

Agenda

- 10:30-10:40 Welcome and Introductions
- 10:40-11:10 Overview of the JISC Green ICT Programme **Rob Bristow JISC**
- 11:10-11:40 ICT energy returns for London HEIs **Paresh Shah London Higher**
- 11:40-12:10 SUSTE-TECH - Green ICT in Yorkshire and Wales **Nicola Hogan EAUC**
- 12:10-12:40 Green ICT drivers and options **Paresh Shah London Higher**
- 12:40-13:00 Discussion on Green ICT funding, research & networking priorities
- 13:00-14:00 Lunch

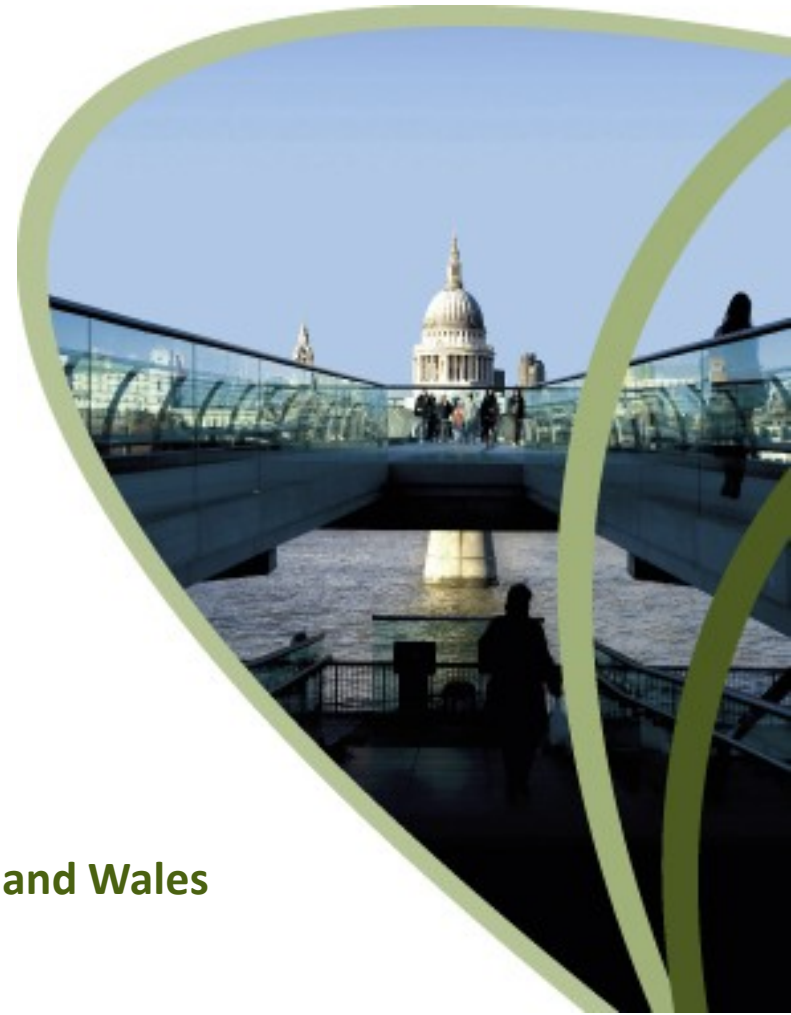
Green ICT Workshop

Energy returns

Paresh Shah
London Higher

25 January 2011

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Green ICT in London HEIs

Baseline study of pan-London Green ICT issues

- Involving 19 of 42 publicly funded London HEIs
- Energy use in ICT using Suste-IT carbon footprinting toolkit
- Classification of progress to Green ICT
- Case studies of best practice
- Explore work outside of HE sector
- Recommendations on funding priorities

JISC



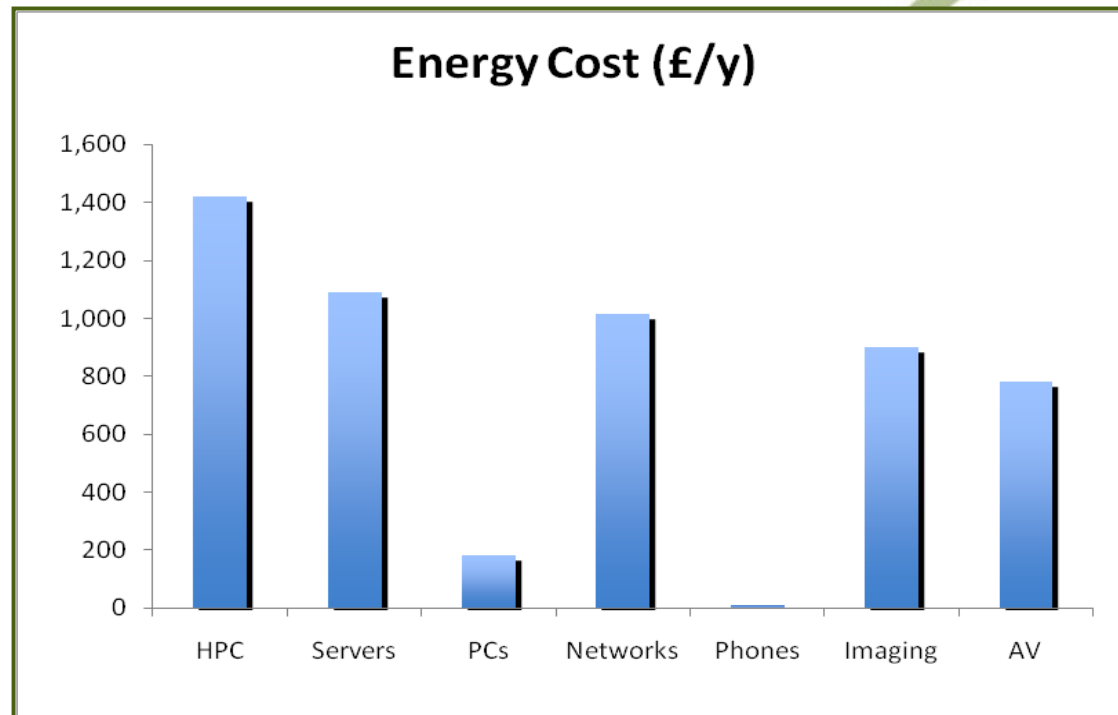


LONDON HIGHER

Promoting & Advocating London's Higher Education

Benefits of Carbon footprint toolkit

- Comprehensive ICT asset register
- Contribution of ICT to HEI electricity bill
- Identify areas for energy savings in ICT



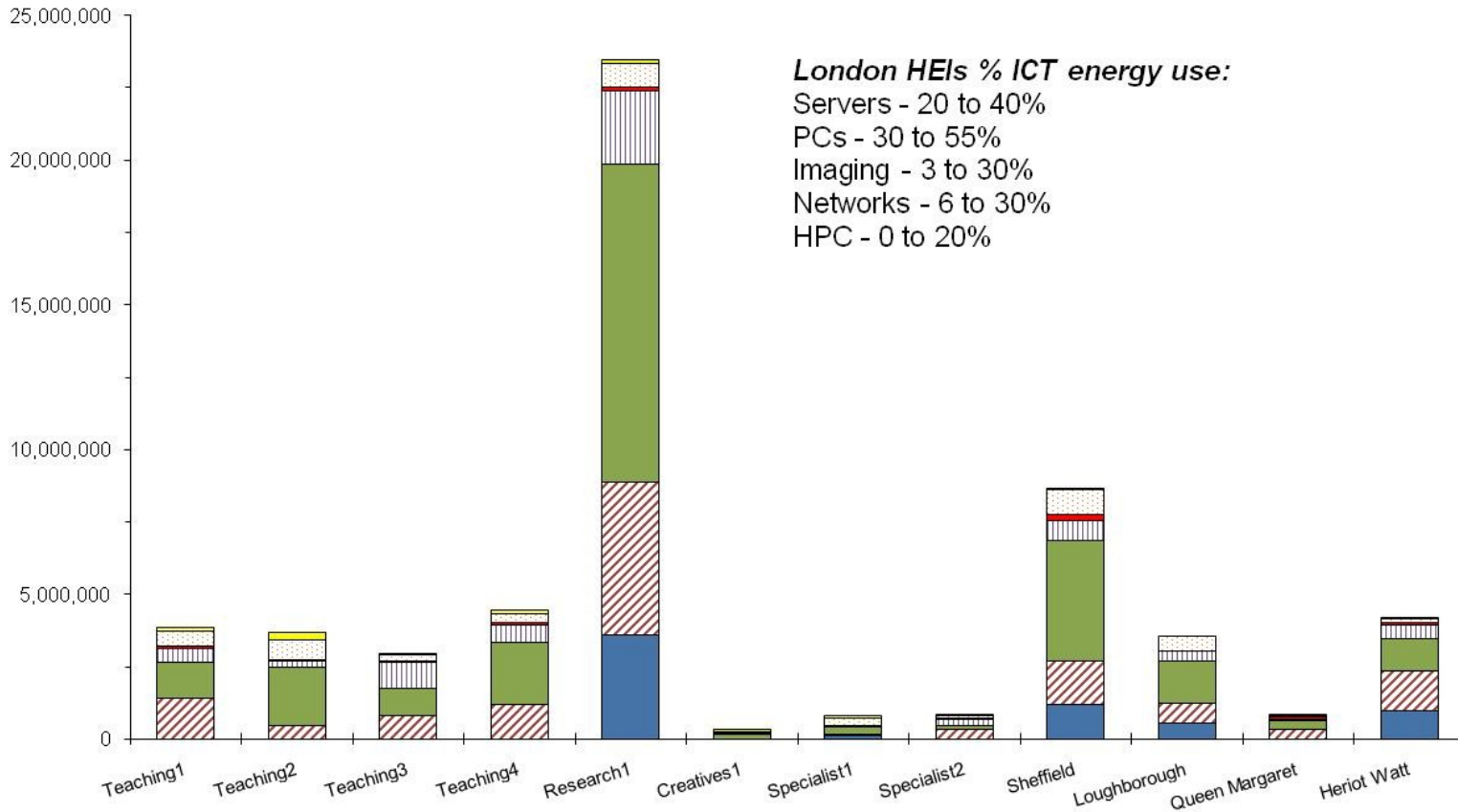
Initial energy use data (1)

Total ICT energy use for London and non-London HEIs

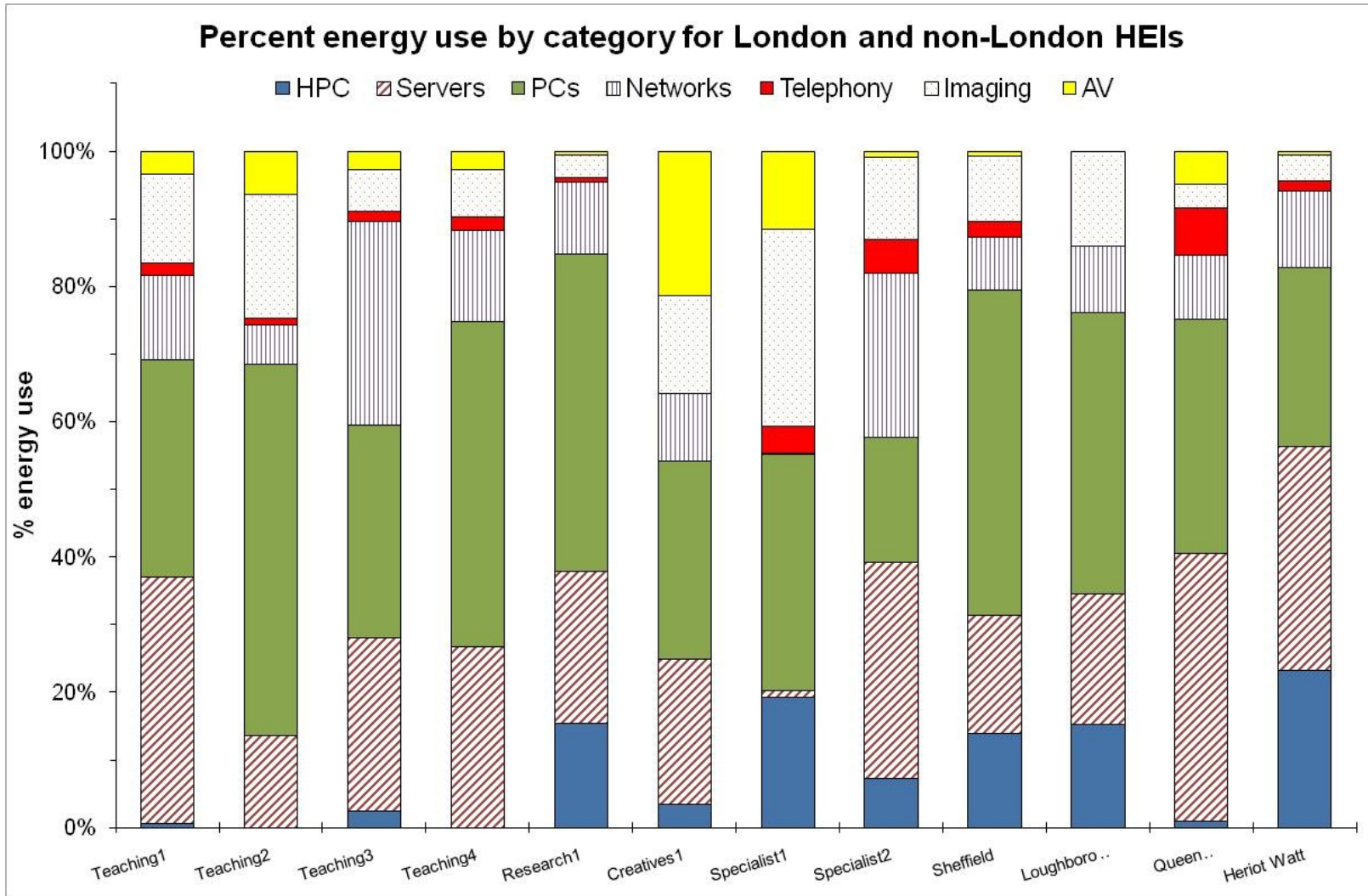
Total ICT energy use,
Kwh/year

■ HPC
 ▨ Servers
 ■ PCs
 ▨ Networks
 ■ Telephony
 ▨ Imaging
 ■ AV

London HEIs % ICT energy use:
 Servers - 20 to 40%
 PCs - 30 to 55%
 Imaging - 3 to 30%
 Networks - 6 to 30%
 HPC - 0 to 20%



Initial energy use data (2)



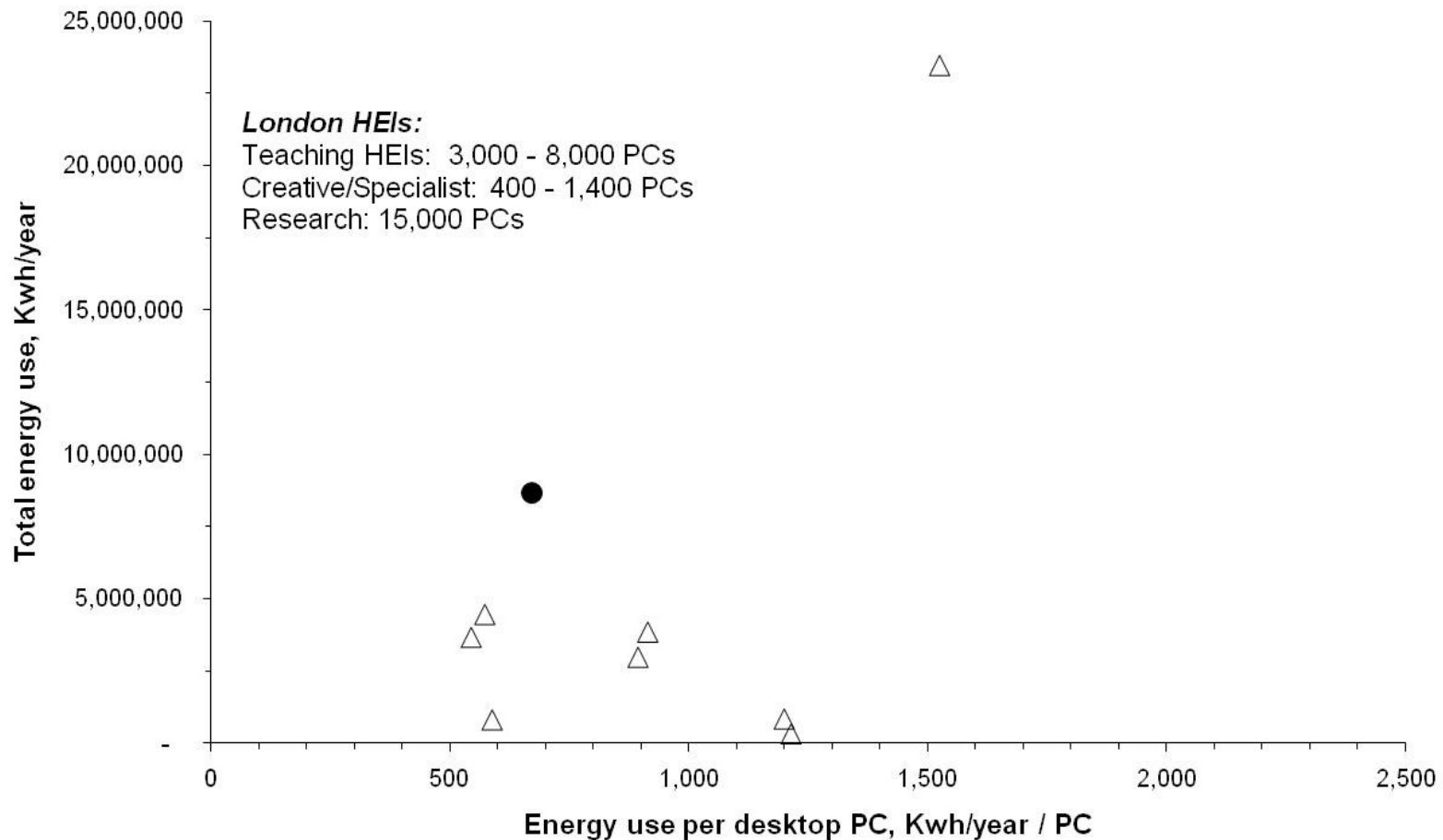
Areas of high energy use

Category	Teaching-led	Research	Creatives/Specialists
HPC	0-3%	15%	3-20%
Servers	13-37%	23%	1-32%
PCs	30-55%	47%	19-35%
Networks	6-30%	11%	0.1-25%
Telephony	1-2%	1%	0.1-5%
Imaging	6-18%	3%	12-29%
AV	3-6%	0.50%	1-21%

ICT estimated to make up 15-30% of HEI energy use

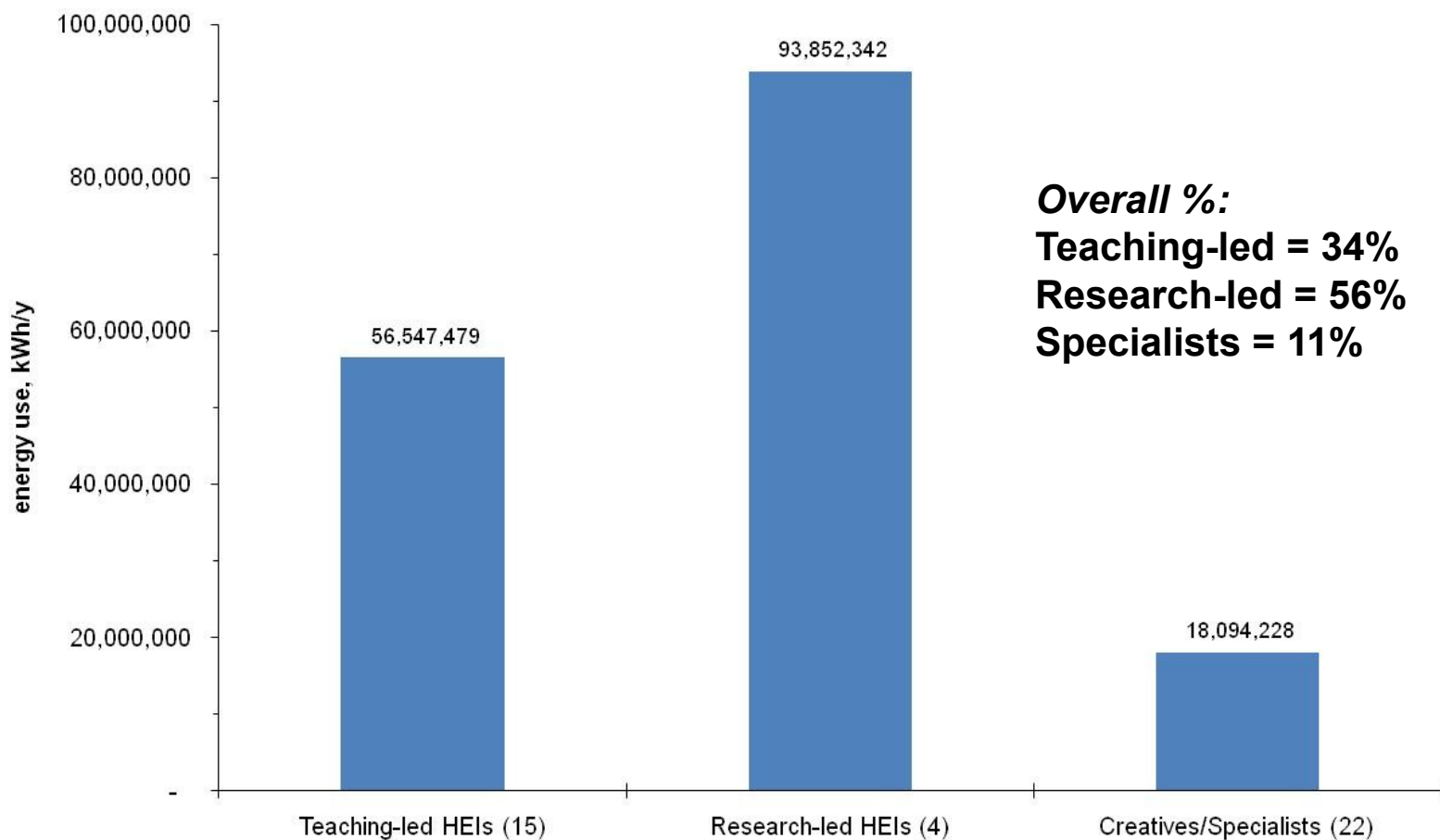
Comparing HEIs: PC numbers

**Total energy use per desktop PC for London (Δ)
and non-London HEIs (\bullet)**



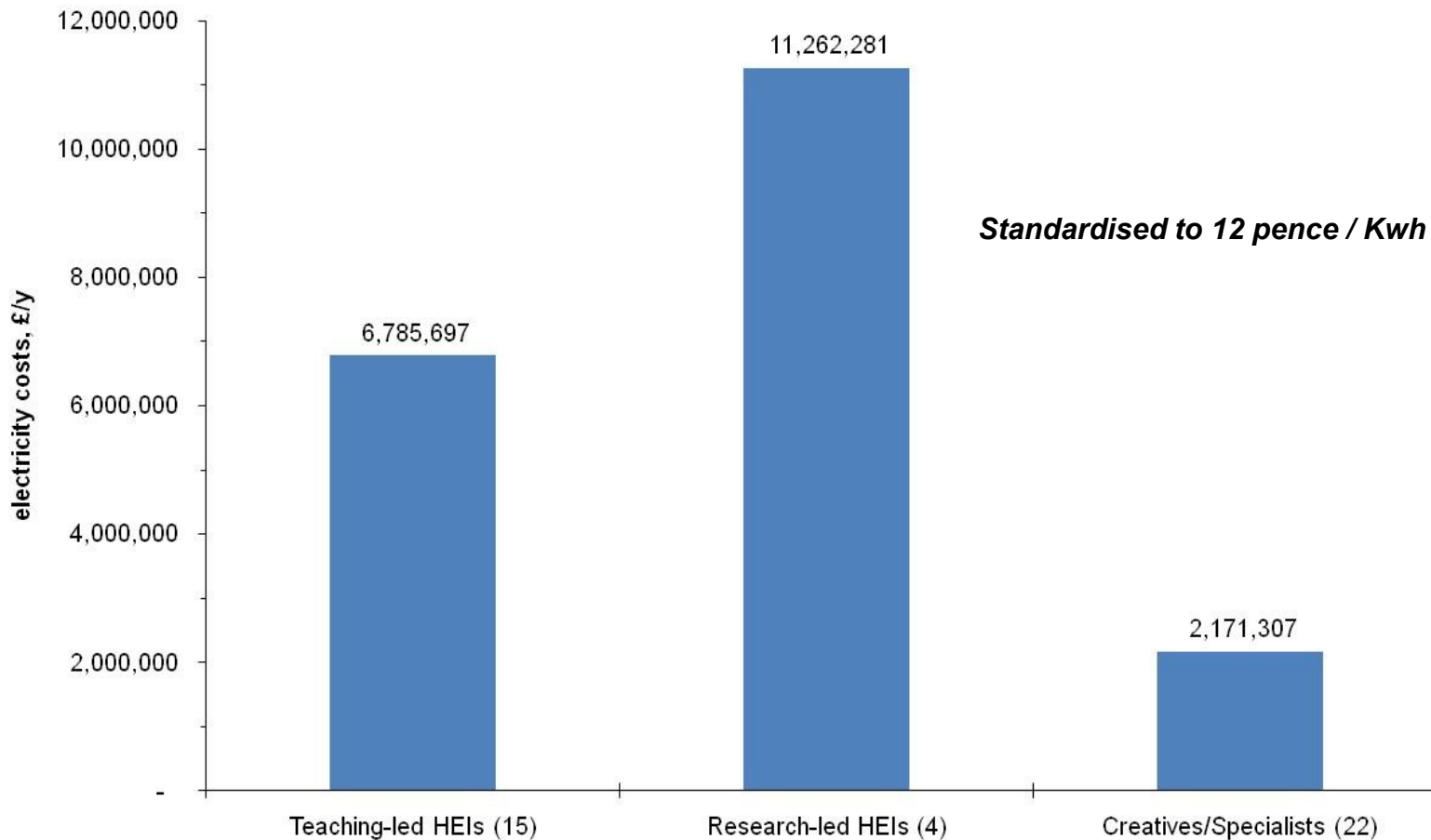
Estimated energy use

London HEIs: estimated energy use
Total = 168,500,000 kWh per year



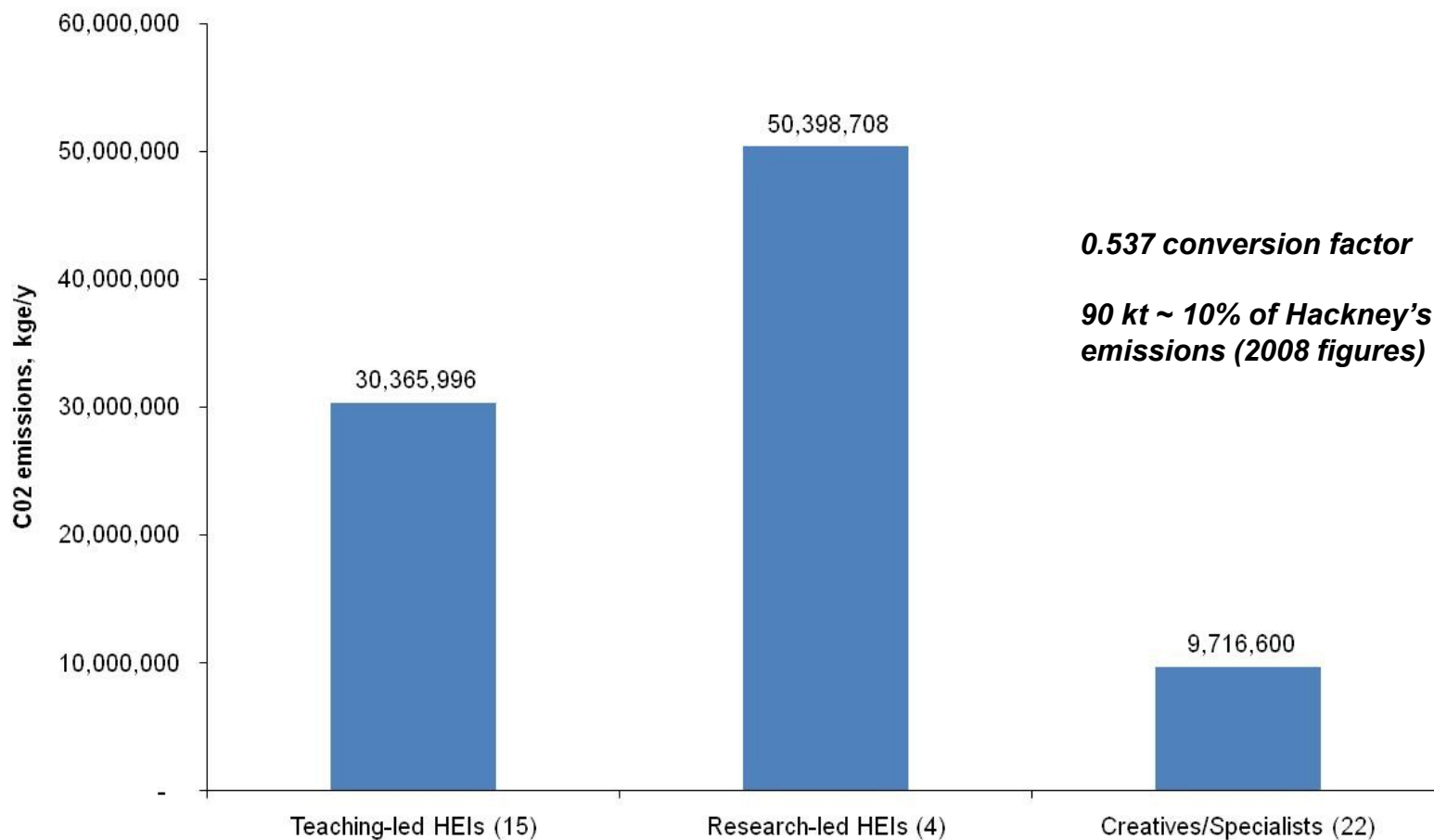
Estimated electricity costs

London HEIs: estimated electricity bill
Total = £20 million per year



Estimated CO₂ emissions

London HEIs: estimated CO₂ emissions
Total = 90 million kg per year



Questions?

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