

The Value of Natural Capital in Construction

Introduction

During World Green Building week in September Sir Robert M^cAlpine and Hammerson hosted an event for a select group of clients and consultants from the construction industry titled “Communicating the Natural Capital Benefits of Built Asset Design”. This was the culmination of a nine month study in which we assessed the natural capital (NC) impacts of a number of technologies on two live projects. The value of natural capital accounting was clear to both Sir Robert M^cAlpine and Hammerson, and the event was aimed at engaging with key stakeholders of both companies to aid the further uptake of NC within the industry.

NC is a robust and honest method of capturing the environmental impact that construction has and converts it into a simple financial value that makes it more tangible and easy to understand.

After a brief introduction from Anna Baker, Head of Sustainability at Sir Robert M^cAlpine, and Louise Ellison, Head of Sustainability at Hammerson, Caroline Bartlett, Corporate Services Consultant at Trucost gave a brief presentation outlining: what NC is; how it can be of use in the construction industry; what the findings of the study were; and potential next steps for further development of NC accounting in the industry.

A workshop followed where we asked the following three questions:

What are the most important elements of a building to focus on from a NC point of view?

What are the barriers to getting the approach adopted?

Who should be responsible for driving the concept of NC analysis within a project?



Caroline Bartlett from Trucost was among the presenters

NC is a relatively new concept in construction and we believe that our study was the first of its kind within the UK market. We were keen to share the analysis, and the lessons learned so that we can engage with the industry on the best way to further encourage its uptake.

The round table discussions were interesting in that everyone seems to be bought into the value that something like NC can have in the construction industry. The range of areas of focus for further NC studies were very diverse and included looking at individual elements, or analysing the comparative impacts of different design options such as concrete vs steel framing or the benefits of passive vs active design. It showed that there was a real appetite for using the tool to answer some of the more difficult problems within the industry.

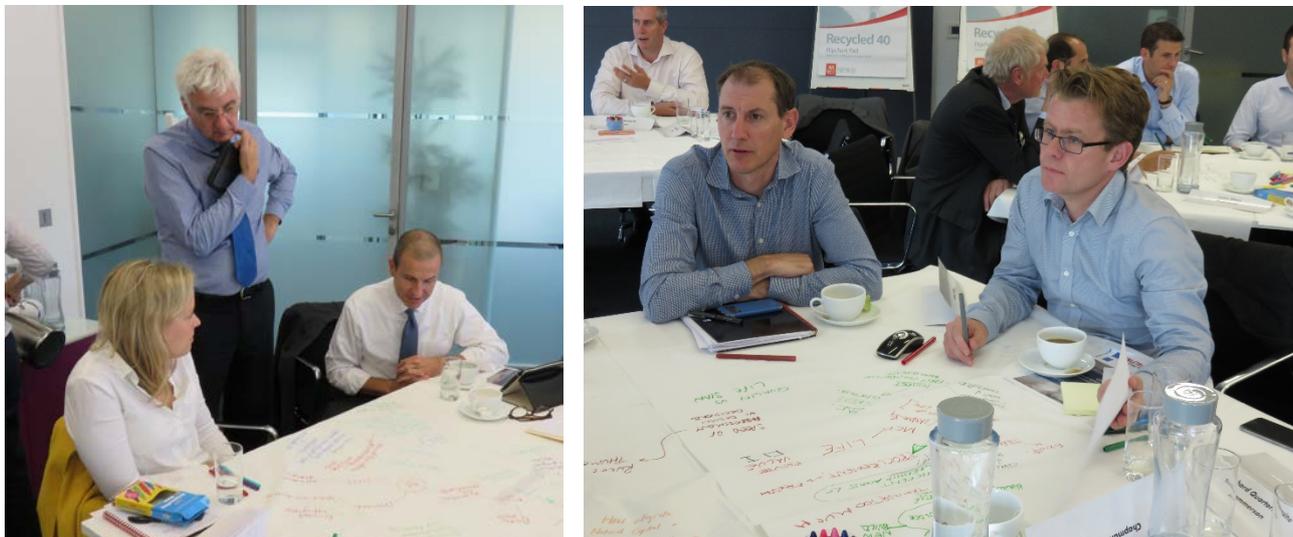
Louise Ellison from Hammerson detailed some of the key themes covered at the event in a document [here](#).

The value of natural capital

Increasingly we are seeing clients and designers looking to better understand the impacts of their projects, and as a main contractor we are acutely aware of the effects that construction can have and are always seeking new ways to better understand and minimise these impacts.

Our aspiration to become sustainable contractor of choice by 2019 reflects this, and as part of that delivery we have targets associated with responsible sourcing of materials, as well as with engagement of all our

strategic supply chain on our sustainability aspirations. NC is a great new tool that can help facilitate this as it captures the full environmental impact of the material supply chain for construction.



The current state of play

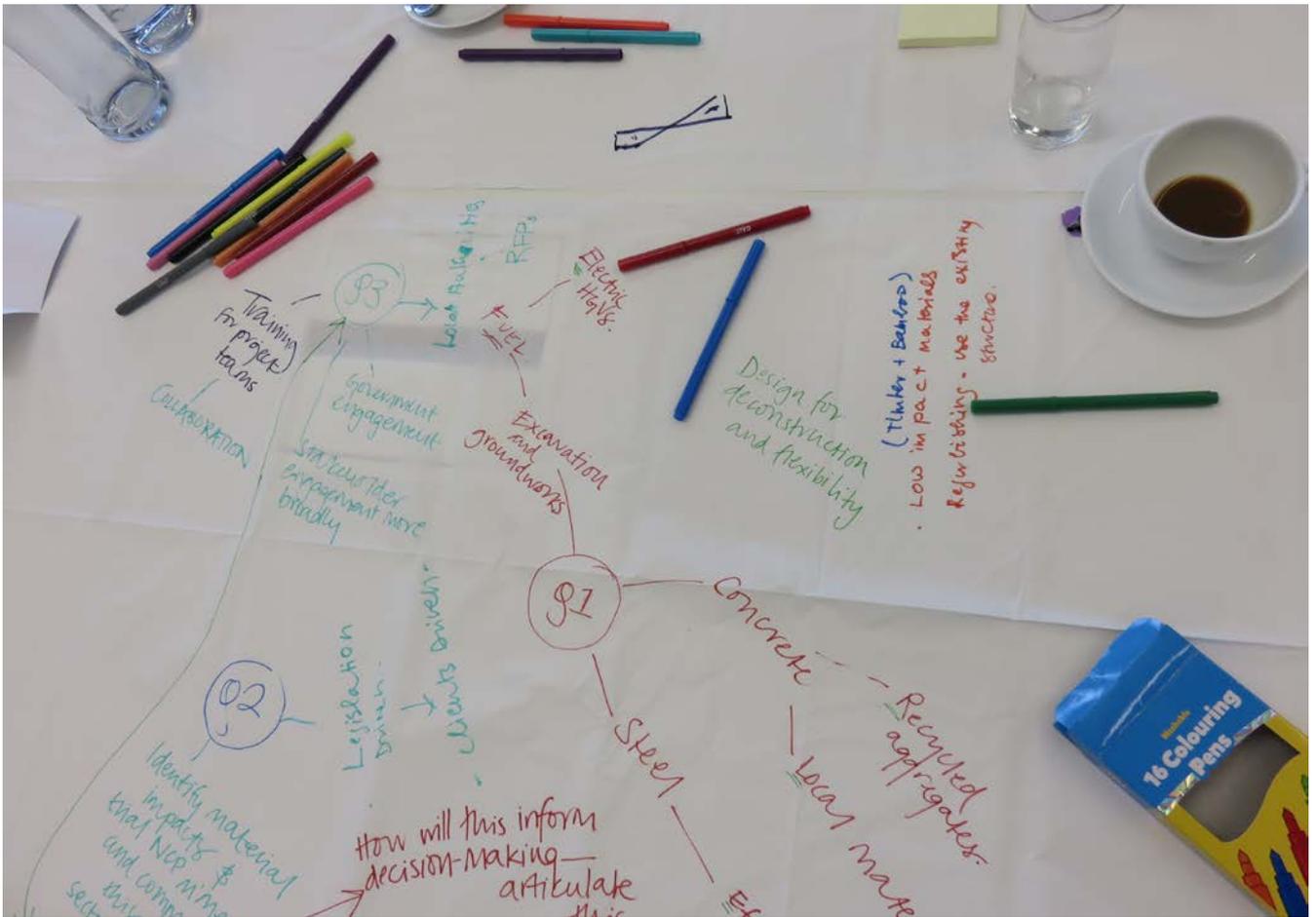
The embryonic nature of NC and how to apply it are immediate barriers to its use but other hurdles, such as time and cost also exist. Time in terms of what point in the decision making process NC should be introduced, but also whether there is enough time in the programme to ensure the outputs are maximised? In terms of cost there is the usual discussion around capital cost, which should be more than recouped if the NC analysis is effectively completed. Nonetheless this still must be justified at the outset of a project.

The bigger picture of how NC accounting is utilised alongside other financial data is still something that needs further development. NC is entering an already busy marketplace for impact assessments, with embodied carbon calculators, Life Cycle Assessments, and Life Cycle Cost assessments to name but a few. As such, NC needs to differentiate itself from what is already in the market, and showcase the additional benefits that it provides. The work that the NC Coalition has begun in developing NC protocols and embedding robustness into NC methodologies paves the way to combat some of these unknowns.

Collaboration to drive progress

It is clear that significant savings can be made through understanding and reducing construction impacts, but we believe that the greatest potential savings can be made through engaging with the wider project team. Our recent experience highlighted that collaboration is key and we would like to thank Hammerson and Trucost for making the project viable. NC is a great tool to help facilitate knowledge transfer, and raise awareness of the embodied impacts of our projects.

This initial collaboration represents the start of the NC learning curve for Sir Robert M^cAlpine and we are looking to further develop our knowledge and experience on the subject through other trial projects. We welcome an approach from any likeminded client, design or project teams who are looking to do the same.....



The Sir Robert McAlpine, Hammerson plc and Trucost full report and executive summary can be downloaded [here](#) or from the Hammerson from the [Hammerson](#) website