



The  
University  
Of  
Sheffield.

University  
Print  
Management  
Team.



A Guide  
To **Best**  
Practice  
Printing..



*This document is produced by the University Print Management Team (UPMT) to raise awareness of printing on campus, and to demonstrate how we can all take the responsibility to reduce the cost and environmental impact of printing.*

*The UPMT advises, supports and guides Faculties, Departments and Professional Services in their printing activities.*



# *What is* **best practice printing?**

**Best practice printing is proactively managing the print process to reduce cost, waste and to improve the functionality and availability of print.**

To monitor our performance, the UPMT set a series of performance indicators to measure improvements and efficiencies; all of which contribute to the University's corporate objectives. The UPMT also provide a Print Audit Toolkit and information to help departments proactively change printing habits. Further information about the UPMT can be found at [www.sheffield.ac.uk/cics/upmt](http://www.sheffield.ac.uk/cics/upmt)

In order to measure best practice on campus the UPMT produced this definition to demonstrate what is expected of departments who wish to achieve best practice printing:

- a) No personal printers
- b) Networked Printers and/or Multi Functional Printers (MFPs) are set to duplex (double sided) and mono (black & white) as standard (via printer settings) and set as the default printer (via printer driver)
- c) Empty toner cartridges are recycled via the University scheme (responsibility designated to a named member of staff)
- d) Environmentally preferable paper is used in all printers (FSC; PEFC; with a recycled content or 100% recycled)
- e) Printers/MFPs are turned off every night (timer switches can be used or responsibility designated to a named member of staff)
- f) Paper consumption, toner use and number of prints are monitored and fed back to users
- g) Awareness raised in the department on print options and best practice

The UPMT are keen to work with named Print Champions and IT Technicians in departments to actively improve the printing process. The team are currently working to investigate technologies and opportunities to improve staff printing on campus.



## Before you print

Do you need to print your documents?  
Is there an alternative method to printing?

Please consider the following suggestions before you print:

- Use uSpace or shared drives to share and edit your work with colleagues
- In meetings, display agendas, minutes and other documents on a screen using AV equipment
- Use laptops, eBooks and iPhones/iPads in meetings instead of lots of printed sheets
- Use your multi-functional printer or scanner to scan to email or usb drive instead of photocopying documents
- Email documents or web links to yourself
- Cut and paste only the information you need into Word or a .txt file
- Read and edit your documents on screen
- Use the bookmark feature for web page information that you wish to retain rather than printing
- Try saving web pages, emails and other documents onto your computer's hard drive or the University file store
- Using the University file store allows you to save files that can be accessed at work, home or on the move
- Use Fineprint & pdfFactory to create PDF files. This software can also bring many files together to create a single PDF file
- Other file formats that are easily transferable across applications and devices are .txt files

## When you print

The **standard** for any printed document should be **mono, double sided and 75/80gsm white environmentally preferable paper**. However there are more ways to reduce both the cost and the amount of print you produce. Please consider the following suggestions:

- Print using draft mode for working documents or internal copies, or use other toner saving options
- Print several pages per view i.e. 2 pages multi-up on an A4 sheet. Fineprint, pdfFactory and your printer driver will allow you to do this
- Use narrow margins to get more out of the sheet
- Use a smaller font size i.e. 10 not 12pt and keep the line spacing single
- Print only the numbers of pages you require i.e. users often print emails that may be several pages long, select the option to print page 1 only
- Use 'Print Preview' to ensure your documents print how you expect



# The right printer

Printer type and characteristics	Approx cost per page/coverage
<p><b>Inkjet</b></p> <p>Low purchase price. High cost ink cartridges with a low yield. Quality is fair. Cost per printed page high. <i>Not recommended.</i></p>	<p style="text-align: right;">*</p> <p>■ Mono 5% = 4p &amp; 100% = 85p</p> <p>■ Colour 5% = 7.5p &amp; 100% = £1.49</p>
<p><b>Laserjet</b></p> <p>Medium purchase price. High cost of toner cartridges but have a much higher yield. Quality is good. Recommend networked models only. See: <a href="http://www.sheffield.ac.uk/cics/buying/printer.html">www.sheffield.ac.uk/cics/buying/printer.html</a></p>	<p style="text-align: right;">*</p> <p>■ Mono 5% = 2p &amp; 100% = 39p</p> <p>■ Colour 5% = 4p &amp; 100% = 59p</p>
<p><b>Multi-functional printer (MFP)</b></p> <p>Equipment leased for 4 years including consumables and maintenance. Provides print, copy, scan, fax and more. Supports many users. Quality is good. Cost per page varies based on number of prints produced. See: <a href="http://www.sheffield.ac.uk/cics/buying/printer.html">www.sheffield.ac.uk/cics/buying/printer.html</a></p>	<p style="text-align: right;">**</p> <p>■ Mono = 4p – 10p</p> <p>■ Colour = 5p – 20p+</p>
<p><b>University Print Service</b></p> <p>Use for high volume photocopies i.e. over 100 pages and binding/finishing. Also use for Professional Print and Design, wide format printing and promotional goods. See: <a href="http://www.sheffield.ac.uk/cics/uniprint">www.sheffield.ac.uk/cics/uniprint</a></p>	<p style="text-align: right;">**</p> <p>■ Mono = 3p – 4p</p> <p>■ Colour = 15p – 20p</p>

\* Figures based on ink/toner cost only (purchase price, energy, paper and vat not included).

\*\* Coverage of ink/toner does not affect the cost per page.

## Buy or lease your printer

**Buy:** Laser Printers are purchased with a service/maintenance contract from HE agreement suppliers.

**Lease:** MFPs are a 4 year lease including maintenance and consumables from Sharp UK Ltd, servicing is contracted to Danwood.

Further details at:

[www.sheffield.ac.uk/cics/printing](http://www.sheffield.ac.uk/cics/printing)

[www.sheffield.ac.uk/cics/buying/printer.html](http://www.sheffield.ac.uk/cics/buying/printer.html)

The Total Cost of Ownership (TCO) spreadsheet 'Recommended Models' provides analysis on the choice of desktop printers and MFPs available to the University of Sheffield this can be found and downloaded at <http://uspace.shef.ac.uk/community/upmt> This analysis essentially gives a cost per printed page, cost of energy consumption and capabilities of each device. There is also a savings calculator which allows you to cost different options of printers.

# Choose your printer



The decision on which device to purchase or lease depends on your department's requirements. Print can come at a high cost, however making an informed decision about your printer can reduce your costs and improve functionality and availability within the work place.

The **standard** for recommended laser printers employed on campus is networked, duplex, A4 with postscript. The **standard** for recommended MFPs is networked, duplex, A4/A3, print, copy, scan and postscript. This allows all types of users to access the printer and maximises usage to efficient devices.

What functionality do you require from your device?

- Mono/Colour
- A4/A3
- Print, copy, scan, fax, hard drive
- Volumes e.g. 8000 prints per month
- Speed e.g. 30 prints per minute
- Confidentiality, secure release, user accounts

What environment/space is available?

How many staff will the device support?

What budget is available?

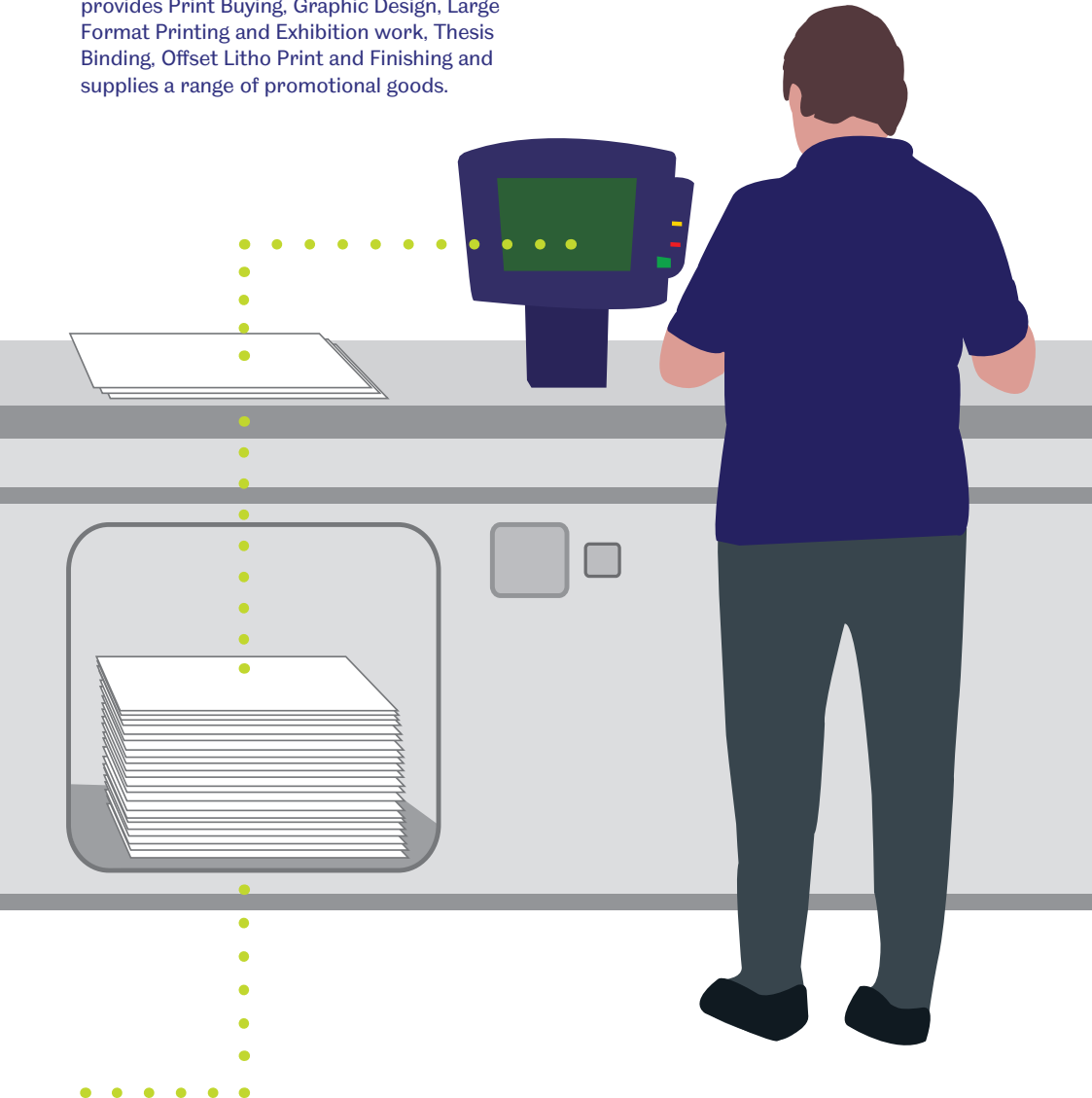


# The University Print Service

When producing high volume photocopying or professional printing, the University Print Service is better suited to produce your job; they produce print using a range of equipment and employ a variety of professional printing techniques. The digital mono and colour production engines run at constant speeds of up to 120 A4 copies per minute and have many online finishing options like stapling, inserting, collating and booklet making. The service also provides Print Buying, Graphic Design, Large Format Printing and Exhibition work, Thesis Binding, Offset Litho Print and Finishing and supplies a range of promotional goods.

The Print Service is situated on the main campus and welcomes visitors to discuss their print requirements and to enjoy a guided tour of the facility. The Print Estimators and Graphic Designers are available to meet with you to understand your projects and to discuss how you can get the most value from your designs and print. Further details at

[www.sheffield.ac.uk/cics/uniprint](http://www.sheffield.ac.uk/cics/uniprint)



# The right paper

A choice of environmentally preferable paper stocks including 100% recycled, are available from the University Procurement Office Central Stores (via the Internal Trade Catalogue in uBASE). This paper has been performance tested on a variety of printing equipment to ensure good quality prints are produced. Prices have been negotiated on behalf of the University to ensure value for money is achieved. All paper used by the University Print Service is environmentally preferable; they are currently seeking the FSC accreditation. Any specialist paper requirements may be sourced by the University Print Service.

Environmentally preferable paper is either 100% recycled, part recycled, FSC or PEFC. Further information can be obtained from the Wrap UK web site at [www.wrap.org.uk/business/using\\_recycled\\_paper/index.html](http://www.wrap.org.uk/business/using_recycled_paper/index.html)



# Paper Storage

The environment in which paper is stored affects its performance and lifespan. The two main elements that affect paper are moisture and temperature. Where practical and possible, all paper used in laser printers and MFPs needs to be stored in a stable environment. This will help the paper's performance and ensure the paper's electrostatic properties remain constant. Paper manufactured for laser printing and photocopying applications is made with lower moisture content than other papers.

- Store paper in a place that replicates the environment of where the print engine is located
- Do not store in damp or unheated locations
- Do not store next to heating pipes, radiators or overhead water pipes
- Do not store opened packets near windows or in direct sun light

- Keep all paper in original wrappers and/or cartons until required for use
- Reseal part used packets and place back in the original carton
- Store all paper on shelving or in cupboards
- Keep packet labels until you have exhausted the contents (in case of performance issues the supplier requires the batch number)
- When loading printers/MFPs do not over fill the paper trays
- Fan apart all the sheets and load as per the instructions on the packet
- Only open the required amount of packets to fill the printer/MFP



# The right strategy

Print strategies for Heads of Departments, Managers and Administrators:

- Encourage staff to share networked printers/MFPs
- Support a policy to reduce and dispose of local desktop printers
- Reduce peripheral devices (scanners and faxes) in favour of MFPs
- Encourage 'best practice printing' for all staff
- Procure environmentally preferable paper
- Nominate an environmental Champion to ensure paper and toner cartridges are recycled via the University scheme [www.sheffield.ac.uk/environment/recyclingandwaste-disposal](http://www.sheffield.ac.uk/environment/recyclingandwaste-disposal)
- Encourage staff to turn off printers and PCs when not in use or activate other power save modes to reduce consumption



# Help and advice

If you would like advice and support on how to improve your department printing activities contact the UPMT at [upmt@sheffield.ac.uk](mailto:upmt@sheffield.ac.uk) you can also contact the team in uSpace and view the Terms of Reference, Departmental Audit Reports and Total Cost of Ownership spreadsheets for printing devices.

*Find out more – visit:*

## University Environmental Policy

[www.sheffield.ac.uk/environment/policy-2009.html](http://www.sheffield.ac.uk/environment/policy-2009.html)

## University Print Management Team

[www.sheffield.ac.uk/cics/upmt](http://www.sheffield.ac.uk/cics/upmt)

<http://uspace.shef.ac.uk/community/upmt>

## CiCS

[www.sheffield.ac.uk/cics/greenit](http://www.sheffield.ac.uk/cics/greenit)

## Energy & Environment

[www.sheffield.ac.uk/environment](http://www.sheffield.ac.uk/environment)

## Procurement Office

[www.sheffield.ac.uk/procurement](http://www.sheffield.ac.uk/procurement)

## University Print Service

[www.sheffield.ac.uk/cics/uniprint](http://www.sheffield.ac.uk/cics/uniprint)





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**Each year the University uses 41 million sheets  
of paper = 580 tonnes of CO<sub>2</sub>**



**Reduce Reuse Recycle**

Find out more – visit: [www.sheffield.ac.uk/cics/upmt](http://www.sheffield.ac.uk/cics/upmt)  
and [www.sheffield.ac.uk/environment/](http://www.sheffield.ac.uk/environment/)





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[www.sheffield.ac.uk/cics/upmt](http://www.sheffield.ac.uk/cics/upmt)

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in small quantities on demand.