Sustainable IT tips: Storing information

Storing information in a more energy efficient way

☐ The more common and easily accessible a resource, the less we need to back it up; the more unique or expensive a resource, the greater the need to create a back-up copy – value your files on the computer using this general principle.

☐ Separate the information held on the machine into different directories – one directory tree for current work, another for already archived files, and another for low value/superfluous files – to simplify the process of backing up and reduce the amounts of data requiring storage.

☐ Identify roles and responsibilities for backing-up data, and agree policies and procedures for regularly backing-up data. System administrators/managers should be responsible for backing up at the system level, and co-ordinating the use of network-based software for backing up to a central server;

☐ Computer users should be responsible for backing up current work and other important data using removable storage. Backing up with the least ecological impact requires that we match the type of data being stored with the characteristics of the storage media used.

☐ Data that is being archived for long periods, and other data which changes infrequently, should be backed up on optical discs as these have the lowest ecological impact and a long storage life. Routine daily/weekly back-ups should be made using reusable media, such as USB sticks, memory cards or removable hard drives.

☐ When creating archives on optical disc, create a text file containing a directory listing of the disc's contents – searching this disc using a text editor (or integrating it into a desktop search system) takes less time and energy than physically searching each disc.

☐ When moving large quantities of data between two systems, posting optical discs/digital tapes can have a lower ecological impact and financial cost than transfer over a network.

☐ Using the internet for backing up has a high impact when moving many gigabytes of data. While cloud computing is becoming popular, always consider the alternatives to overcome the data security and ecological drawbacks of using large amounts of online data storage.

☐ Configure the features of desktop applications to preserve data: Always create back-up copies of files being worked on; auto-save at regular intervals; set/increase the number of "undo" operations; and always use the waste basket rather than directly deleting files.