



EAUC Annual Conference University of Leeds 23 – 25 March 2015

CHALLENGING CONNECTIONS

Incorporating the Student Sustainability Summit, Further Education Sustainability Summit and Transformational Leadership Summit

Exchange B5: Data Centre Space

*John Thompson, CDCDP, Advanced Power
Technology Ltd*

Conference Sponsor





EAUC Annual Conference **University of Leeds** 23 – 25 March 2015

CHALLENGING CONNECTIONS

Data Centre Space

Considering new possibilities

Or

A Data Centre in Space

It's not rocket science

Conference Sponsor



CarbonCredentials

**Estates and
Operations**

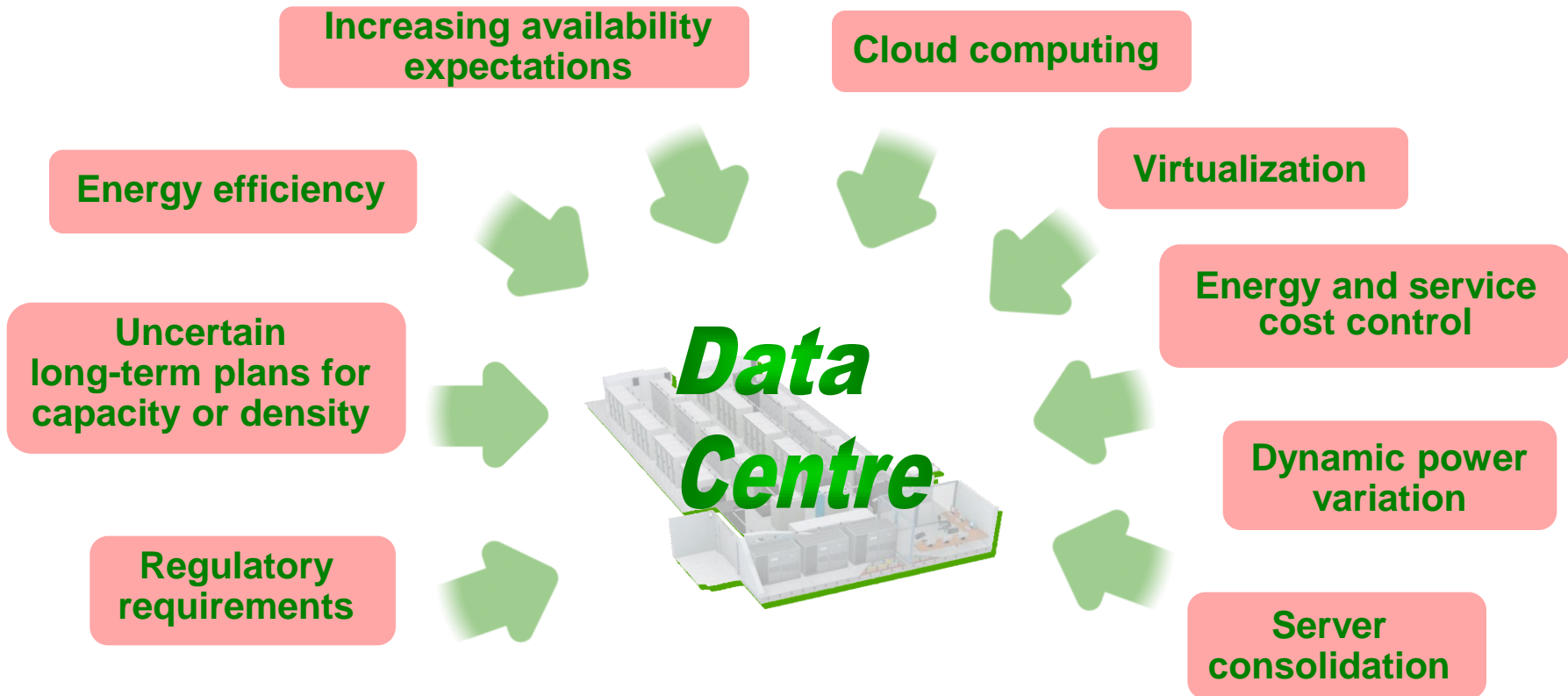


Increasing Pressure

... on data centre planning and operation



Estates and
Operations



In response ...



Providers are continuing to improve new ways to plan, design, install, manage, and maintain data centers

Increasing Opportunity

... for data centre planning and operation



Estates and
Operations



Increasing availability
expectations

Cloud computing

Energy efficiency

Virtualization

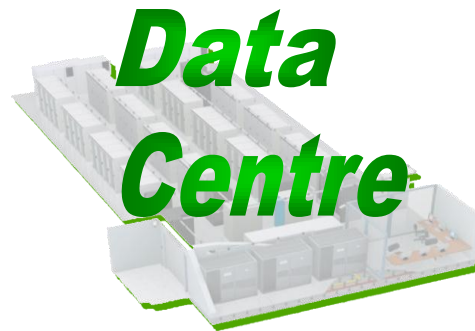
Uncertain
long-term plans for
capacity or density

Energy and service
cost control

Regulatory
requirements

Dynamic power
variation

Server
consolidation



because...



Increased funding opportunities, higher priority to business, dynamic technology advances, new field of expertise

Size of the Opportunity

A case study – MMU All Saints Data Centre



Estates and
Operations



...which reduces
carbon emissions...

The new data centres reduce
our annual carbon footprint by **3%**

591 tonnes less CO₂ every
year. That's a saving of
5,534 tonnes
of carbon over the
project's lifetime



- 50% Efficiency Gains
- Release of space



IT Rooms

...and saves
us money

Total saved over
the project's lifetime:



Funded by Salix

Considering the Opportunity

... where to start?



Estates and
Operations



Data Centre Space

Space is one of the first things that will need to be considered when faced with the challenge of improving the IT facility.

Location options may be one or more of the following;

- New build
- Outsourcing to a hosting company

- Upgrading existing to a more power and space efficient solution (live)
Thermal containment / Upgrade to more efficient components / Virtualisation, etc

- Finding a new space within the estate for a more power and space efficient solution
(migrate) – prefabricated?
Virtualisation / integral or independent of building infrastructure / risk mitigation

Who will decide?...



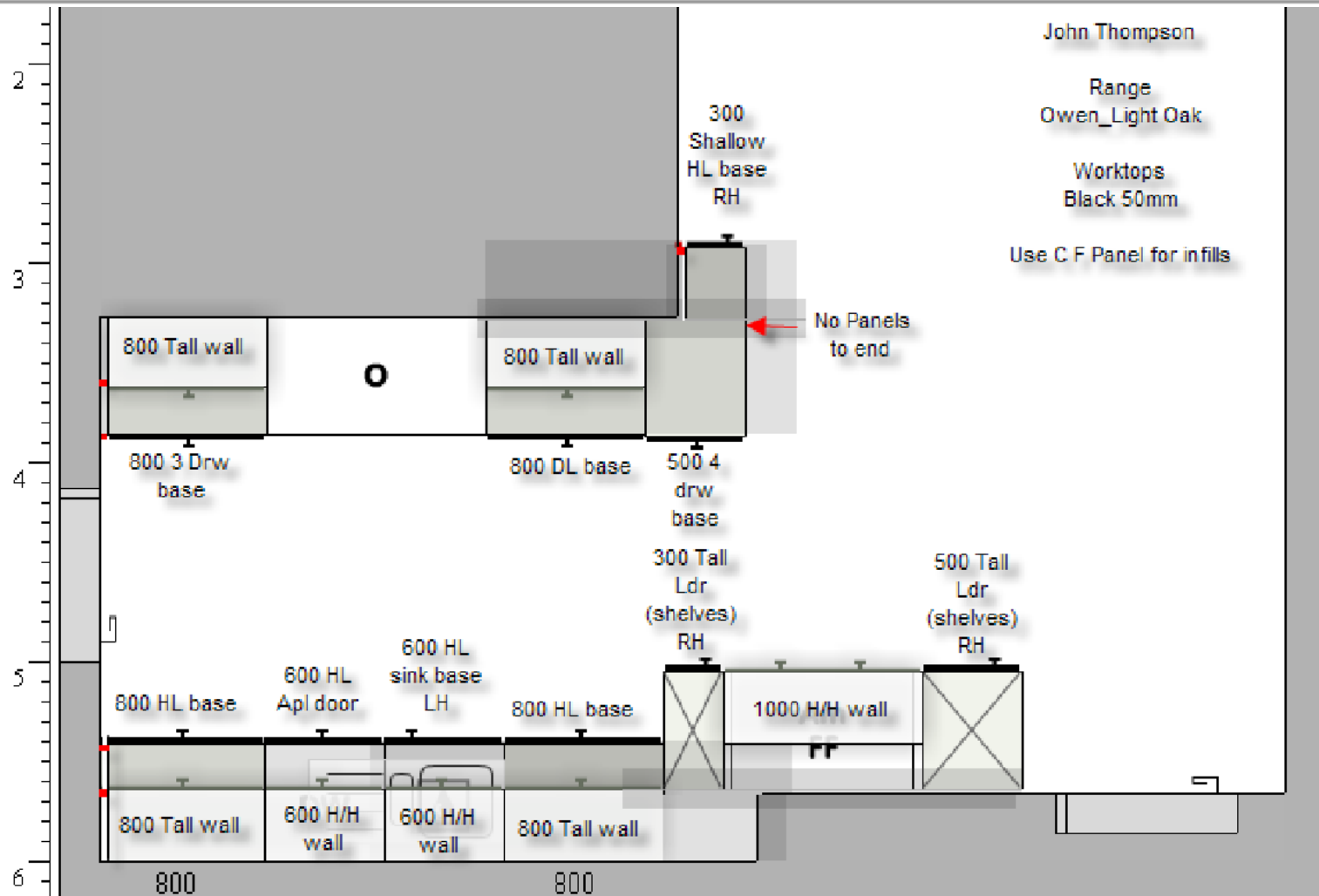
Feasibility study? Consultants? In-house knowledge and expertise?

Planning Tools

... *tried and tested*



Estates and
Operations



John Thompson
Range
Owen_Light Oak
Worktops
Black 50mm
Use C F Panel for infills

> 20-30 minutes to create speculative design

Walk Round

Visualising possibilities



**Estates and
Operations**



20-30 minutes to create speculative design

Quick Decisions

... saving time and money



Estates and
Operations



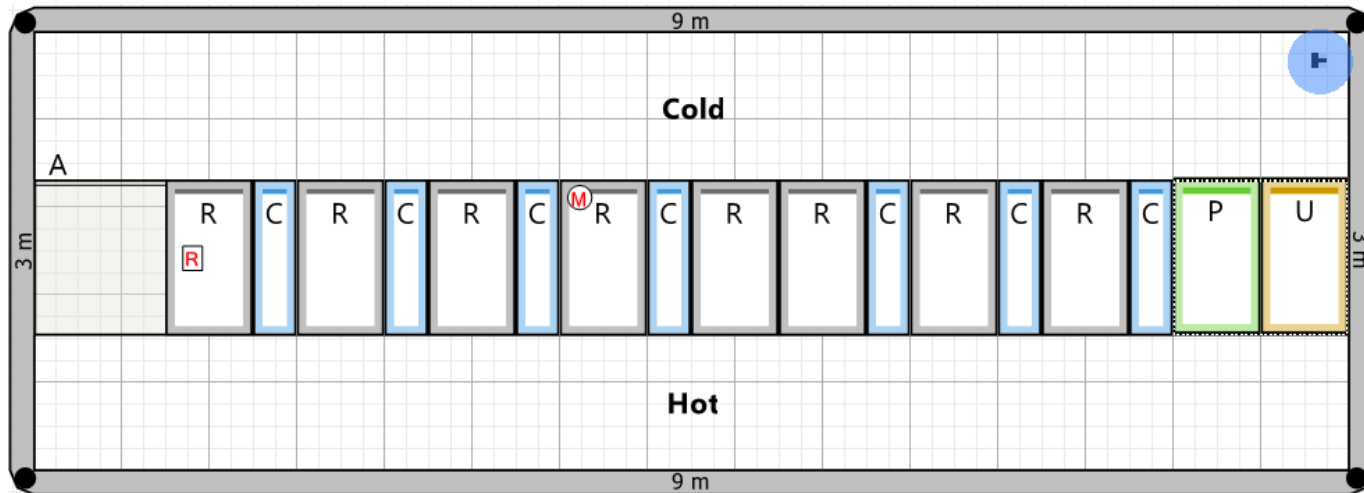
> Seeing the potential


Maximising Potential

... products to solutions



Estates and
Operations



- P = Service Bypass and PDU
- U = UPS
- R = Rack
- C = In Row Cooling Unit
- M&R = Central Management System & NetBotz
-  = Camera
- A = row references

Not to scale:
600mm x 600mm grid

> Quick and easy speculative designs

Increasing Opportunity

... for data centre planning and operation



Estates and
Operations



because...



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