

King's College London Sustainability Professional Award Martin Farley – Sustainable Labs

About the project

Summary

Martin Farley has led on improving sustainability in labs in a variety of ways, particularly his long-term cold storage study. His work highlights the vast potential in the area and hopes to generate more interest in the area. Universities are starting to take on the challenge with new posts relating to sustainable laboratories.

Project partners

Project Partners include: S-Lab – for funding and support throughout. Also UoEdinburgh SRS dept and KCL for seeing the vision and benefit of creating full-time positions in lab-sustainability. The Roslin Institute, Eppendorf and VWR, all for their help in the long-term cold storage study, as well as the UoEdinburgh SRS dept, again. All universities which have taken part in audits to improve their labs.

The results

The challenge

Laboratories are a mostly untapped area for improving sustainability with massive potential. Some of the norms in research labs result in excessive energy consumption, like freezing temperatures selected. Assumptions become standards and lead to unnecessary CO₂ emissions and £££ expenditure.

The approach

The approach has been to tackle it on many fronts. Martin has managed the initiation of a long-term cold storage study to highlight the issue and allow an evidence-based approach to facilitate change. Furthermore he has worked in a variety of other areas to permit energy/CO₂ reductions.

Our goals

Get lab sustainability so that it is a standard aspect of the sustainability agenda. Once every college/university is tackling this, huge savings are possible as has been evidence with the work already done.



Profile

- HEI
- 26,000 students
- 700 staff
- Situated in the heart of London w/ 5 campuses
- Russel Group

Category supported by



Obstacles and solutions

It's still a novel field	<ul style="list-style-type: none"> It requires a bit of work to help highlight the importance of this relatively new area of sustainability. Positive engagement and case studies go a long way to improving this.
Labs require tailored solutions	<ul style="list-style-type: none"> Laboratories aren't like normal buildings – change requires more variation often than LED lighting projects for example. While many improvements are replicable, they usually require a bit of tailoring to the setting. This is accomplished via close engagement and understanding of the environment.
Engagement on all levels	<ul style="list-style-type: none"> While there is support in pockets, more is needed from all levels including research councils and lab staff alike. Sharing good-practice, hosting informative events and broadcasting the successes go a long way and we can see the landscape is changing.

Performance and results

Martin Farley was the UK's first lab-sustainability post, a post which is currently being copied in universities across the UK. His long-term cold storage project in unison with several other bodies is an evidence-based approach which could lead to massive energy savings long-term. The work he has done and the engagement and talks has led to a growing realisation of the potential in sustainable laboratories. Some of these completed projects in laboratories have led to ~350 tonnes of CO2 emissions saved on a yearly basis and significant financial savings. Thousands of sustainable inductions have been conducted in several universities as well.

The future

Lessons learned

Some lessons learned include it always takes a bit more time than expected. Also there's plenty more to do. While it's a tricky area to navigate, there's great potential for savings likely in areas we haven't even considered yet. The UK has many prestigious academic institutions, and while steeped in history, modernising research methods and facilities is going to be a challenge. Putting lab efficiency and sustainability at the top of the agenda is crucial to remaining competitive and is the direction we need to go.

Sharing your project

Martin has spoken at countless events and is constantly engaging with universities on how to improve sustainability in laboratories. NUS-Green Impact and the Efficiency Exchange (HEFCE) have written pieces on his work and he is always looking for ways to broaden the impact of this work. He supports S-Lab regularly as well as Green Impact, and shares his inductions/exit-policies widely (Imperial, Edinburgh, Kingston, Queen Mary and more).

What has it meant to your institution to be a Green Gown Award finalist?

KCL have been very supportive of Martin Farley's work. They pushed for him to remain and broadened the scope of possible work through funding and support. KCL is striving to maintain its world class research operations, and ensuring sustainability is on the agenda has been integral.

Further information

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<http://www.kcl.ac.uk/aboutkings/strategy/Sustainability/Kings-Sustainability/Sustainability-at-Kings.aspx>

Cold storage study link: <http://www.ed.ac.uk/about/sustainability/themes/laboratories/cold-storage-study>

Video link for cold storage study: <https://www.youtube.com/watch?v=wsnpTfGxC4A>