

Sustainability and Information Technology Teams

Emissions from IT in the UK are double the global average, with a move towards sustainable IT use and more efficient technologies having potential for major carbon savings. IT teams prioritise user experience and costs, but IT equipment and how it is used can have both positive and negative impacts on the environment and society. It is crucial for sustainability teams engage with the IT department to ensure your institution has a net positive impact by altering decision-making around both purchasing and using IT equipment on campus.

Sustainable tech is smart and contributes to a **connected and informed campus community**

Sustainable procurement can reduce potential supply chain issues such as **modern slavery and conflict minerals**

Tech users care about technology that supports their **ethical and sustainability viewpoints**



Potential positive or negative environmental and social impacts are large, aligning with **institutions' social responsibility objectives**

Save your institution money on resources and energy bills

Electronic devices are ubiquitous and **influencing behaviour** through IT has the potential to reach wide and new audiences

Collaborative Project Suggestions

Communication

With IT teams

Often there is a lack of IT staff participation in embedding sustainability due to IT impacts being (erroneously) seen as insignificant, though at some institutions advice from IT teams was key to changes in sustainability practices. Strong IT support for sustainability occurs when IT teams are aware of IT's impact on the environment and social sustainability (e.g. child labour and conflict minerals associated with the institution's equipment). **>> Getting Started:** [Inter-institutional discussions to understand the issues around and potential to improve the sustainability of IT may foster collaboration within your institution.](#)

With students & staff

There is potential for more work to be done on influencing behaviours of staff and students in terms of the way they interact with IT, and similarly influencing behaviours generally through IT means. When staff and students interact with computers and other IT equipment daily, IT campaigns (for example changing staff desktop backgrounds to promote sustainability messages or campaigns) can be influential. **>> Getting Started:** [Work with the IT team to understand what ways they communicate with staff and students, including methods of promotions which could be used for sustainability messaging.](#)

Engagement with senior management on sustainable IT practice can improve buy-in from staff and may lead to funding

Electronic devices are ubiquitous and influencing behaviour through IT has the potential to reach wide and new audiences

The influence of communicating about sustainability aspects of the electronics could extend past the business use and help encourage staff and students to consider more ethical choices with their private purchases too. Information could be provided on induction, or a joint project with the IT team could guide people towards information on ethical electronic purchasing.

>> Getting Started: [Contributing information to recruitment materials will ensure an accurate portrayal of your institution's green credentials.](#)

Energy Efficiency

- Implementing energy-efficient and resource saving alternatives to unsustainable technologies can create multiple benefits. For example energy-efficient data centres are easier to manage and provide more capacity, as well as saving on resources and needing less cooling.
- Most institutions consider sustainable IT in terms of energy efficiency, however energy efficiency savings often lead to increased usage which actually increases energy consumption over time (for example, energy-bill savings which may be invested in technology that consumes even more energy). This is known as Jevons Paradox.



>> **Getting Started:** Consider the work that the IT Department may already have undertaken to improve energy efficiency, and work with the team to identify how savings can be reinvested for further reductions rather than more consumption.

Data Visualisation and Influencing Behaviours

- Displaying real-time energy usage can reduce individuals' energy usage in the short term. Encouraging different ways of interacting with this data can ensure frequent interaction and lead to a long-term reduction in energy usage.
- There is potential to influence behaviours with Human-Computer Interaction; these kinds of projects have great potential as 'living labs' projects with academics, staff, students, and sustainability teams developing innovative ways to interact with technology that shares information about sustainability. For example, a potted plant may be viewable through a smart phone augmented-reality app that shares information about carbon sequestration.

>> **Getting Started:** Work with your IT team (and perhaps Computing / IT academic department) to test and monitor different visual representation of energy usage on campus.

IT Reuse

Computers are replaced every 3-5 years in order to ensure equipment for staff and students is up to date. This creates a considerable amount of waste which cannot easily be recycled, with some metals within IT equipment being increasingly difficult to source

- Consider re-use of equipment that is still in good condition to cut back on waste. A key concern for IT departments can be erasing sensitive data on re-used equipment. For internal use, free open-source software is available to wipe hard drives. For external re-use, it is recommended that external contractors who assume responsibility for wiping data from hard drives are used. It is also possible to sell spare parts to fund new equipment, or donate money raised to charity, contributing both to social and environmental wellbeing.
- Consider whether increased use of laptops is better than PC use, as laptops use about 1/3 of the energy, and make use of fewer resources. However, laptop parts are more difficult to reuse

than PC parts and tend to have a shorter lifespan.

>> **Getting Started:** Consider whether any existing campus IT equipment re-use scheme could also accept donations of personal equipment.



Sustainable IT Procurement

- The high environmental impact of manufacturing IT equipment means responsible procurement policies can have a large impact. Supply chains are complex and near impossible to trace completely, so a good rule of thumb is to procure equipment that is smaller and lighter (e.g. Thin Clients and Zero Clients instead of PCs) to lower the impact.
- Whole Life Costing (WLC) tools should be used to take into account the cost of operating different machines over time, as the "cheapest" option can be the most expensive in the long term if it is less energy efficient. WLC thinking also allows you to identify whether a piece of equipment is easy to repair and reuse. It is also beneficial to consider, prior to procurement, whether the item is needed or whether any repairable alternatives may be available elsewhere in your institution.
- Organisations like 'Electronics Watch' enable public sector bodies to influence suppliers through creating market demand for electronics produced under decent working conditions at a reasonable cost. The social impact of your institution's electronics procurement will not only be valued by staff and students, but using such methods can also reduce costs.

>> **Getting Started:** Work with your IT and Procurement Departments to create guidelines for Sustainable IT Procurement practices within the institution. This can be a good way of starting to collaboratively development a Sustainable IT Strategy.

Contact [EAUC-Scotland](#) for IT Department engagement workshops