

Green IT

Do it for the money, if nothing else



by See-ming Lee 李思明 SML

LET'S MAKE SURE

Green IT

What and why?

LET'S MAKE SURE

Having reached heat densities far beyond historical high-water marks, customers and governments are setting demands on enterprises. This is a business opportunity.

Environment concerns IT:

- **Regulations** on the IT industry are multiplied
- **Operational excellence** and environmental care is two sides of the same coin
- **IT in Transport solutions** will help our customers in their environmental efforts
- Scientific models relies heavily on **IT for simulating** future scenarios



Green IT

The IT industry on pressure

Regulations are multiplying and have the potential to seriously constrain the set-up for data centers, as the impact on power grids, carbon emissions and other environmental impacts are under scrutiny.

The regulations concerns:

- Efficient power supply, **fan and cooling systems.**
- **Disposal** of monitors, mobiles etc including recycling.
- **Reducing power use.** Technology first developed for mobiles are now appearing for fixed equipment.



by [jon a ross](#)

LET'S MAKE SURE

Green IT

The IT industry on pressure

Regulations are putting pressure on the IT industry

- EC Directive on Waste Electrical and Electronic Equipment (**WEEE**)
 - updated in June 2006
 - probably further constraints for 2008
- **HIPAA** in US with guidelines similar to WEEE
- **SOx**. (Legal and financial risks with outdated solutions)
- **Chinese regulation** from 2006:
State Environmental Protection Administration of China for government purchasing.
- ...and **more to follow**...



by gundanik



Fujitsu Siemens "Green computers" is an example of how the IT industry reacts.

LET'S MAKE SURE

Green IT

Operational Excellence

Automotive processes and routines are hand in hand with environmental care. IT is an important tool for both giving internal efficiency, cost cuttings and environmental gains such as optimise resource flows, lower power usage, doing less waste, eliminate pollutions and so on.

Examples from Volvo:

- *Volvo emballage pool system* has grown from 19 to 42 million **reused packages** during the last five years.
- DMU – **Digital Mock-up** helped saving a whole test serie of S40/V50 development.
- **Simulations and calculations** eliminates wind tunnel tests and can optimise new powertrain base engines.
- **The argument "Environmental care"** could be even more motivating for organisations than 'only' cost cutting.

Green IT

Operational Excellence, much more to do

One example: SPRINT uses 300 A4 sheets per Volvo truck in production at EU, NA and Brazil, counting only assembly instructions. All together we produce 100000 trucks here, which means 30 million A4 sheets per year.



30 million A4 sheets translates to 2500 fully grown trees per year!



With **smart applications providing visualisation, interaction and feedback** we could replace paper usage and enable both increased quality and efficiency.

Green IT

Transport Solutions

The demands on Volvo's customers regarding environmental care are multiplying. This is a main challenge for the Automotive industry as well as a business opportunity.

- 2nd generation Telematic solutions for **Sustainable Logistics**
- **Fuel consumption** reductions
- **Life cycle management** and methods for **recycling**
- **Software downloads**, saving spare parts and transports
- Other environmental gains



Global warming - plan B

HikingArtist.com

LET'S MAKE SURE

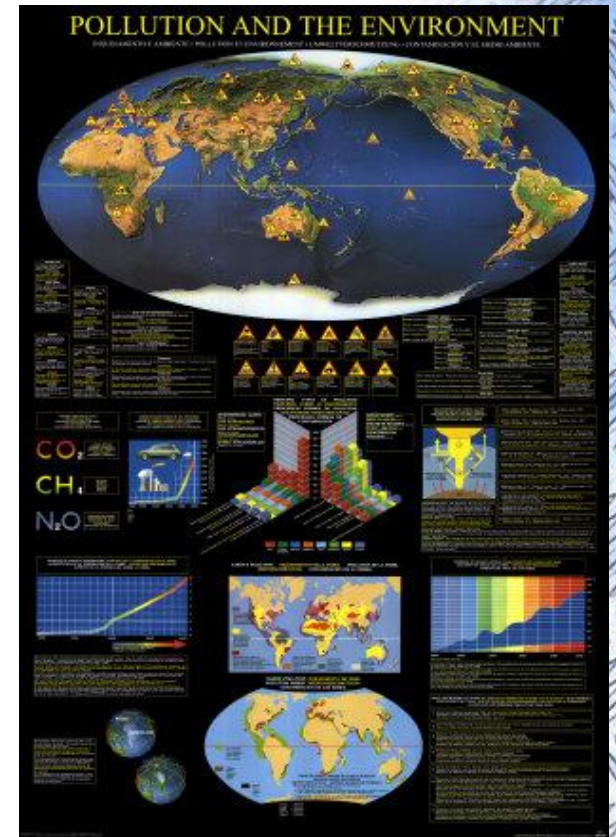
Green IT

Modelling

IT is absolutely necessary for scientific models of future scenarios. Both at industries and universities. Visualisation tools helps explaining complex relationships and vast data amounts.



Manhattan under water in a computer model of a future scenario



LET'S MAKE SURE

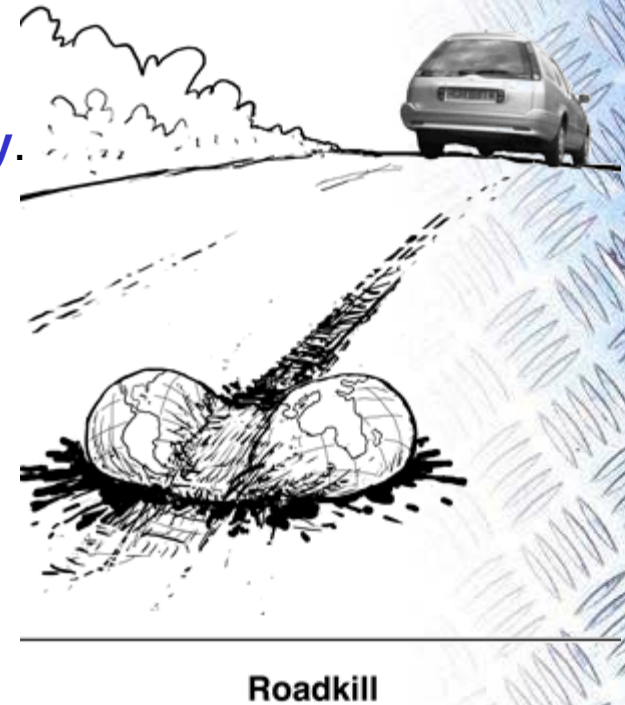
Green IT

Summary

Current situation offers great business opportunities to exploit our **corporate value on Environment!**

- **Regulations will put constraints** on data centers.
- Environmental care is a **potential business opportunity**.
- An opportunity to emphasize our **social responsibility** behaviour.
- **IT both enables and contributes** to solutions within this area.

Gartner rates “**Green IT and Power**” as one of top 10 disruptive technologies for 2007-2012: “Power-Related issues will increasingly influence business decisions.”



LET'S MAKE SURE