

Energy and Green IT

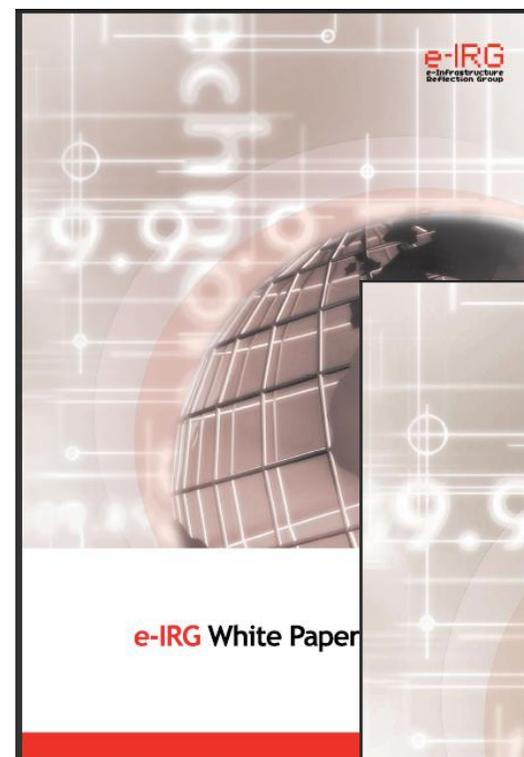
Summary

Norbert Meyer

Open e-IRG Workshop, Brussels, October 14, 2010

The White Paper 2010

- It will include the **GreenIT** issues
- Recommendations will be sent to the Commission and Member States
- Invitation to join the editorial team



Presentations

- **Energy Efficiency in HPC**
Radek Januszewski (PSNC, Poland)
- **PDC Power Efficiency Projects**
Daniel Ahlin (KTH, Sweden)
- **Energy and Green IT**
Rene Belsø (DCSC, Denmark)

The issues

- **The climate protection**
 - Reusable energy
 - Use it twice instead of putting in the environment
 - Decrease the heating
 - Decrease the CO₂
- **Decrease the power consumption**
- **The perspective of infrastructure providers**
 - **IT centres**
 - ESFRI communities
 - Other 'energy' customers



Green IT Solutions and Technology

- Commodity computing
- Higher scale of integration
- The **cpu** takes 'only' 40-50% of **total power**
- Management of power consumption on the software level

PRACE has made a good job in that area !

Green IT Solutions (cont.)

- Procure more environmentally friendly hardware
- Run at lower clock frequency
- Optimise cooling

- Share more, to get higher degree of specialisation and **utilisation**
 - **The same performance for less money and power**

Problems of DATA Centres

The **ELECTRICITY** becomes a critical problem for Data Centres

IT investment protection

- Electricity cost is higher and higher
- The big electricity consumers look for cheaper MWh
- Alternative electricity sources



Direction

YES

NO



by Rene Belsø



Energy and Green IT

- Green IT means
 - **to be more environmental friendly**
- The Energy problem and GreenIT do not have the same directions

GreenIT is a solution for 'Energy' but not in opposite way

Thank you!

Please join us !

To get in touch after this event:

Norbert Meyer, meyer@man.poznan.pl

Radek Januszewski, radekj@man.poznan.pl

