

Observations on future University offices and energy demand

22nd June 2016

Jan Bastiaans



Observations

- Growth
- Efficiency
- Utilisation
- Control
- Data

Trends

- Improved building efficiency (mainly heating, little bit electrical services, not small power)
- More passive features
- More granular control – Not in? It's off?
- Tension with open plan
- More data

Growth

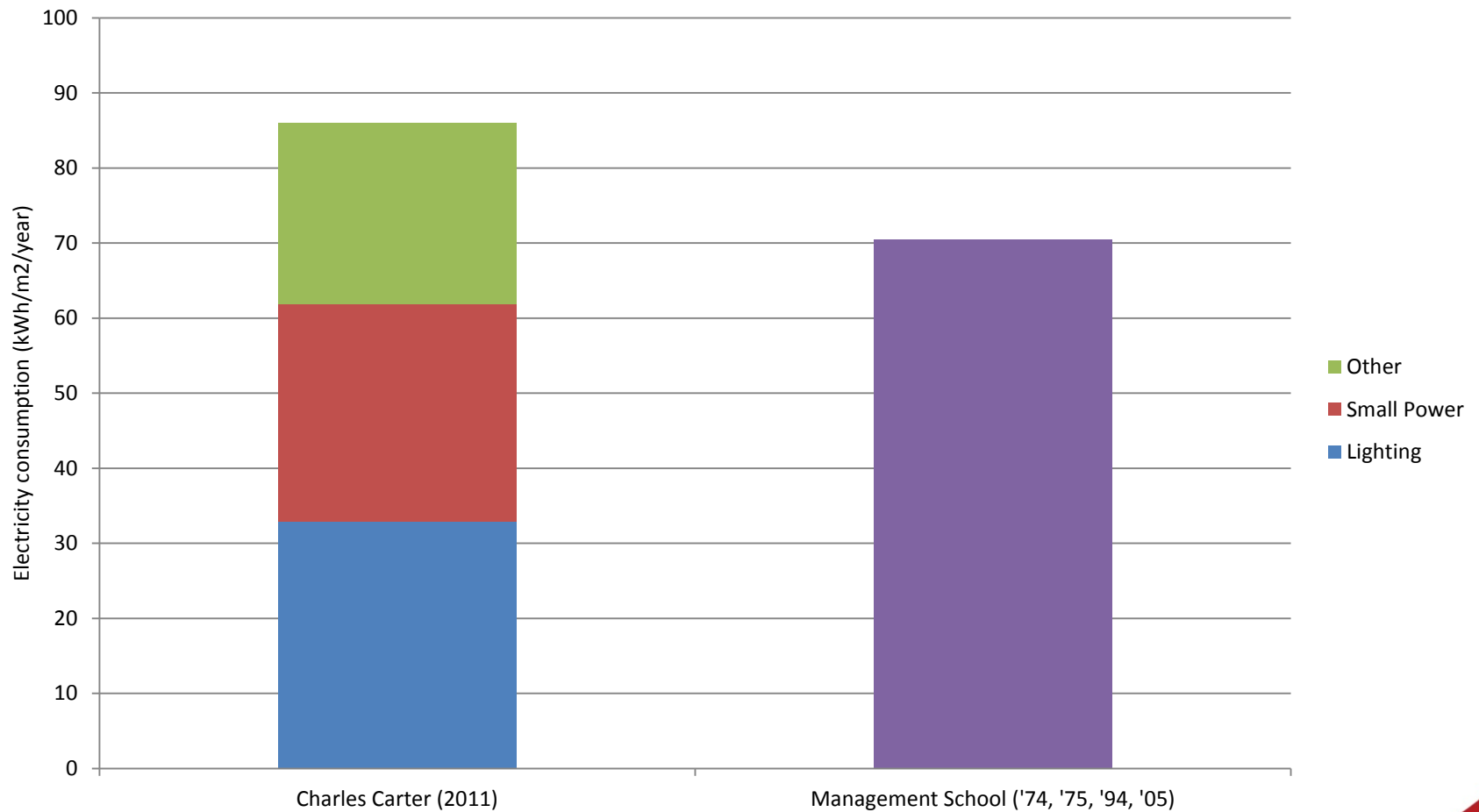
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- More students? More offices!
 - Additional offices (no matter how efficient) means extra energy consumption and carbon emissions

Growth 2

- Technological progress
 - More devices
 - More stuff on standby
- Absolute emissions reduction target

Efficiency

Electricity consumption



Efficiency 2 - Building process

- Decide to build
- Decide on a budget
- Appoint design team
- Detailed design and costing (over engineering)
- Value engineering
- Build (usually not quite to specification)

Utilisation

- 2,042 offices
- 35,144 m² (17.2 m² / office)
- Staff 2,355 FTE → 14.9 m² / person
- Common standard: 10 m² / person

- Occupancy or utilisation not known – some very low
- Holy grail

- Hot desking?
- Open plan?

Control

- Currently central control with some local control
- Customer excellence → more local control
- Tension central vs local
- Control in multiple occupancy?

Data

- More data collected and stored – quantitative and qualitative
- More energy consumption in collection and storage
- More insight or impact??

Summary

- Political ambition and determination
- Need for focus on energy efficiency early in decision making processes
- Need to tap into end-user adaptive capacities
- Improve space utilisation

Thank you!

Questions?