



Managing Printing and Imaging

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Managing Printing & Imaging Outline

Old and new thinking

Issues we all face

Printing Efficiently & Greener (PEG) @ UEL

Quick wins

London South Bank University (LSBU)

Sustainable Development Group (SDG)

Challenges (Barriers)

Opportunities (Best practices)

What we have done and why at LSBU

Sums, drivers & reasons

Tools on-line 10 ideas to support meetings which use less paper

Simple case study

Next phase at LSBU

Questions

Refuse, Reduce, Reuse, Recycle and Buyback

- Recycling mantra

‘The Past Does Not Equal The Future’

- Antony Robbins

‘If you can’t measure it, you can’t improve it’

- Lord Kelvin

‘Plan where you want to be and use a good map’

– Charles Handy

‘Plan, Ploy, Pattern, Position, Perspective’

- Mintzberg's 5 Ps for Strategy

‘Stating the Bleeding Obvious’

- John Cleese



Old Thinking: Companies have long mistakenly thought that adopting environmentally friendly processes adds costs.

New Thinking: Green practices like recycling, reusing and reducing waste can cut costs (or be cost neutral) because they make a company more efficient and add to the marketing of the Corporate Social Responsibility (CSR).

University of East London JISC (Staff) Project

Printing Efficiently and Greener (**PEG**) with
Partners LSBU & Global Action Plan

Imaging device audit across UEL estate

- Total number of devices 788
- Total number of models 353 (22 different makes)
- Total number of desks 2108
- Desks per device 2.7
- Total number of desktop printers 564
- Proportion of total devices that are desktop printers 72%

Savings on imaging devices across UEL estate

Electricity consumption (kWh/year) 129,941kWh

Cost (at 8p/kWh) £10,395

CO₂ (electricity emission factor = 0.541)

70 tonnes CO₂



Outcomes from the User Engagement at UEL

- 67% of staff say they print over 6 pages per working day
- 39% say more than 10 pages per working day
- 11% say more than 40 pages per working day
- 48% of staff say they print less than 10 print jobs a week
- 33% say they print over 20 print jobs per week
- 78% of staff say they use duplex printing less than half the time
- 53% say they do not use duplex printing at all
- 31% say they do not know if their printers are on duplex by default or how to enable it
- 8% say that they have duplex on by default
- 70% say they do not print two to a page or do not know how to enable it
- 63% say they never use draft printing

- 78% of staff say they recycle more than 75% of their waste paper
- 69% of staff say their desktop printers go into standby or they don't know
- 32% of staff say they put their used printer cartridges in a bin or don't know what they do with them
- 47% say they put them in a University cartridge recycling bin
- 67% say they refill or recycle their cartridges
- 61% of staff say there will be a positive impact from switching to MFD's
- 51% are OK with a printer 6 metres or greater from their desk
- 39% said 1 – 5 metres
- An “How to” advice document on the UEL website.

Universities – Dysfunctional autonomous organisations with split management responsibility and conflicting objectives

Responsibility for Imaging – Maybe in Estates, Faculties, Library, LRC, ICT, Marketing, Directorate, Secretariats or devolved to Faculties, Departments or individual people.

Process – Printing, Scanning, Photocopying
DIY, Self-service, Serviced, In-house, Sub-contracted, Outsourced, Shared services.

Financial Management - Central, devolved or non existent

MFDs – Brother, Epsom, Canon, Konica Minolta, Kyocera, HP, Lexmark, Oce, Panasonic, Ricoh, Xerox, etc.

MIS – Equitrac, Flexicard, Helix, PCounter, PaperCut, PrinterShare, SafeCom, UniFlow, UniPrint, ThinPrint, etc.

How – DIY, Self-service, Serviced, In-house, Sub-contracted, Outsourced, Shared services.

VAT – 20%

Logistics, Management and Carbon – On-site, Off-site, On-line, Off-line



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Imaging – A cost or profit centre?

Income generation or financial black hole?

A risk or opportunity?

Staff and student divide – systems

Proactive or reactive – with resources

DIY, Self-service, Serviced, In-house, Sub-contracted, Outsourced, Shared services.

Financial Management - Central, devolved, overhead, top sliced or not accounted

Cash collection recharges and billing – How is it done & why?

About LSBU

- **LSBU - 20 buildings, 3 campuses, 2,000 staff & 23,000 students**
- **50,000,000 prints per year (inc. marketing)**
- **Print = 3% turnover = £5 million pa**
- **One print room in Southwark (M2Digital)**
- **170 on-line multifunctional (MDFs) devices inc. clusters in 4 Faculties sub-post room**
- **1,500 desktop printers (750 active)**

LSBU Sustainable Development Group

Established 21 years (best practices)

360° Political Special Interest Group (PSDG)

<http://www.lsbu.ac.uk/about/sustainability.sht>

Current Initiatives - News - SDG membership -
Plans, Strategies - Policies - How to go green –
Posters – Events (Go Green Week) – Links – etc.

- All office paper 80% post-consumer recycled by default switch with Office Depot (cost neutral)
- Serviced printing from 5% to 77% on-line

‘Quick wins’ in Printers / imaging

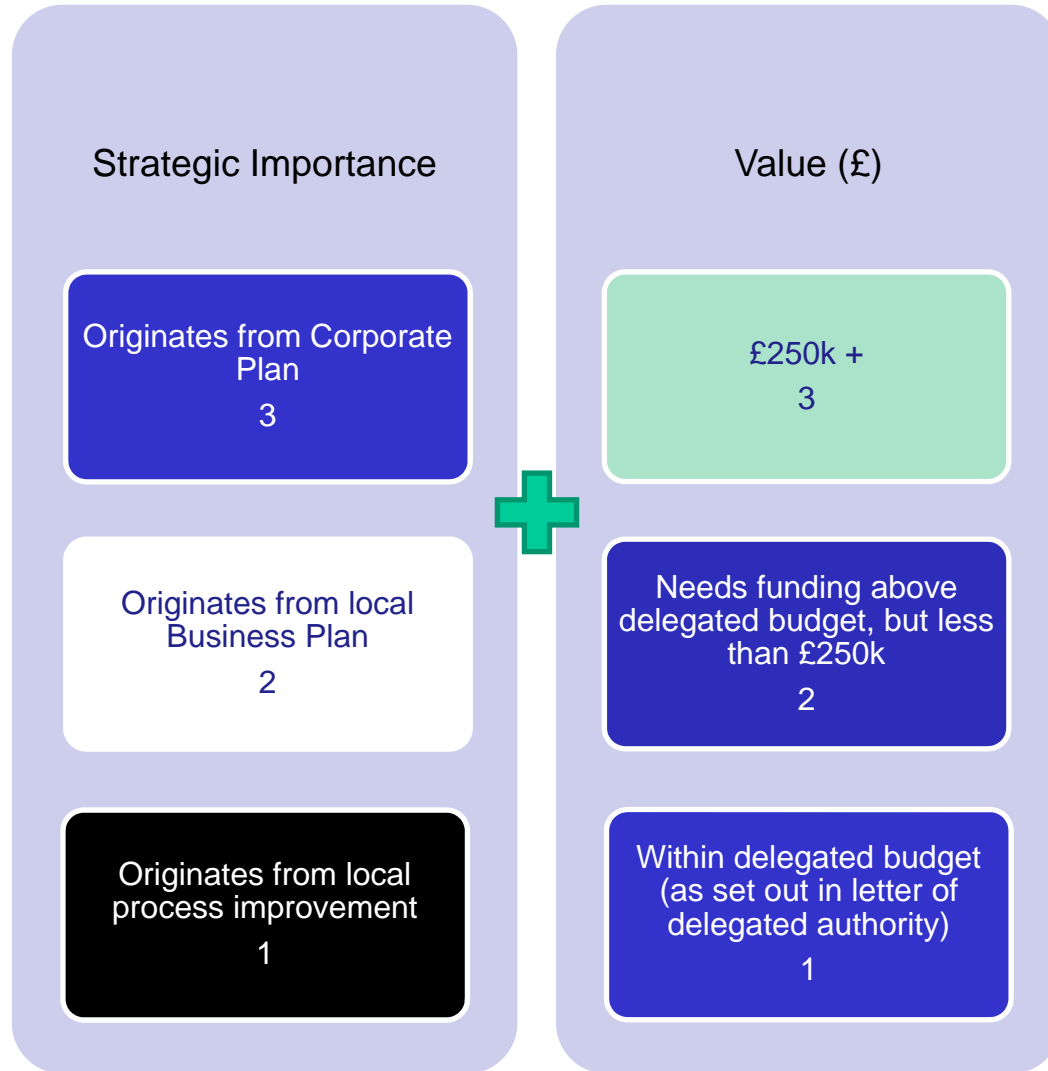
- move to MFDs?
- ban OHPs, inkjets and desktop printers?
- easier to implement for student and central print services?
- harder for research and academic staff
- default trays for recycled paper
- behaviour change!

The Challenges (barriers)

Assumptions hardcopy double spaced single sided
Culture mainly tangible hardcopy paper use
Skewed printing and imaging deployment in offices
Ownership
Information and benchmarking
Technophobia
Conflicting objectives
Strategy
Champions
Joined up understanding of the opportunities

The opportunities (best practices)

Document & Records Management Strategy
Document & Records Management System (new digital assets, better compliance & business opportunities)
Balanced deployment
Born digital files and digital reuse
Cost savings (Administration, Academic)
Turnitin
Audit
Copyright, IP savings & new assests
Knowledge (blogs, SIGs, SCHOMS, UPMG, JISC)



Score	Project Controls
6	Executive Sponsor, full business case required in advance, use LSBU project docs and online store
5	Executive Sponsor, full business case recommended, use LSBU project docs and online store
4	Executive Sponsor, use LSBU project docs, online store optional
3	HoD Sponsor (with Exec agreement for additional budget), use LSBU project docs, online store optional
2	HoD Sponsor, use Project Brief, rest of LSBU project docs optional, online store optional

We have done at LSBU

- **Reduce: DIY photocopying, DIY desktop printing and minimize virgin paper use**
- **Increasing academic jobs sent in on-line**
- **Improve digital file reuse**
- **Improving quality and student experience**
- **Capturing and reusing born digital (and some hardcopy) documents**
- **Link with InVue (D&RMS)**

How & why at LSBU

- **Strategy and transparency**
- **Cost**
- **Champions (VC's Office)**
- **Case studies**
- **Price differential (on-line is cheaper than DIY)**
- **Education blended learning approach**
- **Smart Device Monitor**
- **Capture our IP, copyright, cost and fit for digital document reuse. E.g. Unit Guides**

Madhouse Mathematics of DIY

- **Desk top printout of hardcopy “originals”**
- **Lost digital copy**
- **Bigger digital files if 2nd generation.**
- **Cost range 1.5p-25p**
- **Total copies between X & Y / average speed = DIY Time at Z cost per hour**
- **Average (in all 4 Faculties) = Two FT Academic staff per year, per Faculty**

Improving Teaching & Learning

Copying = Generation Loss

The paradox of generation loss refers to the loss of quality and potential increase of file size between subsequent copies of data in reuse.



Process, Tools, People & Communications

- **On-line print ordering system in 1994**
- **Awareness marketing, hand-holding, training, education, IT experts, bribes, incentives, discounts**
- **LSBU Sustainable Development Group**
- **LSBU student People & Planet society**
- **Budget holders**
- **360° Top down (VC, Pro VC, Deans) – bottom up (Students) – sideways (SDG SIG) – all media including e-resources, print & posters.**
- **An idiots guide, process walk-through**

Save Paper

Go Green

Order on-line

press...stop press...stop pre
er: page

**Are you reading this
while making copies?
You could be at home**

**Did you realise that you can submit
your teaching and learning materials
for printing using the internet from your
home, office or anywhere in the world?**

Next Phase 2011 to 2012

Ongoing educating stakeholders on sustainability

Reducing 2nd generation photocopying (Academic & Marketing)

Further reducing paper with IT (10 top tips)

Audits of areas for quick wins and case studies

Toner & printer replacement programme

Student on-line (cloud) print services

Increasing ICT usage on-line for all staff

Test/Switch print routing software with RFID smartcard

Testing MFD devices linked to embedded Pcounter

Almost free student multifunctional device

Tender for printing & images services for 1st August 2012

Web: **Carbon Calculators**

<http://www.epaw.co.uk/carbon/calculators.html>

Blog: **HE/FE Shared Services on JISC**

<http://sharedservicesonjisc.blogspot.com/>

Blog: **Printing Efficiently & Greener**

<http://printingefficientlygreener.blogspot.com/>

JISC Email Lists

<http://www.jiscmail.ac.uk/maillinglists/a-z/index.html>

On-line print ordering



**10 ideas to support
meetings which use less
paper**



Over 70 other open access
online quick briefings on
topics like Copyright, Office
Productivity, Learning and
Teaching Tools

<http://www1.lsbu.ac.uk/sdu/elearn.html>

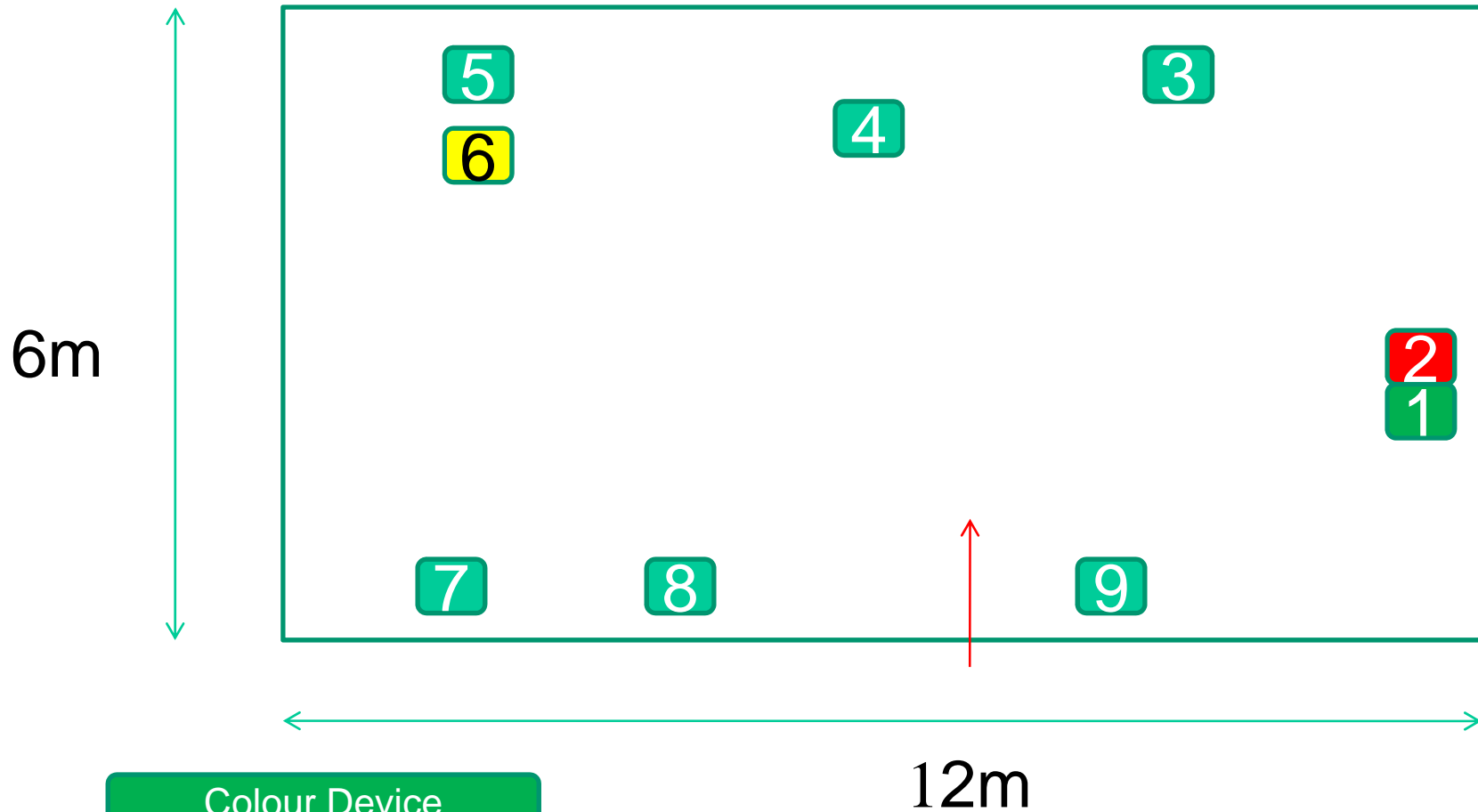
Current Fleet and Volumes and Expenditure

Total Devices	9
Total annual volume	29 984
Annual colour volume	8 112
Annual B/W volume	21 872
Current Annual Charge	£1 907

Nb. Current costs are based on industry standards at 12% Coverage



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- Colour Device
- Mono Device
- Fax
- Scanner

Proposed Fleet and Volumes and Expenditure

Total Devices	2	
Proposed Annual Charge	£1,064	
Total Annual Savings	£844	/ 45%
Proposed Equipment Costs	£0	
Savings for Duration of Contract (1st Jan 2011 – 31st July 2012)	£1,336	
Approximate Savings per Working Day	£3	(£1,336 / 405)
Max Distance of Staff to Device	12m	

Other benefits include no purchasing / hardware costs to replace existing equipment and no inclusion of write down value for legacy kit.

In turn, realised savings will be greater than stated above

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Questions