

Supply Chain School Horizon Group Meeting

Date: Monday 17th June 2019; 10:00-13:00

Venue: John Sisk & Son , 1 Curo Park , Frogmore, St Albans.

Attendees: Laura Spence (*Royal Holloway, University of London – Chair*), Gareth Rondel (*Kier – Vice Chair*), Cathy Berry, (*Action Sustainability (AS)-Horizon Group Manager*), Susan Schnadhorst (*Osborne*), Simon Tranter (*Willmott Dixon*), Sarah-Jane Davies (*Sisk*), Alexander Trautrimms (*University of Nottingham*), Erica Russell (*University of Surrey*), Stewart Jones (*Hanson*)

Apologies: Shaun McCarthy (*Action Sustainability*), Sophia Cox (*UK Green Building Council - UKGBC*), Richard Smith (*Offgrid Energy*), Richard Bayliss (*CITB*), Emma Hines (*Tarmac*), Maeve O’Loughlin (*Middlesex University*), Eddy Taylor (*Laing O’Rourke*), Iain Walpole (*Hanson*), Tony Parry (*University of Nottingham*), Anthony Lavers (*Taylor Wimpey*), Kieran Brocklebank (*United Utilities*), Lucy Barton (*ISG*), Wyn Pritchard (*Neath Port Talbot College*), Paul Wyton (*Sheffield Hallam University*), Sophie Sharpe (*Costain*), James Douglas (*Lendlease*), Kenneth Park (*Aston University*), Christina Houlgrave (*Skanska*), Alice Owen (*University of Leeds*), Peter Demian (*University of Loughborough*), Andrew Day (*Telford Homes*) Arjun Thirunavukarasu (*BAM Nuttall*), Jenny Lowe (*Aggregate Industries*)

Minutes of the Meeting

1. Introductions

Laura Spence welcomed everyone to the meeting and thanked Sarah-Jane Davies for hosting and providing lunch.

2. Horizon Partner: Susan Schnadhorst advised that she is leaving Osborne on 25.6.19 and moving to Melbourne to support the Melbourne Metro Expansion Project. The project has mandated use of ISO20400 and all Government funded projects must undertake an infrastructure assessment scheme.

3. School update

Cathy Berry provided a brief School update noting 89 Partners now support the Supply Chain Sustainability School (SCSS). **Action: Cathy to forward an overview of the Partners and spread of coverage of the Sector.** Other key points:

- School platform launch is delayed to early July, due to some issues found at the user acceptance test stage and problems with the interface with the Event Management systems. Note this is on budget and will provide excellent new functionality. Individual accounts, scores and actions plans etc. should be transferred across for existing users.
- The School has submitted a bid to CITB who have £3M funding over 3 years to deliver procurement training (not sustainable procurement training *per se*). School is bidding for around £1.2M for training from basic “procurement for non-procurement professionals” to more advanced “enterprise procurement” practices being advocated by ICE NEC4 Alliance Contract. The bid will be submitted late June. The School has engaged with Kings College for the bid but are keen to engage academia more widely. Interested universities are encouraged to get in touch. The group noted that sustainability should be included in this as sustainability and efficiency should not be viewed as different things. Alex Trautrimms noted that there is a significant amount of research into alternative views of GDP and other European Governments take a wider view of value.
- Category groups are working well:
 - **Waste group** has started and is attracting a lot of partners. The group is keen not to duplicate other industry initiatives and are currently evaluating their focus areas and strategy to ensure a cohesive approach
 - **Plant group** has completed analysis of engine performance and recommendations of what engine standards will be required over the coming years (one standard to 2020 with more ambitious

standards beyond this date). They are now focussed on the outputs to support the delivery of these requirements. The Horizon Group noted that if cleaner plant is not a client requirement affordability can be an issue, plus HS2 is impacting capacity which may have knock on effects to group targets.

Research on airborne micro plastics undertaken by Kings College in conjunction with the Alliance for sustainable Building Products has demonstrated that particles from nearby building sites can be easily identified even in wet weather conditions and may increase the degree of responsibility for the construction sector to address this issue. **Action: Cathy Berry to advise plant Group and encourage linkage with the Alliance for Sustainable Building Products.** It was noted that clients are starting to enquire about plastics usage and Simon Tranter agreed to share details of PPE company who have eradicated plastics packaging following customer demand from SKY See: <https://www.mathiasandsons.com/>

- **Labour Group** A draft charter has been proposed and signatories will be expected to evidence the following 9 commitments:
 1. Permanent or temporary labour in your organisation have the right to work in this country
 2. Due diligence processes are in operation & monitored to ensure that directly employed and temporary labour are not subjected to exploitation
 3. Payment mechanisms in place for employment are legally compliant and employees directly employed or through our supply chain have access to all benefits -sick, holiday and paternity pay and they are made aware of their entitlements.
 4. A plan to move towards becoming an accredited Living Wage employer
 5. Implementation of Equality & Diversity / Fairness, Inclusion & Respect (EDI / FIR) objectives and practices that go beyond the Equality Act 2010
 6. Employment, skills and training strategy with a monitored implementation plan.
 7. Implementation of mental and social wellbeing objectives and practices
 8. Demonstrate how employees and the supply chain are upskilled in relation to understanding and managing their environmental impacts
 9. Evidence supply chain due diligence processes that ensures that basic human rights are being protected.

Some improvements to the charter were offered including:

Charter seems to be focussed on risk avoidance and protection of the company with a recommendation to shift focus on the individual and not the business position. Point 9 should appear earlier in the order. The use of the term accredited was queried, however this means that Living Wage employers have been certified by the Living Wage Foundation.

Alex Trautrimis noted the use of 'Transit Countries' e.g. Latvia is used to bring in non-EU workers. Poorer government regulation and law enforcement is resulting in payment of wage rates in line with the 'Posting' country which results in workers having the right to work in the EU but not necessarily getting treatment under 'home rules'.

- **School Strategy-** Cathy noted that the 4 School strategic objectives to 2025 are still being developed. Shaun McCarthy is leading the 'Upper School' concept with the support of two board members; Kieron Brocklebank (UU) and Nitesh Magdani (BAM). The high level intent is to allocate more resource and funding to forward

looking issues, to influence and shape the future direction of both the School and sector. This is likely to include a strategy to seek more sources of match funding and skilled resource may need to be employed to assist. Shaun is developing an outline proposal for discussion and Horizon Group input at the next meeting.

4. Erica Russell: 'Main Contractor: leading role or bit player?'

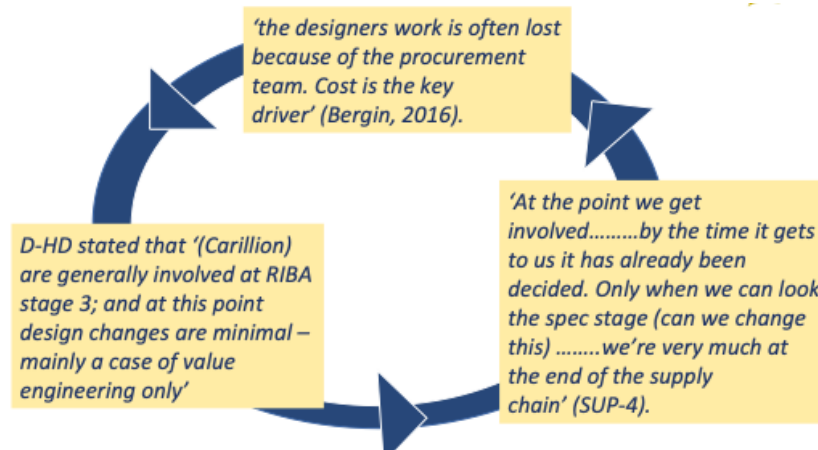
Erica shared the finding of her PhD thesis which examines the role that a main contractor plays, or has the ability to play in the sustainability of a built asset. This research used Carillion as a case study and following the collapse of the company in Jan 2018 Erica is able to be very open about her findings. This research considers the apparent failure of main contractors to effectively leverage their position in the supply chain to drive increased sustainability of buildings and infrastructure. This research adopted a 'Grounded theory' approach, this included interviewing numerous individuals in Carillion's Buildings and Infrastructure Supply Chain team and Sustainability team. This enabled the research to address a broad range of issues and not be limited to a single focus area based on a knowledge gap in existing research literature. Erica presented selective areas of research that were considered most relevant to the SCSS and Horizon Group. This was split into two main areas:

1. **An overview of the Industry (i.e. the big picture) and Carillion's vision, goals, boundary.** Key points noted are:
 - Scale of impact; social, economic and environmental is vast – both positive and negative – and long term.
 - Limited published data of impacts exist at a whole asset level
 - Limited sustainability goals were set at a network level – Carillion had a single corporate sustainability goal related to carbon. However an evaluation of carbon in the UK built environment by lifecycle stage shows construction related carbon impact is dwarfed by carbon emitted in the operational phase of the building and to a lesser extent at the raw material and product manufacture stage upstream in the SC.
 - Corporate targets were not ambitious and would at best achieve incremental improvement
 - Company boundaries were set at site/project level. Approximately 700 projects were underway simultaneously and a siloed approach was evident with little understanding of the relationship between sustainability issues. An evaluation of suppliers used across Carillion projects also showed that 65% suppliers were only working on one project and research concluded that Carillion did not consider, manage or even understand its supply-base as a whole and only managed suppliers by individual project. (This demonstrates the scale of the challenge for the SCSS)
 - Supply network(s) exist rather than supply chains – a meta-industry? A very complex construction network exists with evidence that professional bodies, NGO's and government do influence sustainability (but do not get involved in the actual construction process). Research showed building users were disconnected from the supply network and influencers of sustainability (unlike consumer products sector)
 - Multitude of standards, terms, targets and initiatives exist across the sector- SC teams often didn't understand what standards mean but simply 'specified' them. As such requiring standards didn't necessarily ensure that suppliers would meet Carillion's requirements. Sustainability was considered peripheral by Carillion SC team. There was evidence of a mismatch between technical standards and what's required at a strategic level, together with a confusing array of different strategies and targets. This resulted in a lack of clarity of what the overall goal should be and could be relevant to the SCSS, in term of informing what future goals the School should be working towards (The School currently positions it's learning largely towards individuals and organisational boundaries. Should this be wider to support of our overall goal of delivering a more sustainable built environment?)

Use of standards is also complex. For example a door can be made of glass, wood and metal, meaning multiple standards must be met. The main contractor (MC) role is unclear at this point in terms of how conflicts with client requirements should be dealt with when specified products are 'non compliant' products against MC standards.

2. Based on main contractor actions, processes and staff perceptions the research discovered four, highly interrelated, themes (barriers) which affect the main contractors ability to lead sustainable construction. **Barriers** were identified as:

- **Sector Fragmentation** including:
 - Complex, numerous, changing and occasional clients
 - The episodic nature of construction
 - Non-alignment of indicators and reporting. Investors were found to be more focused on environmental issues particularly carbon targets, Developers demonstrated limited sustainability indicators and MC's were found to have the most balanced sustainability indicators/approach. Susan Schnadhorst pointed out that the recent increased emphasis on social sustainability may result in a different finding since this research was carried out.
 - Inequality of profitability across the sector, with investors and developers at one end making profits of up to 25% and product manufacturers at the other making good returns; MC's are squeezed in the middle resulting in real inequality of profitability.
 - Accountability v's responsibility: the idea that 'everyone is responsible' results in no-one actually taking ownership and action.
- **The role of focal nodes:**
 - Infrastructure vs Buildings
 - Primacy of the client. Client requirements typically take precedence over company sustainability strategy or policy. However clients do not consistently specify sustainability requirements. The SC team were asked how often clients required them to buy sustainable materials, 41% noted this never occurred or only rarely.
 - Legislation is a primary driver. The diagram below outlines a perceived cycle of constraints highlighted during interviews that prevents more sustainable built outcomes. The research concludes that Legislation remains a primary driver to break this cycle and overcome the risk and cost barriers.



- **Collaboration**- Different goals and ability to influence these goals were evident depending on where organisations operate in the construction network. Different goals affect the effectiveness of collaboration and the organization impact on this. Carillion's SC charter indicated a willingness to collaborate but requirements were flowed down with little evidence of two-way dialogue. Goals were also shown to have multiple meanings, a review of Carillion's sustainability commitments indicated some were 'required, others 'mandated' others 'informed'.
- **Knowledge**- was also cited as a barrier. The research identified that sustainability is typically contained in silos such as within the corporate sustainability team. This did not consistently reach across to the procurement team who demonstrated limited understanding. Experience based knowledge acquisition was identified as an important means of learning. False knowledge was also

evident which can also impact upon sustainability outcomes. For example, the Carillion procurement team overestimated the embodied carbon and water used at site level construction process compared to the in use phases of a building and 'common sense' was the third most cited approach for how buyers judge how sustainable a product or service is.

The Role of Values- the research found that the procurement team identified themselves with suppliers and colleagues not with clients and end users. This also demonstrates the degree of disconnect in the industry.

Conclusion- Erica concluded that whilst highly visible and a constant player in the construction supply network, MC's have limited influence and limited direct environmental impact. Clients and Developers are not so visible and have little direct environmental impact, however they exert the most influence on build sustainability. Other upstream supply chain players including Architects and Product Manufacturers also have a significantly greater influence than a MC.

The notes above represent a limited summary of the discussion and Erica has agreed to share the slides once she has published some research papers. These will be forwarded in due course.

6. AOB

Simon Tranter advised that Willmott Dixon are exploring funding options to use Digital Ledger Technology to help provide a record around quality/proof of work of products reaching the final building. (this could be added to the BIM record)

Laura Spence advised that she will step down from the position of chair of the Horizon Group at the end of 2019. A huge thank you to Laura for her superb support over the last 3 years.

Cathy Berry requested the group to consider future meeting topics and confirmed that we will run a virtual meeting for the final meeting of 2019 (17.12.19: 10:00-13:00)

7. Actions

- Cathy Berry to engage with Shaun McCarthy to prepare the next session to explore the Horizon Group's role in the future School Strategy
- Cathy to forward an overview of the Partners and spread of coverage of the Sector
- Cathy to advise plant Group and encourage linkage with the Alliance for Sustainable Building Products (complete)

8. Next meeting

Date: Monday 16th September 2019. **Time:** 13:00-16:00 **Venue** TBD.

Please advise Cathy if you are able to host