

|                |                                                  |
|----------------|--------------------------------------------------|
| Document Title | 2022/23 Sustainability Report                    |
| Author         | Jo Bell – Head of EFCS, Bob Nichol – PVC ED FEPS |
| Status         | 1.1                                              |
| Date           | 07/11/2023                                       |

## 1. Context

This report provides an overview of the University's sustainability performance over the 2022/23 academic year. We note that during this year, there has been the resolution of significant changes to the governance of sustainability at the University, with the arrival of Martin Wiles (from the University of Bristol) as the new Head of Sustainability in February 2023 and the appointment of Prof Bob Nichol as EB lead on Sustainability.

## 2. Executive Summary

- 46<sup>th</sup> Globally in Times Higher SDG impact ranking.
- Institute for Sustainability launches collaborative Innovation Hub.
- Scope 1 & 2 carbon emissions reduced by 24% to 14,975 tCO<sub>2</sub>e.
- Scope 3 Carbon Emissions measured at 68,950 tCO<sub>2</sub>e.
- Utility costs rise to £12million.
- Launch of LEAF, Green impact initiatives and energy 'switch' off campaign.
- 100% of waste diverted from landfill.
- Solar and Electric Vehicle charging projects progress.

## 3. Times Higher Education Impact Ranking

The University continued its strong performance lead by the Institute for Sustainability in the Times Higher Education Impact (THE) rankings 2022 with an overall global position of 46<sup>th</sup> (up from last year's 55<sup>th</sup>) and 9<sup>th</sup> in the UK (up from 12<sup>th</sup> the previous year). Competition is increasing with the number of participants growing from 1,410 to 1,625, with this growth likely to continue in the coming years.

The Institute (Nathalie Hinds - NH) and EFCS Sustainability (Martin Wiles - MW) are working together to complete the 2023 submission (Nov 10<sup>th</sup>, 2023). The Institute for Sustainability leads the submission and with the EFCS sustainability team undertook a 'deep dive' into the data from the 2022 submission to see where improvements can be made. Together, they are shaping a plan for that will improve both the submission for this year and future years, with the aim of embedding the SDG framework into the University core activities. This focuses on bibliometric analysis, creating a sustainability dashboard in power BI, reviewing policies, and establishing processes to capture specific evidence for all SDGs. This will allow the University to maximise to focus on its strength and identify areas where it can improve.

As with the 2022 submission we have benefited from a new SDG Annual Report co-designed by the Institute for Sustainability (NH), Sustainability within Estates and the Public Engagement team, which highlights examples of our contributions to the 17 SDGs. The report will be public and showcased through a dedicated webpage.

<https://www.surrey.ac.uk/institute-sustainability/sustainable-development-goals>

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| <b>Document Title</b> | 2022/23 Sustainability Report                    |
| <b>Author</b>         | Jo Bell – Head of EFCS, Bob Nichol – PVC ED FEPS |
| <b>Status</b>         | 1.1                                              |
| <b>Date</b>           | 07/11/2023                                       |

#### 4. Institute of Sustainability

The Institute of Sustainability, launched in December 2022, has a purpose to harness the power of collaboration across all disciplines (in the University of Surrey and beyond), to drive the transition to a sustainable world of long-term wellbeing for all. Its activity includes driving sustainability research, for societal and environmental impact. The Institute is also a critical player in the global transition to sustainable living for everyone, by working through its newly launched Sustainability Innovation Hub. The hub is the institute 'action arm', a centre of activity set up to address sustainability challenges, using system thinking, co-design approaches and implementation science and working in partnership with local, national and international organisations, across the public, private and third sector.

The Institutes' Director is Professor Lorenzo Fioramonti support by Nathalie Hinds as Head of Operations and Partnerships. Lorenzo and Nathalie are supported by a team including Pina Stamp (Institute Administrator), Amy Pye (Research Manager) and Lydia Melville (Communications Officer) and has recruited three co-directors (one per faculty), Professor Prashant Kumar, Professor Monique Raats and Dr Tom Roberts – who supports the research activity of the Fellows (230 across the University) and the Institute Programme leads (15).

The Institute is governed by two strategic boards:

- A Steering Board, made up of internal senior stakeholders, chaired by Bob Nichols who reflect on the Institute's achievements and pan-university activity. They have met in Feb and June 2023 and are due to meet again on the 15<sup>th</sup> November 2023.
- A strategic Advisory Board, including external senior stakeholder, chaired by Dr Victoria Hurth, who support the institute's future plans, direction and growth. Their first meeting will be on the 15<sup>th</sup> November.

Both groups will get an opportunity to meet each other in person for the first time on the 15<sup>th</sup> November 2023.

As part of its regular report to the Steering Board, the Institute highlighted:

- Fast growing transdisciplinary research activity (currently £90m+ of bid activity)
- Strong internal and external engagement and knowledge exchange measured in event contributions, visitors to the institute, social media followers and new partners onboarded, and
- A successful PR campaign with the launch of 'Remember the Future', a multi-award-winning animation designed to share the vision of the Institute.

#### 5. Net Zero Carbon

We cut our Scopes 1 and 2 emissions by 24%, compared to our base year of 2017/18.

|                                                   | 2017/18 (Baseline Year) | 2022/23 | Reduction |
|---------------------------------------------------|-------------------------|---------|-----------|
| Carbon Emissions (scope 1 & 2) tCO <sub>2</sub> e | 19,470                  | 14,975  | 24%       |

|                |                                                  |
|----------------|--------------------------------------------------|
| Document Title | 2022/23 Sustainability Report                    |
| Author         | Jo Bell – Head of EFCS, Bob Nichol – PVC ED FEPS |
| Status         | 1.1                                              |
| Date           | 07/11/2023                                       |

Scope 1 emissions are made up primarily from gas consumption and equate to about 53% of total emissions, with electricity making up scope 2 emissions and totalling 47%.

We have recast our carbon activity setting out an 8-point framework to reach NZC by 2030. To achieve our emissions targets, we are reducing our demand, ensuring all refurbishments and new builds are NZC ready, optimising the space we have, increasing on-site renewable energy generation, increasing the amount of energy purchased from verified renewable sources, and considering how transparent offsetting schemes can cover what we can't eliminate.

We have also mapped our scope 3 emissions, these total 68,950 tCO<sub>2</sub>e annually, with goods in the supply chain totally 82% of emissions, with a majority of the rest made up of travel (business and commuting). A plan for reducing our scope 3 emissions has been developed, with actions focusing on working with our supplies to reduce the carbon footprint of a range of products and services.

We submitted our planning permission to install a solar farm on campus land. When working at peak capacity, the farm will be able to supply all the electricity for our Stag Hill campus. Further solar installations are planned for the Sports Park (700kw) and for the research park.

The decarbonisation project for heat reported last year has been put on hold. Even though a grant was secured from the governments' Salix fund, this was not enough to cover the cost of the project. An option is now being looked at to see how the use of solar power can be used to drive battery and heat banks.

## 6. Energy Cost and Consumption

The rapid increase in energy prices continues to pose a significant risk to the University. The University has moved from a utility budget of £6.5million in 21/22 to a potential spend of £17.9million in 23/24.

To address the rising cost several measures are being applied which will not only save cost but also reduce carbon emissions.

An **Energy Reduction Group** has been set up involving estates and campus services staff to focus on good housekeeping measures. Measures include, control of build temperatures, time schedules for heating, operation of air conditioning, server room management and ventilation control.

A short-term measure for cost saving is to switch on the Combined Heat and Power unit the University houses in its central plant room. It has required some maintenance with parts being delivered in November 2023 (delayed due to global supply chain issues), but if it can be successfully run it will save around £500k this financial year.

|                |                                                  |
|----------------|--------------------------------------------------|
| Document Title | 2022/23 Sustainability Report                    |
| Author         | Jo Bell – Head of EFCS, Bob Nichol – PVC ED FEPS |
| Status         | 1.1                                              |
| Date           | 07/11/2023                                       |

We have launched a **‘Switch-off’ campaign** to promote sensible energy usage for both commercial and sustainability reasons. So far around 30 departments have taken part, with the distribution of around 8,000 switch-off stickers, this is likely to double during November 2023.

**The Laboratory Efficiency Assessment Framework (LEAF)** program has been launched. LEAF sets out over 50 criteria to make labs more sustainability, including a range of energy saving action such as turning up Ultra Low Temperature (ULT) Freezers from -80 to -70 saving 25% of their energy use – saving 300kg of carbon and £400 per year for each freezer. So far 12 labs have signed up to LEAF with 20 more considering joining. The scheme has 3 levels, Bronze, Silver and Gold, the aim is to get all labs to the bronze standard in 2 years.

LEAF forms part of a wider sustainable labs initiative which will look at inventory systems, equipment sharing, reuse of equipment and centrally controlled services like fume cupboards.

**Green Impact** has also been launched, like LEAF it’s an accreditation scheme around sustainable actions, but is focused on non-lab teams. Again, its sets out actions staff and students can take to improve sustainability, including actions on energy saving. The aim is to have 20 teams undertaking Green Impact in its first year.

**Financial measures** – Review of VAT rating. The University has an opportunity to reduce its cost base by reducing the VAT rating on electricity and gas invoices from 20% to 5%. Work is continuing on this so a final figure of the cost reduction is not available but it’s likely to be in the hundreds of thousands.

## 7. EV Charging

A plan to provide slow chargers on the Stage Hill and Manor Park sites tendered in 2021 has been updated to provide fast chargers (22kw+) and ultra-fast chargers (50kw to 150kw) across the estate. An ‘expression of interest’ to provide between 100 and 200 charging stations across the University, as well as a publicly accessible facility is currently being reviewed with the procurement team. The aim is to have a yearlong plan of installation with an annual rolling program of additional charging stations to match staff and student demand. There will also be an installation of between 12 and 20 charging stations delivered by the end of 2023/start of 2024 to meet demand that will grow following the introduction of an EV salary sacrifice scheme.

## 8. Waste and re-use

The University diverts 100% of its waste from landfill, by reusing, recycling, and recovering (via energy from waste plants). With its partner Chambers, the university aims to increase the utility of its waste by moving it up the waste hierarchy to reduction, reuse and recycling, as well as reducing the amount of waste that goes to energy from waste plants.

Around 1,200tonnes of waste are produced each year, of which 60% is either recycled, re-purposed or sent to anaerobic digestion. The remaining 40% goes to an energy from waste plant.

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| <b>Document Title</b> | 2022/23 Sustainability Report                    |
| <b>Author</b>         | Jo Bell – Head of EFCS, Bob Nichol – PVC ED FEPS |
| <b>Status</b>         | 1.1                                              |
| <b>Date</b>           | 07/11/2023                                       |

A waste campaign has started to inform staff and students about how waste is managed at the University. A key aim is to ensure food waste is separated from dry recyclable materials, as this causes contamination and reduces what can be recycled.

The Students' Union has set up a community hub on campus to provide a swap shop, food co-op, book swap and community fridge addressing the cost of living crisis as well as linking with reuse and waste reduction activities.

## 9. Water use

|                                  | 2017/18 (Baseline Year) | 2022/23 | Reduction |
|----------------------------------|-------------------------|---------|-----------|
| Water Consumption m <sup>3</sup> | 414,188                 | 377,521 | 8.9%      |

We continued with measures designed to reduce consumption including presence-controlled water use in bathrooms, shower timers in halls of residence and a new water contract with 'Wave' via our utility broker saving around £50,000. It is expected that during 2023/24 further services will be realised via the new contract, including water reduction surveys.

An application for a second borehole has been made for Manor Park. The Stag Hill borehole project now means the University has the lowest cost of water within the sector.

## 10. Sustainability Governance

All university policies, procedures and protocols now include a statement on how these activities impact on our sustainability aims, setting out how any negative impacts will be mitigated.

Changes have been made to a number of policies, for example Business Expenses.

To overview sustainability activity, a new Environmental and Sustainability Steering Group (ESSG) chaired by an Executive Board member has been set up. This coincides with the arrival of the new Head of Sustainability. The ESSG is evolving and its interaction with the steering board for the Institute for Sustainability will be effectively managed as its chair is also the chair for ESSG.

The Head of Sustainability has also taken on the chair role coordinating an international sustainability group of Research and Innovation parks, which enables knowledge exchange, building links with Brazil, Egypt and India.

## 11. Procurement

The Sustainability and Procurement teams have joined together to integrate sustainability into our supply chain using the government's flexible framework (for sustainability). This work links up with the delivery of scope 3 reduction activities, as well as implementing environmental and social value actions.

The key first actions are to focus on supplier engagement and to ask suppliers what sustainable options they can provide the university.

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| <b>Document Title</b> | 2022/23 Sustainability Report                    |
| <b>Author</b>         | Jo Bell – Head of EFCS, Bob Nichol – PVC ED FEPS |
| <b>Status</b>         | 1.1                                              |
| <b>Date</b>           | 07/11/2023                                       |

## 12. Other Engagement Activities

The sustainability team is working closely with the Students' Union to engage students in sustainability, a volunteering channel has been set up to enable students to take part in sustainable action.

One area of student engagement will be about raising awareness around sustainability and student volunteers will run a pop-up called 'How bad are bananas' a game comparing the carbon footprint of everyday life choices.

Sustainability is also working with the Careers Team to offer students information about sustainable work. The autumn Careers Fair had a sustainable make over – with companies travelling to the event sustainably, giving out low impact freebies, going paperless as well as promoting sustainable careers.

## 13. 2023/24 plans

As well as the roll out of the switch-off campaign, LEAF and Green Impact and other activities noted in the report above, EFCS Sustainability aims to;

- Develop a unifying strategy for sustainability bringing together all elements of operations, with education, research, and civic engagement. Setting out aims, objective and targets for all areas, integrating with the work on the Sustainable Development Goals.
- Driving forward plans for each of the 8 areas of the NZC framework. Starting with good housekeeping and energy efficiency measure to help reduce our demand. But also to look at sustainable principles for construction, delivery of renewable energy projects and offsetting principles.
- Setting out a target for scope 3 carbon emissions reduction with a plan for delivering this target.
- Writing a climate resilience and adaptation plan to address the growing risk that climate change poses for the University.
- Work with stakeholders to create a sustainability communications plan.
- Run termly Sustainability Assembly open to all staff and students to help shape actions around sustainability.
- Deliver the first phase of EV charging on our campuses.
- Create a Green Events Guide.

Future sustainability reports will align with the proposed strategic goals and targets for sustainability and integrate with SDG work.