

ACS is now a Xerox company



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# The Role of Power & Asset Monitoring within a Green Data Centre Strategy

**Nick Miller**

Chief Technology Officer

ACS ITO EMEA



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# Agenda

- Who is ACS?
- The case for a Green Data Centre Strategy?
- How power and asset management can help?
- Questions



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# ACS Globally

## ACS is

- A Xerox company
- A Fortune 500 company
- \$22billion
- 130,000 employees
- 160 countries
- All business sectors
- Business Process Outsourcing (BPO)
- IT Services (ITO)



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# ACS ITO in Europe



## United Kingdom

882 Employees  
Multiple Offices



## Germany

178 Employees  
Mülheim an der Ruhr



## Ireland

89 Employees  
Cork & Dublin



- European HQ
- Major Service Centres
- Major Data Centres
- Other Service Locations

## UK

### Offices

- Telford
- London
- Altrincham

### Data Centres

- Telford
- Newport
- London
- Altrincham
- Dublin

## Germany

### Offices

- Mülheim an der Ruhr

### Data Centres

- Mülheim an der Ruhr
- Duisburg



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# ACS ITO UK

- Over 24 years experience in delivery IT services
- Head Office in Telford
- Offices in London, Altrincham
- Data centres in Telford, Newport, Altrincham , London & Dublin
- Nationwide coverage supporting:
  - > 500 midrange systems
  - > 5,000 Intel servers
  - > 30,000 desktops



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# IT Service Offerings

## IT Management Services

- Data Centre Services
- Server Monitoring & Management
- Remote Management Services
- Managed Storage, Backup & Recovery
- Managed Network Services
- Utility Computing

## End User Computing Services

- Help Desk / Service Desk
- Desktop Support & Maintenance

## Critical Operations and Risk Management

- Disaster Recovery
- Business Continuity
- Security Services

## IT Commercial Services

- Managed IT Procurement
- Asset Management Services
- Telecommunications Expense Management

## IT Strategy and Architecture Service

- Infrastructure Design & Consultancy
- Consolidation & Optimisation
- Storage & Backup Assessment
- Virtualisation

## Application Services

- Messaging Solutions
- Full SAP Consulting & Support
- Application Development & Maintenance



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# ACS Clients in Europe

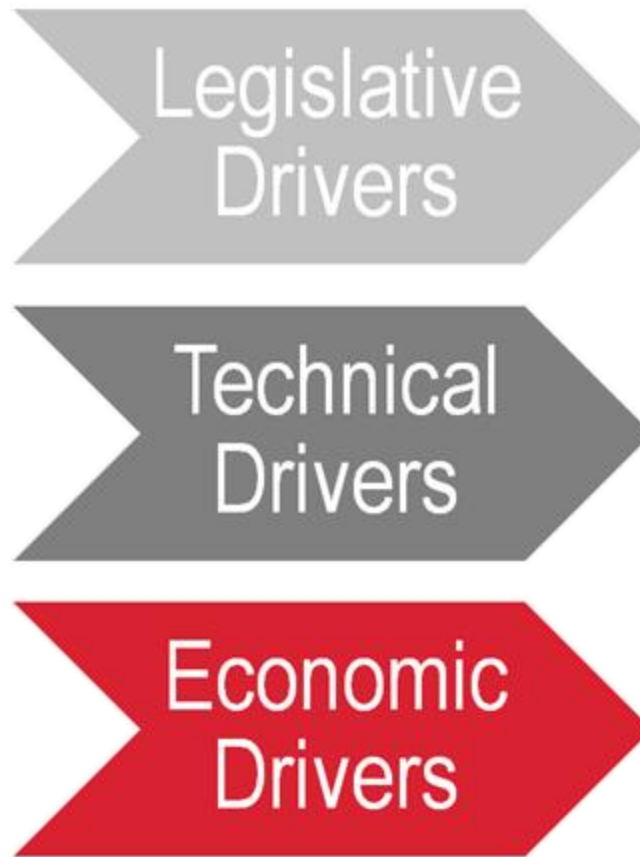




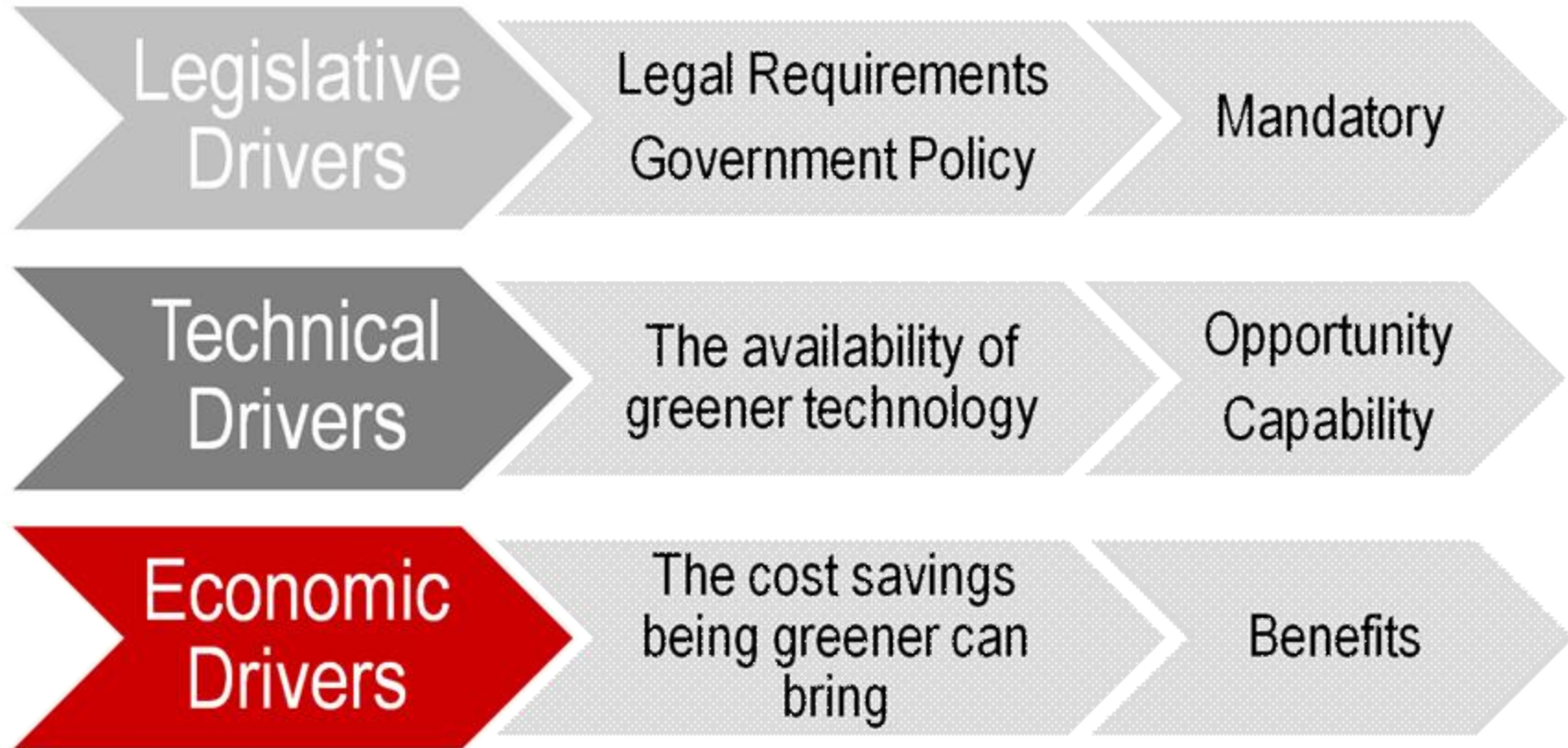
# THE CASE FOR A GREEN DATA CENTRE STRATEGY



# The Drivers for Going Green



# The Drivers for Going Green



# Legislative Drivers

## The Companies Act 2006

- Places a duty on Directors to consider the impact of their business on the environment
- Businesses need to factor this into their choice of Service Provider
- Service Providers need to make this a part of their business plans

## CRC Energy Efficiency Scheme

- A mandatory energy saving and carbon-emissions scheme
- Run by Department for Energy and Climate Change (Decc)

# Technological Drivers

The scope for technology to reduce the carbon footprint

- Higher levels of virtualisation
- More efficient hardware
- Shared storage
- Data Centre Infrastructure Management (DCIM)

Datacentre building technology

- Cold aisle containment
- Free air cooling
- Air flow and temperature optimisation



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# Economic Drivers

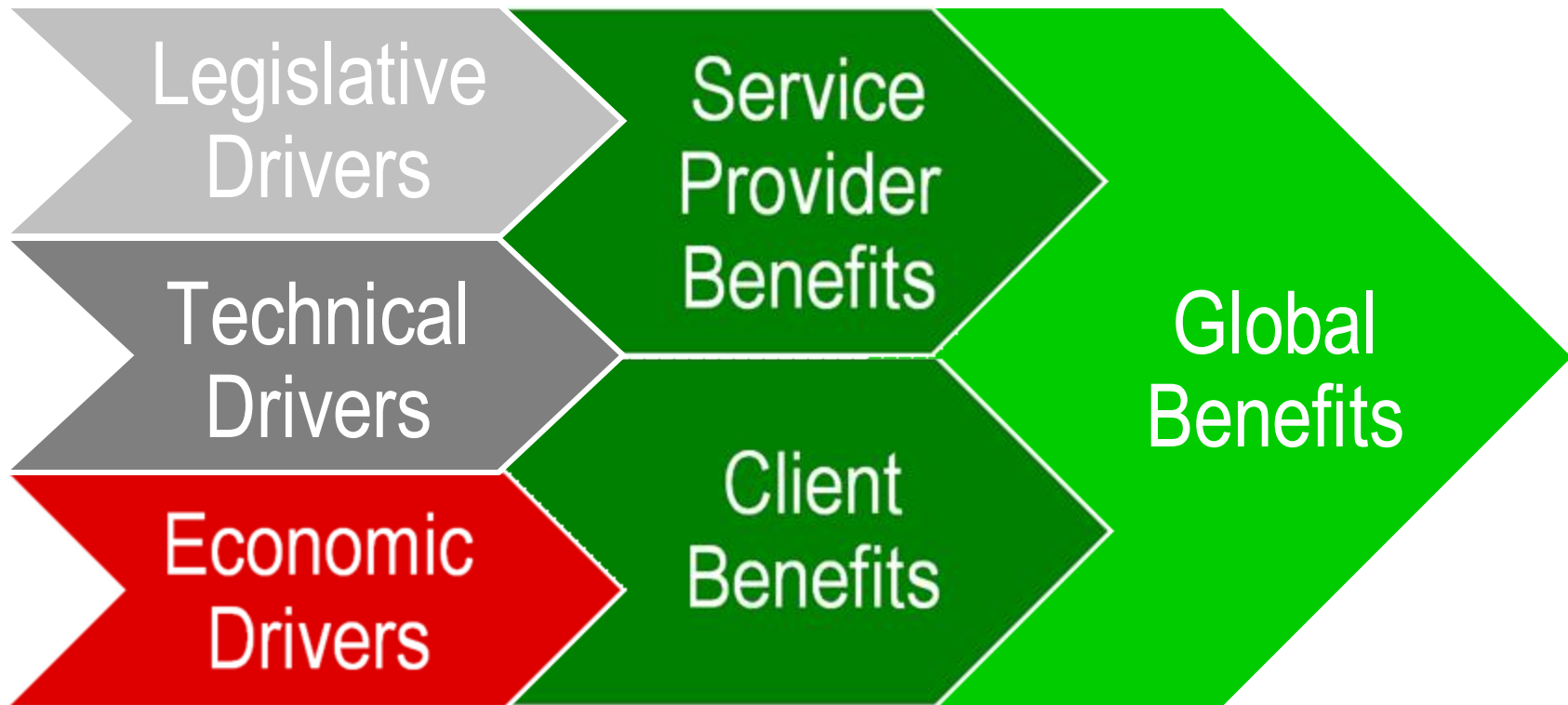
Economic Drivers are the ability to reduce costs by going Green

The IT industry has a huge benefit over many other industries in that going green can actually save money



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# The Benefits Stack Up



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# THE CHALLENGE OF FINDING A TOOLSET



## The Vision

“As part of our plan to deliver IT services to our customers in the most effective and environmentally sustainable way, we decided that we needed a Data Centre Infrastructure Management tool”

*Alan Brooks, Managing Director, UK ITO Operations, ACS*



# Goals for a tool set solution

**Enhance ACS' innovative and competitive outsourcing delivery**



**Aid effective management of the EMEA data centre consolidation project**



**Help minimise carbon emissions and address UK CRC Energy Efficiency Scheme requirements**



**Contribute to the environmentally sustainable delivery of IT services**



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**If you can't measure it you can't manage it**

**If you can't model it you can't predict it**



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# ACS & nlyte Software

In May 2010 ACS was pleased to announce nlyte Software as our strategic partner

We will be using nlyte in our new flagship Telford data centre and plan to adopt it into all our data centres over the coming months



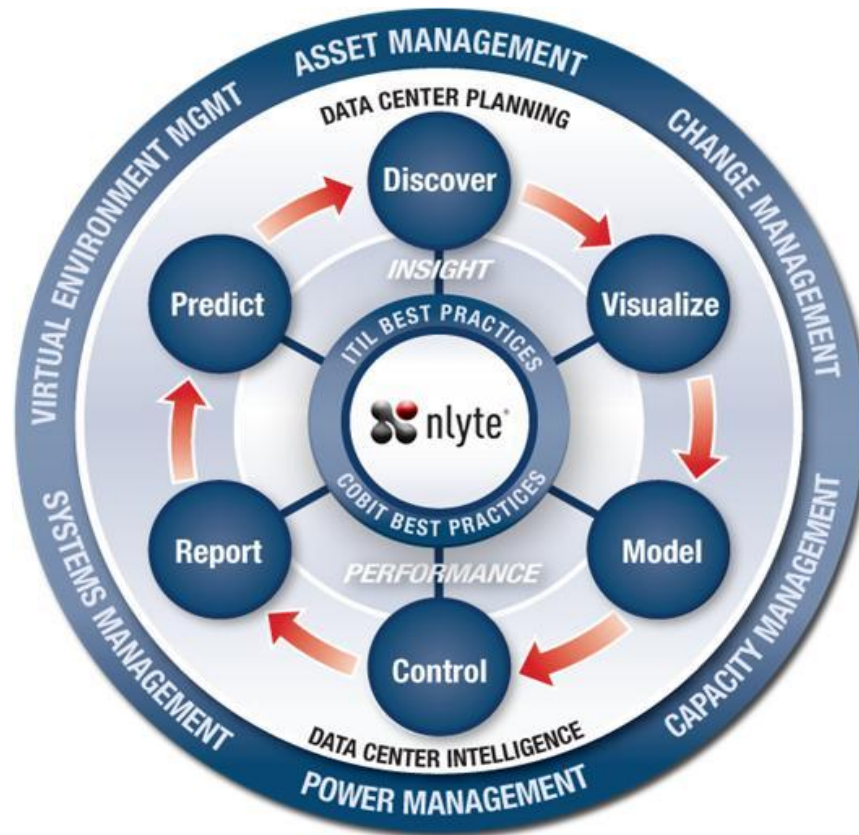


# HOW DOES nlyte DCPM SUITE HELP US?



# Data Centre Performance Management Cycle

- Discover
- Visualise
- Model
- Control
- Report
- Predict



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# How are we using nylte

- Power Modelling
- Immediate Power Impact Assessment
- End-to-end critical power chain modelling and reporting
- Critical power risk management
- Customer charge back



# Data Centre Power Modelling & Impact Analysis

## Power Modelling

- Model the power consumption of data centre devices (e.g. air conditioning units)
- Include this information into overall data centre power consumption calculations
- Enable more accurate management of power
- Enable more effective power costing

## Immediate Power Impact Assessment

- Calculate the power impact of any planned or actual Moves, Adds and Changes (MACs) in the data centre
- Enable effective planning



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# Data Centre Power Modelling & Risk Management

## End-to-end critical power chain modelling and reporting

- Map the complete power chain from the supplier sub station's feed through the devices into the data centre
- Deliver an end-to-end model of the entire data centre power structure
- Results delivered through detailed and customizable reports
- Supports more effective decision making, accurate power costing and immediate risk identification

## Critical power risk management

- Model the potential infrastructure and business impact of a data centre power failure
- Enable accurate risk assessment



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# Customised Data Centre Power Costing

## Charge back

- Accurate power costing at individual customer /user level
- Enable precise charge back linked to actual usage



# The Green Data Centre

## Assist Power Usage Effectiveness (PUE) modelling and reduction

- Enables accurate calculation of the IT Equipment Power (ITEP) side of the PUE equation and visibility of the Total Facility Power (TFP) side
- Supporting a move towards a PUE of 1.x

## Drive compliance and governance-based processes for management of all data centre assets

- UK CRC Energy Efficiency Scheme

## Address environmental concerns

- Most efficient use of power-based assets
- Minimise energy consumption



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# In Conclusion

We all need to reduce our carbon footprint to:

1. Save money and deliver value
2. Increase functionality/resilience – reduced risk
3. Comply with legislation

We can do this through the smarter use of technologies to:

1. Measure
2. Manage
3. Model
4. Predict



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Thank you.

Any questions?

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