Furniture Industry Research Association

COMMUNICATING CARBON IN THE FURNITURE SUPPLY CHAIN

Commitments were made by world governments at the recent COP meetings to limit the global temperature rise associated with man-made climate change to less than 1.5°C above pre-industrial levels. In order to achieve this both governments and institutions will need to have plans in place to make significant reductions in the emissions of Greenhouse gases if the targets of 2030 and 2050 are to be met.

The concept of carbon footprinting comes from the fact that if there are going to be plans to reduce emissions of greenhouse gases then having a benchmark of current levels is vital for both identifying the sources of the emissions and targeting reduction activity to have the maximum impact.

All UK quoted companies are required to report their greenhouse gas emissions as part of their annual report. In order to ensure that it is clear what the values pertain to the emissions are divided into three scopes:

- Scope 1 – Direct emissions under the control of the organisation
- Scope 2 – Indirect emissions from purchased electricity
- Scope 3 – Indirect emissions from supply, purchased goods & services, and distribution

A common reference is the GHG Protocol (https://ghgprotocol.org/)

Normally a carbon footprint is expressed as a gross figure in tonne of carbon dioxide equivalent (CO_{2e}) and for most organisations calculating scope 1 and 2 emissions is relatively straight forward based on data from billing. Furniture Industry Research Association Members can be assisted by using the calculation tool which can be downloaded from the website **here**.

However, more frequently carbon footprint values are being requested during tenders based not on the total footprint of the organisation but by assigning the carbon value to specific products in order to determine the carbon footprints of specific projects. This calculation can be easily done for relatively simple products which come in a single size and are made of homogenous materials, but it becomes much more difficult when dealing with products, like furniture, which are made of a range of complex materials and are often not easily comparable, with some suppliers offering a wide range of styles, configurations, finishes, fabrics, and sizes.

In order to calculate product carbon footprints, a number of options are open to organisations who are requested to provide this information. These will normally be part of an Environmental Product Declaration (EPDs). However, these can be expensive and if there is a wide range of products included in the tender then each product will require its own EPD.

There are a number of online carbon calculator tools that are available. These will allow the weights of the individual materials in a product to be used and these are assigned a median value based on data already available to give an estimate of the embodied carbon based on the composition. This will also need to take into account the delivery miles of the materials and finished goods, which may be significant if products are transported around the world. These contributions are estimates because it is extremely difficult to assign the shipping values, as each container ship or freight delivery may contain several different items and assigning a specific carbon value to a single item may not be accurate.

When using such tools, or when assessing data compiled by such tools, it is important to understand what assumptions the tool makes about the products and where any estimated data comes from, and whether it is the same as that used on any other products that you may be comparing it with.

For the industry to be 'on the same page' with respect to this and for it to be genuinely seen as a proactive measure to decarbonise the sector the following elements of best practice should be observed:

- Inclusion of a product's Carbon Footprint in a project tender should be clearly linked to an explicit carbon reduction strategy and include information on how the information will be assessed.
- The industry should work towards a single methodology which puts all products on the same basis and take a clear assessment of appropriate material, transport, and generation conversion factors.
- Initial focus should be on the supply chain side ending at the factory gate (or distribution hub for imported products).
- Develop an understanding along the supply chain regarding wider sustainability principles that go beyond carbon measurement and reduction including circularity, biodiversity, chemical usage and socio-ethical aspects.

One of the strengths of the furniture industry is that many of the products are produced locally using natural materials and many of the participants in the sector are SMEs. However, the sector cannot be complacent and needs to ensure that the actions that it takes collectively and individually make a genuine difference and are not just greenwashing.

During the Forum held on 21st March 2023, requests were made for FIRA to investigate:

- Instructions / guidelines for the production of a product's carbon footprint so the industry is using common measurement techniques.
- Opportunities for collaboration with existing carbon modelling tools to be adapted for specific use by the furniture industry.
- Opportunities for the inclusion of commonly used materials within furniture manufacturing to be included in the UK Government's carbon conversion factors reference spreadsheet.

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April 2023

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