

The FAME carbon calculator for commercial archaeology

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The UK government is committed to ensuring global emissions of greenhouse gases by all sectors of the UK economy reach net zero by 2050, and is working towards a target of having reduced emissions by 81 per cent from a 1990 baseline by 2035.

This will affect every sector of industry, and commercial archaeology will be no exception.

This is not yet embedded in legislation or planning guidance, but it will be, very soon. And as soon as it is being driven by compliance requirements, clients will be requiring archaeological contractors to provide carbon budgets alongside financial budgets in invitations to tender. Contractors will have to report the levels of greenhouse gas emissions that they have been responsible for, to clients and potentially to the local authorities where work has been undertaken.

To avoid any confusion, we are using the Science Based Targets initiative (SBTi) definition of net zero <https://sciencebasedtargets.org/net-zero>. This is the only framework that matches the requirements of climate science.

Essentially, this requires companies to reduce their GHGs (Greenhouse Gas emissions) by 90 per cent by a set target date, and once this has been achieved, they can then offset the remainder to demonstrate that they have achieved net zero.

Net zero and being 'carbon neutral' are not the same thing. An organisation can be increasing its emissions but can claim to be carbon neutral if it buys enough offsets, while still emitting GHGs – so this is not achieving net zero.

Work towards net zero requires the use of consistent measurement systems to set baselines and then record reductions towards set targets. Without everyone using the same system to prepare these

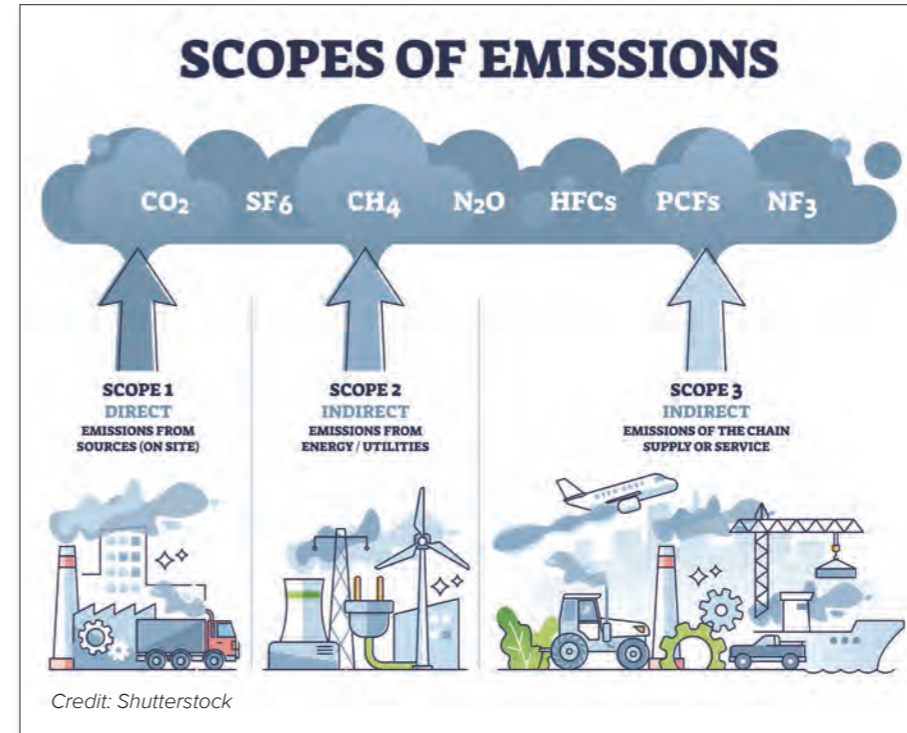
calculations, there is a great risk of misreporting or even of 'gaming' of these figures.

So, following detailed discussions at FAME Forum 2023 and in National Highways Archaeology Community meetings, FAME has commissioned the creation of, and will then make freely available, a carbon calculator tool that will allow commercial archaeology companies to

- 1 record their greenhouse gas emission baseline figures
- 2 report emissions to clients and other stakeholders (by project, period or location)
- 3 make and track reduction plans towards net zero emissions

This will ensure that all companies working in the archaeological industry are recording and reporting these data consistently.

FAME has commissioned Spring Environmental Ltd, a specialist consultancy in carbon management, to develop and test an Excel-based carbon calculator, a reporting dashboard, and a user guide to support these.



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The most recent picture of where the archaeological industry is in terms of carbon management and reduction was in *The State of the Archaeological Market 2023* survey of FAME members and CifA Registered Organisations. Twenty-four organisations replied, and at that time

- only half of them were measuring their carbon footprint
- more than half either had a carbon reduction plan in place or in development
- half had or were working towards PAS 2080 certification, the key certification in working towards net zero.

If net zero is the destination, then PAS 2080 is the vehicle

PAS 2080 is a standard to reduce the carbon impact of infrastructure and the built environment. National Highways expects Tier 1 and Tier 2 contractors (organisations that may then be commissioning archaeological subcontractors) to have a third-party accredited PAS 2080 system at the organisational level by 2025.

To work towards PAS 2080, organisations first need to identify the carbon footprint baseline that they are reducing against. For organisations starting this journey now, it might be sensible to set the baseline as being the last year before the effects of the

Covid-19 pandemic led to a significant reduction of GHGs globally, particularly in transport.

They then need to record their GHGs and develop a net zero compliant carbon reduction plan, with the goal being that plan uses science-based targets and is approved by SBTi. This plan is then reported against and used to work towards receiving a PAS 2080 certificate of conformity.

Getting the carbon calculator

The calculator is currently under development, and Spring Environmental have conducted internal testing. It will be tested further by representatives of commercial archaeology companies, and it, together with the reporting dashboard and guidance material, will be launched in the first quarter of 2025.

On publication, FAME will make the Carbon Calculator Tool and Guidance freely available for all organisations to use, whether FAME members or not, under a Creative Commons licence.

Acknowledgements and further information

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Chris Springett's presentation to FAME *Sustainability Agendas for Archaeological Contractors* is at <https://youtu.be/VL6mYeJdn-w>

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