

# IT for Sustainability – from Green IT to value-add for the business

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## Integrating environmental principles adds value beyond mere cost effectiveness

### Two Challenges Become One Opportunity...

Now that business survival has taken first priority, does the green agenda still have relevance?

→ Instead of separate financial and environmental strategies, they can drive each other.

### ...By Going Beyond Green IT

Can Green IT deliver more than simply cost effectiveness?

→ Yes, if you apply the principle beyond the IT platform to the total corporate infrastructure.

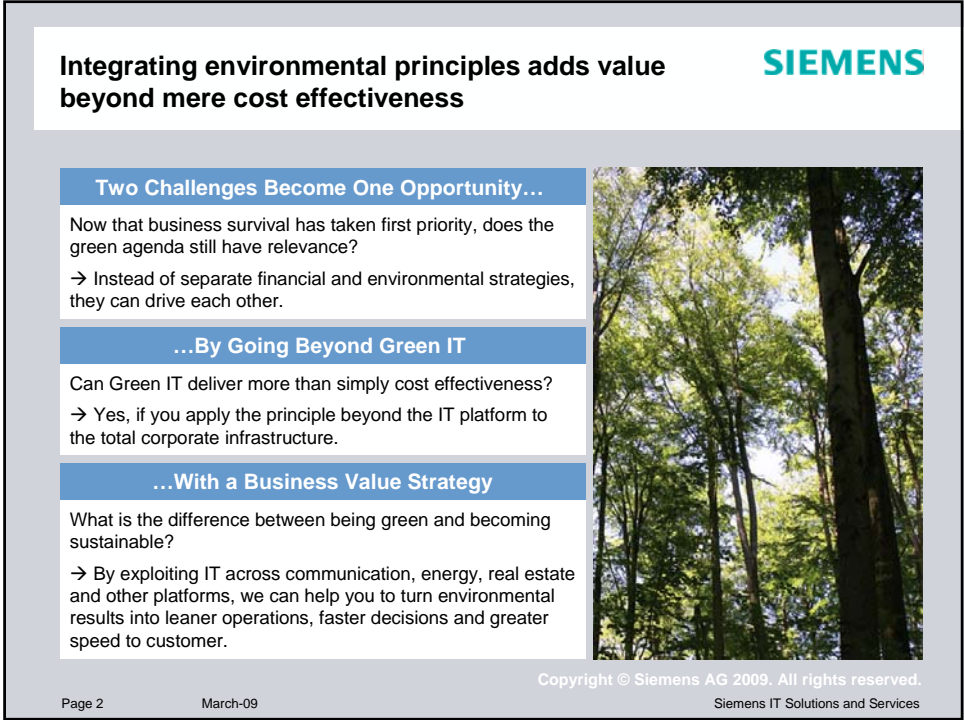
### ...With a Business Value Strategy

What is the difference between being green and becoming sustainable?

→ By exploiting IT across communication, energy, real estate and other platforms, we can help you to turn environmental results into leaner operations, faster decisions and greater speed to customer.



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**Siemens has built up the relevant competencies to address environmental sustainability**



|                                      |                                       |                                   |                               |                                       |
|--------------------------------------|---------------------------------------|-----------------------------------|-------------------------------|---------------------------------------|
| <b>Fossil Power Generation</b><br>   | <b>Renewable Power Generation</b><br> | <b>Power Transmission</b><br>     | <b>Power Distribution</b><br> | <b>Environmental Technologies</b><br> |
| <b>Healthcare</b><br>                | <b>Mobility</b><br>                   | <b>Solutions for Industry</b><br> | <b>Lighting (Osram)</b><br>   | <b>Building Technologies</b><br>      |
| <b>IT Solutions and Services</b><br> |                                       |                                   |                               |                                       |

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**Organizations are having to face new challenges**



|                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Energy costs volatility</b>                                                                                                                                                                                                                                                        | <b>Governmental targets</b>                                                                                                                                                                                                                  |
| <p>Electricity Prices Germany</p> <p>Source: VIK (Adapted)</p> <ul style="list-style-type: none"> <li>▪ Electricity prices volatility (Germany: +22% 2008)</li> <li>▪ Energy consumption increases (+7% China '07)</li> <li>▪ Crude oil price volatility (+400% 1996-2008)</li> </ul> | <ul style="list-style-type: none"> <li>▪ China: Reduction of 20% energy usage per GDP until 2010</li> <li>▪ India: Energy Conservation Act: Established standards</li> <li>▪ Germany: Increase energy eff. of new buildings (30%)</li> </ul> |
| <b>Your Industry</b>                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                              |

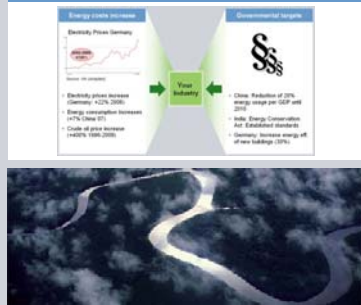
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## IT for Sustainability Engagement Model: helping organizations to deal with these new challenges

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### Trends & Challenges



### Basic steps to solve the problem

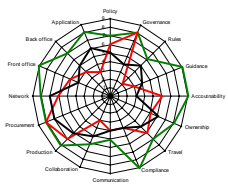
- Review where you are today
  - ▶ How high is your environmental impact?
- Determine where you want to go
  - ▶ What is a realistic optimization target?
- Determine the path and timeline
  - ▶ What should you do when?
- Start optimization projects
  - ▶ Implement technology

## IT for Sustainability Engagement Model consists of two main phases

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### Phase 1: Sustainability Health Check

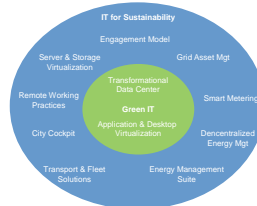
- Structured process using Q&A to determine the potential value of environmental measures to drive your economics
- The work is usually conducted site by site (with less than 1,000 employees: these are short (20 day) engagements)
- Integrates Siemens environmental capabilities
- Result: report with specific recommendations.



### Phase 2: Detailed action planning

- Using the Health Check analysis, a prioritised list of focus areas can be defined;
- Detailed analysis of areas of focus using existing offerings from Siemens IT Solutions & Services
- Integrates Siemens environmental capabilities

### IT for Sustainability Portfolio



## IT for Sustainability optimization process: Orientation phase

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### Customer requirements

- Establish the transparency of environmental impact
- Create a higher awareness
- Define focus areas for improvement
- Set out the strengths and weaknesses of management, working practices and equipment

### Siemens Solution: Sustainability Health Check

Structured and holistic approach to assess the maturity of management, working practices and equipment.

Features:

- 1-2 days on site
- 1-2 weeks for SHC report

Each category is assessed objectively and rated against a defined scale

### Customer Benefit

- Industry-specific benchmark of management working practices and equipment
- Realistic target setting
- Key action points for improvement

## The IT for Sustainability Engagement Model takes several different aspects into account

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### Questionnaire for Sustainability Health Check (Extract)

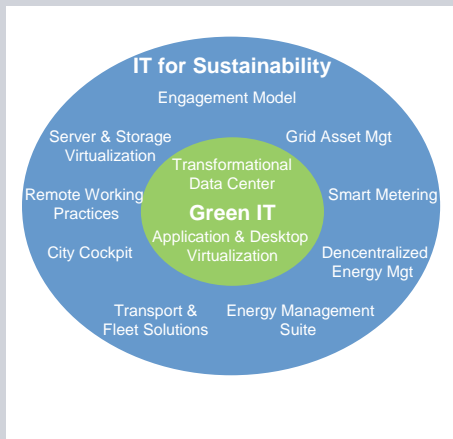
- Management practices
- Accountability
- IT equipment
  - Servers
  - Utilization
  - Data centers
  - Networks
- Travel
  - Travel mode
  - Management and policy
- Production
- Procurement
- Compliance

A report is produced which helps organizations to identify focus areas



- Sustainability Health Check Report (Extract)**
- Ranking of parameters in different categories:**
    - Management
    - Working practices
    - Equipment
  - Realistic energy optimization target**
  - Focus areas for improvement**

Applying green principles to each and every infrastructure within your organization



- Examples of customer references**
- Decentralized Energy Management Systems: SAPPI
  - Transport & Fleet Solutions: e.g. London Buses
  - Siemens Data Center: Beijing
  - Several energy efficiency examples in Siemens Data Centers e.g. ground water cooling in Perlach
  - Energy Management Suite: e.g. Vattenfall, EnBW
  - Smart Metering: E-Utile, A2A

## Conclusions

- Need to apply green principles to each and every infrastructure within your organization - from information and communication to energy, buildings, transport and beyond
- Green IT is just one part of an organisation's response and the measures need to be integrated into an overarching framework
- Improving the energy efficiency of the ICT infrastructure is important, but larger lever is the decoupling effect
- Evolution of term Green IT required (currently too hardware focussed)



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**Thank you for your attention!**