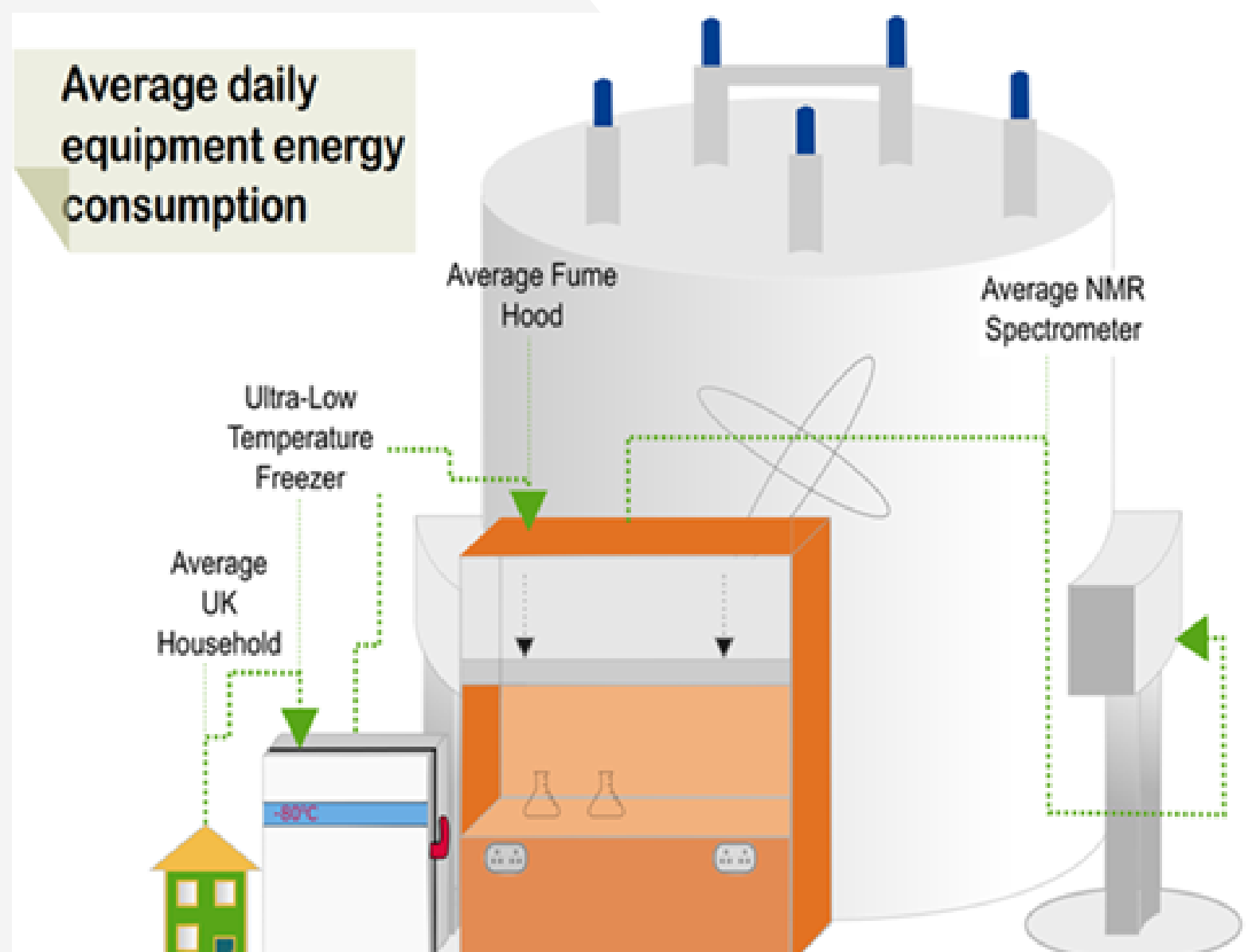




SUSTAINABLE LAB INDUCTION

Laboratories are extremely energy intensive, using significant amounts of energy at Queen's.

With the introduction of the pilot lab sustainability programme LEAF across Queen's University labs, it is our aim to embed good sustainability practices within our labs and help staff and students understand what this entails. Due to the energy usage of labs being so high, this is the area where staff and students can make the most difference.



LEAF is a standard in sustainable science and contains Bronze, Silver, and Gold criteria covering a range of improvements. LEAF has calculators to help estimate savings in ££ and tonnes of CO₂.

This lab induction guide provides a few simple steps and considerations to help decrease energy usage and increase sustainability across our labs, as well as helping lab users to remain safe.

COLD STORAGE

What can you do?

- Only store what's necessary, track samples of departing staff and students.
- Defrost seals when necessary.
- Allow heat to escape from the back of freezers.
- Clean filters regularly.
- Consider running freezers at -70°C instead of -80°C (this can save 30-40% of energy use).





WARP-IT

- An online platform which allows staff to freely trade items which otherwise may be disposed of.
- If you require any new furniture, lab equipment/consumables, or have any usable items you would like to dispose of, consider Warp-it.
- You can register or login to Warp-it here: www.warp-it.co.uk/qub



LABORATORY WASTE

Clinical waste can cost **5x more** to dispose of than recycling and requires much more energy to process. Reference the Non-Hazardous Lab Recycling poster to keep staff and students right.

What can you do?

- Separate waste appropriately - packaging shouldn't be put in hazardous/clinical waste streams. Reduce and Reuse waste!

Queen's University Belfast

NON-HAZARDOUS LAB RECYCLING



- 1 Paper and card

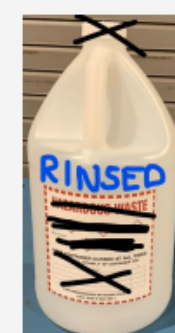


- 2 Cardboard (no cardboard in paper bins)

- 3 Plastic packaging (sleeves, bags and wraps)



- 4 Empty plastic chemical bottles



- 5 Tip boxes (if there isn't a collection scheme in place in the lab)



TRAVEL

- Remember that reducing travel to the lab isn't only relevant to staff and students.
- Reduce travel costs by ordering items in bulk (where possible) rather than in multiple separate orders.
- Check out the Carbon Management website to find out what else you can do!

<https://www.qub.ac.uk/directorates/EstatesDirectorate/Services/SustainabilityatQueens/SustainableTravel/>



FUME CUPBOARDS/BIO-SAFETY CUPBOARDS

What can you do?

- Close your fume cupboard sash. This can save a substantial amount of money per year! Turn down/off if allowed.

Safety cabinets (when ducted) can use as much energy as a fume cupboard.

What can you do?

- Power down when not in use.



EQUIPMENT



Power down equipment like bench-top autoclaves and drying cabinets when they are not in use.

CHEMICAL MANAGEMENT

Chemical management can cost up to £1 for every £1 spent on the chemical itself.

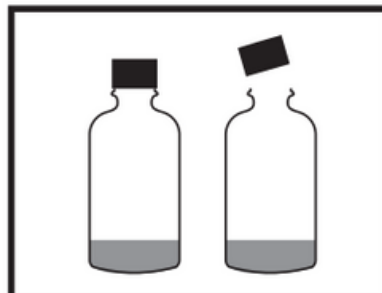
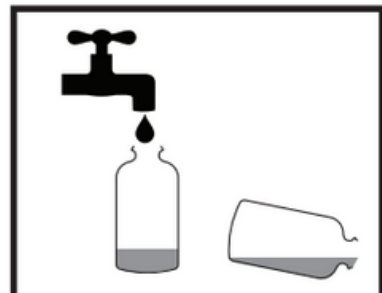


What can you do?

- Check if a chemical is already available prior to purchasing.
- Share unused chemicals between labs (where possible)-communication between labs is key.



EMPTY PLASTIC, GLASS AND ALUMINIUM CHEMICAL BOTTLES DISPOSAL

Rinsing laboratory items before recycling is the responsibility of staff/students- check with floor managers where this waste should go

<p>1.</p>  <p>Remove top of bottle</p>	<p>2.</p>  <p>Rinse and Empty</p>
<p>3.</p>  <p>Deface Hazard Symbol</p>	<p>4.</p>  <p>Write RINSED on the label</p>



REDUCE, REUSE

Remember that to reduce or reuse is always better than recycling

WHAT ELSE CAN I DO?

- Turn all lights and computers off.
- Ask questions, get involved, learn more about lab sustainability from LEAF.
- Queries can be forwarded to sustainability@qub.ac.uk.