

**19 STORIES AND QUOTES FROM 2018-19**



# **SUSTAINABILITY CHAMPIONS STORIES 2018-19**

**Email [sustainability@kcl.ac.uk](mailto:sustainability@kcl.ac.uk) if you would like to join the programme**

# Contents

3

King’s Venues & Food case study

4

Chemistry Research Labs case study

5

Quote by King’s students Frida and Lizzie

6

Division of Women & Children’s Health (Office team) case study

7

Division of Women & Children’s Health (Labs team) case study

8

Quote by King’s students Helena and Alice

9

Education, Communication & Society case study #1

10

Cardiology Labs case study

11

Geography Labs case study

12

Quote by the Literature & Languages team

13

Great Dover Street Apartments case study

14

Wolfson CARD Labs case study

15

Quote by the Women & Children’s Health team on the Lab Efficiency Assessment Framework (LEAF)

16

Education, Communication & Society case study #2

17

Lavington Street Estates & Facilities case study

18

Guy’s Multi-Disciplinary Labs case study

19

Education, Communication & Society case study #3

20

Quote by King’s student Marjana

21

Fundraising & Supporter Development case study

22

Thank you & contact page

# King’s Venues & Food Estates & Facilities

In February, we met Buses4Homeless at The HBAA annual dinner. Dan Atkins, founder of Buses4Homeless touched our hearts with his passion to provide a low cost, holistic solution to homelessness by creating beds, providing food and learning in decommissioned buses. The Buses4Homeless mission is to provide 14,600 nights sleep a year, in the warmth of converted double decker buses. The buses will be refurbished to create sleeping, dining and learning areas. Buses4homeless aims to help those affected overcome the issues which led to them being homeless. It aims to help them develop skills, get them apprenticeships, training and eventually, into work.

As part of the King’s Service Strategy, we used our dedicated day of Service to take on the task to help Buses4Homeless transform four buses donated by Stagecoach (which were left stationary in bus depots without use for several years, and would have eventually been scrapped). The buses will take 40 people at a time, helping build stability and a sense of community.

It was a great day of service with the team delivering 4 volunteering days to the charity. For more information about Buses4Homeless, take a look on their [website](http://buses4homeless.org): <http://buses4homeless.org>.

Champions:  
Richard Burgess  
Sarah Webster  
Lisa Neville  
Craig Jennings



# Chemistry Research Labs

## Natural & Mathematical Sciences

Fume cupboards have huge energy consumption. Yet, their energy use can be reduced by at least 50% by simply closing the sash of the cupboard, which reduces the volume of air being expelled. However, a recurring problem is that sometimes users don't close the sashes when their work is done, resulting in significant waste of energy. Jordan, Isabel and Mark decided to engage with staff in a positive manner by running a "close the sash competition" and incentivising the winners with pizza!

To ensure people were on board with the initiative, the team engaged with lab users about the impacts of leaving the sashes open. They ran the competition over the course of a month and recorded when sashes were left open at the end of the day. The results were stark – observing a 25% increase in sash closure. Using LEAF to estimate impact, the team's efforts will save £14,850 per annum in energy costs!

### Champions:

Jordan Guthrie  
Isabel Cruz  
Mark Withers



*"We were really impressed by the changes they have implemented across the team, and how everyone has shown a true change in behaviour. The team have been able to encourage all employees to adopt a sustainable working environment. They have taken initiative on many occasions and their drive to achieve accreditation for their work is fantastic."*

**Frida, Psychology UG student & Lizzie, Climate Change PG student, on auditing a Sustainability Champions**

# Division of Women & Children's Health Offices

## Life Sciences & Medicine

Up until Spring 2018 we had been reliant on a communal photocopier and printer in the main office together with several standalone printers placed in research offices. However, due to sustainability and the need for confidentiality it was thought necessary to find alternative ways to manage the print load for the Department. After speaking with Print Services at King's, we were able to trial a HP colour photocopier alongside our old units.

The quality and efficiency of the unit compared favourably with the previous photocopier. With the high levels of printing that we require we decided to purchase 2 units. These are set up to default to black & white and double sided when printing in order to save resources. Both units have been provided with follow-me printing and it was explained to the department how it enabled users to track and reduce printing, whilst maintaining confidentiality.

Soon we are aiming to remove all office-based and single user printers in a drive to become even more sustainable.



*Champions:*  
Carolyn Gill  
Pamela Taylor-Harris  
Alice Beardmore Gray  
Fran Conti-Ramsden  
Anna Brockbank  
Tharni Vasavan  
Liani Devito



# Division of Women & Children's Health Laboratories

## Life Sciences & Medicine

As part of our research, we process a huge amount of human samples, many of which will require long-term storage within Ultra-low temperature (ULT) freezers operating at -80°C. In fact, over the past 8 years we have collected around half a million samples, which are being stored in 20 x -80°C freezers. Each of these freezers will consume as much energy as the average UK household, and our need for storage was constantly increasing. With an eye to saving energy, we decided that to reduce our needs on freezers, we would reduce the actual volume and size of the tubes we were using to store our samples.

We invested in smaller tubes which are 21mm-50mm (depending on volume) in height. We can fit 96 of them in a box and 115,200-57,600 (depending on tube size) of them per freezer. We estimate that this action has increased our storage capacity 75-250%, depending on the tube size in use. We previously filled a rack (16 old boxes) a month, now we fill a rack (36 new boxes) every 5 months. This small change has greatly reduced our need for freezers and the associated energy consumption!

*Champions:*  
Carolyn Gill  
Pamela Taylor-Harris  
Alice Beardmore Gray  
Fran Conti-Ramsden  
Anna Brockbank  
Tharni Vasavan  
Liani Devito



*Right: See the smaller racking for tubes within a ULT freezer*





*“We found the environmental audit training really eye-opening, and it provided great insight into what King’s and the various departments are doing to improve sustainability.”*

**Helena and Alice, second year UG Geography students, about auditing Champions teams**

# Education, Communication & Society

## Social Science & Public Policy

We are hard at work building sustainability and environment into curricula across the School. 2019-20 will see the introduction of three brand new modules that will support students to critically engage in ideas of environment and sustainability as they pursue degrees in STEM Education and Social Sciences.

The first is the Environmental Education, Sustainability and Society module, developed as part of our new MA STEM Education program, led by Dr Melissa Glackin. This module will introduce students to key perspectives in environmental education with a view to critically applying these ideas to their personal lives, professional practices and their engagement with wider society.

The second, entitled Making in STEM, will support Masters students to examine the pedagogy underpinning practice of ‘making’ related to STEM learning and will include a substantive focus on environmental science.

Thirdly, a new degree course, the BA Social Sciences led by Dr John Owens, will embed themes of sustainability, climate and environment across its curriculum, including through the Environment and Society module that focuses on understanding and addressing the complex social, cultural, political and economic facts that underpin environmental problems.



*Champions:*  
Melissa Glackin  
Heather King  
John Owens  
Kate Greer



# Cardiology Laboratories

## Life Sciences & Medicine

There are no central stores at Denmark Hill and so there are no cost or sustainability benefits that can be obtained from bulk purchasing. This increases the number of deliveries that are necessary from each supplier to provide for the requirements of this site.

The team, led by Rosie, dedicated huge effort to set up supplier freezers for NEB and Promega based in the James Black Centre (JBC) to serve the Denmark Hill campus. The team communicated and co-ordinated with the account managers and freezer specialists for both companies. This enabled installation of two freezers in the JBC that stock most of the consumables bought from these companies. Although data is not yet available it has led to a significant reduction in the volume of deliveries from both NEB and Promega as deliveries are only triggered once the stock of one product dips below 50% instead of anytime a product is taken.



Over the course of the year, stocks are adjusted to try result in a single delivery being made each month, compared with up to 20 deliveries a month previously. There is also a reduction in storage space required to house reserves of these consumables in the labs and a discount of 10% on every product bought.

In summary, this was an excellent project that required engagement to go above and beyond the required job role. It has resulted in significant sustainability and financial benefits.

### Champions:

Rose-Marie Minaisah  
Dan Martin  
Ana Georgian  
David Quinn  
Angela Hayward



# Geography Laboratories

## Social Science & Public Policy

Being a department that focuses research and teaching on grand environmental challenges such as climate change, wildfires and environmental pollution, sustainability is a big part of life within the Geography JBT laboratory.

Since our first Sustainability Champions submission in 2017, sustainability has been a leading driver, especially for procurement of new lab equipment. In 2018, we replaced our Ion Chromatography system, which we use to analyse nutrients (such as nitrate, phosphate and sulfate) in river waters. During the process, we noticed a part of the analytical method could be made more sustainable. Every sample needs to be filtered prior to analysis as any particulate matter entering the machine can cause blockages. Due to the risk of cross contamination, a new syringe and syringe filter must be used every time, which not only generates a lot of non-recyclable waste, but costs of approximately £1 per sample.

To make our analysis more sustainable, we purchased equipment that allowed us to adopt an alternative sample preparation method, which filters samples as they are added to the system. This change has considerably reduced the volume of non-recyclable waste produced and has lowered the cost per sample to 40p. In addition, parts of the old machine were listed on WarpIt in February 2019 to find new homes for the components which still have life left in them.

### Champions:

Francis O'Shea  
Kate Olde



# Literature & Languages

## Arts & Humanities

*“We have really enjoyed our first year as Sustainability Champions. It’s great that the programme encompasses lots of different elements: not only focusing on recycling and saving energy, but also well-being and community. It means that you can embed the idea of sustainability into every aspect of life at university, making it second-nature. Our students have been really keen to get involved, as have our colleagues, and now that we are Bronze award winners, we can’t wait to get started on Silver!”*

*Champions:*  
Darren Munn  
Rebecca Dean



# Great Dover Street Apartments

## Residences

Community facilitators (CF’s) for GDSA do kitchen talks in the first semester. This helps to raise awareness of recycling and helps residents identify the use of different bins and bags in the kitchens, waste management and general kitchen cleanliness (in term, reducing the risk of pests & pest control measures). We support these efforts with related events too, our first sustainability event was on the 15th March 2019, which promoted recycling and the NUS Student Switch Off. We measure the success of these initiatives against the Waste Dashboard (where we currently stand at 67%) and send monthly sustainability communications out to residents to share this information.



We also hold a Building Together forum in terms 1 & 2, where our residents can come to us with anything about the building and what we can improve. This gives us the opportunity to engage with the residents on recycling and encourage them to switch off all electrical appliances and plugs when not in use.

*Champions:*  
Madeleine Jammeh



# Wolfson CARD Laboratories

## Life Sciences & Medicine

The Laboratory Efficiency Assessment Framework (LEAF) is a new tool designed to facilitate and drive improvements in laboratory efficiency. Users complete a set of criteria to sequentially achieve a Bronze, Silver or Gold award, and in the process, see their carbon and financial savings as they progress.

At the Wolfson Centre for Age Related Diseases, Kings College London (KCL), we've successfully achieved a Silver LEAF award. The criteria not only covers environmental aspects (e.g. waste management, procurement, chemical management etc.) but also research quality and the international challenges of improving research reproducibility.

The metrics included in LEAF enable us to quantify the environmental and financial savings. Having those figures to hand really helped open doors and focus people's efforts in areas that would have the greatest impact.

Using LEAF we were able to implement simple but very effective measures at saving energy including setting all 21 ultra-low temperature freezers at -70°C instead of -80°C. Meanwhile our technician worked to ensure the building's 10 fume cupboard sashes were kept closed instead of being left open and introduced recycling streams in some labs for clean packaging, to reduce the requirements of clinical waste. These actions were relatively easy to accomplish and we were surprised to see the impact they had. Altogether, these actions enabled savings of over £30,000 per year! Now these measures are in place, we expect them to become common practice and we plan to continue to pursue the Gold award next year.

*Champions:*

John Grist



*“Sustainability isn’t just about making sure you turn the lights off. It’s about ensuring our practices are efficient and cost-effective. It’s making sure we are not repeating work that has already been done, leaving us to do something new and globally beneficial. LEAF has helped spark some new ideas on how to keep improving, and didn’t take us that much time to do compared to previous methods. We’re looking forward to take part again next year!”*

**Division of Women & Children’s Health team on the Lab Efficiency Assessment Framework (LEAF)**



# Education, Communication & Society

## Social Science & Public Policy

The Waterloo Bridge Wing, an annex of the Franklin Wilkins Building, was built in the early 1900's and procured by King's in 1980. There is no step-free access between WBW and FWB, so, for health & safety to avoid hazards when moving crockery between buildings, disposable cups and plates have had to be used for all catered events in the WBW.

Since December 2018 the new sustainability group in ECS have been working with King's Food and Estates & Facilities to explore a range of options so we can move away from disposable items.

These included looking for alternative routes into the building, the use of specialised trolleys, and providing two-person delivery teams. Eventually we agreed the best solution would be to avoid having to move crockery between buildings. So, we converted a kitchenette in WBW to allow crockery to be washed and stored onsite. King's Food worked with us to equip the area, and now reusable crockery has replaced disposable items at all catered events in the WBW.

*Champions:*  
Angela Casey  
Benjamin Day



# Lavington Street Offices

## Estates & Facilities

As Sustainability Champions for Lavington Street, we wanted to participate because we wanted to do the right thing for ourselves, the university and the planet! Not only have the improvements we have made saved money, but they have also increased our team's awareness of the university's sustainable practices and hopefully encouraged others to get involved.

We are most proud of the informative boards that we created as reminders for classrooms and meeting rooms' electronics and lights to be turned off when not in use and clean toilet expectations. After we created the prototype, other teams expressed interest in using them on their campuses and as a result all five campuses will have the same consistent messaging encouraging best practice in these facilities that are used by students, staff and visitors.

We also looked to make our office a nicer place to work by bringing in BeActive classes (yoga and boxing) twice a week, for our staff to improve their mental and physical well-being.

*Champions:*  
Jo Cassidy  
Megan Whittaker



# Guy's Multi-Disciplinary Laboratories

## Life Sciences & Medicine

We currently run an apprenticeship scheme for laboratory technicians and a big part of their training is around lab sustainability. This year one of the apprentices played a major part in the completion of the LEAF workbook. This is she what she had to say about what she's learnt as a champion:

*"When I first started at Kings, I had never been inside a university laboratory before. I was shocked to find out that sustainability and sustainable laboratory practices would play such a large role in my education as an apprentice laboratory technician. There were many things that I was not aware of, an example being that labs are not very energy efficient and there is so much waste generated by labs that causes a big impact on the environment. In an ideal world the majority of the plastic waste that is generated would be recycled but that just isn't possible as the majority of single use plastics that are used in labs are contaminated with things that should not be introduced into the environment. This is one of the reasons labs are trying to limit their single use plastics and replace them with reusable options. I have learnt a lot during my time at King's, like how to consider all of the options when it comes down to being sustainable, it is not just convenience that should dictate decisions but the impact on the wider community."*

*Champions:*  
Oliver Austen  
Rachel Denny



# Education, Communication & Society

## Social Science & Public Policy

Two recent research reports, led by Dr Melissa Glackin and Dr Heather King, examining the current state environmental education policy and practice in England's secondary schools, continue to build momentum – not least in the light of student strikes for climate change. The reports found that England's environmental education policy lacks intention and ideological vision. As a result, environmental education in schools is without a defined home and is 'falling through the gaps' in curriculum provision. The reports make a series of policy recommendations which have already prompted rich discussions across the sector leading, we hope, to future developments in research, policy and practice.

The reports were co-authored by two PhD students who are part of the Environmental Education Research Group. Rachel Cook is investigating how family culture shapes pupil engagement in learning in outdoor settings, and Kate Greer is examining perspectives of policy influencers on the role of education in response to climate change. Our portfolio of environmental education research will expand further in 2019-20, as Shirin Hines begins her PhD investigating how Forest School can support socially just environmental education.

*Champions:*  
Melissa Glackin  
Heather King  
Rachel Cook  
Kate Greer



*“I was impressed to see how passionate people were! Sustainability Champions helps King’s to go in the right direction and have a significant impact.”*

**Marjana, third year UG European Studies student**

## Fundraising & Suporter Development Professional Services

Since 2015, the sustainability champions for the fundraising department have held two Swap Shops a year to help build awareness of sustainable fashion practices.

We ask our 100+ department members to give their old clothes, shoes and books a new lease of life by donating them to the Swap Shop, which they can then swap for another item or buy something new-to-them by making a donation.

It’s surprising how many people bring in clothing that’s never been worn! All money raised goes to South London and Maudsley (SLaM), one of King’s Health Partners and, with the help of our student champion assistants, all leftovers are taken to a local Oxfam shop.

The Swap Shop is a fantastic way to inspire others to one, wear second-hand clothes and secondly, to give to charity rather than throwing in the bin, helping to create an eco-friendly attitude towards our belongings.

### *Champions:*

Lauren Bridgeman	
Hannah Burgess	Kate Bauer
Dominic Codera	Rebecca Kemp
Emma Kelly	Simran Flora
Felicity Stevens	Alice.clasper
Isabella Simeoni	Anna Diehm
Katherine Chinn	Emily Simms
Neil Scarse	Miranda Hankinson
Lauren Bridgeman	Emmanuelle Chambon



# SUSTAINABLE DEVELOPMENT GOALS



Thank you to all those who took part in the Sustainability Champions programme for 2018/19!

Want to join the programme?  
Email us!

[Sustainability@kcl.ac.uk](mailto:Sustainability@kcl.ac.uk)

Follow us:



**Twitter**

@KCLsustainable



**Instagram**

@kings\_sustainability



**Facebook**

Kings Sustainability