Sustainable IT: Personal Computing Devices
Policy

Appendix 1

Background

1. It is very clear that we are experiencing a global climate and environmental emergency. The University has a key sustainability goal to be Carbon neutral by 2040 and to work on all fronts to reduce our impact on the environment.

2. As a new major University wide initiative supporting this goal we have launched the Sustainable IT Programme. Sustainable IT builds on the principles of Green IT – reducing the environmental impact of our IT products and infrastructure – while adding aspects of social responsibility such as working environment and socially responsible manufacturing of IT products. The IT sector has dark side: with significant carbon, environmental and societal impacts: Datacentres are quickly becoming some of the greatest concentrated users of electricity - with some large datacentres consuming more electricity than a small city; the mining, manufacture, transport and disposal of IT equipment has a huge impact on the environment as the need for IT equipment of all types increases each year; and there is a societal impact as many current IT manufacturers either directly or indirectly operate in or through supply chains or regions where there are poor humanitarian practices including slave labour and child labour. There are growing concerns about the effect of IT equipment in our landfills: in particular, chips, touch screens, circuit boards and printer cartridges may continue to leak toxins into the environment for hundreds of years after they are buried. Clearly action is needed to investigate and address these serious concerns.

3. Sustainable IT will consist of a series of projects, initiatives, policies and actions. The first of which is Sustainable IT of Personal Computing Devices. This will take the form of a new University policy and process for personal computing devices aimed at a very simple core goal: to reduce the total number of Personal Computing devices (PC, Laptops ad tablets) that we purchase and dispose of each year.

4. Additional Sustainable IT projects will be launched to address Sustainable Printing, Green datacentres and other key areas of IT & technology. We will look to expertise and action across the University to help achieve our Sustainable IT goals. Without the help of all staff and students we will not be able to make a change. Sustainable IT is everyone’s responsibility.

Overview

5. The University takes these issues into consideration when choosing products, aiming to procure in an environmentally and socially responsible manner at all times. We are also involved in a range of initiatives to improve the sustainability of electronics supply chains at various stages from manufacturing to end of life.

6. This document aligns with existing policies and activities. It supports the sustainable provision of personal computing devices by putting measures in place to:

   6.1 Increase the uptake of approved devices that meet our sustainability, operational and legal requirements
Sustainable IT: Personal Computing Devices
Policy

Appendix 1

6.2 Minimise unnecessary purchases
6.3 Improve resource efficiency
6.4 Minimise energy consumption
6.5 Reduce waste

7. As technology has advanced, the number of personal computing devices available has grown from desktops to laptops to tablets. These advances make our work lives easier but the provision of multiple computing devices to an individual comes with additional environmental impact and costs. The most obvious is the initial purchase cost and the University spends a significant amount of money per annum on this. However, there are also additional costs for accessories and software licences as well as maintenance and support. The operation of these devices also have implications for energy costs and carbon emissions at the University.

8. Over 20% of the total number of devices purchased annually are for individuals who already own a client computing device (defined here as desktops, laptops and tablets). Reducing the number of unnecessary devices will contribute positively to the University’s Zero by 2040 carbon ambition and reduce damage to the environment caused by the mining, manufacturing, transport and energy cost of additional devices; and the disposal cost of old ones.

9. Additionally, one third of these multiple computing devices are not part of the University managed desktop estate. This introduces additional security risks as they may not be properly managed in terms of updating malware protection, keeping software and firmware up to date nor using full disk encryption. Further risks arise simply from the overall number of end user devices – the more there are, the larger the number of potential routes for compromise of University services and data. In addition, devices which are excluded from the University managed estates and may not be privy to the latest power management enforcement, which is required for energy efficiency.

10. The detailed Cubane benchmarking data from 2018 showed that our total costs for client computing devices and their software and support costs, on a normalised basis, were among the highest in the Russell Group. The Service and Maintenance area of IT Client Services was highlighted by Cubane as one of our top 10 gaps compared to the Russell Group lower quartile. Across the University, our spend on staff was £6.9 m across all budget holders in this area, which was 9% above the Russell Group average and £2.1 million annually above the Russell Group lower quartile.

Purpose
11. The University provides staff with computing devices to enable them to carry out their work which supports the overall objectives and operations of the University. This policy enables the achievement of that provision whilst reducing the overall cost to the University, increasing IT security and reducing our carbon and environmental footprint.

Scope
12. This policy applies to all staff, whether they be professional services or academic, who require a computing device in order to carry out their day to day job. The policy aims to provide staff with the fewest number of devices needed to carry out their duties effectively. New staff who are replacing a former member of staff, will normally inherit the computing device of that former staff member
provided it is less than 4 years old and meets any reasonable adjustments specific to the individual. For new staff in new posts, a standard computing device will be purchased.

13. Out of Scope: The policy does not include smart phones or special use hand held devices such as those used by Estates maintenance staff, nor does it include additional devices provided as reasonable adjustments, please see sections 24 - 28 below for exemptions. The policy does not include those devices defined as research workstations (please see section 16 below).

14. The policy will not apply retrospectively in terms of the number of devices held by individuals, provided those devices are less than 6 years old for Apple Desktops (Macs), 5 years old for desktops and Apple notebooks (MacBooks), and 4 years old for laptops and tablets.

Definitions
15. ‘Computing device’ is a client computing device purchased by the University and owned by a School, Planning Unit, Research Institute, College or Professional Services Group:

   15.1 Desktop computers (PC; Apple Mac)
   15.2 Laptop computers including 2-in-1 devices (PC; Apple Mac; Surface)
   15.3 Tablet devices (iPads; android tablets such as Galaxy or Samsung)

16. ‘Research workstation’ is defined as a device which is used primarily to facilitate digital research.

17. ‘Purchased by the University’ is defined as any purchase made from (or reimbursed by) unrestricted or restricted University of Edinburgh budgets or research grants.

Policy
18. The policy has four essential elements.

   18.1 The fewest number of devices needed to carry out duties effectively: The number of concurrent client computing devices per person is limited to the fewest number needed to carry out their duties effectively.

   18.1.1 Those staff who require a computing device to carry out their duties, will normally be provided with one standard device, either a desktop computer, a laptop or a tablet (with a docking station, monitor etc.), that enables them to carry out their duties effectively.

   18.1.2 This does not include research workstations or mobile phones, or additional devices supplied to address reasonable adjustment requirements, which are exempt from this policy. Please see sections 24 to 28 below for other typical exemptions.

   18.2 Optimal replacement cycles: The optimal refresh (replacement) cycle will be applied to all client computing devices Tablet devices (iPads; android tablets such as Galaxy or Samsung). This replacement cycle does not preclude responsible reuse of devices (please see section 17.3 below and section 45 of the accompanying guidance document).

   18.2.1 The standard replacement cycle for Apple desktop computers (Apple Mac) will be 6 years.
Sustainable IT: Personal Computing Devices

Policy

Appendix 1

18.2.2 The standard replacement cycle for desktop computers and Apple notebooks (MacBook) will be 5 years.

18.2.3 The standard replacement cycle for laptop computers and tablets will be 4 years.

18.3 **Standardisation of client device choices:** There will be an agreed standardised list of different client computing device models available that are both suitable and supportable (see section 18 below). By purchasing standard devices from approved suppliers, staff ensure they are buying products that meet our current sustainability requirements.

18.3.1 A standardised list of computing devices will be created by ISG through agreement with the Colleges and Professional Services organisations. This list will be maintained by ISG who will consult with IT Committee and the Heads of College IT when models are retired or added to the approved list.

18.3.2 Any member of staff that needs a non-standard computing device must contact their local IT Manager in the School, Deanery, Institute, Planning Unit or equivalent to agree requirements in advance of any purchase.

18.4 **Centralised purchasing:** Computing devices will be purchased through a procurement hub in accordance with procurement rules

**Procedures**

19. **Fewest number of devices required to carry out duties effectively:** The number of concurrent client computing devices per person is limited to the fewest number required to carry out duties effectively.

19.1 Those staff who require a computing device to carry out their duties, will normally be provided with one standard computing device, either a desktop computer, a laptop or a tablet (with a docking station or equivalent), that enables them to carry out their duties effectively. This provision will normally be at School, Deanery, Institute or Planning Unit level, supported by local computing officers or IT managers.

19.2 Local IT Managers will advise on the most appropriate device or devices that will enable an individual to carry out their staff role.

19.3 Where a non-standard device, or more than one device, is recommended, approval must be given by the Head of School, Deanery, Institute or Planning Unit.

19.4 Should an individual disagree with the decision of the Head of School, Deanery, Institute or Planning Unit, they may appeal to their Head of College or Head of the Professional Services Group.

20. **Optimal replacement cycles:** The optimal refresh (replacement) cycle will be applied to all client computing devices.

20.1 All computing devices must be replaced within the appropriate cycle of 5 years for desktops and 4 years for laptops/tablets. Deviation from the standard (either reduction or extension) for any School, Deanery, Institute or Planning Unit of the University must be signed-off.
by both the Head of School, Deanery, Institute or Planning Unit and Head of College IT/Vice Principal CIO.

20.2 New staff who are replacing a former member of staff, will normally inherit the computing device of that former staff member provided it is less than 4 years old and where required, meets any reasonable adjustments needs. For new staff in new posts, a single standard computing device should be purchased.

20.3 Laptops and tablets older than 4 years and desktops older than 5 years (Macs older than 6 years) incur additional support costs and increase security exposure. Reuse or cascade of devices should be used efficiently as a mechanism to maximise the best placement of devices for static or scientific purposes, but not for cascade to individuals as their primary device, or for use on managed desktops systems. Reuse should conform with the above standard replacement cycles. Reuse or cascade of client devices should use approved College or Professional Services group processes. Centrally the University provides Warp It² a means for IT equipment to be advertised and exchanged or sold between departments – whilst remaining within University ownership. The platform is open to all staff, including researchers.

21. **Standardisation of client device choices:** There will be a standardised list of client computing device models available. By purchasing standard devices, staff ensure they are buying products that that meet our current social responsibility and sustainability requirements. The University will work continuously to improve the sustainability of approved IT products. This includes ongoing work on conflict minerals as well as membership of Electronics Watch³, a worker’s rights monitoring organisation. In line with our Zero by 2040 carbon commitment, this list will also include those devices with the lowest possible energy consumption. The standardised list of client computing devices will be created by ISG through agreement with the Colleges and Professional services organisations and agreed by the University’s IT Committee. The standardised client list will be constructed to deliver supportability through the fewest number of devices possible. This will also allow negotiation at scale to drive down costs, reduction in Admin purchase costs, standardisation of device build (configuration) and the ability to efficiently price pre-configuration at scale.

21.1 This list will be maintained by ISG who will consult with the University community through appropriate working groups (Select PC group, researchers and local IT support groups), and will be presented to IT Committee and the Heads of College IT when models are retired or new models are available. We recognise that manufacturers will update and replace devices on an ongoing basis. This list will be updated with devices each year, and will compromise of the current purchasable list and the older devices in the four or five year replacement cycle. The standardised list will typically include:

i. Windows Desktop PC
ii. Windows Laptop
iii. Windows 2 in 1 laptop
iv. MS Surface
v. Apple Desktop
vi. Apple Laptop
vii. iPad
21.2 Any member of staff that needs a non-standard computing device must contact their local IT Manager in the School, Institute, Deanery, Planning Unit or equivalent, to agree requirements in advance of any purchase.

22. **Centralised Purchasing:** The streamlining and consolidation of client computing device purchases into large purchase batches to reduce costs, increase availability and ensure responsible sourcing.

23. Computing devices will be purchased through a procurement hub, in accordance with procurement rules and the approved purchasing framework as set out in the IT Hardware Purchasing Policy and Procedures.

   23.1 In accordance with University Finance Rules and Expenses Policy, the purchase of computing devices may not be claimed through expenses.

   23.2 Staff can choose their preferred computing device from the standardised list of client computing device models (See section 34 of the accompanying Guidance).

   23.3 Once the preferred device is chosen, a request is submitted via the appropriate web portal where a configurator can be used to adjust variables such as RAM size, storage capacity etc.

   23.4 The request will be cross checked against the current standardised list of supported devices to ensure the purchase may be made.

   23.5 The procurement hub will purchase the computing device on behalf of the University and will inform the individual on estimated delivery times.

   23.6 Devices will normally be set up on the managed desktop appropriate to the individual staff member’s School, Institute or Planning Unit. (See Guidance notes for information on managed and self-managed desktops).

   23.7 Necessary tools and processes will be put in place before implementation of this policy to allow for asset tracking and notification of devices reaching end of life. The University IT Committee will approve the necessary toolset.

**Exemptions**

24. It is recognised that some staff may have legitimate requirements for multiple devices, or have specialised computing needs. The policy will **not** apply to workstation class systems such as the Lenovo ThinkPad, ThinkStation or to specialist high performance computing devices, used primarily to facilitate digital research or those required to operate research appliances. It is also recognised that some researchers or staff may also need a tablet as well, such as for field use, though care will be taken to see if sharing of these devices or other actions can be taken to minimise the number. Note that the policy does however, apply to non-specialised (standard) desktops, laptops or tablets purchased on research grants or other restricted funds.
Appendix 1

25. It is recognised that some disabled members of staff may require multiple computing devices for their special needs. This policy does not apply to specialist or additional devices supplied as reasonable adjustments.

26. It is recognised that some homeworkers may require multiple computing devices, depending on their circumstances, though it is envisioned that the provision of portable computing devices such as laptops or tablets combined with docking stations will satisfy this requirement.

27. It is recognised that there are staff who require to access NHS data and have a separate, additional, NHS provided computing device to achieve this function. NHS computing devices are not included in this policy.

28. The purchase of any computing device that is exempted from this Policy must comply with the IT Hardware Purchasing Policy and Procedures.

Policy Monitoring
29. Adherence to the policy will be monitored on an ongoing basis. Heads of School, Deanery, Institute or Planning Unit are responsible for ensuring that purchases of non-standard or additional devices are in keeping with the policy. Likewise, Heads of College IT and the VP CIO are responsible for ensuring that reductions or extensions to the replacement cycle are in keeping with the policy.

30. Any purchase request will be checked against the Hardware Asset Register and where a request is considered to be in breach of the policy, the matter will be referred to the Head of College IT or the VP CIO as appropriate.

31. Internal Audit will carry out random spot checks to ensure adherence to the policy across the University.

32. In all cases, any confirmed breaches of the policy will be reported to the Vice Principal CIO.

Review of Policy
33. The policy will be reviewed by the Vice Principal CIO and any amendments will be reviewed and approved by the IT Committee, Knowledge Strategy Committee and the University Executive.

34. In particular a process for trapping unintended consequences will be implemented. Such unintended consequences will be reported through Schools and Professional Services groups and regularly considered by the owner of this policy. In cases where significant examples arise which has significant consequences then these may be considered exceptionally out of cycle and clarification instructions issued.

35. The programme for policy review is as follows

<table>
<thead>
<tr>
<th>Review</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 1</td>
<td>2020 – following completion of pilot</td>
</tr>
</tbody>
</table>
**Sustainable IT: Personal Computing Devices Policy**

### Appendix 1

<table>
<thead>
<tr>
<th>Review 2</th>
<th>2021 – 12 months after full implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 3</td>
<td>2024 – moving to a 3 year review cycle</td>
</tr>
</tbody>
</table>

This is the first version of this Policy:

<table>
<thead>
<tr>
<th>Policy Version</th>
<th>Amendment Made</th>
<th>Amended by/Date</th>
<th>Approved by</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft version 1.5</td>
<td>NEW Draft</td>
<td>Jo Craiglee/02-09-19</td>
<td>N/a</td>
<td></td>
</tr>
<tr>
<td>Draft version 1.6</td>
<td>New Draft</td>
<td>Jo Craiglee/05-09-19</td>
<td>N/a</td>
<td></td>
</tr>
<tr>
<td>Draft version 1.7</td>
<td>New Draft</td>
<td>Tony Weir/20-09-19</td>
<td>N/a</td>
<td></td>
</tr>
<tr>
<td>Draft version 1.7.1</td>
<td>Tweaks</td>
<td>Jo Craiglee/23-09-19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Draft</td>
<td>alignment</td>
<td>Gavin McLachlan 24/09/2019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Related Policies**
- Bring Your Own Device Policy
- Information Security Policy
- Expenses Policy
- Procurement Policies and Procedures