



Ministeriet for Videnskab
Teknologi og Udvikling

Action Plan for Green IT in Denmark

A green Government for a Green
Society, November 13, 2008

Marie Munk
Deputy Director General
National IT and Telecom Agency



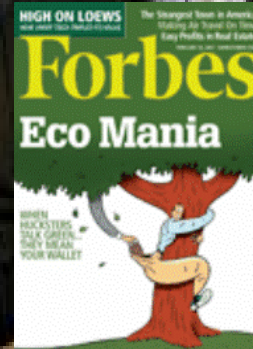
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Agenda

- Why green IT?
- The process in Denmark leading to the adoption of Action Plan for Green IT in DK
- The initiatives in the Danish action plan



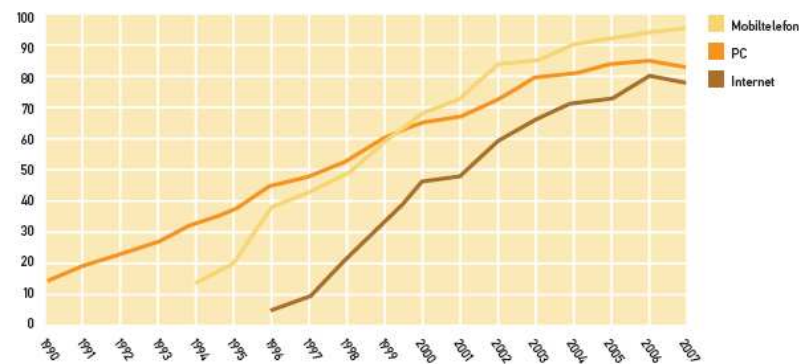
Green IT on the agenda





Why green IT?

- IT has revolutionised our opportunities for productivity, efficiency and communication – but has environmental consequences
- The research institute Gartner has estimated, that IT is now responsible for about 2% of the total global CO₂ emissions – equivalent to what the airline industry emits
- And IT power consumption and of IT products is increasing consumption



Figur 1: Familiernes besiddelse af varige forbrugsgoder 1990-2007. Kilde: Danmarks Statistik

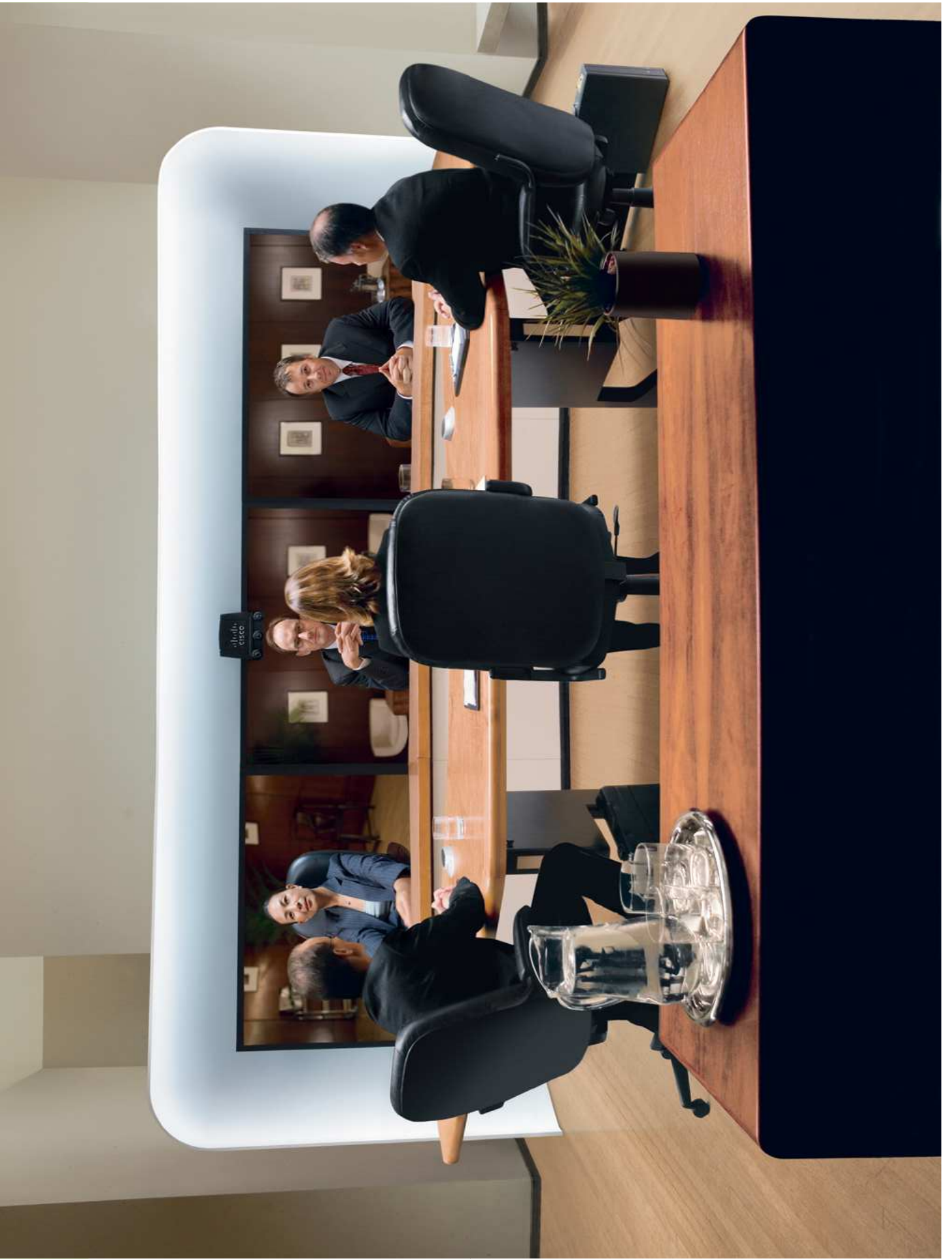




But IT is also a part of the solution

- How can IT contribute to a reduction of the general reduction of energy use (the remaining "98%")
- Innovative IT solutions can support a reduction of the CO₂-emission through, e.g.:
 - Electronic case and records management rather than "paper archives"
 - Intelligent control of lightning, air conditioning and other electronic equipment
 - Video conference systems rather than transportation, e.g...







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DECEMBER 25, 2006 / JANUARY 1, 2007 www.kem.gov.tr

TECHNICAL
PERSON OF THE YEAR

You.



Yes, you.
You control the Information Age.
Welcome to your world.





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Sun Ray 2
4 watts –
Less Energy
Than a Night
Light

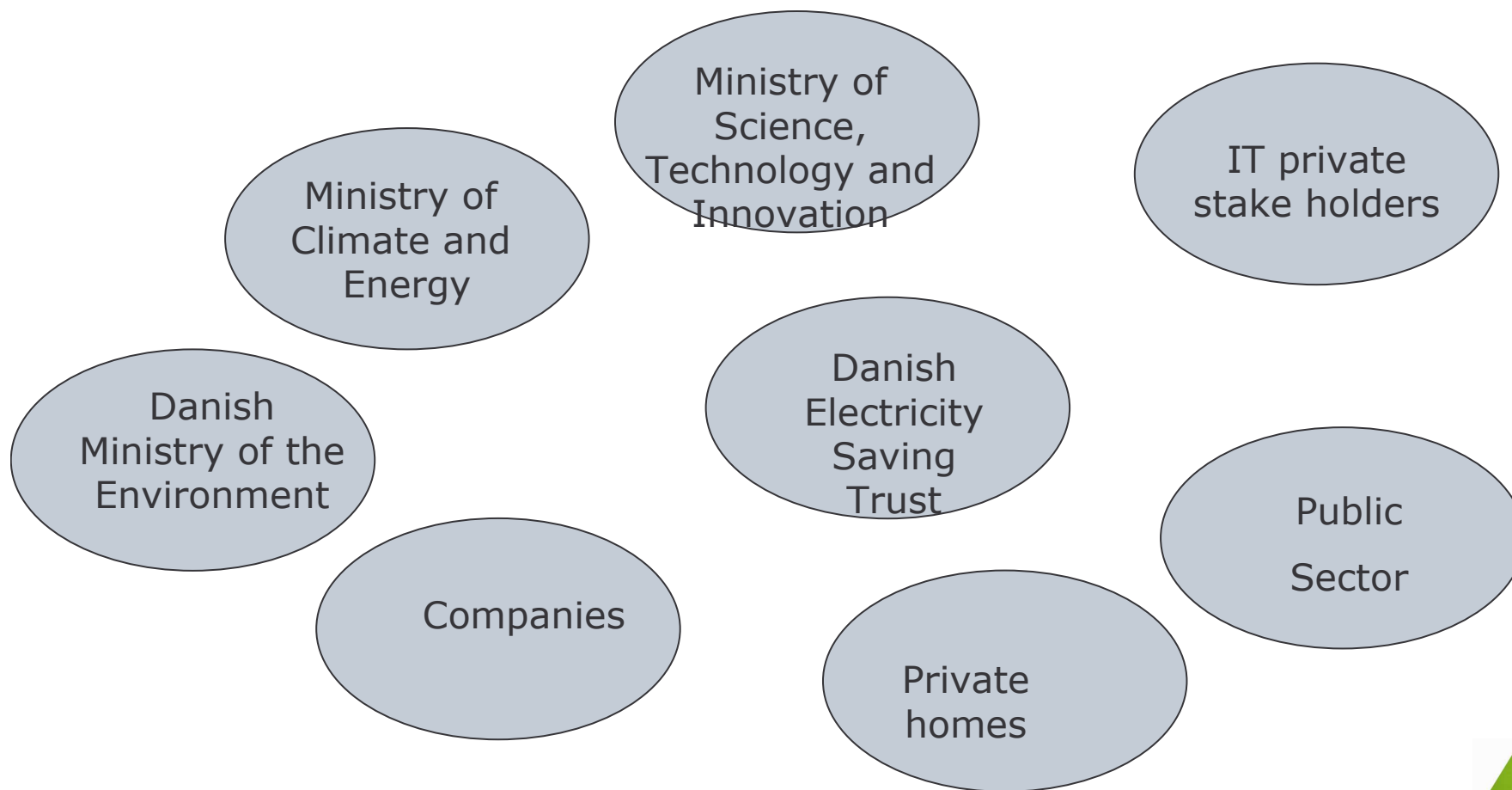




Action Plan for Green IT in Denmark



Many stake holders





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Action plan for Green It in DK

- Final action plan published 14 April 2008
- The action plan points forward towards the UN Climate Change Conference "COP15" taking place in Copenhagen in December 2009
- The objective for the 2009 climate conference is to reach an ambitious and global climate agreement for the period after 2012

Two main focus areas:

- 1. Greener IT use (the "2%").
- 2. IT solutions for a sustainable future (the "98%")



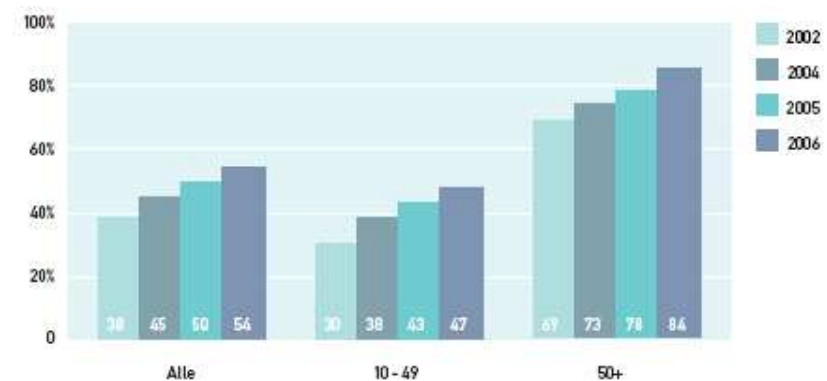
A photograph of a dandelion seed head in the lower-left corner, with several seeds blowing away towards the upper-right against a clear, bright blue sky. The text 'Initatives in the action plan' is overlaid in white on the right side of the image.

Initatives in the action plan



Initiative 1 – Focus on companies

- Corporate IT use must become greener.
 - Together with the IT industry it is the goal of the Ministry of Science to collect and demonstrate best practice which can make the IT use in Danish companies more efficient and environmentally friendly
 - Catalogue of best practices which can be used by companies wanting a greener profile in their use of IT
 - Focus on financial savings, environmental gain and the possibility for a stronger CSR-profile



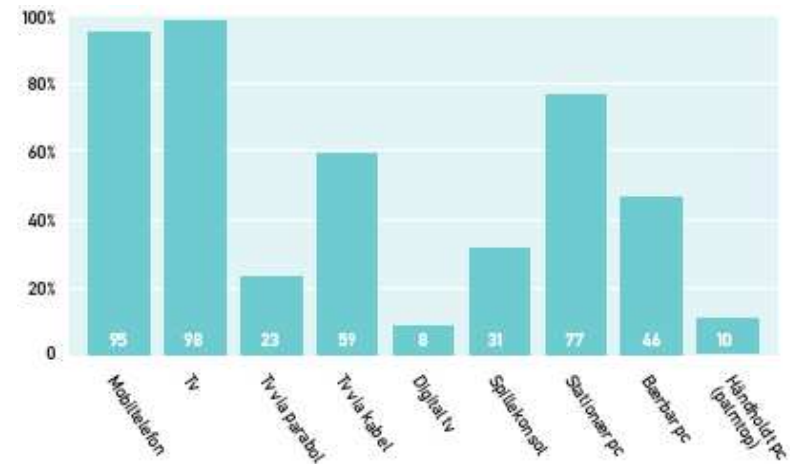
Companies' use of home offices in recent years, respectively. 10-49 employees, 50+ employees and all.





Initiative 2 – Focus on children and youth

- Green IT information campaign
 - Children and youth comprise the largest group of private IT consumers, and is simultaneously the group, fastest to acquire new technology
 - Children and youth are “digital natives” – they have grown up in a world with digital technology.
 - Targeted information on green IT through computer games and digital communities



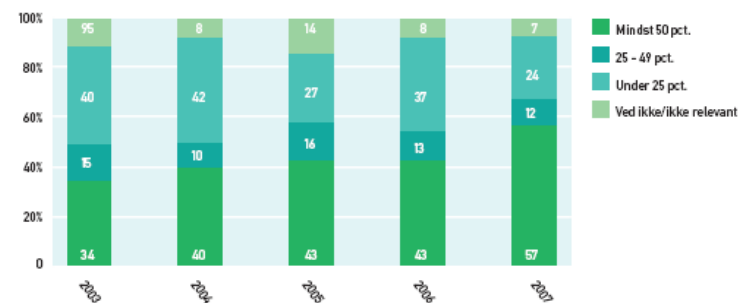
The population's access to different technologies





Initiative 3 – Focus on the authorities

- Guideline to green IT in public authorities
 - Public authorities must be in the lead in using green IT solutions – green IT must be integrated part of their IT strategies in the future
 - Development of guidelines to help public authorities establish requirements for green IT solutions
 - Focus on the use of “thin clients”, power saving equipment, procurement of IT and software, home offices, electronic case and records management, etc.
 - A particular focus on servers as the major energy consumers and how to establish energy friendly server rooms



Cases handled electronically in Danish public authorities 2003-2007.





Initiative 4 – Focus on consumption

■ Knowledge base for energy- and CO₂ accounts

- Citizens, companies and public authorities must be able to get an easy overview over power and CO₂-consumption when using IT
- Guidelines for how to calculate CO₂ consumption
- Advice on how to save power and CO₂



The homepage of the Danish Electricity Saving trust (www.elsparefonden.org).





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Initiative 5 – Focus on research

- Research in green IT
 - Denmark must develop its strong position in the field of environmental technologies by strengthening research in green IT
 - DKK 36 million (US\$ 7.5 million) is allocated to research in green IT, “pervasive computing” and digital public service delivery
 - The funds shall strengthen both main focus areas – the development of environmentally friendly IT solutions AND research in intelligent IT solutions lowering energy consumption in other sectors





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Initiative 6 – Focus on export

- Export of green IT know-how and technology
 - Many countries are advancing rapidly in IT use, but incorporate to a lesser extent environmental considerations in their use
 - Denmark has major opportunities for exporting knowledge and technology on green IT
 - The Ministry of Science will launch an export and expertise campaign focusing on the Asian countries, among others India and China, where the IT development is growing rapidly





Initiative 7 – Focus on the world

- International conference on green IT
 - Denmark wants to contribute putting green IT on the global climate agenda by organising an international conference on green IT in the first half of 2009
 - The conference will work as a laboratory for knowledge sharing and innovation of green IT solutions
 - Workshop in 2008 in cooperation between the OECD and the National IT and Telecom Agency





Initiative 8 – Focus on ourselves

■ Green IT in the Ministry of Science

- Information to all employees on how to reduce power consumption and CO₂-emission in the daily work.
- The target is to reduce the power consumption by 10 percent annually towards the UN climate conference by complying with a list of “green objectives”

The Ministry of Science “green objectives” 2008:

- Prioritization of laptop and other energy saving computers instead of desktop computers in future procurements.
- Setting up AutoPowerOff plug banks in The Ministry of Science.
- 80 percent of all printers are switched off at night time.
- Carrying out a competition internally in the Ministry of Science about which divisions are able to reduce power consumption the most

- The Ministry of Science will be a front runner in the work with green IT solutions.





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Want to know more?

Measurement and strategy tools

www.klimakompasset.dk

www.savingtrust.dk

Action plan for Green IT in Denmark

www.itst.dk/regeringens-it-og-telepolitik/gron-it



Questions?

