

1. Project background

This project was the result of a grant application made to CITB by Taylor Woodrow (VINCI) on behalf of 10 employers who originally formed the Infrastructure Leadership Group of the Supply Chain School. The project aimed to pilot the learning materials launched at the Ricoh Arena, Coventry on Thursday 26th February. The Infrastructure School launch was well attended with 268 delegates over 200 of which were from the supply chain, the event was also well supported by the School's partners and other major contractors. The fundamental driving force behind the Infrastructure School has been the Infrastructure Leadership Group which has grown and is now made up of 22 of the School's employer partners, these include:

Aggregate Industries, Balfour Beatty, BAM Nuttall, BRE, Carillion, CEEQUAL, Costain, Galliford Try, Highways England, HOCHTIEF UK, HS2, Kier, Tarmac, Laing O'Rourke, Morgan Sindall, National Grid, Sir Robert McAlpine, Skanska, Taylor Woodrow, United Utilities, VGC Group, WP Group.

The group's key objectives include *"developing the focus and content of the Supply Chain Sustainability School to the specific skills needs of the Infrastructure sector"* and to *"act as a sustainability knowledge exchange between all in the value chain."*

The group have ensured that their Terms of Reference are aligned with the project objectives as set out in the CITB bid.

"Developing the sustainability skills of leaders and managers in our supply chain and the wider sector is simply a 'must do' to ensure that we remain competitive, foster innovation and deliver major infrastructure projects sustainably."

Eamonn Costello, Commercial Director, Taylor Woodrow

2. Project objective

The project objective was to build the sustainability skills of suppliers in the infrastructure supply chain, enabling main contractors to meet the stated sustainability needs of clients and the requirements of the national infrastructure plan.

The bid set out to deliver this objective by:

- ✓ Running five "Sustainable Infrastructure" days engaging 500 leaders and managers.
- ✓ Development of 15 workshops providing in-depth training to leaders and managers within the Infrastructure supply chain.
- ✓ 200 downloads of the skills diagnostic, enabling companies to understand the gaps in their knowledge in the area of sustainable business practices.
- ✓ Piloting and development of 5 e-learning modules.
- ✓ Disseminating key learnings to the wider industry via: report, four case studies (published to web), dissemination meeting.

In terms of delivery all of the above have been met or are in progress as this report will illustrate.

3. Key outcomes

After a successful launch, the employer group has been focussed on engaging their key strategic suppliers into the School; this includes attendance at supplier days, workshops or using the School's online resources. Below is a summary of the key outcomes so far:

- ✓ Since the launch, an **additional five partners** have joined the School to specifically join the Infrastructure Group; this includes three clients – HS2, Highways England and United Utilities.
- ✓ **216 unique companies** have registered for the Infrastructure School.
- ✓ **279 delegates have increased their knowledge on specific sustainability issues** related to the Infrastructure sector by participating in training workshops.
- ✓ **515 leaders and managers have attended a Supplier Day.**
- ✓ **95 unique companies** have completed an Infrastructure self-assessment.
- ✓ There have been **75 downloads** of the five new Infrastructure e - learning modules.
- ✓ There are **6 Bronze, 2 Silver and 2 Gold** Infrastructure members.
- ✓ The Infrastructure School has had positive media coverage in a range of publications including: The Sunday Times, New Civil Engineer, World Cement and Supply Management.

4. Performance against KPI's

Detailed below are the School's contractual obligations to CITB, and how the outputs have either been met or exceeded with exception of one. The target to have 200 downloads of the skills diagnostic (self-assessment tool) has not been met, however, the School currently has a communications plan in place which looks to increase the number of Infrastructure self-assessments significantly in early 2016.

4.1 Sustainable Infrastructure Supplier Days

There have been five partner led Sustainable Infrastructure Supplier Days since 1st April 2015. Below are the attendance statistics from the events, with a few key points:

Date	Sector	Lead Partner	Location	Attendees
29th April	Infrastructure	Morgan Sindall & Carillion	York	94
7th May	Infrastructure	Taylor Woodrow	London	79
24th June	Infrastructure	Tarmac & Skanska	Birmingham	104
20th Oct	All School's	United Utilities, Laing O'Rourke, Aggregate Industries, EMCOR UK	Warrington	165
1st Dec	Infrastructure	BAM & Willmott Dixon	Sedgefield	73

The feedback from all events has continued to be excellent. A new voting system has also proved to be a valuable investment and has allowed for an increased audience engagement, adding value to the attendees.

The aggregated statistics from the events are as follows:

- **94%** rated the overall organisation as "Excellent" or "Good"
- **96 %** rated the plenary session content as "Excellent" or "Good"
- **86%** said the event fully met their expectations
- **93%** said they would "Definitely" or "Probably" use the school

Finley Structures said that the School will help them *“increase their knowledge and understanding of a topic that is quickly becoming an industry standard”*

Thompsons of Prudoe suggested that the School was *“a great resource to provide a focus and will help them understand the wider sustainability context more which is now very important to client”*

These supplier days aim to attract at least 100 attendees who will be new to the School. Each event takes a slightly different format depending on the requirements of the lead partner.

For example, the London event hosted by Taylor Woodrow and looked at the bigger picture of what sustainability is and how suppliers can improve their sustainability performance by improving their knowledge through the School. Whereas, the BAM event in Sedgefield focused on the delivery of workshops in the morning, and information about the School in the afternoon.

Our North West Supplier Day on 20th October looked at the sustainability challenges across the value chain. This event followed a different format with the introduction of an ‘Innovation Bootcamp’ in the afternoon. These ‘boot-camps’ encouraged the organisations to work with each other in small groups, focusing on different work packages (e.g. Civils M&E etc) related to a fictional build project to explore the challenges or ‘blockers’ and solutions to sustainability.

Key lessons learned:

- ✓ It worked well for supplier days to focus on a particular project or topic of interest within the area – different regions have different priorities. This helps to really engage with / relate to the supply chain.
- ✓ Involving the partners with communications motivates suppliers to change behaviour and has a powerful impact on the supply chains engagement in the sustainability agenda. The addition of client partners to the School also helped motivate members to assess and maintain their level of engagement.

4.2 Workshops

A programme of training workshops has been taking place since April 1st 2015 – with the development of four new workshops to meet the training requirements of the Infrastructure sector.

The workshops were developed to provide the audience with the tools and techniques needed to incorporate sustainability into their business. The topics were driven from the partners and the issues that they need their supply chain to address.

These new workshops are:

- **Carbon in Infrastructure** - looks at understanding the carbon landscape for UK infrastructure which includes carbon foot-printing, and development of carbon action plans.
- **Driving Sustainability through Innovation** - provides delegates with the knowledge and tools to help you drive sustainable innovation within your business, supply chain and projects to meet your clients’ needs.
- **Getting to Grips with CEEQUAL** - aims to provide delegates with an insight into the process on conducting a CEEQUAL assessment and an overview of the CEEQUAL manual, and it will give delegates the basic principles of a CEEQUAL assessment and how they might wish to pursue an assessment on a real project.

- **Meeting Contractors' Responsible Sourcing Requirements** - provides delegates with an overview of Responsible Sourcing, an introduction to some of the available schemes/standards, a step by step guide to BES6001 and practical advice on how to identify key risks and benefits.

A total of 279 people have been trained in 15 workshops. Feedback continues to be excellent with more than **98% rating the workshops as excellent or good.**

Table 1: Workshops delivered 1st April 2015 – 31st December 2015

Date	Workshop	Lead employer	Location	Attendees
29/04/2015	Responsible Sourcing	Carillion & Morgan Sindall	York	25
29/04/2015	Making the School work for your business	Carillion & Morgan Sindall	York	14
07/05/2015	Carbon In Infrastructure	Taylor Woodrow	London	15
07/05/2015	Making the School work for your business	Taylor Woodrow	London	15
20/05/2015	CEEQUAL	Galliford Try	Coventry	10
24/06/2015	Responsible Sourcing	Tarmac & Skanska	Birmingham	21
24/06/2015	Making the School work for your business	Tarmac & Skanska	Birmingham	25
15/07/2015	Carbon In Infrastructure	Galliford Try	Edinburgh	9
15/09/2015	Responsible Sourcing	Carillion	Midlands	20
30/09/2015	CEEQUAL	Skanska	London	9
20/10/2015	Innovation Bootcamp	United Utilities	Warrington	19
29/10/2015	Embedding Sustainable Procurement	Morgan Sindall	Rugby	23
18/11/2015	Circular Economy	BAM Nuttall	Midlands	42
01/12/2015	CEEQUAL	Tarmac	Birmingham	7
03/12/2015	Driving Innovation in Sustainability	United Utilities	Manchester	6

The marketing strategy for these workshops was to reach out and engage the strategic suppliers of the lead partner – the driver for suppliers to attend the workshops is very much led by their client's involvement. The workshops where the lead partner was directly involved with the organisation of the workshops were better attended than workshops where the partner didn't.

Workshops that focus on the key sustainability drivers from a contractor/ client are also well attended– this worked well with the Circular Economy workshop hosted by BAM Nuttall, who is looking at writing circularity into their new supplier contracts.

4.3 Self- assessment

Since the launch of the Infrastructure School in February 2015, all efforts were focussed on engaging suppliers to the Infrastructure sector to register with the School and to complete the self-assessment tool. This not only provides a tailored action plan specific to their trade, but also allows them to benchmark themselves against their peers within the industry.

At the time of writing this report, there were 117 Infrastructure self- assessments completed by 95 unique companies, with companies on average scoring their knowledge and level of understanding at **2.24**. This is compared to **2.14** average score across the wider Sustainability School. The self-assessment allows companies to assess their understanding of certain sustainability issues where they rate how they feel that their organisation is positioned from 1 (No Knowledge) to 5 (Leader with knowledge to share).

The target to have 200 completions of the infrastructure skills diagnostic, enabling companies to understand the gaps in their knowledge in the area of sustainable business practices, has **not been met**, even though activity within the School to drive members to complete a self-assessment has been high.

Lessons learnt and future recommendations:

- ✓ Even though organisations supply to the Infrastructure sector, it seems that some organisations **identify themselves as Construction company**. On the days that an Infrastructure supplier day has been held a total of 32 self-assessments were taken within the Construction School by delegates at the event.
- ✓ A number of Infrastructure suppliers have not yet updated their profile, so will still be registered on the School system as sitting within the Construction School. The communications plan for 2016 sets out how suppliers will be encouraged to update their profile every 6 months, to ensure that the information is accurate.
- ✓ Effort needs to be focused on **encouraging existing School members to become more active**, and to use the Action Planning tool as a mechanism to develop continuous improvement. This would drive up the number of re -assessments completed.

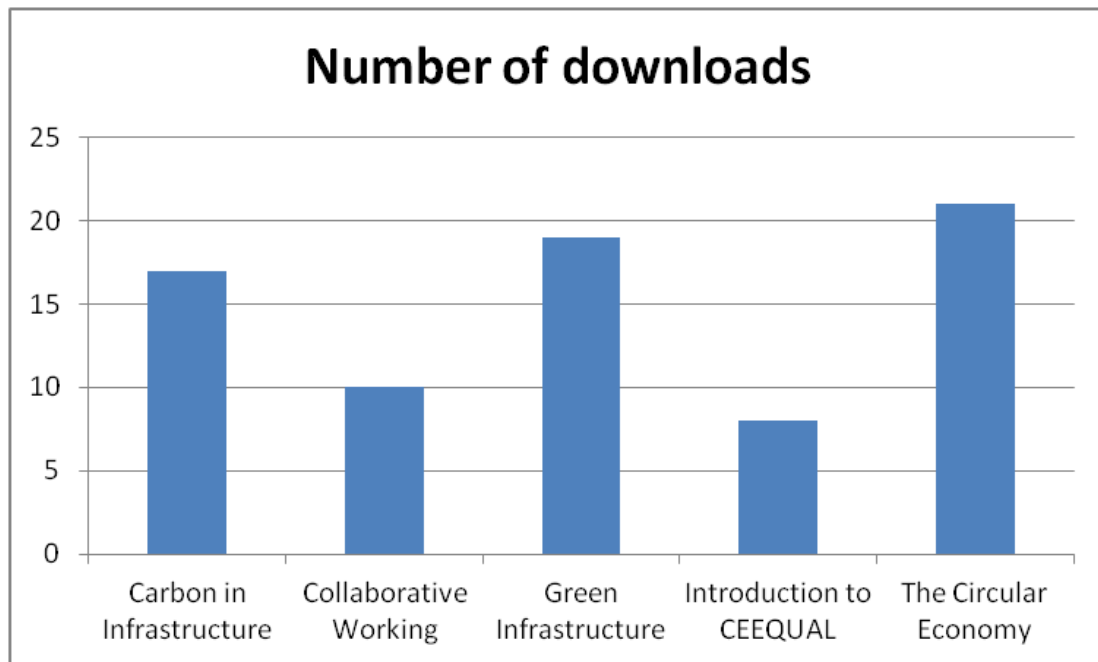
4.4 E - learning

The five new infrastructure e - learning modules were piloted by 39 unique companies who have downloaded these resources 75 times. They are:

1. Carbon in Infrastructure
2. Collaborative Working
3. Green Infrastructure
4. Introduction to CEEQUAL
5. The Circular Economy

The modules were developed to build upon the existing 'beginner' level modules that sit within the Construction School and to focus more on building the sustainability skills within the Infrastructure sector.

Graph 1: Number of downloads of the five Infrastructure e - learning modules since 1st April 2015



The process to develop and pilot the e - learning modules followed the below method:

Item	Process	Reasoning
1.	Identify knowledge provider and gain credentials. Knowledge provider provided with brief and template materials.	Ensure that the content of the e - learning module is correct and up to date.
2.	Peer reviewer allocated amongst group for particular topic	To ensure that knowledge gained meets industry requirements. Content does not become too technical but addresses the needs of the supply chain
3.	Knowledge provider to supply outline of e - learning module which is reviewed and agreed by Peer reviewer	Support the development of the module that all relevant information is addressed. It was important to keep the e - learning as a 'Beginners guide to'.
4.	Knowledge provider to write script and power point based on outline which is reviewed by the Peer Reviewer throughout its development	Ensure the e - learning is kept focused and includes key topics. E - learning gains an industry flavour not just academic.
5.	Action Sustainability review script to ensure consistency of language and flow.	All e - learning follow a format and the learner will gain the following outcomes: a) Have an understanding of WHAT the subject is b) Be able to articulate WHY the subject is important to their business

		<p>c) Understand how to start implementing the subject in their business</p> <p>d) Will successfully passed the module test.</p> <p>e) Will understand what best practice looks like</p>
6.	E - learning is produced and reviewed by Action Sustainability	To ensure the flow and technical elements of the e - learning module work.
7.	E - learning module reviewed by Peer Reviewer	To ensure that all key messages and examples are correct and are delivered. Any changes made.
8.	E - learning reviewed by a cold focus group	To ensure that key messages and examples are delivered. Any changes made.
9.	E - learning module is published to site.	

The table below illustrates which industry Partner was responsible for reviewing which e - learning module:

Topic	Knowledge Provider	Peer Reviewer
Carbon in Infrastructure	Responsible Solutions	John Hutton, BAM Nuttall
Collaborative Working	David Hawkins, Institute of Collaborative Working	Gavin Pearce, Costain
Green Infrastructure	Responsible Solutions	Joe Burns, Kier
Introduction to CEEQUAL	Responsible Solutions	Philip Charles, CIRIA
The Circular Economy	Responsible Solutions	Graham Arden, Skanska

The piloting of the e -modules has provided vital feedback on the training materials. The main comments made were on a few styling issues which have now been fixed, the feedback on the content of the modules was all positive.

5. Key learnings

In order to disseminate the key learnings from the development of the Infrastructure School, there has been a number of communications to industry, these include:

- ✓ This report
- ✓ Production of four case studies
- ✓ A dissemination meeting with the partners who sit on the Infrastructure Group, this took place on the 8th December 2015.

Disseminating the information has assisted the project team to distil all of the key successes and challenges and provide significant instruction as to the way forward for the training programme.

5.1 Case studies

A total of four case studies have been produced and have been published to the website:

<http://www.supplychainschool.co.uk/members-partners/case-studies.aspx>

Two employer partner organisations (*BAM Nuttall and Laing O'Rourke*) have provided case studies with the aim to understand how the Infrastructure School has helped a contractor engage with their supply chain. From the other perspective, two of the School's Infrastructure members (*Global Rail Construction Ltd and Longwood Engineering Company*) have provided case studies and discussed how the School has benefitted their business.

The case studies were asked a set of questions below; they were all conducted via telephone in a 30 minute informal interview between the School's project team and the main representative from the case study organisation.

Question set:

Skills gaps within your company:

- ✓ Where do you see the biggest skills gaps within your organisation?
- ✓ How do you think the School provides you with opportunity to close these gaps?
- ✓ How has the School enabled you to understand the implications for a move towards offsite construction?
- ✓ How do you currently train your managers and staff?
- ✓ How does the School fit in with your company training plan?

Supplier days

- ✓ Did you attend any of the supplier days?
- ✓ If so what did you think of them?
- ✓ What was the impact / benefit of the supplier days for your company?

Training workshops

- ✓ Have you or any of your colleagues attended any of the free training workshops run by the School? If so which ones, and what did you think of them?
- ✓ What was the impact / benefit of attending this training workshop?

Self-assessment tool

- ✓ Have you done a self-assessment?
- ✓ If so how did you go about assessing e.g. in a room of people or just yourself?
- ✓ How did you find the process of working through the self-assessment?

Action Plan

- ✓ How useful / accurate was your Action Plan?
- ✓ How did you use the Action Plan? How has this benefited your business (if at all)?

Re -assessment

- ✓ Have you done a re -assessment?
- ✓ If so how useful did you find the process?
- ✓ If not do you expect to do this in the future?

E - learning modules

- ✓ Have you or your colleagues used the e - learning modules? If so how useful were they?

PR / comms opportunities:

- ✓ Have you promoted your involvement in the School to your clients / stakeholders? If so how, and what has been the impact? Have you promoted the School to your own supply chain? If so what has been the general response?

Benefits of membership:

- ✓ How has your engagement in the School benefited your organisation to date?
- ✓ What do you see as being the future benefits of membership?

The Future of the School:

- ✓ How could the School be improved?
- ✓ How would you like to see the School develop?

Lessons learnt and future recommendations:

- ✓ The use of **procurement leverage** continues to motivate suppliers to change behaviour and has a powerful impact on the supply chains engagement in the sustainability agenda. Laing O'Rourke present the School at all of their own supplier events, as such they have seen an increase in the number of their suppliers accessing the School.
- ✓ Partners are using the School as a **platform to communicate with their supply chain**, the sustainability agenda is being driven by the clients so it is important that all suppliers are aware of the challenges and everybody is speaking the same language.
- ✓ **Suppliers who are engaged with the School are at a competitive advantage.** The School's partners are beginning to recognise businesses that are eager to learn and improve their sustainability performance. BAM Nuttall for example, is using the School to educate suppliers on concepts of the Circular Economy as they are looking writing circularity into their new supplier contracts.
- ✓ **Both members and partners would like the School to link in the provision of training workshops to specific projects**, addressing the key sustainability issues faced within those projects, providing a more tailored offering to the supply chain.
- ✓ The School needs to continue to develop the Infrastructure School, and ensure that resources are applicable to Infrastructure trades.
- ✓ **The Bronze, Silver, Gold** membership badge is important to both members and partners and is an easy way for suppliers to show their dedication to continuous improvement.
- ✓ **E - learning modules should be between 30 minutes and 1 hr long.** Feedback suggests that the shorter the e - learning module, the greater the likelihood of it being used on a wider scale within a business.

5.2 Dissemination Meeting

The dissemination meeting for the Infrastructure Group took place on the 8th December at Morgan Sindall's offices in Central London. 15 of the partner representatives attended. The agenda for the meeting addressed the following points:

- ✓ General School update (inc. engagement statistics within the School and attendance at events).
- ✓ Update on the Materials Group (explained in section 6 below).
- ✓ Business planning for the 2016/2017 financial year – this looked at getting feedback from the partners and what direction they would like to see the School go in next year.

- ✓ Potential partners – strategising how the current partners can help the School reach out to potential new partners.

The group also reflected on how far the group had grown in recent months with new partners on board, however, it was stressed that the following year must focus on impact and engaging suppliers. The School's project team are feeding back to the group in February 2016 with an update on developments and the process for developing segmented learning journey's for members.

6. Materials Group

At the time of receiving the CITB grant funding in April 2015, it was not specified that a sub-group to the Infrastructure Group would be formed, however, due to demand from the partners who sit on the group and Materials Group has been created. The group aims to:

- ✓ To identify priority products and labour skills/trades for the Partners and to;
- ✓ Provide guidance to the supply chain on category material/skills management

The outcomes of the group will be to:

- ✓ Create a series of case studies (video/e - learning) demonstrating good practice highlighting the items and issues to consider when procuring materials based on the priority areas as Category Management support for the supply chain (initially two areas).
- ✓ Write two specific client 'Information Papers' to highlight short term risks for the identified product and skill/trade

At the time of writing this report the group had met twice and had a consensus forming that the group should focus on product 'availability and the capacity in the market'. Linked to this area was the trade/skills shortage the industry is facing.

7. Communication Strategy

The Infrastructure sector is one of the UK's largest which illustrates a clear imperative for leaders and managers in the sectors' supply chain to develop and grow their sustainability skills and those of their workforce. The potential reach of the School on the Infrastructure supply chain is therefore vast, making a solid communication strategy a vital tool.

In order to increase engagement of suppliers, the School is in the process of putting together a proactive, segmented communication plan for members/registered users to encourage engagement and reassessments. This will include monthly hot topics, segmented learning journeys as well as continuing to utilise and add to our existing events (supplier days and workshops) and adding webinars and more supplier forums.

8. Conclusion

As the Infrastructure School is still in its infancy, the past nine months have enabled the School to pilot and then further develop the resources including new workshops and test out new things. However, as the School grows the focus for 2016 needs to be on increasing and maintaining the impact of the School members.

The partners who sit on the Infrastructure group will be the key to driving this through their supply chain, but it is the responsibility of the School to ensure that a robust communications plan is in place which promotes the quality resources and events within the School and which ultimately aims to build sustainability leaders across the Infrastructure sector.