

**MINUTE OF A MEETING** of the Sustainable Laboratories Steering Group held via Blackboard Collaborate on Tuesday 12 May 2020.

- Members:** Dave Gorman, (Convener), Director of Social Responsibility and Sustainability  
Andrew Arnott, SRS Projects Coordinator  
Rachael Barton, SRS Projects Coordinator  
David Brown, Technical Services Manager, School of Chemistry  
Michelle Brown, Deputy Director of Social Responsibility and Sustainability  
Glen Cousquer, Joint Unions Green Rep  
Dean Drobot, Head of Energy and Utilities Management  
Joanne Dunne, Early Stage Researcher  
Grant Ferguson, Director of Estates Operations  
Kate Fitzpatrick, Waste & Recycling Manager  
Val Gordon Technical Officer, Institute for Education, Teaching & Leadership  
David Gray, Head of the School of Biological Sciences  
Sharon Hannah, Bioquarter Campus Operations Manager  
Yuner Huang, Early Stage Researcher  
Angela Ingram, Service Manager, IGMM  
David Jack, Energy & Utilities Operations Manager  
Andy Kordiak, Laboratory & Medical Equipment & Consumables Team Manager  
Julia Laidlaw, Estate Development Manager  
Chris Litwiniuk, Engagement Manager  
Guy Lloyd-Jones, Forbes Chair of Organic Chemistry  
Robert MacGregor, Energy Engineer, Utilities Management  
Stewart McKay, Technical Services Manager, IGMM  
Brian McTier, Easter Bush Campus Facilities and Services Manager  
Lee Murphy, Genetics Core Manager  
Claudia Schaffner, Technical Services Manager, School of Biological Sciences  
Candice Schmid, Occupational Hygiene and Projects Manager  
Matthew Sharp, BVS Deputy Director - Business
- Apologies:** Joanne Dunne; Grant Ferguson; Yuner Huang; Andy Kordiak; Julia Laidlaw; Brian McTier; Lee Murphy; Claudia Schaffner

**1 Minute**

A

The Convener welcomed attendees to the seventeenth meeting of the Group, and outlined virtual meeting etiquette and objectives for the session.

The minute of the meeting held on 21 January 2020 was approved as a correct record.

*Matters Arising*

Evan Morgan was confirmed as the correct contact for the LILLEE project.

*Actions carried forward*

Action – AK to feed back further information on the dry heat autoclave and large volume steriliser tender.

Action – AA & AK to have a follow up discussion on how best to capture data for a potential target on reuse.

## 2 Covid-19 Impact and Implications for Labs

SLSG discussed the impact of Covid-19 on the University, including health & safety, remote working, and financial implications, in line with the Principal's email of 5<sup>th</sup> May. Given the anticipated budget challenges, there would be additional pressure to prioritise, which would impact the Sustainable Campus Fund and Freezer Fund. This would inform today's discussions.

Change forums around the world were discussing the sustainability paradigm and what a response to Covid-19 might consist of. It would be valuable if UoE discussions could be informed by these imaginative approaches, particularly from the Netherlands and New Zealand, to avoid simply returning to business as usual.

Action – AA to follow up on new sustainability ideas for labs, particularly from Utrecht University.

Action – All to share any emerging best practice ideas they encounter.

The Group acknowledged the context change since the last meeting in January, and while the overall direction of travel should not change, the pace might. It was inspiring that, in the midst of the current crisis, April's University Executive meeting had taken the time to approve a Social and Civic Responsibility Plan for UoE. A recently concluded consultation had shown strong support for the University transitioning to climate conscious travel. Along with the current remote working situation, this had implications for the size and shape of the estate, and for intercampus travel. This whole area was a good example of an intersection between resource, energy, and financial savings, and reduction in carbon emissions.

Action – All members to share any examples of new models of working they see emerging.

## 3 Update on Lab Awards

The Awards were carried out as a practical framework within lab settings. With many labs closed or stripped back, the scheme could not go ahead as normal at this stage. Instead a soft launch was planned in the coming weeks which would provide Awards teams with updated material and resources, with a formal launch to follow once the University fully reopened. Timelines would be adjusted to fit these new circumstances. Instead of a set deadline the scheme would move to rolling submissions, assessing individual teams when they completed the framework. Existing teams that were unable to participate this time could extend their accreditation for an additional year. Members were content with the proposed modifications.

Action – All members to email any further comments to RB.

## 4 Sustainable Labs Programme Plan Update

Members noted this final update on the original 2017-2020 Plan. From the next meeting SLSG would be reporting against the 2020-2025 Plan. This enhanced report included updates against the overall objectives set in 2017.

The 10% reduction in energy consumption was at amber status, as it was not possible to establish with current data if this had been achieved. The success of energy reduction projects needed to be balanced against the increase in floor area and activity/intensity of use. The current expansion of building level metering, especially at KB, should lead to a much stronger position with regard to this kind of reporting through the next financial year.

B

Based on figures from Warpit, lab equipment reuse and sharing had increased, particularly over the last 12-18 months.

Reduced consumption of materials was difficult to ascertain with the available data, though there was not felt to be substantial unnecessary waste.

Enabling a culture of sustainable working through provision of support and training for lab technicians had been successful. UoE had signed up to the Technician Commitment, been recognised as an Employer Champion by the Science Council, and had an active and engaged Technician Steering Committee.

Adoption and use of sustainable building design guidelines was also at green status, having morphed into the ESME tool currently in its pilot and development stage.

The stretching target to have 100% of labs covered by Edinburgh Sustainability Awards teams had not been achieved, with teams currently in 54% of lab buildings. A similar target, to have a lab-based energy coordinator in every building with labs, had also not been met.

Members noted that, due to physical distancing requirements, labs would be hugely underused, and would also see extended periods of use, which would need to be factored in when comparing current energy use with other periods.

There had been an intention to host a prestigious video conference during the life of the previous plan. While this had not been achieved, recent developments were shifting significantly in that direction, including the webinar hosted by Andrew Arnott on 23<sup>rd</sup> April.

Extension of the BMS/HVAC control sense checks programme and the cold storage internship both planned for summer 2020 would not now go ahead due to access issues.

Action – All members to share any suggestions for equipment reuse platforms in addition to Warpit.

Action – All members with ideas for possible areas for the Energy & Utilities Team to investigate to send these to DD.

## **5 2020-2025 Plan**

**C**

SLSG approved this final draft of the programme plan for 2020 – 2025, incorporating comments received since the last meeting, noting that timescales and objectives would need to be flexible in the light of Covid-19.

Objective 1, to see good practice behaviours adopted across all labs, would be stretching, comprising targets for 100% of buildings with labs to have at least one Lab Awards team, and a Sustainability Champion, by 2023.

The second objective, to see cost effective lab sustainability improvement projects identified, funded, and implemented, was associated with a target of a 500tCO<sub>2e</sub> annual reduction by 2023 (including ventilation/HVAC improvements). While there may be Covid-related disruption in the short term, members were reasonably confident that this could be achieved.

Objective 3, increasing reuse of lab materials and equipment, was related to actions rather than targets, including increasing awareness and use of Warpit and the external sale/donation process. £1M of funding was currently being sought from Zero Waste Scotland to establish a Circular Economy Hub, which would have a major impact in this area.

The fourth objective, eliminating avoidable lab plastic waste, included targets around developing new recycling/reuse streams for 10 plastic items, and seeing 100% of labs follow best practice in terms of reducing lab plastic waste by 2025. Members noted the UK Government plan to introduce a tax on plastics with less than 30% recycled content.

Action – AA to update the risk management section in the light of Covid-19.

## 6 **Chemical Substitutions**

D

SLSG noted this paper outlining the findings of an investigation into opportunities for hazardous chemical substitution or reduction, focusing on the School of Chemistry teaching and research labs. It considered the embedded carbon in hazardous materials, hazard in use, energy consumption in storage if the materials needed ventilation, and disposal and end of life issues.

The investigation found limited opportunity for improvement to the system currently operating in Chemistry, who were already minimising use and looking for alternatives where possible. There were some recommendations for potential improvements, but these would require significant investment of time and effort to research for relatively little energy and carbon saved.

SLSG noted that UoE did not currently include environmental and social impact on the wider community in its hazardous chemical operational risk assessments (e.g. impact at the extraction or manufacturing stages). These purely focused on hazards at the point of use.

The Group agreed to end the investigation and redirect efforts towards areas with more impactful potential energy and carbon savings.

## 7 **Freezer Fund Update**

E

This paper updated members on financial and carbon performance since the last meeting in January. The fund was performing well, saving around £12K in electricity costs and 37.6tCO<sub>2e</sub> annually. Members recognised the ongoing value of the fund.

Action – AA to look into the discrepancy between the £40K total spend quoted in the paper and the £36K figure held by Estates.

## 8 **Non-recyclable Plastics: Review of Steps Taken by the NHS & Pharma Companies**

F

SLSG noted this paper on the results of investigations into lab plastic waste reduction practices elsewhere. Members agreed that the investigation should continue, with a large workshop planned once restrictions were lifted, bringing together Scottish producers of lab plastic waste, contractors, and umbrella organisations such as EAUC, ZWS, or the Chartered Institute of Waste Management, looking to identify potential economies of scale and more coordinated approaches.

There had been a number of meetings with the NHS and other stakeholders, though these had not yet uncovered new examples of best practice that UoE could adopt. As NHS and waste services colleagues were key workers, these meetings were currently paused.

On UoE's shared sites with the NHS, decontaminated items were not currently acceptable in recycling streams. If UoE were to change this for low-hazard labs it could lead to confusion on these shared sites that would need careful management.

There was potential for UoE to make an impact through procurement by purchasing more recycled plastic items. The Group noted efforts among pharmaceutical companies including AstraZeneca to reduce their lab plastics.

The University of Bristol were currently recycling unsoiled autoclaved plastics from category 2 labs, on a risk assessed lab by lab basis, which was potentially replicable at UoE. The University of Birmingham were shredding plastic bottles for use in 3D printers, and were using a take-back scheme for ice packs from 2BScientific. A lab at the University of York had developed a well-publicised in-house decontamination station and a similar pilot was being run at a lab in Roslin, with work ongoing to look at scalability both within Roslin and beyond.

## 9 Technician Commitment update

Members noted a lot of activity around the Technician Commitment since the last meeting, including the University being [awarded Science Council Employer Champion status](#) at the University Court meeting on 17<sup>th</sup> February. Professional Registration was increasing, 34 technicians having received UoE funding for PR applications and an IGMM technician having achieved RSci. The Technician Commitment was included at the 19<sup>th</sup> February Swan Library launch of the Edinburgh Manager Programme. The Technicians [career development programme](#) was continuing, including Andrew Arnott's 23<sup>rd</sup> April career insights lab sustainability webinar. The CMVM Core Facilities Fair Attribution Policy recognised the contributions of technical staff. The Technician Steering Committee provided [weekly Covid-19 newsletters](#) for UoE technical staff and their managers. Full details were available on the [technicians website](#).

Members welcomed progress to date, particularly the very active and coordinated community of technicians, and thanked Val Gordon for her efforts.

Action – JR to circulate the update from VG after the meeting.

***Post-meeting note: update circulated via email on 12<sup>th</sup> May.***

Action – All members wanting further information to get in touch with Val Gordon.

## 10 Any Other Business

- [Social Responsibility and Sustainability Report 2018-19](#)  
SLSG noted the latest report, which dovetails with the Annual Report & Accounts.
- *HEaTED Online Training Course*  
The Group noted this talk from Martin Farley of UCL on sustainable labs and Covid-19, which would take place on Tuesday 19<sup>th</sup> May from 10am until noon.

# B

## Sustainable Labs Steering Group

16<sup>th</sup> September 2020

### SLSG Programme Plan August 2020 – July 2025 – Progress Report

#### Description of paper

This document is intended to give an update on progress against the objectives of the 2020-2025 Sustainable Laboratories Steering Group Programme, which was drawn up to provide a structured approach to improving sustainability within laboratories at the University of Edinburgh over that time period, with a view to achieving wider University goals such as the Zero by 2040 target within the Climate Strategy.

This document will be updated prior to each meeting of the Sustainable Laboratories Steering Group. A Gantt Chart using a traffic-light colouring system (Red/Amber/Green) has been used to communicate quickly and clearly the progress which has been or is being made. In general, this is taken to mean: green = on track, amber = delayed or problematic, red = objective is in danger of not being met, and grey = action scheduled for future work.

The RAG grading is applied to the Objectives and the Targets of the plan, but not the individual actions, which are described in the body of the text where appropriate.

#### Action requested

SLSG is asked to note the progress described in this paper and provide any advice or guidance for further improvement.

#### Background and context

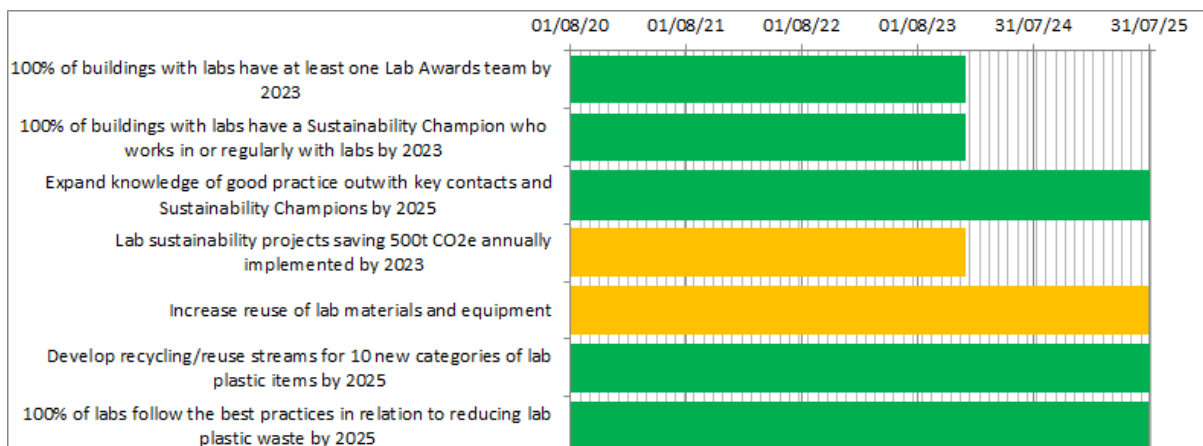
Between October 2019 and May 2020 this 2020-2025 programme plan was developed and approved. This report notes the progress against this 5-year plan.

## Discussion

Summary of objectives and targets:

1. Good practice behaviours adopted across all labs
  - a. TARGET 1: 100% of buildings with labs have at least one Lab Awards team by 2023
  - b. TARGET 2: 100% of buildings with labs have a Sustainability Champion who works in or regularly with labs by 2023
  - c. TARGET 3: Expand knowledge of good practice outwith key contacts and Sustainability Champions (as measured in biannual SRS staff and student surveys) by 2025
2. Funding is made available and used to support lab sustainability
  - a. TARGET 4: Lab sustainability projects saving 500t CO<sub>2</sub>e annually implemented by 2023 (including ventilation/HVAC improvements in lab buildings)
3. Increase reuse of materials and equipment across University labs
4. Eliminate avoidable lab plastic waste through increasing options and increasing awareness
  - a. TARGET 5: Develop recycling/reuse streams for 10 new categories of lab plastic items by 2025
  - b. TARGET 6: 100% of labs follow the best practices in relation to reducing lab plastic waste that are practicable in their lab by 2025

## RAG Progress Reporting



OBJECTIVE 1: Good practice behaviours are adopted across all labs

TARGET 1: 100% of buildings with labs have at least one Lab Awards team by 2023

Action	Responsible	Timescale	Comments	RAG
Schools mandate that all labs achieve at least Bronze in sustainability awards.	SRS and School management	December 2021	No work has yet taken place on this.  Timing feels like a stretch currently: may be hard to get time/commitment from less engaged Schools due to disruption of Covid19.  May be more achievable by 2023.	Yellow
Lab-based PG students get amount of credits for working on a lab sustainability awards team (as part of their skills training outside of the curriculum)	SRS and School management	December 2022	No work has yet taken place on this.  Timescale still feels achievable.	Green
Develop an e-learning course specifically focussed on sustainable labs (as a spin-off from Be Sustainable)	SRS	July 2021	Completed April 2020!	Green
Review the Awards processes making the awards more appealing / less burdensome	SRS	February 2022	No work has yet taken place on this.  A comparable Lab Awards framework known as LEAF (Lab Efficiency Assessment Framework) completed a second pilot project in 2020 and a review	Green



for participants.			<p>report is due by Q2 2020/2021. A review of the feedback and outcomes of this pilot, and other similar schemes will be undertaken to compare with the SRS Lab Awards and identify possible improvements.</p> <p>Timescale still feels achievable.</p>	
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TARGET 2: 100% of buildings with labs have a Sustainability Champion who works in or regularly with labs by 2023

Action	Responsible	Timescale	Comments	RAG
<p>Increase number of contacts/labs undertaking pilots to demonstrate that good practices are compatible with science</p> <p>Case studies to include details to contact the participants. Including information on costs, staff time, buy-in from management and practicalities</p>	SRS	1 case study published each year (ideally on different topics).	<p>Covid19 has reduced lab time for those working in labs to the minimum – thus any activities which aren't core are likely to be shelved.</p> <p>Likewise, provision of support from SRS on this type of project is harder to do remotely.</p> <p>So the case studies for 2020-2021, and 2021-2022 are at risk.</p> <p><b>However</b>, a pilot project had already started at a microbiology lab in Roslin prior to Covid19, which may be possible to describe as a case study for 2020-2021.</p>	
Colleges mandate that each School with labs has an appointed/nominated Sustainability Leader who heads up a committee of Sustainability Champions and	SRS and College management	First Schools declare their decision by July 2021	<p>1 School by July 2021 seems achievable</p> <p>50% and 100% targets seem currently quite a stretch.</p>	

<p>coordinates sustainability actions across their School.</p>		<p>50% of Schools declared by July 2022</p> <p>100% of Schools declared by December 2022</p>		
<p>Sustainability Champions encouraged to work with neighbouring labs, helping to spread good practice and information</p>	<p>Lab Users, SRS</p>	<p>November 2020</p>	<p>This can be 'encouraged' within the timescale described, but it is unlikely to be achieved at any meaningful scale within that timescale.</p> <p>Repeated 'encouragement' and support (which will be easier to offer once we have returned to campus work) will be required.</p> <p>Also, currently the opportunity for ad hoc conversations between neighbouring labs is reduced due to the reduced lab time, reduced occupancy densities, and discouraged social interactions.</p>	

TARGET 3: Expand knowledge of good practice outwith key contacts and Sustainability Champions (as measured in biannual SRS staff and student surveys) by 2025

Action	Responsible	Timescale	Comments	RAG
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Publicise that the Sustainability Awards criteria is available to all lab users to inform good practice.	SRS	November 2020	This can be publicised within the timescale described.  For substantive impact it should be repeated.	
Link communications about lab sustainability to academic research e.g. Horsfall Labs' work on complete life cycle analysis / Bio Technology and Circular Economy ( 'theme' within CSE) / Chemistry's work on global mineral scarcity/ capacity	SRS with input from key academics and lab users	July 2022	No action planned on this in the immediate future, but definitely will be a strand we'd like to pick up with our SRS Comms team colleagues within the timescales described.	
Restrict procurement options/  heavily promote better options	SRS and Procurement with input from lab users	July 2022	Some work is already taking place on this, although it is a complex area and progress is slow.  Within the timescale described it's possible that arrangements could be made for one category of procurement (possibly cold storage), but probably not more.	
Undertake more face to face lab audits/advice visits to give targeted and personalised advice	SRS	3 new labs visited each year, with follow up advice and support provided where appropriate .	Due to Covid19 disruption and restriction of lab time to urgent priorities it is not currently thought justifiable for a generic lab audit/advice visit to take place.  As restrictions and advice related to Covid19 develop, this position may change, but	

			2020-2021 is definitely at risk of missing this target.	
Identify the top 5 initiatives that labs are working on and develop into posters and other communications to prompt spread of good practice.	SRS	December 2020	No action has been taken on this yet but it seems achievable within the timescales described.  <b>SLSG members are invited to suggest their personal opinion of the top 5 lab sustainability initiatives.</b>	

OBJECTIVE 2: Cost effective lab sustainability improvement projects are identified, funded and implemented

TARGET 4: New lab sustainability projects implemented between August 2020 and July 2023 save 500t CO2e annually (including ventilation/HVAC improvements in lab buildings)

Action	Responsible	Timescale	Comments	RAG
Assess labs to optimise ventilation rates and controls, including night set-back	SRS, Estates, Lab users, H&S	Ongoing	Capacity within H&S and Estates for this is currently thought to be stretched, so this action is currently paused until the situation changes.	
Lab users are trained in ventilation risk assessment	H&S, Estates, Lab users	Ongoing	Capacity within H&S and Estates for this is currently thought to be stretched, so this action is currently paused until the situation changes.	
Pilot projects funded for novel approaches such as LILEE	SRS, Lab users, Estates	2 more pilots by 2023	Disruption from Covid19 will impact this, but it's still possible to achieve within the timescale described.  Lab plastics re-use/substitutions may be one area which could be suitable for this.	

Identify replicable actions which are cost effective, impactful and broadly relevant across labs.	SRS, Lab users, Estates	By February 2021	Capacity among lab users and Estates for this is currently thought to be stretched, so this action is unlikely to be achieved within the described timescale.	
Roll out replicable actions identified (e.g. drying ovens)	SRS, Lab users, Estates	By July 2022	Capacity among lab users and Estates for this is currently thought to be stretched, so this action is unlikely to be achieved within the described timescale.	
Work on ensuring the Sustainable Campus Fund is available until 2025	SRS, Estates	Ongoing	Tighter budgets due to the impacts of Covid19 will make this task harder, but hopefully still achievable.  At the moment there is no known threat to the continuation of the Sustainable Campus Fund.	

### OBJECTIVE 3: Increase reuse of lab materials and equipment

Action	Responsible	Timescale	Comments	RAG
Identify any gaps in the departments/Schools which use Warpit, and target these to increase participation	SRS	July 2021	No action has been taken on this but it seems still achievable	
Raise awareness of Warpit and promote external sale/donation with Lab managers/Stores/those with purchasing responsibilities	Procurement	July 2021	From Andy Kordiak:  The sale of unwanted equipment assets continues sporadically, there is good awareness of the process and the team to contact if required. We have found it difficult to sell equipment in some areas, where technology is advancing	

			<p>rapidly. Obsolescence becomes apparent within 5 years for some systems. If the consumables also become obsolete the equipment is difficult to sell on.</p> <p>Alternative to buying equipment, such as leasing could be looked at but is unlikely to be cost effective and may not comply with research grant award terms.</p> <p>Shared facilities, which would help exploit investments and maximise the equipment use, would at least help ensure maximum utility whilst the equipment is in ownership.</p>	
Provide greater clarity on what is and is not allowed on Warpit (e.g. plasticware and consumables can be included), processes and guidelines	SRS	December 2020	This timescale doesn't seem appropriate currently, as any promotion of this nature is less likely to be noticed due to the disruption of Covid19. It is recommended this be postponed until December 2021	
Provide more case studies of successful usage of WARPit, including savings.	SRS	March 2021	This timescale doesn't seem appropriate currently, as any promotion of this nature is less likely to be noticed due to the disruption of Covid19. It is recommended this be postponed until March 2022	
Adopt a policy requiring people to show evidence of trying to source from Warpit or 2 <sup>nd</sup> hand before purchasing new equipment/resources.	Procurement	July 2022	<p>From Andy Kordiak:</p> <p>There is move towards using internal services where these are available. These initiatives, which include a diverse scientific analysis services to the provision of</p>	

			<p>catering, amongst many other service provisions, is far from new thinking but is being brought into focus following the impact of C-19. Many external services are being bought, in partnership with our own service providers which helps eliminate duplication, ensures transparency and a greater opportunity for the internal service to be or become the default where possible. This build the University's micro economy and may encourage demand led investments.</p> <p>Increasing the visibility of Warpit, at this stage is not currently part of the overall picture but would be entirely compatible with "buy from the University first" thinking.</p>	
<p>Increase visibility of information about Warpit e.g. the main page of the Procurement website, clearly on SRS and Waste websites, and as a reminder box on SciQuest.</p>	<p>SRS, Waste and Procurement</p>	<p>July 2021</p>	<p>From Andy Kordiak:</p> <p>It is <b>not</b> recommended that we add new information to Buy@ed or Sciquest at this time. As Oracle will be the University's main portal to external and internal services, rolled out by April 2021, it is recommended that material is developed for Oracle, which would sit along-side all other sourcing advice, currently being fine tuned. It would be advisable to make contact with the SEP FTP asap to help establish resources to facilitate this opportunity.</p>	

OBJECTIVE 4: Eliminate avoidable lab plastic waste

TARGET 5: Develop recycling/reuse streams for 10 new categories of lab plastic items by 2025

Action	Responsible	Timescale	Comments	RAG
Hold a workshop to bring suppliers and waste contractors together to share challenges on both sides, and to prompt development of new lab plastics waste streams.	Procurement Waste SRS NHS EAUC ZWS	April 2021	Actions on this have been delayed due to Covid19 disruption, but it's possible that some sort of event (probably online) will be arranged within this timescale.	
Identify the most commonly used lab plastic items and confirm which plastic types they are.	SRS	December 2020	This action relies quite heavily on access to labs, and as such is postponed until such time as SRS access to labs on a large scale can be justified.	

TARGET 6: 100% of labs follow the best practices in relation to reducing lab plastic waste that are practicable in their lab by 2025.

Action	Responsible	Timescale	Comments	RAG
Develop case studies on swapping to use glassware instead of plastic.	SRS	March 2021	It's possible one case study may be deliverable within this timescale, but probably no more.	



Communicate to provide clarity on what can (and cannot) be recycled in a lab setting	SRS Waste Lab users	December 2020	This timescale doesn't seem appropriate currently, as any promotion of this nature is less likely to be noticed due to the disruption of Covid19. It is recommended this be postponed until March 2022	
If new recycling streams/ recyclable items become available promote these options to lab users.	SRS Procurement Waste Lab users	July 2024	The long timescale of this means it's still possible.	
Work with labs to undertake trials/pilots to phase out non-recyclable / reusable plastics, and help designing experiments to reduce waste.	SRS Waste Lab users	2 labs undertake trials by July 2023	This is still possible (if we can include Roslin microbiology labs)	
Share the findings of the trials/pilots	SRS	December 2023	This is still possible (if we can include Roslin microbiology labs)	
Encourage labs to rethink the location of bins and consider allowing recycling bins in labs to facilitate ease of segregation	SRS Waste Lab users	July 2023	The long timescale of this means it's still possible.	

### Resource implications

No resource implications are related to reporting on progress against this plan. Implementation of the plan will have wider resource implications, which have been detailed elsewhere.

## **Risk Management**

No risks associated with reporting on progress against this plan. No items on the plan are currently at risk of failure (red graded).

## **Equality & Diversity**

No foreseen impacts.

## **Next steps/implications**

A further progress report will be provided at the next SLSG meeting by the SRS Project Coordinator – Labs (or appropriate substitute). During that time further actions will be taken towards the outcome objectives of the plan.

## **Consultation**

This document has been reviewed by:

Michelle Brown, Deputy Director and Head of Programmes – SRS

Chris Litwiniuk, Sustainability Innovation and Engagement Manager – SRS

## **Further information**

### **Author and Presenter**

Andrew Arnott SRS Projects Coordinator - Labs

Department for Social Responsibility and Sustainability

May 2020

## **Freedom of Information**

This is an open paper.

## Sustainable Labs Steering Group

16<sup>th</sup> September 2020

### Lab Sustainability Awards 2020

#### **Description of paper**

This paper provides a summary of the requirements and structure of the Lab Sustainability Awards, including an update on preparations undertaken for running the Awards in 2020. Additionally, SRS proposals for running the Awards this year, and the adjustments required, are set out to provide context in advance of discussions around the feasibility of participation.

#### **Action requested**

The SLSG is asked to note the updates and proposals presented here in preparation for group discussions during the September 2020 SLSG meeting. The group should consider the impact of Covid-19 disruptions and phased returns to on-site working on the feasibility of labs to participate in the Lab Awards. Feedback on the intentions of and the challenges facing lab groups is sought.

#### **Recommendation**

It is recommended that the Lab Sustainability Awards continue to run in 2020, in adjusted format taking into account feedback and discussion contributions, to ensure progress continues to be made towards the 2020-2025 Sustainable Laboratories Steering Group Programme, and the University's Zero by 2040 Climate Strategy.

#### **Background and context**

The Sustainability Awards have been running at the University since 2010 and have grown in participation and reach each year, with additions incrementally being made to the programme to ensure all parts of the University staff and student community have the opportunity to participate.

As of the 2019/2020 Awards year, 16 Lab Awards teams were actively participating, or still accredited, in the Awards.

The Lab Awards scheme offers opportunities for staff professional development, in addition to enhancing participants' knowledge of sustainability issues, and bring together groups from across the University to form a knowledge and experience sharing network. Dedicated resources, training and events are provided to teams by SRS to support their participation.

#### **Discussion**

##### Current Lab Awards structure and format

The Lab Awards are open to teams of staff from any lab-based University department, school, unit, centre, etc. Throughout the year teams will work together to

improve sustainability in their workplace, basing their efforts on the Labs Criteria 2020.

The established timeline for the Lab Awards follows a calendar year. This begins with the launch of the Awards year in March/April, with team then working on their actions through to October. Teams are assessed in November to ensure their departments meet the sustainability standards set out in the criteria framework. Successful teams will receive their Lab Award at our annual Sustainability Awards Celebration in March, which celebrates the achievements of staff and students from across the University.

The Lab Awards are comprised of three levels – Bronze, Silver and Gold – which provide a framework for lab groups to follow to improve the sustainability of their lab operations across nine themes:

- Fume cupboards and biosafety cabinets (BSCs)
- Cold storage
- Chemicals and gases
- Scientific equipment
- Water
- Waste and recycling
- Heating, ventilation and air conditioning (HVAC)
- Lighting
- Awareness and training

The levels progress in difficulty and involve completing a varying number of criteria at each level:

Bronze level – 16 criteria

Silver level – 25 criteria

Gold level – 37 criteria

Teams are audited after completing the criteria of their chosen level by a member of SRS and a peer auditor from another participating team. Through this, and other events and networking opportunities, participating teams can share knowledge and expertise with others in the lab community.

A full review of the Lab Awards was undertaken in April 2020, and the criteria and associated documentation were updated to include details on how each action contributes to the Sustainable Development Goals (SDGs).

Further details on the criteria, their links to the SDGs, the Awards timeline and format can be found in the [Lab Awards Participant's Guide and Criteria documents](#).

### Proposals and Adjustments for the Lab Awards in 2020

In 2020 the timeline will be altered to account for the Coronavirus pandemic and closure of the University. As different parts and buildings of the University will reopen at different times, the Awards will have flexible joining times and submission deadlines. The outline below shows the potential timeline which the 2020 Awards will follow.

An initial launch of the Award information, criteria and guides will take place in June 2020, to allow teams to find out more about what is involved and to allow those who wish to plan ahead to do so. Once the majority of the University has reopened, the Awards will be formally launched.

Depending on when this takes place, we will either set a fixed submission deadline 8-12 months after this launch, or offer a rolling submission where teams can submit whenever they feel ready. Details of the submission deadline will be confirmed closer to the formal launch date.

- June 2020: Initial Awards launch, providing information to existing and new teams
- Summer/Autumn 2020: Advice and support given to interested teams
- Autumn 2020: Awards formally launch
- Autumn/Winter 2020-2021: Networking and support events, teams complete criteria
- 2021: Deadline for submitting evidence to the online platform
- 2021: Audits
- 2021: Evaluation and review
- 2021: Sustainability Awards Celebration

There is no expectation that teams will work on the Awards until they are able to return or the launch of Awards. Guidance and guides will be made available so that anyone who might have the time/interest to start planning for the coming year can do so.

Teams are also encouraged to carry out any criteria relating to processes that they are able to while working from home.

No teams will be penalised if they are unable to take part in the awards this year. For example if a team had taken a break year and were due to take part this year, but are unable due to lockdown restrictions, their accreditation would be carried over.

Adjustments will be made as needed to ensure safe working practices can be followed e.g. social distancing.

The SLSG is asked to consider these proposals and discuss how feasible it would be for labs in their area to participate in the Lab Sustainability Awards. Feedback is sought on any challenges labs would face or barriers to participation, and any suggestions to address these concerns.

### **Resource implications**

No additional financial or staff time resources are expected to be required, as these resources have already been allocated to carry out the Lab Sustainability Awards.

### **Risk Management**

There are a number of risks which could impact on the delivery of the Lab Sustainability Awards in 2020:

- a. Ongoing disruption from Covid-19 resulting in uncertainty around when staff will return to working predominantly on-site. This makes planning for the next year

(2020-2021) of the Awards challenging, and in extreme may result in the 20/21 Awards not being able to run.

b) Disruption from Covid-19 may impact lab team motivation to participate, and have short- to long-term effects on participation rates, and thus detrimental effects on overarching sustainability targets.

i) As teams return to on-site working they may have reduced time available to participate.

ii) Other priorities may hinder participation.

iii) Missing the 20/21 year may affect the momentum of some teams, making them less likely to continue to participate.

These risks are being managed by seeking feedback and discussion from the SLSG, who are more familiar with the challenges facing lab groups currently, and incorporating their input into planning the delivery of the 2020 Lab Awards. This should ensure that any concerns lab groups may have relating to participating in the Awards can be addressed and appropriate adjustments made.

### **Equality & Diversity**

No impacts are foreseen.

### **Next steps/implications**

The proposals and updates presented in this paper are scheduled to be discussed at the September 2020 SLSG meeting. Any feedback and discussion contributions will be noted and taken into consideration when revising plans for the 2020 Lab Awards, to ensure effective delivery of the project.

### **Consultation**

This document has been reviewed by:

Michelle Brown, Deputy Director and Head of Programmes – SRS

Chris Litwiniuk, Sustainability Innovation and Engagement Manager – SRS

### **Further information**

#### Author and Presenter

Rachael Barton, SRS Projects Coordinator

Department for Social Responsibility and Sustainability

September 2020

### **Freedom of Information**

This is an open paper.

## Sustainable Labs Steering Group

16<sup>th</sup> September 2020

### Sustainability Training

#### **Description of paper**

This paper describes the sustainability training which has been available to (and taken up by) lab staff across the University during the Covid19 disruption.

#### **Action requested**

SLSG is asked to note the contents of the paper and provide comment. SLSG members are asked to promote awareness of SRS training among their colleagues.

#### **Recommendation**

It is recommended that SLSG members familiarise themselves with the training available from SRS and promote the offerings among their colleagues. It is also recommended that the SRS Project Coordinator – Labs continues to engage with LEAN on any proposals for developing a universal online sustainable labs training course.

#### **Background and context**

Provision of training is one of the methods by which SRS informs staff and students at the University of best practice. It's an important mechanism for encouraging behavioural change, as well as answering questions and addressing barriers to change.

An additional benefit for the attendees is the CPD element of the training, which can be used as part of a package for personal development and/or career progression. This was specifically identified as an important point in the work SRS are doing with the Technician Steering Committee. This resulted in a plan for SRS to deliver lab sustainability CPD for technicians in April 2020.

Provision of training during the Covid19 disruption has moved online. There are some drawbacks to this, specifically in reducing the richness of information exchange between the attendees and the presenter, but it has potentially also allowed people to access the training who would not have attended an on-campus session.

#### **Discussion**

#### **Lab Sustainability Training**

April 23rd, 2020 online presentation (recorded)

- 42 sign-ups

- 32 with University of Edinburgh addresses
- 1 with another HE institution address
- 1 from a “wholly owned subsidiary of Guys and St Thomas Hospital”
- 8 with private emails
- 26 attendees at the actual event
- After the event I circulated a link to the video and all of the resources I’d referenced to all sign-ups
- Video viewed 25 times

July 23rd, 2020 online presentation (recorded)

- 46 sign-ups
- 25 with University of Edinburgh addresses
- 4 with another HE institution address
- 1 from a non-profit consultancy on sustainability
- 5 from a global design, architecture, engineering and planning firm
- 11 with private emails
- 17 attendees at the actual event
- After the event I circulated a link to the video and all of the resources I’d referenced to all sign-ups
- Video viewed 5 times

Training Objectives

- Aims:
  - Explain what the University of Edinburgh is doing to improve sustainability in labs, and why
  - Explain the specific sustainability challenges presented by labs
  - Explain what you can do to improve sustainability in your lab
  - Describe options for your next steps
- Learning outcomes
  - Understanding of the context
    - global climate and ecological emergencies,
    - the specific impact of labs
    - University of Edinburgh’s sustainability impacts
    - University of Edinburgh’s sustainability targets and projects
  - Understanding what you can do to improve sustainability in labs in the following areas:
    - Waste and recycling
    - Chemicals and materials
    - Cold storage
    - Fume cupboards
    - Scientific equipment
    - Sterilisation
    - Water
    - Building services

Current plan is to deliver further online lab sustainability training on a roughly quarterly basis until demand drops below 10 attendees at each event.

In addition to lab sustainability training, there are other sustainability training courses being delivered online by SRS.

- **Be Sustainable**



'Be Sustainable' is a short online course that introduces you to some of the ways you can become more sustainable at the University of Edinburgh, and in your own life. See: <https://www.ed.ac.uk/sustainability/staff/training/online-course>

- **Be Sustainable Advanced**

'Be Sustainable Advanced' is a professional development course run with Learning for Sustainability Scotland for staff who want a more in-depth understanding of social responsibility and sustainability, the Sustainable Development Goals (SDGs) and how to make positive changes in the workplace and at home. See <https://www.ed.ac.uk/sustainability/staff/training/be-sustainable-advanced>

- **SDG Senior Management Workshops** as part of our next steps in relation to the Social & Civic Responsibility Plan and supporting different parts of the University to embed sustainability and social responsibility in their own plans we are developing guidance and tools. We have recently piloted a Senior Management workshop with ISG. Contact SRS for more details.

- **Modern Slavery Training** designed for University of Edinburgh staff, to provide information and guidance regarding modern slavery risks in the University's sphere of influence. <https://www.ed.ac.uk/sustainability/what-we-do/supply-chains/initiatives/modern-slavery>

- **Sustainability Communication.** Effective communication is an essential part of making sustainable change, yet it's often something individuals and organisations get wrong. A short course delivered by SRS provides an intro to the basics of how to communicate sustainability well in a range of contexts. Contact SRS for more details.

- **Carbon Literacy.** Raising awareness of the carbon dioxide costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis. Training is externally certified by the organisation behind it <https://carbonliteracy.com/individual/> .

## Conclusions

SRS continue to deliver a wide variety of training opportunities for different stakeholder groups, despite Covid19. The Covid19 disruption provides a challenge to the provision of our training sessions, and to ensuring the training is high quality and impactful. However, it also potentially has allowed us to reach a wider audience than we would have otherwise due to more flexible working practices and the (ambiguous) logistical benefits of online training provision.

## Resource implications

1. There are some aspects of online training which reduce financial resource requirements (e.g. catering)
2. A time resource expenditure was required at the beginning of the Covid19 disruption to understand the various online training delivery mechanisms available (both through the University and independently) and from that understanding to decide on which platform to use.
3. It's possible that the UK-wide LEAN group will want to develop a universal lab sustainability training course for online delivery – this may require some financial expenditure from University of Edinburgh, as some of the more 'slick' training platforms have fees associated. However, these fees would likely be split between multiple contributing HEIs, so the final cost to University of Edinburgh would likely be low (I would expect under £1,000). This proposal is far from certain at the moment and may not go ahead.

## **Risk Management**

There is a risk of poor sustainability practices (and associated higher energy use, waste production, water wastage, etc) if lab sustainability good practice sessions are not available to lab users at the University of Edinburgh – even during Covid19.

Online delivery of training makes it harder for the trainer to understand if the attendees are fully understanding the key points – there is a risk that some attendees leave the session without understanding the main behaviours we wish them to adopt.

## **Equality & Diversity**

Online delivery should increase accessibility for almost all stakeholder groups (with access to appropriate IT infrastructure, equipment and skills). There is a risk that a group exists which is missing either the infrastructure (internet connection), equipment or skills to access the training. Hopefully the provision of the recorded sessions on our website will enable people who would not be comfortable accessing an online webinar to access the same information in a non-live setting. In addition, there is possibly a small group of people who work in labs and spend very little time on a computer, and so would be unlikely to access any computer-based training. There is little we can do for that group until on-campus training can be provided again.

## **Next steps/implications**

1. Discuss with LEAN the proposal for a universal lab sustainability training course
2. SLSG members to make their colleagues aware of the training courses available from SRS.

## **Consultation**

SRS:

Alan Peddie, Project Coordinator, SRS

Chris Litwiniuk, Sustainability Innovation and Engagement Manager, SRS

Michelle Brown, Deputy Director and Head of Programmes, SRS

## **Further information**

Author and Presenter

Andrew Arnott, Project Coordinator (Labs)

Department for Social Responsibility and Sustainability

August 2020

## **Freedom of Information**

This is an open paper.

## Sustainable Laboratories Steering Group

16<sup>th</sup> September 2020

### Performance of the Freezer Fund

#### Description of paper

This paper describes the financial and carbon performance of the Freezer Fund, a ring-fenced section of the University of Edinburgh's Sustainable Campus Fund

#### Action requested

SLSG is asked to note the performance.

#### Recommendation

It is recommended that the fund continue, as it performs well and provides a useful and impactful incentive to lab users to remove old inefficient freezers and replace them with energy saving equivalents. As well as an energy benefit, there is often a science benefit too, with more consistent and reliable temperatures and better racking/organisation making samples quicker and easier to find.

#### Background and context

The freezer fund was set up as a ring-fenced section of the Sustainable Campus Fund shortly after the fund was established in 2016.

#### Discussion (this section can be adapted as appropriate)

Using the Project Tracker spreadsheet the following analysis was produced using figures up to end of April 2020:

1. Total spend £41,928 (from SCF grants, not including the amounts spent by the recipients - we haven't been tracking this. For example we give a maximum grant of £1,500 per ULT freezer but we don't track if that freezer cost £6k or £9k)
2. Total annual electricity cost savings £12,935
3. Simple payback 3.2 years
4. Average NPV is £2,998
5. Average IRR is 30%
6. Average ROI is 361%
7. Total annual CO<sub>2</sub>e savings 38.6tonnes
8. Average £/tonne CO<sub>2</sub>e saving is £86
9. 29 applications have been received (mostly for a single ULT, two for a pair of ULTs, two for a single -20 freezer). Two applications (one for a pair of freezers) were an 'eco top up' for someone purchasing additional freezers, which obviously we try to discourage unless absolutely necessary.
10. More than half of all applications (18) have come from only 4 applicants (with 9, 4, 3 and 2 applications each)

**Resource implications**

The grants given (maximum £1,500) are relatively small, compared to the cost of the ULT (c.£6-9k). There has been a steady but not excessive increase in use of the fund over the past year or so. The usage of the fund is deemed to be within the capacity of the SCF to support.

**Risk Management**

Discontinuation of the freezer fund could risk reducing the number of new contacts SRS makes through this fund, as well as disincentivising engagement in wider SRS activities from existing contacts.

**Equality & Diversity**

No Equality and Diversity implications have been identified relating to this fund.

**Next steps/implications**

It is recommended the fund continue to be reviewed and 'topped up' as and when the ring-fenced funds are exhausted.

**Consultation**

The Deputy Director and Head of SRS Programmes has been consulted.

**Further information**

Author and Presenter  
Andrew Arnott  
Project Coordinator - Labs  
Engagement Team  
Department for SRS  
05/05/20

**Freedom of Information**

This is an open paper.