IMPERIAL

LEAF User Guide

Getting started

1. Go to the **LEAF login portal** to start (https://app.ucl.ac.uk/leaf/leaf_external).
2. Click "**Register**" (Fig.1 - see button above Login). Your username must be your imperial.ac.uk email. Validate via the email sent to your inbox. Once registered and validated, you should be able to login to LEAF.
3. Login to LEAF. You need to **join an existing lab**, or **request to setup a new lab** if your lab is not listed yet. When choosing the name for a new lab profile, make sure it is easy to recognize by other users.
4. If joining an existing lab, then this can be approved either by someone already in the lab, or the institutional administrator. If you've requested to create a new lab profile, this can be approved only by the administrator.
5. Currently you may **only join one lab**. If you require access to multiple labs, you may request institutional admin rights from administrator.

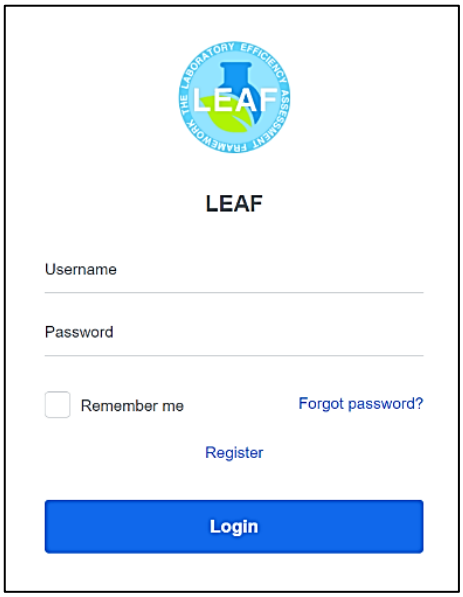

Figure 1 LEAF login page

Managing your lab

Figure 2 shows the landing page of your lab. You can manage the lab's profile via the manage lab button at the top right of the landing page. The manage lab functions are outlined below.

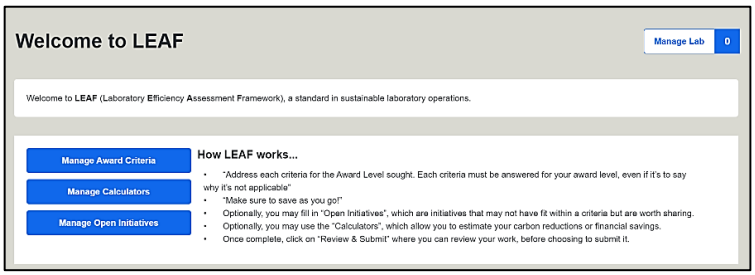

Figure 2 LEAF user landing page

1. **Lab Details**: Here you can update the lab name, as well as provide context on your lab.

   Note that the name chosen here will be printed on your accreditation certificate but can be changed at any point.
2. **Lab Members**: Here you can manage who is in your lab. You can add new members who have registered to the LEAF platform.
3. **New Lab Member Requests**: Here you can approve new lab members to your lab.

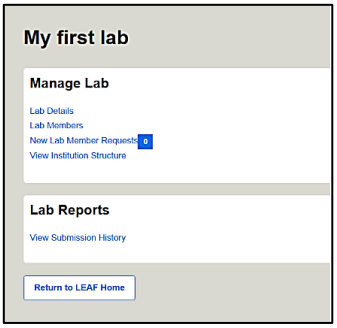

Figure 3 Manage lab page

4. **View Institution Structure**: Here you can view how your lab is mapped within your institution amongst the other labs using LEAF. This will be set by the administrator.
5. **View Submission History**: Here you will be able to see any approved, rejected, or pending LEAF submissions from your lab.

Completing LEAF

1. To complete a LEAF submission, you must address the relevant criteria. You can access them via the **Manage Award Criteria** button from the LEAF landing page.
2. To achieve an award level, all criteria must be addressed within that level. If you feel a criterion is not applicable, explain why. Your text will be automatically saved as you input it, but you can still click "Save answers" for assurance.
3. LEAF Progress – You can track you progress on the LEAF landing page. The number of criteria completed for each award level will be shown as in (Fig.4). Icons (such as the the clocks below) and the associated colours are outlined in the **Submitting LEAF** section below.

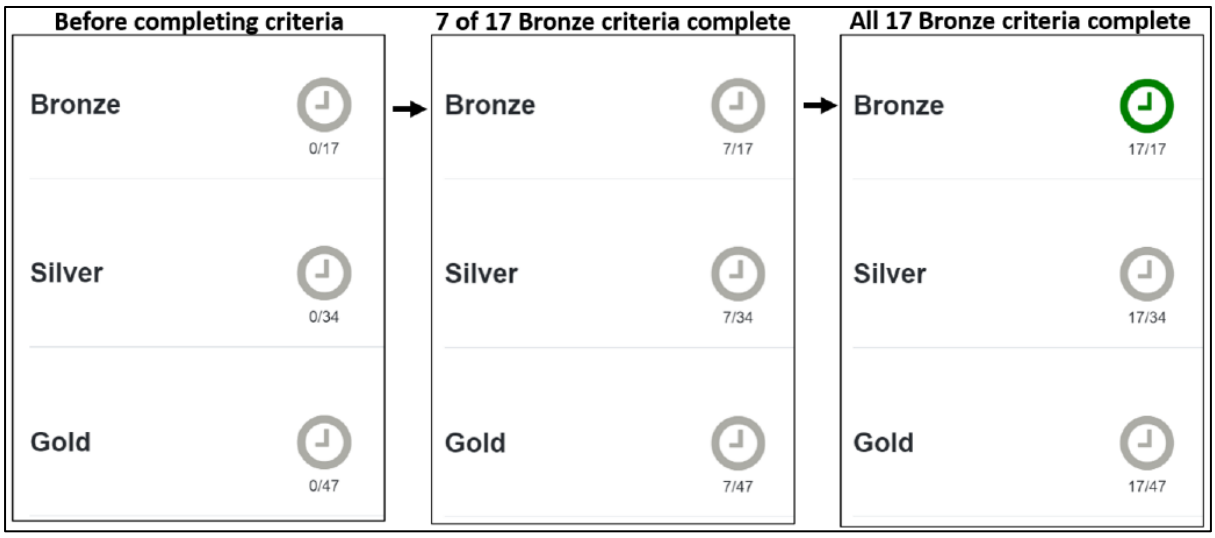

Figure 4 Series showing progress of completed Bronze award criteria.

4. The LEAF Calculators are required for relevant actions taken. Calculators allow you to estimate the carbon reduction and financial saving of actions you have completed. Calculators can be accessed using the button that is on the LEAF landing page.
5. The LEAF Open Initiatives are optional. Open Initiatives can be used to share any sustainability progress in areas that are not covered by the LEAF criteria. Open Initiatives can be accessed using the button that is on the LEAF landing page.

Calculators – these are intended to capture approximate trends and provide estimates as opposed to exact measurements. To use the calculators, please follow the below steps:

a) Click the **Manage Calculators** button from the LEAF landing page

b) Scroll down the page to see the available calculators displayed as below (Fig.5)

c) Click on the calculator that you wish to use - Focus on the calculators that relate to areas where you expect to make an impact, as opposed to trying to complete them all.

d) Fill in the relevant **Baseline Calculators**. e.g., complete the ULT Freezers calculator baseline if you expect to change your ULT freezers operating temperature. If you are uncertain on any definitions or how to find the information needed, scroll down at the bottom of the calculator to find the "Top Tips" and "Relevant Terms" for assistance.

Figure 5 LEAF calculators

e) Calculators automatically save your input and there is no need to save as you go. After filling in your data, the calculator should provide the carbon and financial cost of your items at the bottom of the page.

f) Once the Baseline Calculator has been completed, once ready you may click on the **Savings Calculator** for that same item. Input your data reflecting on the actions you have taken that resulted in a change. e.g., you are using the Savings Calculator for Waste, as you now are recycling more items that would previously been disposed of as general or clinical waste. At the bottom of the page, you will find the financial and carbon cost, as well as the difference between your baseline and savings calculator.

If your savings total is a positive number, you have obtained savings. If the savings figure is negative, you have increased your costs since the baseline.

Open Initiatives - These should be initiatives which have not been captured by the criteria or calculators but contribute to the sustainability of your lab. To use the Open Initiatives, please follow the below steps:

g) Click the **Manage Open Initiatives**

h) Use the 

button on the top right of the screen to create an initiative.

i) Provide a brief description of the initiative. You may estimate savings associated with your initiative (or simply put '0' if there were no savings).

j) Click the **Save** button at the bottom of the screen. This will return you to the Open Initiatives page and the initiative created should be visible.

Once you have completed all relevant criteria, filled in any Calculators and Open Initiatives, you can submit your LEAF Award for review.

Submitting LEAF

1. On the LEAF landing page click the icon next to the award level you would like to submit.

   Note: The icons are colour coded based on progress (see Fig.6). Once you have completed all the criteria for the award level you intend to submit the icon should turn dark green.

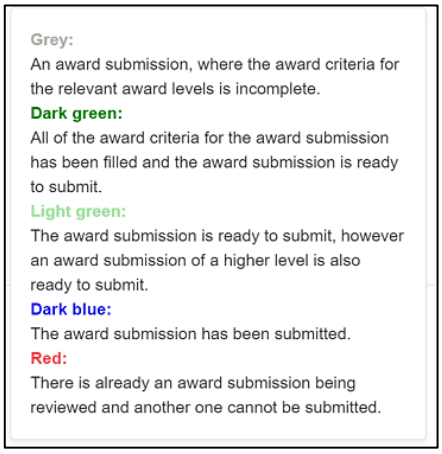

Figure 6 Icon colour key

2. You will be taken to the **Review and Submit** page which gives you the opportunity to review all that you have completed. You will be able to attach any calculator you have completed that you would like to submit simply by click "**Attach**" next to the relevant calculator.
3. Once you have reviewed all the information and attached any completed calculators, click on "**Submit Sustainability Assessment**" at the bottom of the page.

   Note: It is important to submit for the highest award you are intending to achieve at this stage. e.g. do not submit for Bronze if you are seeking a Silver award.
4. After you have submitted your LEAF Award the icons on the landing page will change colour accordingly.
5. Your Institutional Administrator will receive notification of your award submission and will assign auditors to assess your submission. An auditor or your administrator will contact you to arrange a suitable time to conduct an audit.
6. Auditors may add feedback against criteria in your submission. Once the audit is complete it will require final approval by your administrator.
7. Once an award is approved, the awaiting review icon will be replaced with a LEAF Award logo. Clicking on the logo will allow you to view any audit feedback and download your Award Certificate. Print your certificate or share on social media!

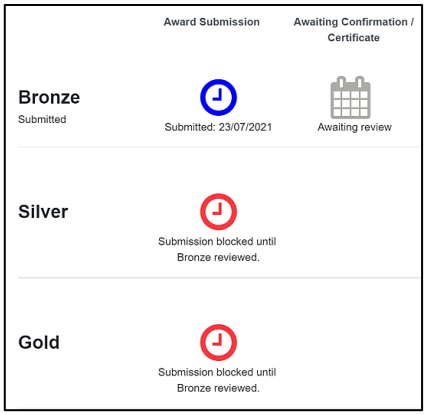

Figure 7 Award submitted

8. All criteria competed are retained in the award criteria making it easy for you to review this in future and edit as appropriate.

9. As you progress, the award section on the LEAF landing page (Fig.7) will have additional year tabs. Each year can be selected via the buttons in the top left corner.

Peer auditing

As a lab member you may be requested to peer audit another lab's LEAF award submission.
If you are assigned an audit by your Institutional Administrator, you will receive an email notification with the relevant details. You can review any pending audits assigned to you via **Manage Audits** in the top righthand corner of your landing page. On the manage audits page that opens you can view the award submission by clicking **Access Audit** or decline the audit. The steps below outline the process for LEAF peer audits.

1. Contact the lab members to arrange a mutually convenient time for the audit.

2. Read the Auditing LEAF submissions section below.

3. Review the award submission in advance of the audit (by selecting Access Audit as above)

4. Provide feedback on the submission in LEAF, on criteria where necessary and general feedback on the award submission.

5. Approve or reject the award.

Auditing LEAF submissions

It is recommended that each institution organise an audit of submissions. The exact methodology each institution uses may be self-determined. Guidance on a standard approach to audit LEAF is provided to support institutions. Audit functions are provided in LEAF. Aligning audit standards will improve comparability of LEAF results.

Auditors

Auditors are to be selected by the institution. There are 3 distinct groups of that may be available.

1. Institution administrators - involved in managing the LEAF program
2. Peers - members of another participating LEAF team
3. Students - in associated subjects

Any of these groups or any combination of them could conduct LEAF audits. Benefits exist for each of the groups. All auditors should be familiar with LEAF content and laboratory environments. In total, there shouldn't be more than 3 people on an audit team. Any registered LEAF user at your institution can be assigned LEAF award submissions to audit by the Institutional Administrator.

Audit scope

Audit all content submitted by the lab via the LEAF tool. All criteria are time stamped and auditors may wish to review when content was last updated. During the audit any non-performance should only be recorded if relevant to LEAF criteria. Record all relevant good practice even if it falls outside of LEAF criteria as it could serve as inspiration for future criteria or case studies.

Audit process

Audits should take approximately one hour. Avoid exceeding an hour, unless the facilities being audited represent an unusually large submission (e.g. Gold Award for a large institute). Audits can be conducted in person or remotely on a platform of your choice. Audits should be scheduled in advance. During the audit add constructive comments in the feedback section for the criteria assessed.

There may not be sufficient time to assess every criterion, particularly for Gold or Silver submissions. Focus on challenging, recently completed, or unclear criteria requiring more information. Labs are not required to provide additional documented evidence, but auditors should note criteria which they may want to inspect in person later if unable to access during the audit. If calculators have been submitted focus on how savings have been achieved. If Open Initiatives have been submitted, discuss the methodology and any estimated savings.

On completion, always thank the laboratory for participating and auditors for their contributions. The audit team may want to spend 5-10 minutes reviewing results and agreeing the outcome after the audit without the auditees present.

Assessing the criteria

Each criterion addressed by the auditors must be assessed as either Pass or Fail. A guide to assess each criterion is provided at the end of this document. Experience and familiarity with laboratories should permit auditors to determine Pass or Fail using the ‘target outcomes’ and ‘failure rationale’ provided.

If the lab is yet to fully achieve a criterion but demonstrate a clear pathway is in progress the overall submission may be approved, but this should be recorded for subsequent submissions (this will drive continuous improvement). ‘N/A’ is an insufficient response to a criterion, a short reasoning must be recorded. Where a laboratory addresses criteria by providing a rational explanation for why it is unachievable in their current setting, it is acceptable to assess the criteria as a Pass.

It is not necessary for all criteria to be updated by the lab on each round of submission. All criteria are time stamped to enable auditors to see when this was last updated. Auditors should use their discretion to assess whether criteria is being achieved and when to suggest an update or amendment is required.

Avoid spending too much time on any single criteria, no more than 2-3 minutes ideally. Conduct audits with a positive attitude, be congratulatory, and provide encouragement. When faced with failed criteria, seek to understand why, but do not make the audited laboratory members feel like they’ve failed. If criteria are repeatedly failed from previous

submissions, make these targets for future LEAF submissions and agree a timeline before the lab can progress further. Should any users refuse to answer any questions, or cannot provide a satisfactory reasoning, simply record this to feedback at a later point. Always remain positive with participants.

Final evaluation and certification

When the audit is complete auditors should have discussed any uncertainties and had an opportunity to address questions. Auditors should agree an outcome without the lab members present. If any criteria which have not been met, the lab may still achieve its award if it agrees to address this in an agreed amount of time, and the auditors feel the pathway to this is demonstrated and achievable.

Following the audit, notable feedback can be entered by auditors next to each criterion on the LEAF Review Award Submission page and general feedback can be provided at the bottom of the page. Use the button beneath the feedback box to approve the award. **Following a round of audits, celebrate the labs successes and share LEAF results!**

LEAF Criteria assessment guidance is provided in the pages below for those conducting LEAF audits. For each criterion 'target outcomes' and 'criteria not met' rationale is provided. The guidance is organised in tables for each LEAF criteria section.

This guide has been produced to support LEAF lab members and peer auditors, for further information or support please contact lab-sustainability@imperial.ac.uk

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LEAF criteria assessment guidance

Waste

#	Level	Criteria	Target outcome	Criteria not met
1	Bronze	The lab possesses required waste bins (possibly clinical, glass/ sharps, hazardous etc.), as well as recycling/ general waste bins with appropriate and clear signage.	Appropriate bins are present to easily recycle items particularly packaging. There is clear signage in place depicting which bins are for what purpose.	Recycling is feasible, but no bins are present. Bins have no signage.
17	Silver	The lab has assessed its use of consumables and implemented realistic measures to reduce use. These efforts should target single-use plastics where feasible.	Usage of consumables has been assessed for feasible means to reduce. Change in practice has resulted in a reduction of single use plastic, which may be quantified in some manner.	No assessment for usage of single-use plastics has been conducted, and there are clear opportunities for reduction which have not been enacted.
18	Silver	There is a minimum contamination of recycling in clinical waste bins (no more than 10%), and lab members are aware of best practice.	Correct disposal procedures are well communicated through documentation and training for all waste streams. Clear signage on bins, and audit confirms minimal mixing of waste streams is occurring.	Waste bins do not have clear signage and/or upon inspection, there is obvious mixing in recycling or general waste bins. Training is not provided to lab members.
34	Gold	The lab has implemented some form of reuse of materials, e.g. reuse of consumables.	Users can demonstrate reuse practices, or at minimum can validate why such reuse is not feasible (e.g. referencing examples from the LEAF Consumables Guide). Ideally the impacts have been recorded, e.g. via LEAF calculators.	Reuse of materials has not been considered or implemented where feasible

People

#	Level	Criteria	Target outcome	Criteria not met
2	Bronze	The lab has an induction procedure in place for all new arrivals, explaining the sustainable practices to take.	There are viewable induction materials containing sustainable practices, specifically closing fume cupboards, turning equipment off, chemical/ sample management, and waste practices.	New lab members are inducted, but without relevant sustainability practices.
3	Bronze	The lab has a system in place to clear or track materials left by departing staff.	There must be a system in place to ensure old materials do not go unmanaged e.g. through an exit-tracking document.	There is no system in place to catalogue materials of departing staff and students.
4	Bronze	Either the lab has a nominated person to drive sustainability forward or a group of people that meet to address sustainability within the lab. Sustainability has been added as a standing agenda item into regular meetings and/or relevant networks (e.g. Health & Safety)	One or more people have the responsibility of leading on sustainability. This is communicated in some fashion to all lab members. Sustainability have become integrated within regular meetings, and as such is not isolated from those who are not active in implementing LEAF.	There are no plans in place for continuing sustainability efforts, either as a group or individually.
5	Bronze	The lab (or relevant group) has taken part in 1 team activity of sorts over the course of the year, or one is imminently planned.	The lab can evidence at least 1 activity within the past 12 months or have one imminently planned.	No social activities have taken place within the past 12 months, and none are planned.
19	Silver	The lab has communicated with other groups/labs/departments about sustainable practices, and/or has	Communication, collaboration and knowledge exchange has led to either increased participation in sustainability	Communication surrounding sustainability or an audit of another lab engaged in sustainable

		taken part in a sustainability audit.	activities/awards, or lab members have assisted auditing others for sustainable practices.	practices has not taken place, nor are any imminently planned.
35	Gold	The lab has implemented at least one action to reduce travel.	Environmental implications of travel are considered and minimised where feasible, e.g. via teleconferencing. This criterion is not about commuting to the lab.	No actions to reduce member travel have been implemented and reducing travel has not even been considered.
48	Gold	The lab has taken action to address the sustainability of corresponding office spaces. This may be through a programme, or by taking individual actions.	Actions to improve the sustainability of office spaces have been considered and implemented. This includes actions regarding IT management, waste (such as food waste), and etc.	Office spaces have not been considered and there is no plan to implement improvements

Purchasing

#	Level	Criteria	Target outcome	Criteria not met
6	Bronze	Energy and materials consumption have been considered during the purchase of new materials. Ideally users should request life-cycle assessments (LCAs), though should be prepared for vendors to not have these available.	Examples of when and how energy/water consumption, consumables, and durability have been considered in any recent purchases. In the absence of any purchases, users must display an understanding of how to purchase sustainably for when such a time arises.	Equipment purchased within the past 12 months was purchased considering price only, and otherwise more sustainable options were not considered. Purchases have not factored in energy/water consumption, consumable use, durability, or manufacturing

			A basic understanding of what a life-cycle assessment is and why it is important to request when purchasing materials should be displayed.	location, or servicing.
20	Silver	The lab is aware and makes use of schemes offered by suppliers/manufacturers which increase reuse, recycling, and waste reduction. This includes but is not limited to tip box recycling and the return of polystyrene boxes and Winchesters to suppliers.	Relevant schemes (tip-boxes, Winchester bottles, package returns) have been considered and implemented wherever feasible.	Relevant schemes have not been considered, nor any implemented despite their possible feasibility.
36	Gold	LEDs have been considered for research applications and purchased where feasible.	Feasible options for LED lights in research applications have been identified and implemented. This excludes room lighting and should focus on LED applications for research, e.g. microscopy.	Options for the use of LEDs in research equipment such as fluorescence microscopes have not been investigated nor implemented.

Equipment

#	Level	Criteria	Target outcome	Criteria not met
7	Bronze	Heat sources on cold storage equipment are not blocked, and any filters are cleaned regularly.	There are no items blocking the expulsion of hot air, excluding under-bench units. Any freezer filters are cleaned regularly, or there is a plan to clean within 3 months.	Heat sources are visibly blocked by items which may otherwise be moved, or there visibly blocked filters with no plans to clean.

8	Bronze	Cold storage, ovens, or incubators operate only when as full as possible.	There are no ovens, cold storage, incubators, or similar equipment operating when empty, unless for a specific purpose.	Equipment is in operation with no items inside, and no reason why they're on.
9	Bronze	There is a system in place to ensure equipment and lighting are turned off when they are not needed.	Users can validate they understand the system in place, potentially via visual communications.	Lighting and equipment are frequently being left on when not needed, and there is no system in place moving forward to address this.
21	Silver	Freezers, fridges, and LN2 dewars are maintained or there is a plan in place going forward to achieve this. This includes defrosting, removing unwanted samples, checking seals, and cleaning filters on ULT freezers.	Cold storage equipment is well maintained; with no more than 10% of units having either excessive frost, blocked filters, or bad seals.	Upon inspection of at least 10% of cold storage devices there is significant build-up of ice and/or dust build up on filters. Routine maintenance has not been planned.
22	Silver	Washers, autoclaves, and any equipment which permits batching, are only run when full. The lab considers appropriate sizing when buying such equipment.	There is an organised approach to batching ensuring units are only run at full or near capacity e.g. dishwashers aren't empty when operated. For any units purchased in the past 12 months assessments have determined the appropriate size of units in line with batching procedures.	Equipment such as glass washers and autoclaves are in operation at less than 70% capacity, unless absolutely necessary for operations. Batching is not facilitated by any means, and if it does it is accidental.
23	Silver	There is a system in place permitting the booking and sharing of communal equipment.	Items of communal equipment are shared via a booking system which is	There is no system in place although there is clear potential for such a system.

			communicated to users.	
24	Silver	Where feasible, freezers and fridges have temperatures raised and drying cabinets/ovens have had temperatures lowered.	Temperature regulating equipment has been assessed and changes in temperature have been implemented wherever feasible. Freezers should not be colder than -20°C unless necessary, and ULT freezers should not be colder than -80°C, but ideally set at -75°C/-70°C. ULT freezers at -80°C are acceptable where research methods take priority.	The feasibility of altering temperature set points for cold storage devices and ovens have not been investigated.
37	Gold	There is a process in place for excess equipment and materials in the lab to be shared, repaired locally, or sold.	Excess equipment and materials are identified and made available for reuse by others through clearly defined procedures. There are means to fix broken equipment.	There is no process in place for the reuse of excess equipment and materials, and/or equipment is thrown away which could have been used, repaired, or shared.
38	Gold	Where water is used for cooling it is recirculated.	Tap to drain / single pass through cooling water is not used where this regularly leads to large volumes of water wastage.	Large volumes of water are being wasted by tap to drain / single pass through cooling water and there is no plan in place to switch to a recirculating supply.

IT

#	Level	Criteria	Target outcome	Criteria not met
10	Bronze	Computer monitor brightness settings and computer time-to-sleep have both been minimised.	Monitors have minimised brightness settings visible, and there are no screens on when not in use (e.g. on longer than 15 min).	Monitors are not set to minimum brightness, and/or have no sleep settings.
25	Silver	There is a system in place to ensure critical data is backed up, which also ensures large files are not excessively stored and cleared where feasible.	Systems or plans are in place to ensure all critical data is retained and backed-up. Non-critical data is not backed up unnecessarily. E.g. through the cloud, or there is a system in place to push research staff to drive reduced storage of large files (e.g. clear-out days, or assessing how many copies are necessary)	There is no back up system in place. There have been no efforts to review data management, with an effort to reduce storage requirements.
39	Gold	Computing code has been optimised, and the number of storage clusters has been optimised to the tasks or schedule of tasks.	Optimisations have led to faster, more energy efficient operation. Storage clusters use minimum server space. These criteria only apply to labs with significant data storage.	Computing code and/or storage clusters have not been subject to an optimisation process, nor is there one planned or underway.

Sample and chemical management

#	Level	Criteria	Target outcome	Criteria not met
11	Bronze	All samples and chemical containers have legible labels, or there is a system in place to ensure that going forward all	Request a spot check of one or more storage units to ensure a labelling system is in place.	Upon inspection there are many samples which possess illegible labels or none at all, and there is no

		samples will be consistently labelled.		system in place to correct this.
12	Bronze	The lab has a system in place for sharing chemicals between users within the lab group.	Chemicals are shared where feasible, and waste of usable chemicals is minimised. A shared shelf of chemicals is sufficient, if it is actively in use and maintained in some organised fashion.	Chemicals and reagents which may otherwise be shared are not and potentially wasted, and there is no plan or system in place moving forward to achieve this.
26	Silver	Procedures for equipment breakdown are in place and well communicated to minimize losses. This may include but is not limited to freezer alarms, back-up storage spaces identified, call-out procedures, etc.	Equipment breakdown will not result in the loss of valuable items due to monitoring alarms and contingency planning. Users are aware of the procedures to follow in the event of a breakdown.	No procedures for identifying and/or reacting to equipment breakdowns and/or users are not aware of any procedure.
27	Silver	The 12 Principles of Green Chemistry have been considered for current lab members, and communicated to the new members.	Discussion, resources and/or training which support the 12 Principles of Green Chemistry have led to opportunities for more green alternatives to harmful chemicals. Labs should show an awareness of why they are unable to replace harmful chemicals in use with less harmful alternatives.	Users are not aware of the 12 Principles of Green Chemistry and/or considerations of the principles has not taken place.
40	Gold	There is a system in place to promote the use of existing data, and/or existing samples from biobanks, as opposed to always	The lab uses shared external sources for existing samples, chemicals, materials and/or data where possible and facilitates	There is no acquisition of and/or sharing of existing samples, materials, chemicals or data with external

		generating novel data or sourcing new samples.	sharing through making its resources available to other external organisations. Consider public data/sample resources where feasible.	organisations, or no reason has been provided as to why this is not feasible.
41	Gold	At least 80% of samples and chemicals are being actively used, or being stored and are easily identifiable. No more than 20% should be uncatalogued.	There is evidence of organization or a catalogue of chemicals. Alphabetical organization on a shelf in a communal space is sufficient. The lab user can give detail about the management of chemicals and samples including how frequently unused or out of date items are disposed of. Spot check a few chemicals to ensure that they are no older than 5 years old. Enquire about older chemicals with the user. Award the criteria if there is sufficient explanation.	If the lab has either large chemical stocks or freezers full of unknown items, this criterion should not be accepted. There is no clear tracking of samples. There is no evidence for the organization and monitoring of chemicals.
47	Gold	No solvents are being evaporated into the atmosphere. Solvent selection has been considered for 'greenness'. Solvent recapture/recycling has been assessed for feasibility.	Any vapor from solvent evaporation is captured and not released into the atmosphere. Where feasible, captured solvents have been condensed, possibly purified, and made available again for use. The lab has reviewed the Chem21 Green	Solvents are being evaporated and not recaptured – This likely takes place within a fume cupboard. No consideration for greener solvents has been made.

			Solvent guide, and substituted any solvents accordingly.	

Research quality

#	Level	Criteria	Target outcome	Criteria not met
13	Bronze	Common protocols and methods are centrally shared and available to all lab members.	Where lab members are doing the same experiments/ processes, methods are standardised to improve comparability and consistency of results. Lab members can evidence a folder, paper or digital, in which common protocols are shared. Lab members varying protocols for scientific reasons is permitted.	The lab provides no means centrally to access protocols or methods for experiments common to the laboratory.
14	Bronze	The lab has had its pipettes and scales calibrated in the past year, or has them scheduled to be done. In absence of pipettes, the lab has considered calibrating any materials commonly utilised for measurement.	Ensure there is at minimum a plan in place to calibrate if not done in past 12 months. In absence of pipettes, ask if there are other similar items like scales.	There are pipettes/ scales which have not been calibrated within 12 months, and there is no immediate plan to address this.
28	Silver	The lab is aware of any relevant local core facilities or equivalents. Either there is a valid rationale for not utilizing such a facility, or the lab makes regular use of them.	Local core facilities (e.g. mass spectroscopy) are fully utilized wherever relevant and feasible, and their availability is communicated. Request users to display an understanding of available core facility	Users are not aware of local core facilities and/or the lab has not investigated using them.

			resources (potentially external).	
29	Silver	The lab has a forum for sharing and discussing negative results.	Lab members have a means to regularly communicate negative results, at minimum with other lab members. Simply having regular lab meetings is not sufficient, lab members must feel encouraged to share negative results in some fashion.	Negative results are not recorded or shared in a way that allows colleagues to learn from previous errors and avoid experimental repeats.
42	Gold	The lab has adopted a laboratory management software, or have reviewed the options and provided a reason why this isn't appropriate.	Laboratory Information Management Systems (LIMS) are in use where appropriate, or as a minimum users have considered LIMs for sample or chemical management.	Laboratory management software options have not been reviewed, and there are clear opportunities for software to improve operations.
43	Gold	Sterilisation and cleanliness methods have been reviewed for efficiencies and effectiveness. Including but not limited to autoclave methods, UV sterilisation necessity, and cleaning rotas.	Over-treatment of outgoing waste and excessive sterility may represent wastage. As such the lab has reviewed its means of sterilisation/ cleanliness for opportunities to reduce autoclaving, UV sterilization, or etc.	The methods of sterilisation and cleanliness have not been reviewed and assessed, and there is no plan in place to do so.

Teaching criteria

#	Level	Criteria	Target outcome	Criteria not met
33	Silver	An awareness of resource use and associated environmental impacts is incorporated into practical laboratory learning and teaching.	There are viewable lesson plans that integrate best sustainable practices, such as instructions on which waste streams to use.	No effort has been made to integrate sustainability into any lesson plans or teaching sessions.

			Sustainability is a key aspect of the induction for students.	
46	Gold	Environmental impacts are considered in the design or revision of experimental procedures for taught laboratory courses.	Evidence that teaching experiments have been either revised or designed to include sustainable practices. Examples may include using smaller tubes, using smaller sample sizes, or using reagents that are less toxic. This criteria is an extension of the previous teaching criteria, in that sustainability is not only integrated in the lesson content but experimental design has been affected.	There is no evidence that sustainability has been taking into account when designing experiments.

Ventilation

#	Level	Criteria	Target outcome	Criteria not met
15	Bronze	Any issues that estates must address have been reported. This includes ventilation, room pressure, water leaks, heating & cooling, and etc.	There are no observable issues with heating, cooling, or ventilation which have not been reported to estates to address. Ensure users know where to go when needing to report any such faults.	There are noticeable issues with heating, cooling, or ventilation which have not been raised to estates, and there is not intent to do so.
16	Bronze	Fume cupboards and safety cabinets possess signage encouraging good practice.	There is signage in place encouraging users to lower fume cupboard sashes and turn safety cabinets off when not in use.	There is no signage, and no plan in place to achieve this.

30	Silver	Fume cupboards and Local Exhaust Ventilation equipment is not used for extended storage, and nothing impedes internal airflow.	Items in fume cupboards and LEV equipment are kept to a minimum resulting in improved safety and reduced energy consumption.	Fume cupboards or LEV equipment they contain items which are being stored or are not in active use over the coming days.
31	Silver	Users have been made aware and have improved sash lowering of fume cupboards, and/or turn safety cabinets off when finished (at least 80% of the time).	Clear signage is present. Training and/or guidance on the benefits of sash lowering and turning off safety cabinets is provided to users.	10%+ of sashes of fume cupboards not in use are raised, and/or fume cupboards are not left in high-flow mode unnecessarily. <25%of safety cabinets are on with no active use.
44	Gold	The lab has engaged and implemented actions via estates on lowering: fume cupboard flow rates, air change rates, and/or removing unnecessary extracts from safety cabinets to become recirculating.	Extract and ventilation are optimised ensuring safety whilst maximising energy efficiency, or at minimum users have actively engaged with estates on such opportunities beyond a single email.	No attempt has been made to engage with estates with regard to optimising laboratory extract and ventilation, and there are opportunities to do so.

Water

#	Level	Criteria	Target outcome	Criteria not met
32	Silver	Sustainable water use is communicated to all lab users. This includes specifying what levels of water purity are necessary for various applications and ways to avoid taps running (e.g. soaking glassware).	Lab users can demonstrate an understanding of the differences between water types. Best practice is included in the induction for new lab members. Any repeated issues with incorrect usage	User demonstrates no understanding for the different water types. No effort has been made to communicate best practice to new members.

			have been flagged at meetings.	
45	Gold	Guidance on appropriate usage of drains and effluent waste is communicated to all lab users, during inductions and beyond.	Users can give examples of where guidance for effluent waste is displayed. This could include but is not limited to, in the induction, posters, given at lab meetings, signage at sinks.	No evidence for guidance is displayed.