

# Eco Innovation Forum

25<sup>th</sup> November 2010

# Content

- ❑ Constructing Excellence Overview
- ❑ Construction industry case study
- ❑ Questions



# Key Industry Change Reports



1994.....2009

# Constructing Excellence



## Purpose

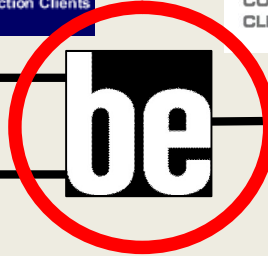
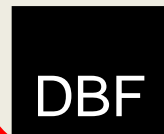
Improve industry performance

## Outcome

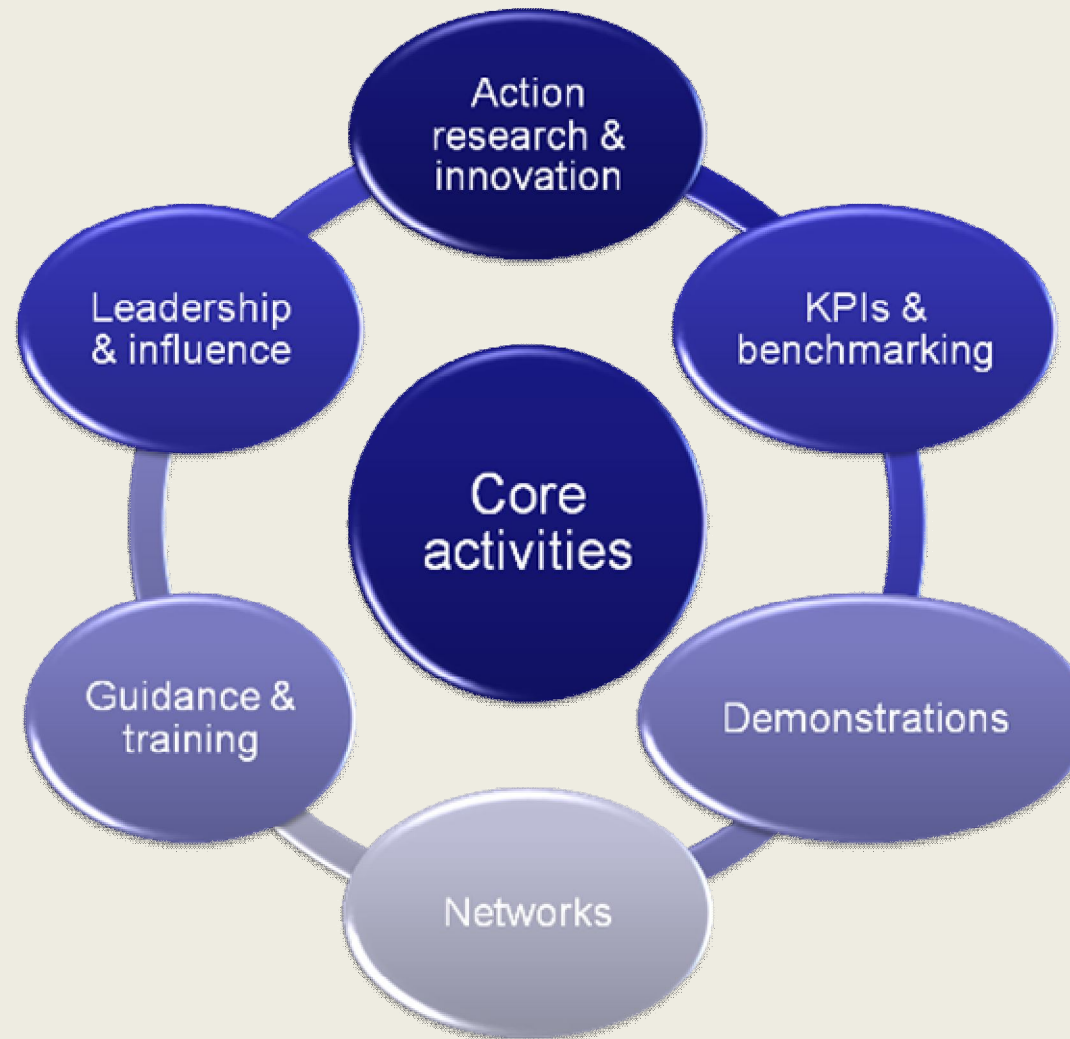
Better built environment

Single organisation charged with driving the change agenda in construction, housing and regeneration





# What do we do?

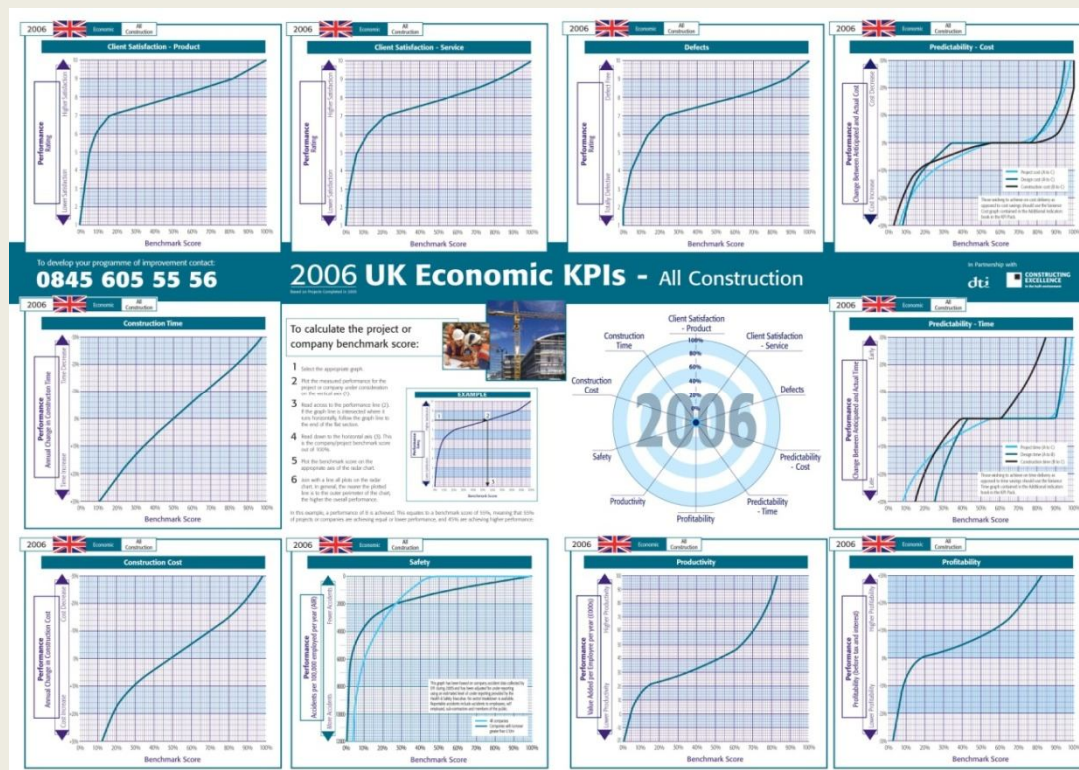




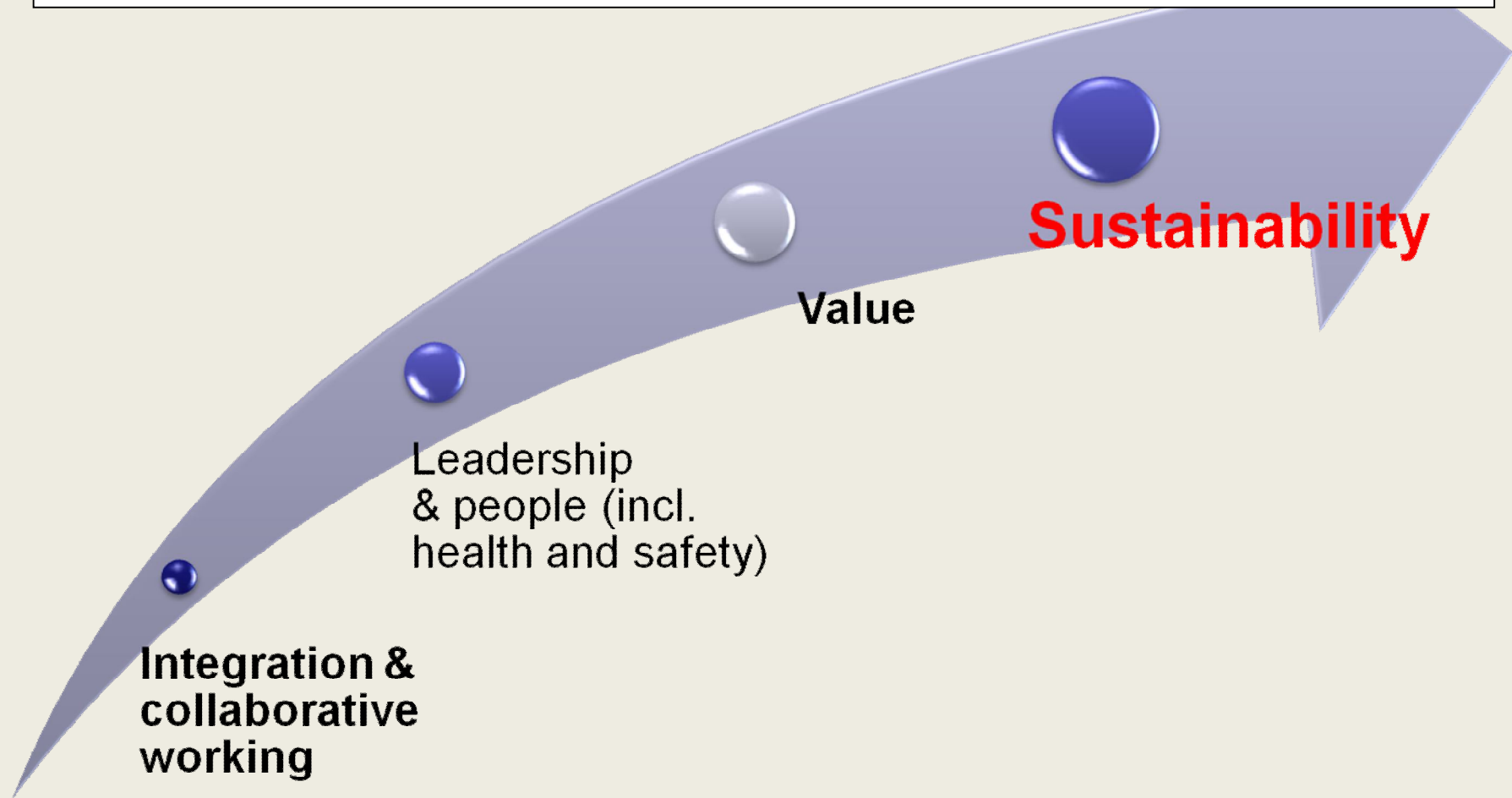
# Key Performance Indicators

## Economic

- ☐ Client satisfaction
  - Product
  - Service
- ☐ Defects
- ☐ Predictability
  - Cost
  - Time
- ☐ Profitability
- ☐ Productivity
- ☐ Safety
- ☐ Construction Cost
- ☐ Construction Time



# Core improvement themes





# **SITE WASTE MANAGEMENT PLANS A PRACTICAL APPROACH**

## **THE CLIENT**

- Tees Valley Housing Group

## **THE CONTRACTOR**

- Haslam Homes North East Ltd



-

# THE SITE

- **Social housing for local RSL**
- **Former council estate, recently demolished**
- **22 plots, one to three storey**
- **Timber frame construction**
- **Build programme 26 weeks**



TRINITY CRESCENT, MIDDLESBROUGH

id PARTNERSHIP  
IAN BARRY PARTNERSHIP



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**renew**  
...inspiring sustainable futures

# THE CHALLENGE

- **Write, plan and implement a SWMP**
- **Engage all parties involved in the build**
- **Embed SWMP procedures within the company**
- **Cover all aspects of site based work**
- **Monitor the plan monthly**
- **Produce a final report**

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# THE PLAN

- **Appoint a responsible person**
- **Estimate the quantities and types of waste**
- **Investigate waste management options**
- **Appoint waste management contractor**
- **Carry out on site training**
- **Monitor and review the plan**

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# WASTE CHAMPION 1

- **Dave Groom Site Manager** - On site operations
  - materials ordering/storage
  - call off of waste management services
  - recording of types and quantities of waste

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# WASTE CHAMPION 2

- **Brian Forster – Pre/Post Construction**
  - Estimate types and quantities of waste
  - investigate waste management options
  - on site training
  - plan for monitoring and reviewing resource use and the quantity of waste produced
  - Production of final report

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# ESTIMATE TYPES AND QUANTITIES OF WASTE

- **Pre waste audit of all activities using information provided by Commercial Department**
- **Bills and specifications**
- **Subcontractors**
- **Pre start meetings**
- **Audit of premises**

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# IDENTIFY WASTE MANAGEMENT OPTIONS

- Complete material checklist using information provided by subcontractor meetings
- Investigate options for managing waste using CE database and other business support tools.
- Pay attention to waste hierarchy
- Option selected segregation at source



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# IDENTIFY WASTE MANAGEMENT OPTIONS

- First barrier to segregation...
- Hazardous waste
- Introduce Haz- Waste Station



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# SITE PLAN



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# IDENTIFY WASTE MANAGEMENT SITES AND CONTRACTORS

- Obtain quotations from suitably interested contractors
- Contractor selected was waste broker
- Able to provide skips for segregated materials, carry out on site training and provide signage

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# TRAINING

- A representative of the broker visited the site pre start and carried out training in waste segregation and handling.
- Subsequent visits were arranged prior to commencement of each stage of the build.
- Appropriate signage was provided which was incorporated into the training.



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# PLAN FOR EFFICIENT MATERIAL AND WASTE HANDLING

- Due to small footprint, material storage was difficult to manage
- Waste was stored in coloured hoppers prior to depositing in skips



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# MEASURE THE WASTE AND COMPARE AGAINST THE PLAN

- All skips leaving the site were recorded and subsequent information on weights were sent to site for recording
- This data was analysed and compared to the original data sheet using a similar format

## APPENDIX 4: SITE DATA SHEET

Site Waste Management Plan Data Sheet

|  |  |
|--|--|
| Project name   | Tees Valley Housing Trinity Square   |
| Project address/location   | North Ormesby Middlesbrough Teesside   |
| Main contractor/Developer  | Haslam Homes North East Limited  |
| Person responsible for waste management on site (name and job title) | David Groome Site Manager  |
| Person and company completing this form, if different                | Brian Forster Resource Efficiency Manager<br>Constructing Excellence in the North East |

| Types of waste arising (add more rows if needed): |                       |                  |                          |                           |                            |                         |                      |
|---|-----------------------|------------------|--------------------------|---------------------------|----------------------------|-------------------------|----------------------|
| Material  | Quantity (in m3 or T) |                  |                          |                           |                            |                         |                      |
| Waste Management Action                           | Re-used on site       | Re-used off site | Recycled for use on site | Recycled for use off site | Sent to recycling facility | Sent to WML exempt site | Disposal to landfill |
| <b>Inert</b>                                      |                       |                  |                          |                           |                            |                         |                      |
| Concrete  |                       | 30               |                          |                           |                            |                         |                      |
| Bricks/R Tiles                                    |                       | 5                |                          |                           |                            |                         |                      |
| Blocks  |                       | 5                |                          |                           |                            |                         |                      |
| Clay/S.Soil                                       | 100                   | 300              |                          |                           |                            |                         |                      |
| <b>Active</b>                                     |                       |                  |                          |                           |                            |                         |                      |
| Plastic Film                                      |                       |                  |                          |                           | 6                          |                         |                      |
| Plastic Rigid                                     |                       |                  |                          |                           | 6                          |                         |                      |
| Chip'bd/MDF                                       |                       |                  |                          |                           |                            |                         | 8                    |
| Canteen Waste                                     |                       |                  |                          |                           |                            |                         | 11                   |
| Plastic Exp'd                                     |                       |                  |                          |                           | 6                          |                         |                      |
| Timber+   | 2                     |                  |                          |                           | 6                          |                         |                      |
| Timber  |                       |                  |                          |                           | 8                          |                         |                      |
| Plasterboard                                      |                       |                  |                          |                           | 21                         |                         |                      |
| Insulation  |                       |                  |                          |                           | 6                          |                         | 4                    |
| Paper/Card  |                       |                  |                          |                           | 5                          |                         |                      |
| <b>Hazardous</b>                                  |                       |                  |                          |                           |                            |                         |                      |
| Mastic Tubes                                      |                       |                  |                          |                           | 1                          |                         |                      |
| Solvent Tins                                      |                       |                  |                          |                           | 1                          |                         |                      |
| Paint Tins  |                       |                  |                          |                           | 2                          |                         |                      |
| Totals (in m3)                                    | 102                   | 340              |                          |                           | 68                         |                         | 23                   |
| Performance score as % *                          |                       |                  |                          |                           |                            |                         |                      |
| SWMP Target % *                                   |                       |                  |                          |                           |                            |                         |                      |

+ TIMBER PACKAGING

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# MONITOR THE IMPLEMENTATION OF THE SWMP

- Regular site visits including visual inspections
- Testing awareness of site staff and subcontractors
- Inspecting documentation
  - Waste Transfer Notes
  - Weighbridge Tickets
  - Induction/Training Records
- Compare actual quantities of waste with those predicted on the checklist
- Highlight variations in quantities to original estimates and give reasons

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# REVIEW HOW THE PLAN WORKED

- Groundwork Contractor removed 300m<sup>3</sup> inert waste
- Timber reused in first fix joinery
- Plasterboard sent for recycling
- Packaging recycled at transfer station
- Inert used as hardstand on another site (exemption)
- Actual cost savings of - £115 per plot
- Estimate 95% material diverted from landfill

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# OBSERVATIONS

- Transport of hazardous waste around site
- Hire of wood chipper
- Excavation of road – stopped segregation
- Plasterboard contractor contaminating p/b skip
- Plan for location of waste area before site starts
- Keep site parking separate from waste area - fly tipping
- Regular feedback to site regarding cost savings
- Lack of information from broker – in house?

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# NEXT STEPS

- Write Final Report on completion of project
- Make recommendations to design and planning teams
- Continue with training
- Incorporate into EMS (ISO 14001)

## ***LEARN LESSONS FOR FUTURE PROJECTS***

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# www.constructingexcellence.org.uk

The screenshot shows the homepage of the Constructing Excellence website. The header features the logo and tagline 'in the built environment', a user login area for 'Don Ward', and a search bar. A navigation menu includes links to Home, About Constructing Excellence, Key Activities, Themes, and Resources. The main content area begins with a mission statement about driving change in construction, housing, and regeneration. Below this, there are three sector forums: Constructing Excellence, Construction Clients' Group, and The Housing Forum. The page is divided into three columns: News, Events, and Contribute and Engage. The News column lists articles from September 2008, including one featured in the Guardian and another about BERR's report on innovation. The Events column lists a G4C Debate and a BSI conference. The Contribute and Engage column includes links to forums and Twitter updates.

**CONSTRUCTING EXCELLENCE**  
in the built environment

Welcome Don Ward  
Log out | My Space

Search:  GO  
Advanced Search

Home | About Constructing Excellence | Key Activities | Themes | Resources

Constructing Excellence is the single organisation charged with driving the change agenda in construction, housing and regeneration. We exist to improve industry performance in order to produce a better built environment. We are a cross-sector, cross-supply chain, member led organisation operating for the good of industry and its stakeholders. [More...](#)

**Sector Forums**

**CONSTRUCTING EXCELLENCE**  
in the built environment

**Construction Clients' Group**  
CONSTRUCTING EXCELLENCE

**The Housing Forum**  
CONSTRUCTING EXCELLENCE

[View all](#)

**News** Industry News **rss**

10 September 2008  
[Constructing Excellence featured in the Guardian](#)  
Author: Zoe Le Grand  
Constructing Excellence was asked to comment on construction waste issues for a recent article featured in the Guardian....

08 September 2008  
[BERR report on innovation in services published](#)  
Author: Jon de Souza  
The Department of Business, Enterprise and Regulatory Reform has published, jointly with DIUS, a report on innovation in...

08 September 2008  
[Building visits the Olympic Stadium](#)

**Events** **rss**

23 September 2008  
[G4C Debate](#)  
"What effect will the current economic situation have on our industry and the improvement agenda?"

24 September 2008  
[BSI British Standards Institute - Whole Life Costing Conference - Introducing BS ISO 15686-5](#)  
The UK building industry recognizes that life cycle costing (LCC) is necessary and important. Confusion exists, however,...

24 September 2008  
[Contractors Compliance with Equality Seminar - Cardiff](#)  
This seminar is the first of its kind in Wales and is designed to consider progress made in ensuring that

**Contribute and Engage**

**Constructing Excellence Forums**  
Take part in our [online discussion forum](#)

**Constructing Excellence Twitter Updates**  
Don Ward paid a brief visit to the Olympic Stadium site on Friday. [3 days ago](#)  
Don visited BAA at Heathrow on Thursday. [3 days ago](#)  
Pete has represented the Construction Clients' Group at this mornings Strategic Forum meeting. [5 days ago](#)  
Don Ward got details of a Design Council competition to help reduce Healthcare Associated Infec... Read more at <http://tinyurl.com/i4p3sqf> [5 days ago](#)  
Don Ward attended the latest meeting of the OGC's Public Sector Construction Clients Forum. [5 days ago](#)

Whitecross High School, New Islington