

FORRESTER®

The Next Frontiers for **Green IT**

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Theme



Corporate sustainability
represents a crucial
opportunity for the IT industry.

A profound economic change is gathering pace

	The Present	The Future
Green regulations	Voluntary	Mandatory
Green consumers	Minority	Majority
Investor focus	Growing	Intense
Executive view	Leading-edge	Mainstream
Business initiatives	Niche projects	Core to business
Carbon tax	None	Multiple
Green IT	Interesting	Required

Leading companies are going green . . .

BOMBARDIER

Slashes CO2 emissions



imagination at work

Eco-magination revenue hit \$17 billion In 2008



Announces global responsible sourcing initiative at China summit

Electrolux will slash energy use a further 15% by 2012.

Tesco chief: “We must go green”



Joins Prestigious Dow Jones Sustainability World Index



to pour 5 billion green beers in 2009



Cuts CO2 emissions and water use by 15% in 2008

What do these corporate
green initiatives have to do
with IT?

Everything.

Agenda

- The IT industry's role in environmental sustainability
- Opportunities in green IT 1.0
- Opportunities in green IT 2.0

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- **The IT industry's role in environmental sustainability**
- Opportunities in green IT 1.0
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Broadening the scope of green IT

- ▶ **Green for IT:** tech suppliers and their customers reducing the harmful environmental impacts of computing
- ▶ **IT for Green:** enterprises applying IT systems to make business operations more environmentally-friendly.

The next frontiers for green IT

The next frontiers for green IT



Green IT 1.0: "Green for IT"



Data center and facilities

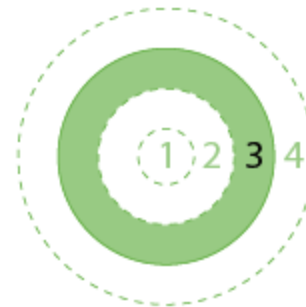
- IT systems management
- Server and storage virtualization
- Building automation



Distributed IT

- PC power management
- Thin client systems
- Managed print services

Green IT 2.0: "IT for green"



Business process and strategy

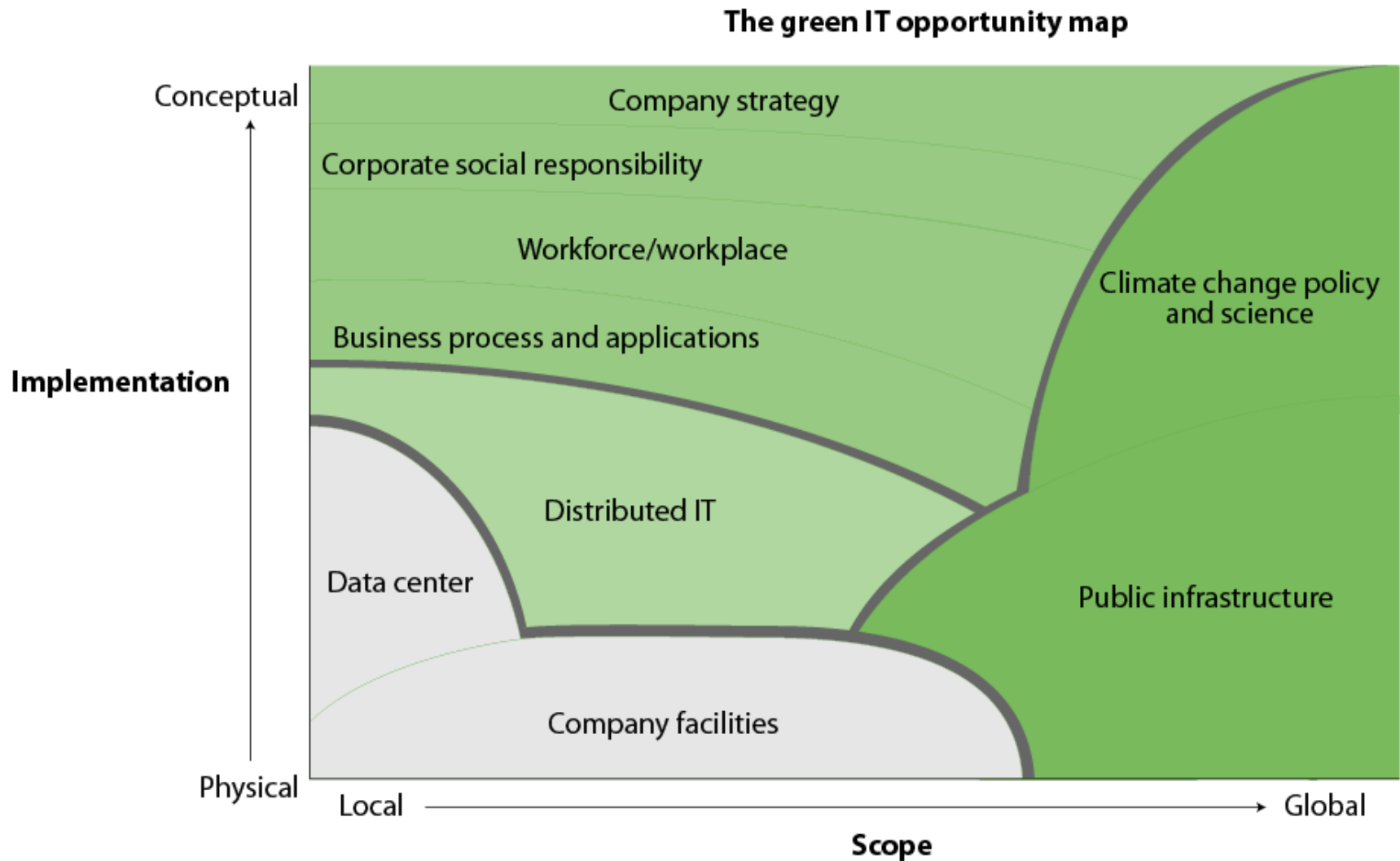
- Carbon management
- Teleworking
- Supply chain optimization



Public policy and infrastructure

- Smart grid
- Green cities
- Climate change policies

The next frontiers for green IT

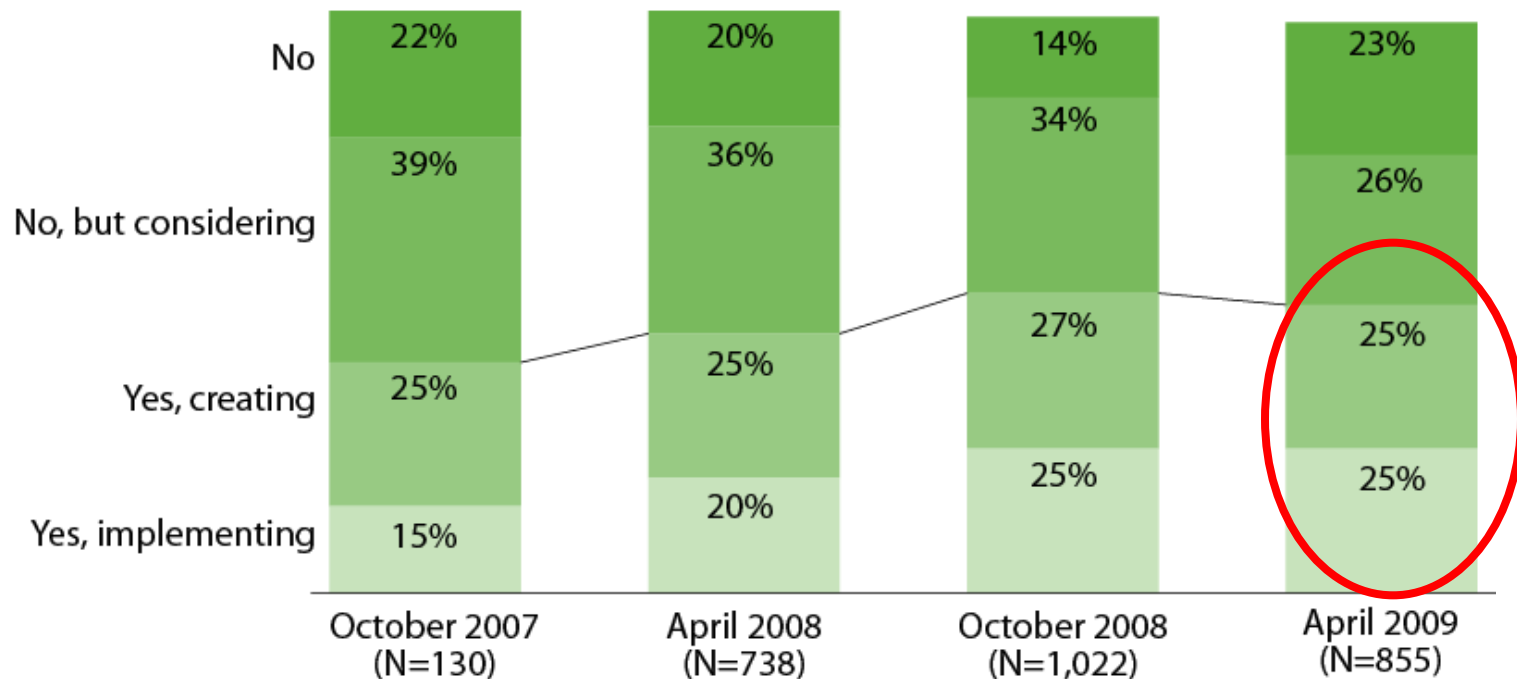


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Green IT adoption is on the rise

“Does your company have a comprehensive plan for implementing green IT practices and technologies?”

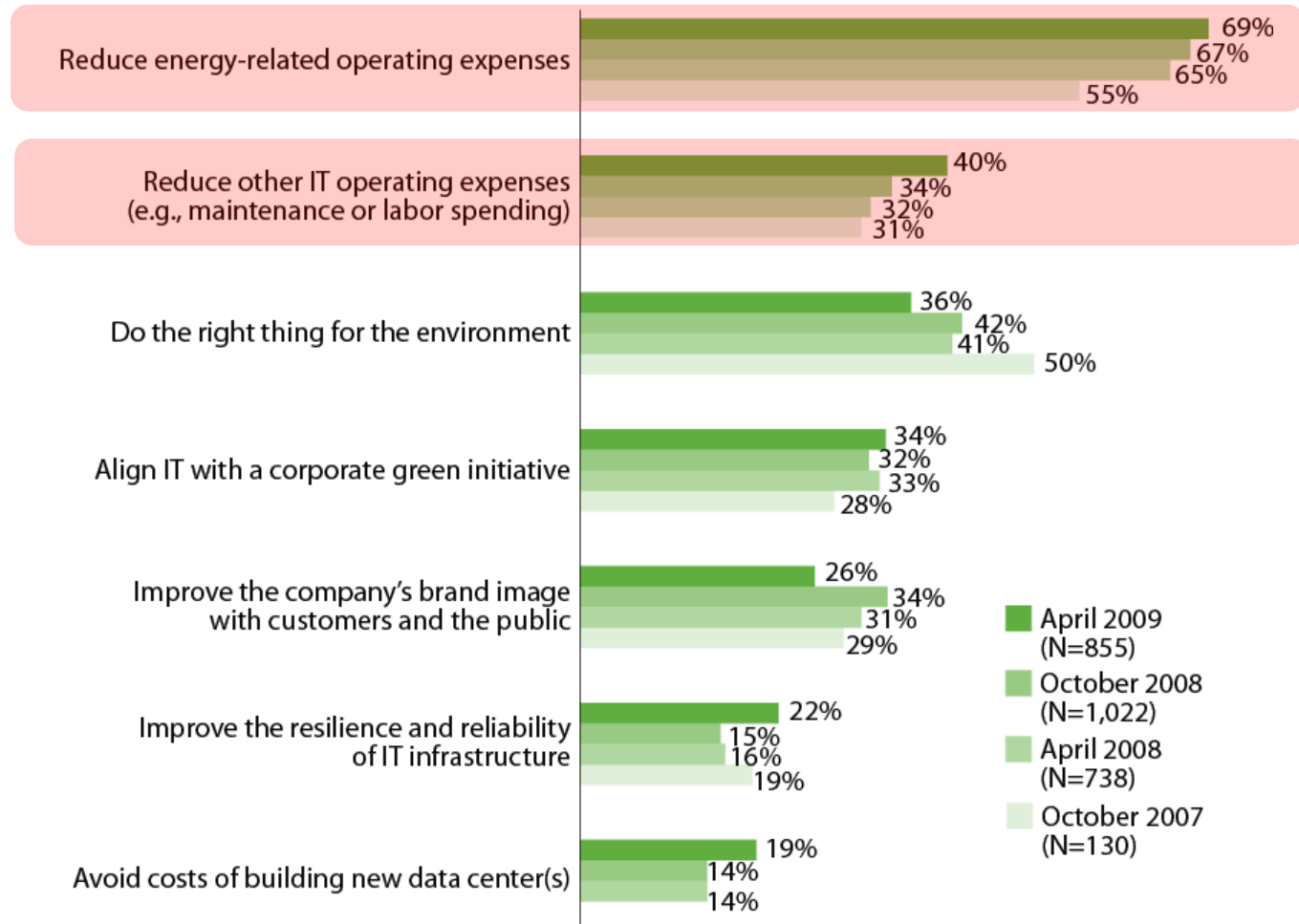


Base: IT professionals
(percentages may not total 100 because of rounding)

Source: Global Green IT Online Surveys, October 2007, April 2008, October 2008, and April 2009

Cost reduction and green IT go hand-in-hand

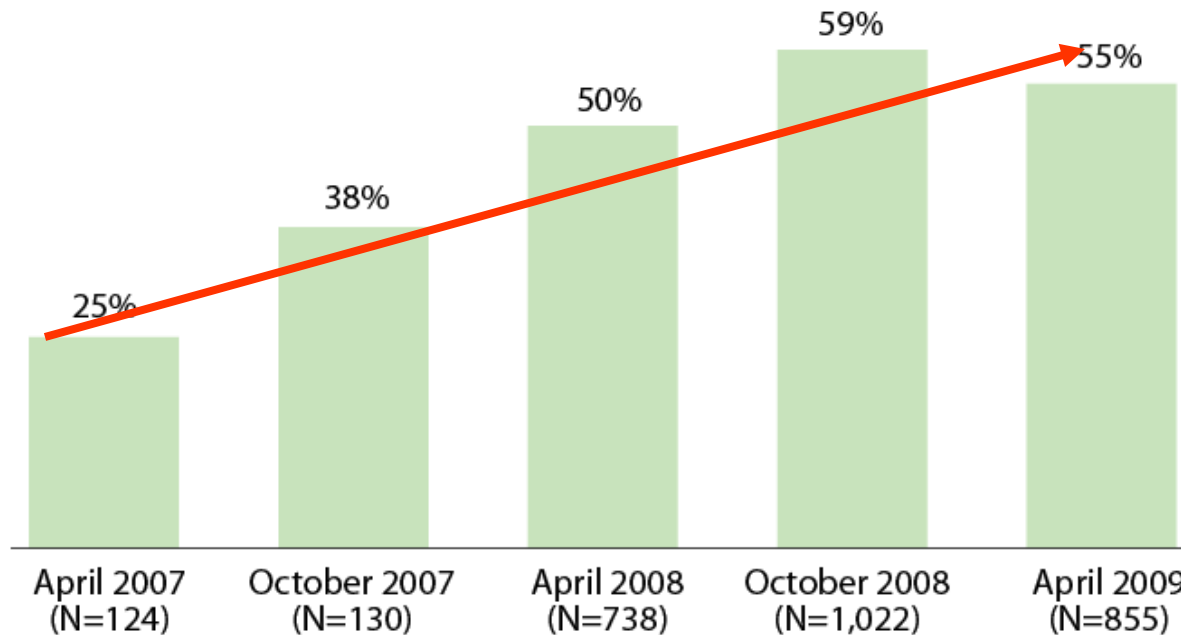
“What are your organization’s top three motivations for pursuing greener IT operations?”



More than 50% of IT organizations include green criteria in IT purchases

“Has your company included environmental criteria (greener manufacturing, operation, and/or disposal) in its evaluation and selection of IT purchases?”

Yes

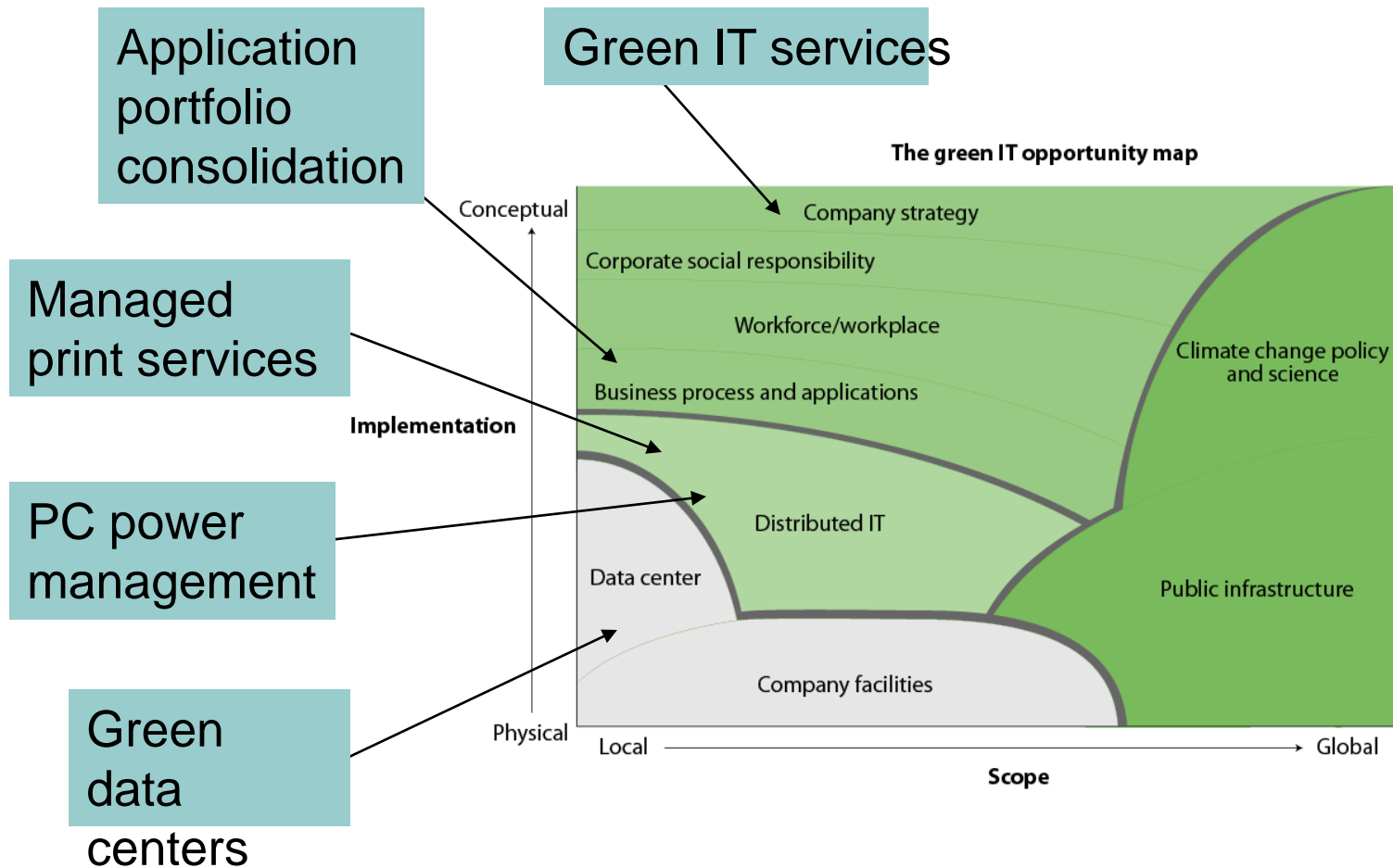


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Note: Responses do not include “no” and “don’t know.”


Mapping vendor opportunities in Green IT 1.0

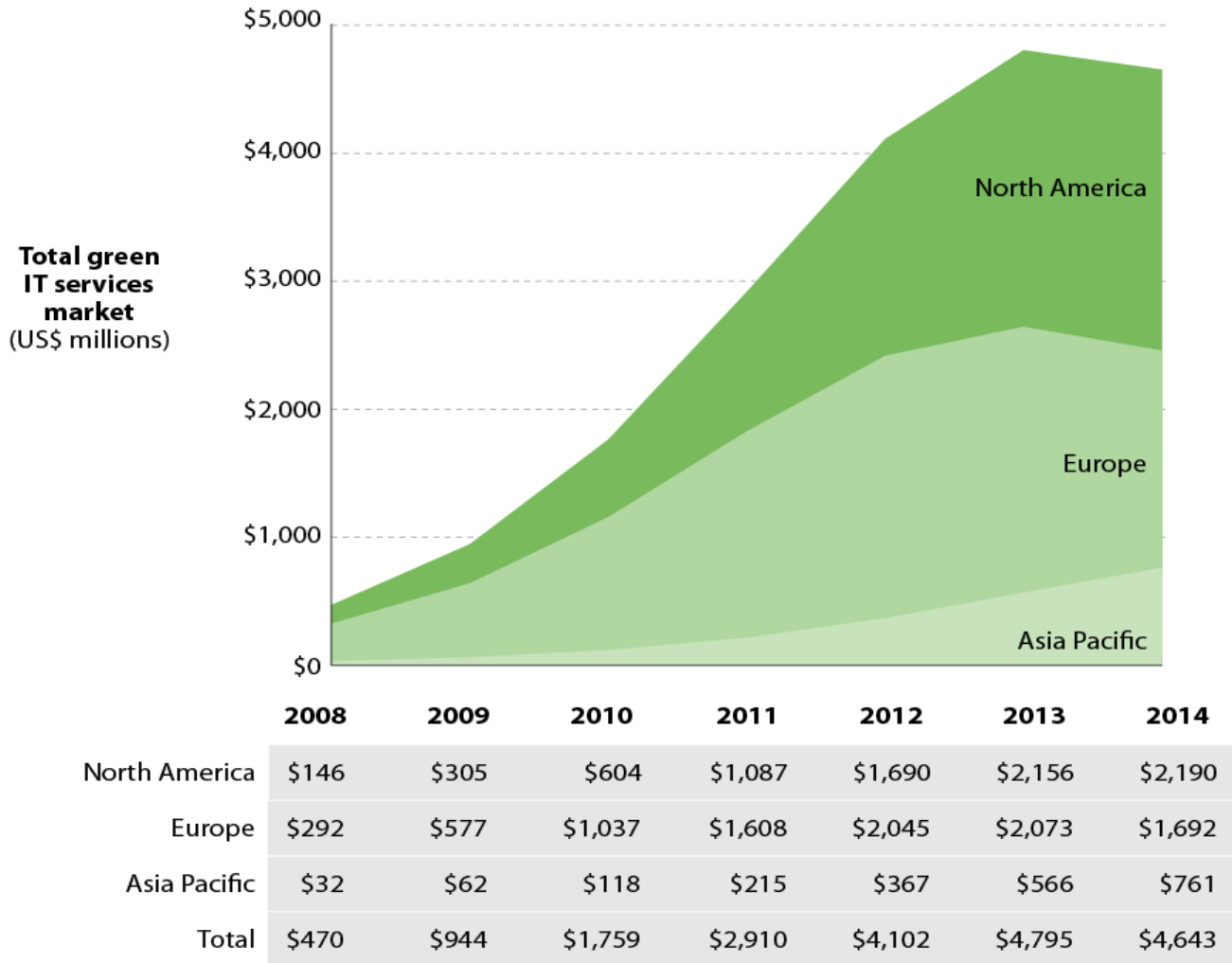


Examples of green IT software in action

Green software category	Used to...	Supplied by...	Customer results
Server virtualization	Consolidate infrastructure and save energy	VMWare Microsoft	Graybar Electric grew IT capacity by 35% with no increase in electricity consumption
Application portfolio management	Reduce computing infrastructure footprint	BMC CA Microsoft	Sprint saved \$20 million/year in energy and other operating costs
PC power management	Reduce power consumption of PC fleet	Verdiem 1e BigFix	US GSA saved \$50/PC/year by shutting down PCs during non-business hours
Remote collaboration	Cut emissions from employee commuting	Cisco IBM Microsoft	Sun's Openwork program saves 100 hours/year for each of 18,000 employees
Enterprise carbon & energy management	Monitor and reduce overall corporate energy consumption	CA IBM SAP SAS	City of Palo Alto cut carbon footprint by 5% in one year
Logistics optimization	Improve energy efficiency of transport and warehouse activities	HP Oracle SAP	UPS avoids \$12 million per year in capital expense using handheld devices for package tracking

Forecast: global Green IT services spending, 2008-2014

 The spreadsheet detailing this forecast is available online.



(numbers have been rounded)

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- The IT industry's role in environmental sustainability
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- **Opportunities in green IT 2.0**

Exploring Green IT 2.0

The next frontiers for green IT



Green IT 1.0: "Green for IT"



Data center and facilities

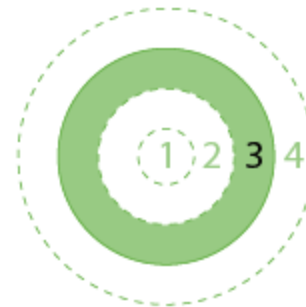
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Green IT 2.0: "IT for green"



Business process and strategy

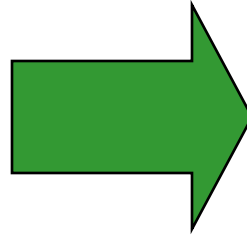
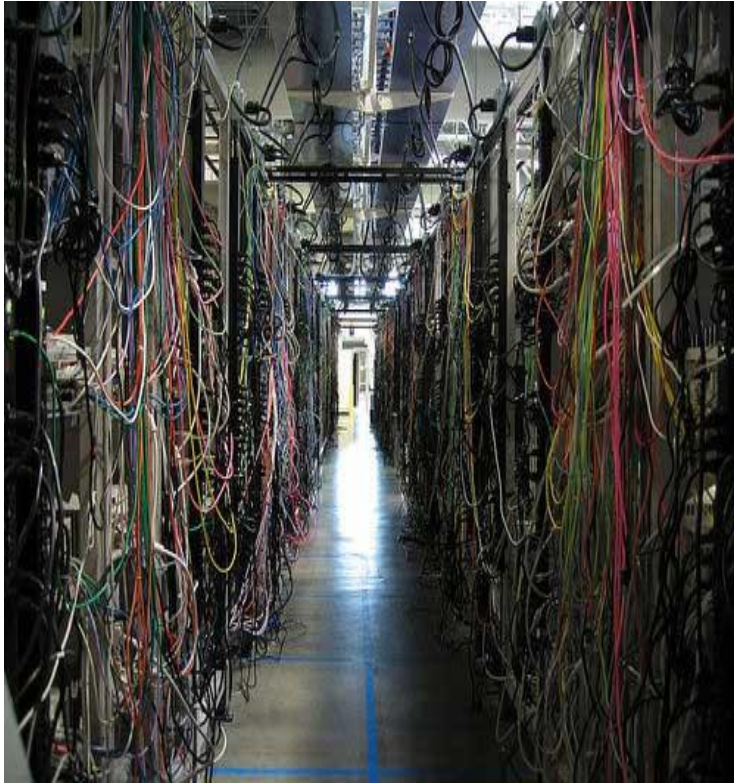
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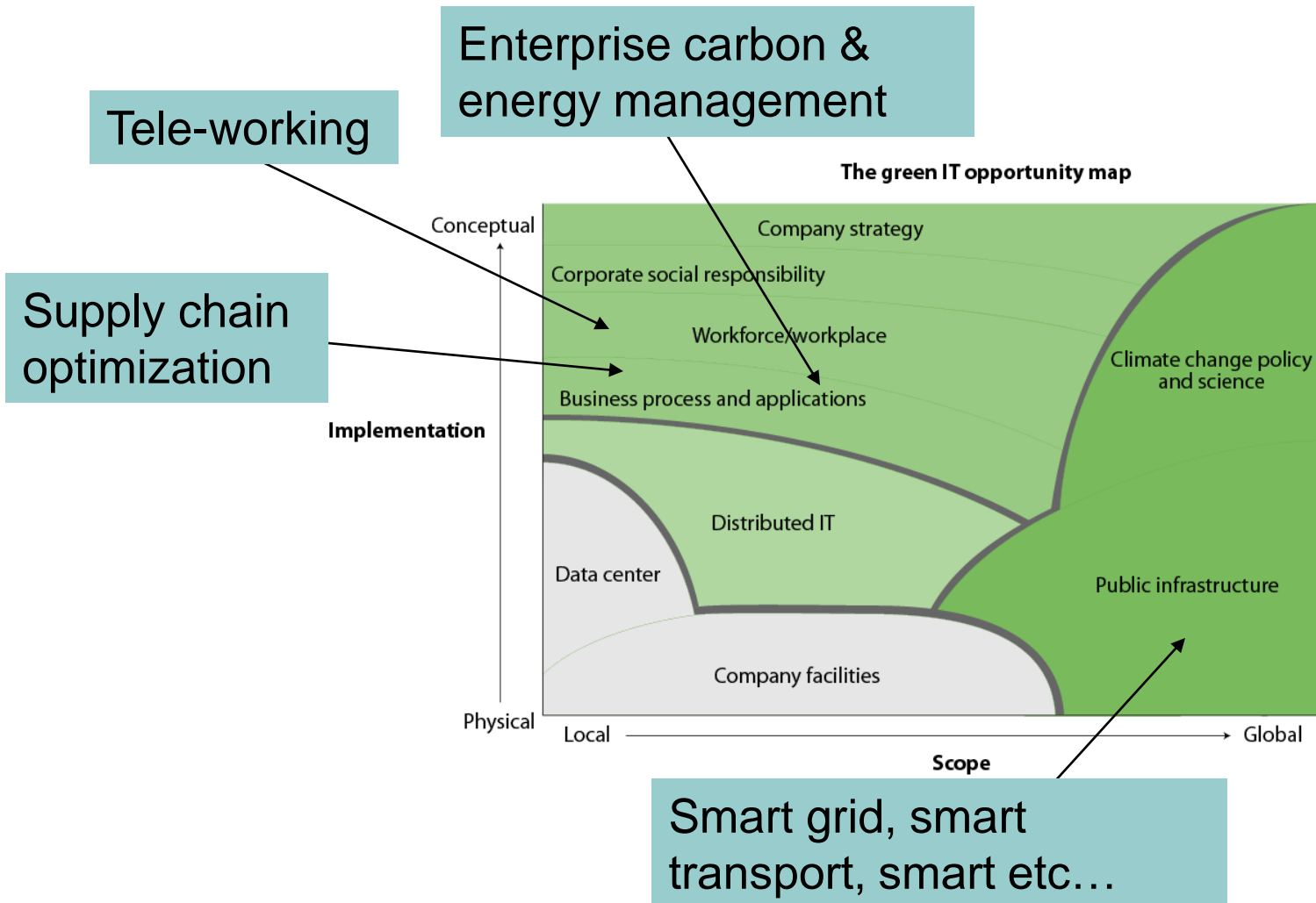
Public policy and infrastructure

- Smart grid
- Green cities
- Climate change policies

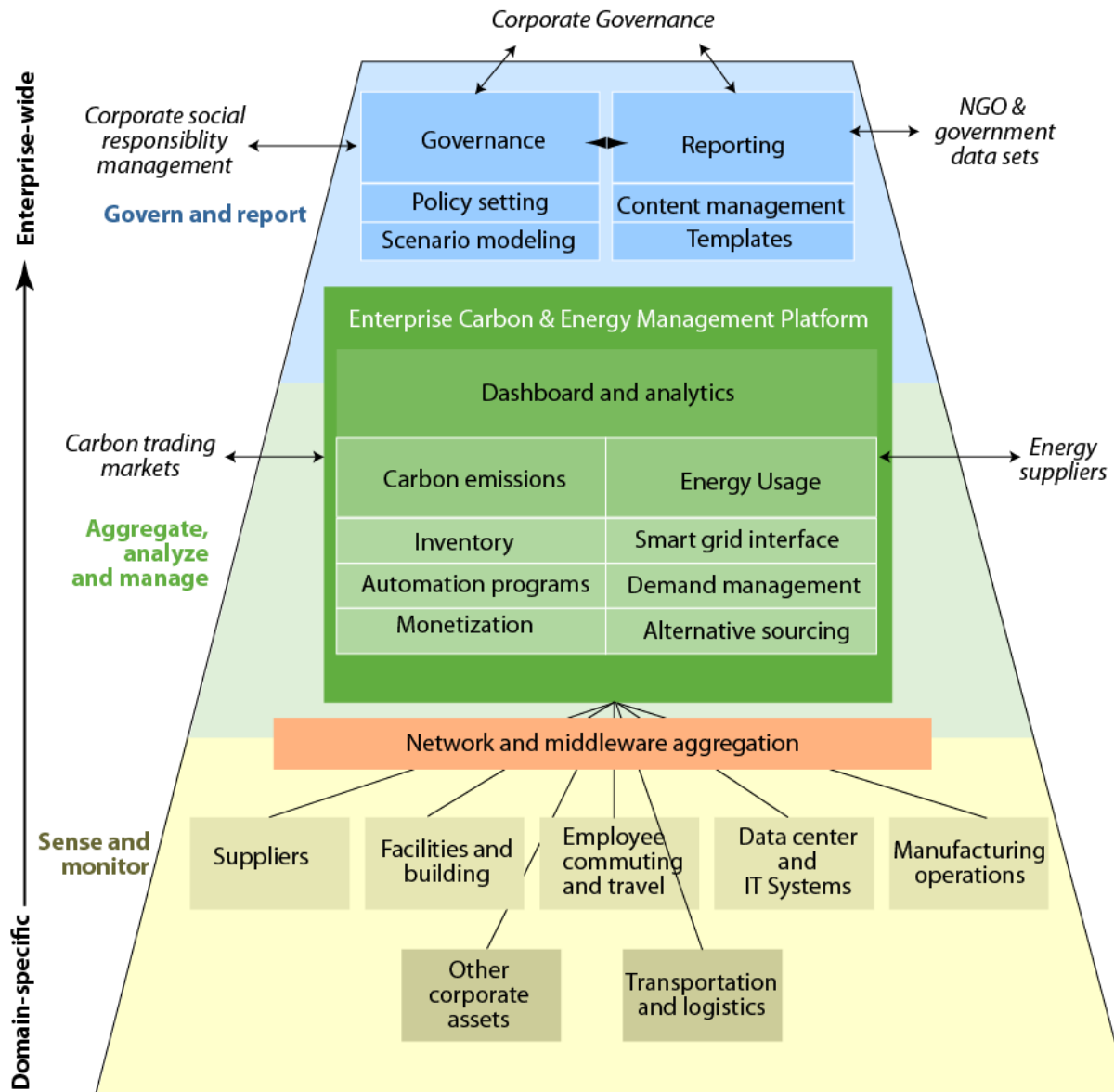
“There is too much to do just within IT!”



Mapping vendor opportunities in Green IT 2.0



The architecture of ECEM systems



Early adopters of ECEM software show results...

- A leading retailer redefines its brand
 - ECEM system helps **Tesco** back up its commitment to reduce carbon emissions by 50% in 2020.
- A local government cuts emissions and energy spending.
 - ECEM system helps the **City of Palo Alto** (CA) cut GHG emissions by 5% in 2009.
- A national government ministry acts as a role model.
 - The **UK Ministry of Defence** will put an ECEM system in place to monitor and report on its planned carbon emissions reduction of 30% by 2020.

IT must lead the business – and society – toward a lower-carbon future

- Implement collaboration & conferencing to cut commuting and business travel.
- Extend IT systems management into buildings and facilities.
- Help measure, model, manage, and report corporate environmental impacts.
- Identify and evaluate alternative energy sources and suppliers.
- Substitute IT infrastructure for carbon-intensive physical infrastructure, in:
 - Transport
 - Energy
 - Media
 - Retail
 - And other industries...



Summary

- Corporate sustainability, and green IT, are past the point of no return...even in a recession.
- The opportunities for green IT strategists are ripening, and getting more complicated.
- Even while executing on green IT 1.0 activities, get ready for the advent of green IT 2.0.
 - Start now to position your company to enable green initiatives across the enterprise.

Thank you!

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