



Sustainability: Is what we are doing worth the effort?



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Laboratories are energy-intensive by design. We all know that a typical lab consumes up to ten times the energy of an office, driven by fume cupboards, ultra-low temperature freezers, high air change rates and continuous equipment operation. In an era of volatile energy prices, the business case for raising ULT freezer setpoints from minus 80 to minus 70, closing fume cupboard sashes, and reviewing ventilation rates can stand on cost alone.

Achieving high sustainability credentials is popular with clients and staff too, which is part of the reason why large pharmaceutical companies, universities and the NHS have made net zero commitments and are increasingly cascading those expectations down their supply chains through procurement requirements, Scope 3 reporting and frameworks such as the NHS Evergreen assessment.

“Reducing Scope 1 and 2 emissions demonstrates meaningful achievement. Is that true of Scope 3?”

Is Net Zero the way to go?

There is a wide choice available in how you frame your sustainability goals and expectations. Universities in particular, often try to differentiate themselves based on their green credentials and may have embraced Net Zero targets. But what does net zero actually means for a laboratory?

Scope 1 and 2 emissions can be reduced substantially and the benefits of doing this are clear for all to see. But Scope 3, which includes purchased consumables, single-use plastics, reagents, equipment manufacture and logistics, typically dominates your lab’s footprint and is largely outside your direct control.

A laboratory can only get to genuine net zero if its entire supply chain decarbonises, and committing to a date you cannot be certain to control invites accusations of greenwashing. Offsetting, often used to compensate for emissions which cannot be eliminated entirely, is increasingly scrutinised and reputationally fragile. And there is an opportunity cost: staff time spent on certification schemes and carbon accounting is time not spent on core scientific work.



Where does your effort pay off?

The pragmatic position is usually to commit to deep, measurable carbon reduction with interim targets,

and to build credible Scope 3 data before making firm promises. In practice, though, many labs hand the problem to their procurement teams. Procurement then often reaches for a standard clause asking suppliers about their green credentials and those of their products, frequently requiring accreditation by a third-party scheme.

This creates several problems:

1. Third-party accreditations cost money, sometimes substantial sums, which suppliers recover from customers. Because buyers ask for a range of different certifications, no single accreditation satisfies them all.
2. Many regard the various green accreditation schemes as a way to pay to look good.
3. Suppliers are pushed to make sustainability claims well outside their areas of competence, which take considerable time and effort to research and substantiate.
4. It is far from clear that anyone checks whether the claims made in tenders are actually true.

If no one verifies green claims, the cost of accreditation falls on the conscientious supplier, and on the client in the time taken to impose it, while the environmental benefit overall may be negligible. In other words, if no-one is checking the veracity of green claims what is the benefit to you as a client or to the environment? - arguably none at all.

A more effective approach is to set procurement criteria that are standardised, focused on measurable outcomes and capable of being verified. Asking for a handful of concrete, comparable measures (energy consumption in use, packaging and take-back arrangements, product lifetime and reparability) tends to drive more real-world improvement than requiring a stack of paid certificates. If consistent it also avoids loading unnecessary cost into the supply chain, cost that ultimately returns to the buyer in the price.

Is it really all that bad? Well here are just a some of the certifications currently being asked for by those wanting to establish green credentials.

Green accreditation options for laboratory equipment and consumables suppliers

Scheme	What it is
Product-level	
ACT Ecolabel (My Green Lab)	Third-party verified sustainability label for individual lab products, covering consumables, reagents and equipment.
Environmental Product Declaration (ISO 14025)	Standardised, independently verified life-cycle impact data for a specific product.
Energy Star / EPEAT	Energy and environmental performance labels for electrical and IT equipment, with limited coverage of specialist lab instruments.
Lab-operational (sit with the purchaser, shape supplier demand)	
My Green Lab Certification	Assesses the sustainability practices of an operating laboratory, widely treated as the behavioural benchmark.
LEAF (UCL)	UK lab accreditation awarding Bronze, Silver or Gold for actions across energy, waste, water and procurement.
Organisation-level management standards	
ISO 14001	Audited environmental management system standard; certifies how you manage impacts, not how low they are.
ISO 50001	Equivalent standard focused specifically on energy management.

Supplier ratings and disclosure	
EcoVadis	Buyer-requested rating scoring environment, labour, ethics and procurement, producing a medal customers can view.
CDP	Environmental disclosure platform focused on climate, water and forests, often requested alongside EcoVadis.
Carbon target and neutrality	
Science Based Targets initiative (SBTi)	Validates emissions reduction targets against climate science across Scope 1, 2 and 3.
ISO 14068-1	Current carbon neutrality verification standard (replaced PAS 2060, now withdrawn), requiring real reductions before offsetting.
Carbon Trust route to net zero	The Carbon Trust's own measurement and certification of carbon and net zero claims.
B Corp	Whole-business certification of overall social and environmental performance, not lab-specific.
UK procurement gateways (mandatory, not voluntary)	
PPN 006 Carbon Reduction Plan	Required published net zero plan for central government contracts over £5m a year.
NHS Carbon Reduction Plan	Same mechanism applied by the NHS, extended to all new procurements since April 2024.
NHS Evergreen assessment	NHS supplier sustainability maturity score, moving towards firmer requirements from 2027.
Please note – this list was prepared using AI so please check any contents you want to use elsewhere.	

Working together on the green agenda

Budgets are arguably more constrained than at any time in recent memory, and at the same time it has never been more important that we all do what we can to put science on a genuinely sustainable footing. The task is to find where we can have the greatest impact at the lowest cost.

The GAMBICA laboratory technology board has called on the industry to work with clients to reduce the proliferation of differing sustainability requirements: to agree a set of standard measures and then ensure that all suppliers actually meet them. That would cut cost for clients and suppliers alike and direct effort towards measures that make a real difference.

This is the subject of a GAMBICA session at Lab Innovations, which takes place on 4–5 November 2026 at the NEC Birmingham. The session, titled “Sustainability: the cost of box-ticking”, will be held on the Insights and Innovations stage and will bring together university purchasing specialists, sustainability specialists and suppliers. Speakers will include Jiteen Ahmed chair of SUPC’s lab group. If procurement and sustainability fall within your remit, this is a chance to shape the debate rather than inherit its conclusions.

To register, click here. <https://www.lab-innovations.com/>

Other GAMBICA seminars at Lab Innovations

This year’s programme is built around practical information from expert sources. Among the sessions you can access on the Insights and Innovations stage are:

- a CPD-accredited pipetting masterclass
- laboratory proficiency accreditation and testing: is ISO 17025 worth the money? How proficiency testing works, and how to manage the most commonly requested test - trace metals in soil



- what R&D teams don’t realise about production problems
- replacing animal products in research labs
- taking your first steps on the sample digitalisation journey
- benchtop versus high-field: how smaller, more sustainable NMR solutions are taking over the modern lab
- ‘The integrated lab’: a run-through of how to bring together people, processes and data for a digitised output with a clear return on investment
- how to think about AI: a session for non-technical business leaders, covering the different types of AI, agents and automation, getting better results through prompting and context, and applying AI in business workflows.

We would love to see you there and hear your views. In the meantime, do contact me if you have ideas on how to tackle these key questions: jacqueline.balian@gambica.org.uk.



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