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EUROPEAN FEDERATION OF FOUNDATION CONTRACTORS

Notes of a meeting of a Carbon Calculator Group held on Tuesday 14 July 2015 at Sofitel, Heathrow Terminal 5, London

Chairman Luca Bruni Servizi e Construzioni, AIF, Italy

Present:

Marcel Kouwenhoven	Vroom, The Netherlands
Stefano Margozi	Trevi, Italy
Ruben Van den Broeck	Dewaal, Belgium
Alexander Rostert	Zueblin, Germany
Alexander Zohrer	Keller, Austria
Gianfranco DiCicco	DFI
Aurelien Damsin	FFGB, Belgium
Jean-Yves Wilmotte	Carbone 4

In Attendance: Ciaran Jennings EFFC Secretary

Apologies: Ivo Rosa (Portugal), Dejan Lukic (Switzerland), Martin Stanley (UK), Georges Kausay (Hungary)

State of the art of software

- i) Number of downloads
 - 545 people have downloaded the tool since launch
- ii) Statistical data of numbers of downloads
 - Mixture of contractors, consultants, universities and others
 - The largest proportion of downloads has been in the UK, Netherlands, US, France and Spain.
- iii) Policy problems
 - None reported, adoption and awareness of the tool continue to be the main challenges to use of the tool
- iv) Reports on how the tool is being used
 - In Belgium the tool is being used to aid with BREEAM certification. Currently it is used to document the carbon consumption in the build.
 - It is not currently being used in the design or tender process unless sustainability is being looked at specifically.
 - It is not being requested by clients. Luca Bruni has used it in a number of tenders to show how different designs and choice of suppliers can reduce the carbon footprint.
 - Addressing the design of a project is difficult as sub contractors have to work through the principal contractor.
 - The tool can be used to make an economic argument about using fewer resources and therefore saving on cost.
- v) Bugs
 - Specific bugs have been identified and fixed by Carbone 4 – this will continue.

- As the size of the email database of users increases it will be necessary to move to a formal emailing system in order to prevent notifications being treated as spam.

Technical aspects

- i) Contract for maintenance – this will continue with Carbone 4, DFI to be informed of any updates and changes required.
- ii) Graphical interface
 - It was felt no further development was required at this point on the user interface.
- iii) Data
 - The accuracy of the tool needs to be improved with the submission of more project data in order to refine the ratios used in the tool.
 - Everyone was asked to collect data for all the techniques contained within the tool, specific techniques needing attention include:
 - Dynamic compaction
 - Jet grouting
 - Grouting
 - Vertical drains
 - Vibro compaction
 - Stone columns
 - Soil mixing
 - Soil nails
 - Anchors
 - Pile walls
 - Sheet piles
 - Diaphragm walls
 - Micropiles
 - Displacement piles
 - Bored piles
 - Jean-Yves Wimotte to provide cost for updating the tool with fresh data if out of the scope of the maintenance agreement.
 - Jean-Yves Wilmotte to check that the Emissions Factors databases are up-to-date

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Budget

- Ciaran Jennings to update everyone, including DFI on the budget for the software.

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Dissemination strategy

- Marine's schedule of promotional activity to be circulated to everyone for updating
- Main priorities are to promote to the geotechnical contracting industry within each country and to main contractors, designers and clients
- It is recognised that many foundation contractors will not use the tool until the client/main contractor demands it. It is therefore necessary to both educate the foundation contractors and the main contractors.
- It was suggested that the economic/business argument has to be substantiated to promote the tool as principal contractors do not care about environmental issues. Benchmarking was a potential method for doing this. (see below)
- Recent activity from the Champions includes:
 - Presentation at SEFE 8 Seminar on Special Foundations engineering and Geotechnics in Sao Paulo from June 23rd to June 26th 2015.
 - Submission of a paper for a Congress on Sustainable economies in Houston US in 2016
 - The tool was submitted as a project to an Italian congress about climate

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change in Rome last June 23th 2015. The event had been attended by the Italian Prime minister and also from Mrs Segolene Royale French minister of environment

- In the Netherlands x16 people attended a training event in 2014 including engineers and designers, a similar event has been held in Belgium.
 - The tool has been demonstrated in Spain to government ministers in charge of sustainability and construction
 - Opportunities are being sought in Germany to present to the industry at one of their industry meetings.
 - In Austria the tool has been presented at an AFA meeting at MD level.
 - In the US the DFI committees are the main routes to disseminate, but it's proving difficult to gather interest. The DFI champions are looking to present it at Micropiles seminar and at the Super Pile event.
 - DFI are also seeking to gather data to build a business case for using the tool (see New ideas below).
- Presentation that has been used by Luca Bruni and others to be shared via Dropbox to ensure everyone has access to it.

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Validation/endorsement of the Tool

- We need to gain endorsement of the tool by influential bodies who will require or encourage its use
- A number of organisations were identified:
 - BREEAM
 - TUV
 - DNV
 - Arup (aware of the project owing to tender process)
 - Atkins
 - HS2 (project in the UK)
 - Universities in the UK offering Geotechnical MSc
- Aurelien agreed to contact BREEAM
- Luca Bruni agreed to contact DNV
- Everyone to approach organisations within their countries that may be able to provide recognition

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Concrete Task Group

- Luca Bruni is liaising with the EFFC/DFI Concrete Task Group in order to see where the tool may fit in with the Guidelines they are producing.

New Ideas – Benchmarking

- Benchmarking each technique was considered early in the project but had two issues – 1. For each technique it is necessary to determine a functional unit 2. A large volume of data is required for analysis
- There was mixed opinion on whether benchmarking was valuable or not.
- The argument in favour - It would provide a means to show how well a foundation contractor was optimising their design – combining good workmanship, efficient planning, management and process to demonstrate quality. It would support the business case for a carbon efficient project to be of lower cost.
 - EFFC Officers/Executive would be asked for their view on benchmarking
 - DFI will continue to collect data with a view to establishing a benchmarking methodology.

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Next meeting: TBC late January 2016