- Integrated Teams
- Supply Chain development
- Supply Chain training and mentoring
- Problem Resolution
- Open Book Accounting Analysis
- Risk Management Workshops



- Sustainable Procurement/Construction Workshops

## Sustainable Communities/Community Benefit

The CCI Community Benefit team has been established in response to a demand from organisations involved in the construction process who are seeking greater understanding of what community benefits could be derived from a construction project.

CCI offer the following community benefit services: -

- Local Training Initiatives
- Local Supply Chain Initiatives
- Cashable/Non-Cashable Benefits Analysis
- Measuring Community Benefit
- Development of Community Benefit into Frameworks
  - Social Requirements in Public Procurement



## 3D Visualisation

The CCI Visualisation Centre was opened in July 2004 with the aim of inspiring, mentoring and encouraging the use of visualisation technologies within the construction sector. The Centre specialises in two fields of visualisation: firstly, the development of rich texture web enabled models that allow real time interaction for users across broadband connections and, secondly, the development of accessible stereo graphic technology through the development of synthagram technologies.

CCI offer the following 3D visualisation benefit services: -

- Full 3D Visualisation Services
- 3D Project Management – programming, modelling, scanning & interface expertise
- 3D Visualisation awareness raising and basic tuition
- 3D/Real Time DVD's and Presentations

## Building Information Modelling (BIM)

BIM organises the information surrounding a building project in one or more databases. Using this technology, building designers do not directly make drawings, but enter information in these databases using a variety of means. Primary among these (for architects or designers) is a graphic environment that looks deceptively like CAD. However, as the designer “draws”, what is actually happening is that objects with an extensive array of properties are being created in a database. This information is used to generate drawings, but it is used in many other ways as well.

The primary benefits of using BIM during the construction projects are (1) rapid visualisation offering common understanding, (2) increasing information available to support decisions upstream in the project development process, (3) rapid and accurate updating of changes

common through the conceptual development, (4) reduction of man-hours required to establish reliable space programs (5) increased communication across the total project development team (users, designers, capital allocation decision makers, contracting entities, and contractors), (6) increased confidence in completeness of scope developed in construction planning process (i.e. most sustainable infrastructure) to be carried forward, and (7) realisation of savings (5-20%) and many other benefits based on the lifecycle assessment at the pre-conceptual stage of the project.

There are many targets that a project can realise by the utilisation of BIM, within the lifecycle, such as improved; accuracy, consistency, integration, coordination and synchronization – CCI and the University of Salford offer a full range of BIM implementation services.

## CE Training Programme

Constructing Excellence brings together Rethinking Construction and Construction Best Practice and aims to achieve a step change in construction productivity by tackling the market failures in the sector and selling the business case for continuous improvement. Through focused programmes in Innovation, Best Practice Knowledge, Productivity and Engagement, Constructing Excellence has developed a strategy to deliver the process, product and cultural changes that are needed to drive major productivity improvements in the sector.

CCI offer the following training programmes: -

- Respect for People
- Better Public Buildings
- Sustainability and the Environment
- Lean Construction
- Key Performance Indicators
- Supply Chain Management
- Procurement: Strategic Alliances
- Contractual Arrangements
- Whole Life Costing
- Integrating Teams
- Post Project Review
- Social Requirements in Public Procurement



## Company Training Programmes

A series of bespoke workshops that aim to give companies an understanding of tendering for 'Best Value' contracts - organisations using public monies to procure construction works are now required to select contractors by 'Best Value' and not compulsory competitive tendering. Best Value is not based simply on lowest cost/price and this marks a fundamental shift in how the public sector will procure construction works in the future.

CCI offer the following bespoke company training workshops: -

- In-house Bid Coaching
- Value Procurement Workshops

- Principles Driving Value Procurement
- Integrating Teams
- Value Engineering/Value Management and Whole Life Costing
- Performance Measurement
- Sustainable Construction and the Environment
- Site Waste Management Plans
- Code for Sustainable Homes
- Respect for People and People Issues
- Corporate Social Responsibility
- Lean Construction
- Resource Efficiency

## KPI Service

CCI has been providing Key Performance Indicator and Performance Measurement Services to both clients and contractors for over eight years, helping organisations to understand and use data rather than just collect and report it. CCI has developed a number of services to support data management, reporting and analysis including: -



- A KPI Engine – support in collecting, reporting and analysing data
- KPI Management systems for companies, projects and frameworks
- Support for reporting and analysis
- KPI training and development
- Carbon Footprinting



## Environment and Sustainability

The issue of sustainability is one of growing concern for the construction industry. The construction industry contributes three times the amount of waste than all of the households put together and buildings account for nearly half of all our energy use. Both clients and delivery teams need a better understanding of how we design, deliver and use buildings so that we can mitigate the impact that

we have on the lives of future generations - by considering not only financial considerations, but also social and environmental impacts.

CCI offer the following environmental and sustainability services: -

- Sustainable Development/Construction Workshops
- Sustainable Buildings Policy Guidance
- Environmental Management Systems
- Site Waste Management Plans
- Environmental Assessment Services – Code for Sustainable Homes, BREEAM, EcoHomes awareness and implementation
- Corporate Social Responsibility

- Measuring Environmental and Sustainable Goals
- Lean Construction
- Carbon Footprinting
- Resource Efficiency

## Equality & Diversity

Women and BMEs are hugely under-represented in the construction industry and consist of only around 15% of the workforce. CCI provides women and BMEs with access to training that will help to facilitate their “job-readiness” and proactively encourage networking opportunities. In the North West the Action Network has been created to enable women from across the construction industry to meet, learn and share experiences with each other.



CCI provide the following equality and diversity services: -

- CPD certified personal development training
- A network for women to use to develop effective relationships
- A mentoring service to match up members who wish to become mentors/mentees
- A supportive forum where regional groups are encouraged to debate individual issues and determine their own solutions based on the advice, experience and support from group members
- CCI Organisational Toolkit



## Corporate Social Responsibility Reporting

CCI provide a service to help organisations implement corporate social responsibility reporting into their businesses and have produced a short Guidance Report on implementing Corporate Social Responsibility in Construction. The report has been design specifically with construction in mind and contains information on CSR reporting in construction, key issues being addressed by others in the industry and links to support and advisory services the help you tackle sustainability issues.

The Guide provides CCI to provide a step-by-step approach to:

- Identifying the drivers for reporting
- Identifying the key issues
- Engaging effectively with stakeholders
- Choosing courses of action
- Putting together and sharing the report

## Customer Satisfaction Surveys / Reports

CCI can provide customer satisfaction processes and surveys which can carry out high level surveys of an organisations' key clients and report back on the findings – conducted by informed, but independent, surveyors from within our own impartial team.

These services come in two tiers to capture regular ongoing feedback information driven by customer contracts and projects with regular reporting functions, often these feed into a holistic measurement regime utilising the CCI nationally recognised KPI engine tool.

Some of our clients recognise that business is done between people and organisations and not just around projects, the importance of perception and direction is critical to any business focussing on its strategic development. Therefore CCI provide a more tailored strategic service which looks to inform the businesses strategic direction and reflect and influence the perception in the market from its customer base.

CCI customer satisfaction reports consist of analysis of the responses to identify trends for the company which can be reviewed internally with recommendations being made for improved performance or for marketing purposes – a summarised report is provided that can be distributed to the customers who have taken part in the survey showing both the findings and the agreed recommendations.

These services are used both by Clients with their stakeholders and internal clients, especially within framework reviews and by suppliers with their own public and private customer base.

## Critical Friend / Executive Mentoring

CCI provide a critical friend and/or executive mentoring service to many organisations in the North West. CCI's knowledge and experience is used by such companies to help them manage their day-to-day business and to act as 'back-up' for their business needs.

## Action Learning Sets

Action Learning Set and Innovation Circles provide support to raise an organisations competitiveness and knowledge by accelerating the implementation of new processes and expanding the development of new products for market using new technologies and new leadership and management capabilities and approaches. All members of Innovation Circles are volunteers and, as such, normally have a growth potential, an actual or latent competitive edge in the market and a commitment to new ways of working. The Circles appeal to a broad range of organisations – from client groups to contractors and their supply chains – and focus on a range of innovation improvements in processes and products across the Built Environment sector. Individual groups are most effective when they comprise a variety of organisations and when members are encouraged to consider a range of actions when planning to address their particular workplace issues.



CCI provide the following action learning services: -

- Lean Construction – reducing waste and becoming more productive as companies in the construction industry, using modern methods of construction and supply chain integration.
- Life-Long Learning - business planning - setting objectives, business needs analysis - identifying any gaps, producing a Performance Plan & Achievement Matrix
- Business Improvement - developing a vision for a company, establishing strategies to improve performance, making a company effective and measuring the effectiveness of the improvement.
- Equality and Diversity – encouraging women and BMEs in to the construction industry, workforce development and career progression

## Structured Learning

As an Academic Enterprise Centre of the School of the Built Environment at the University of Salford, CCI are able to offer structured learning services, as follows, in any of the topics covered in this document: -

- Branded HND Courses in construction related subjects
  - Branded CPD Courses in construction related subjects
  - Branded MSc Programmes in construction related subjects



## Conference Facilitation and Management

CCI can organise, manage and facilitate large scale conferences and debates such as the North West Regional Construction Awards which saw over 600 people.

CCI manage CUBE in Central Manchester, which is a superior quality environment for corporate hospitality, seminars and private functions. Whether you require small, personal parties or large reach corporate functions, CUBE is the environment for meeting and exceeding clients' expectations. The unique qualities of the space reflect CUBE's national and international standing as one of Europe's most innovative and exciting architecture and design centres.

The CUBE complex consists of a Gallery, Seminar Suites and Meeting Rooms which are available to hire and can cater for groups from 10 people to 500.

## Archaeological Services

The Centre for Applied Archaeology is a new enterprise centre at the University of Salford that works to transfer knowledge of the past from academia to industries and communities – understanding the impact of the archaeological and built heritage resource on construction projects is essential to their success and completion and the CfAA can help to minimise such risk and delay.



Public and local communities are becoming increasingly aware of taking ownership of their heritage and involving them in the planning of construction projects can be of benefit to all.

The CfAA offers the following services: -

Professional Services:

- Consulting
- Desk based assessments and EIA's
- Evaluations and watching briefs
- Excavations
- Building surveys
- 3D visualisation – buildings, landscapes and artefacts

Community Archaeology

- Workshops and vocational training

Research and Teaching

- Training and teaching
- Publications
- Seminars, day schools and lectures

## Research

CCI-R enables research interaction between Academia and Industry. CCI's work within industry allows academics of all levels to contribute within an enterprise environment. The benefit to Industry is the advancement of research and development into new knowledge based markets, services and products. CCI-R undertakes both academic and commercial research and is allied to the University of Salford (a '6 star' rated research establishment).

CCI provide the following research services: -

- Academic research
- Commercial research

## North West Construction Knowledge Hub

CCI are currently leading an ERDF funded programme called the **North West Construction Knowledge Hub**.

This programme is aimed at construction related SMEs in the North West and specifically for helping them reducing their carbon emissions and reducing waste to landfill. Much of the work CCI are doing with this programme fits in to the range of services described in this document, but CCI can offer help to eligible<sup>2</sup> North West SMEs on all matters relating to sustainability, free of charge, both directly or through our programme partners – UCLAN, BRE, University of Liverpool and Urban Vision.



<sup>2</sup> An eligible SME for the NWCKH is a company based in the North West with less than 250 employees and a turnover of less than €50m or have less than €43m in shareholder funds



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For more details regarding CCI and the services they can provide please contact Roy Stewart at CCI: [roy.stewart@ccinw.com](mailto:roy.stewart@ccinw.com) or on 0161 295 5076.

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