



# ITU-T JCA on ICT & CC

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## EC Policy on ICT for Energy Efficiency and the ICT4EE Forum

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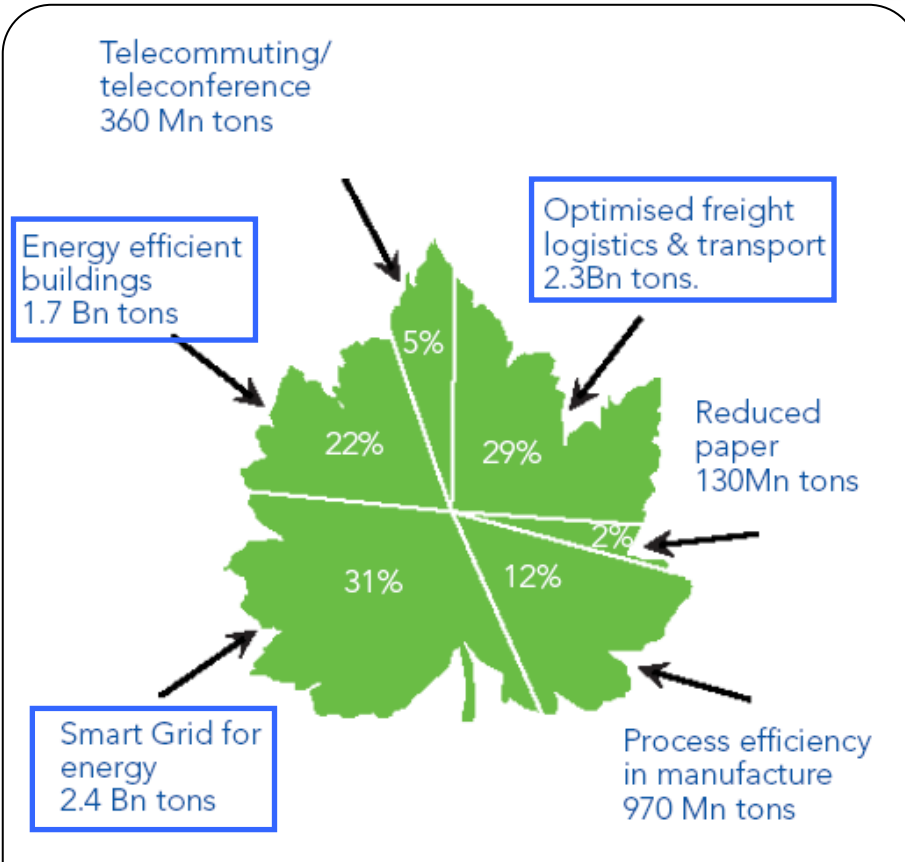


# Energy Reductions enabled by ICT



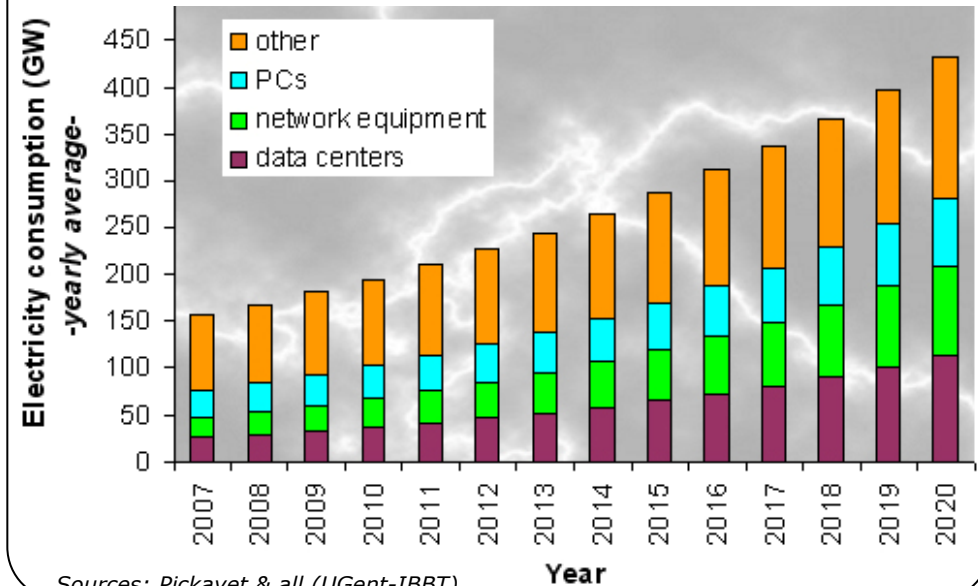
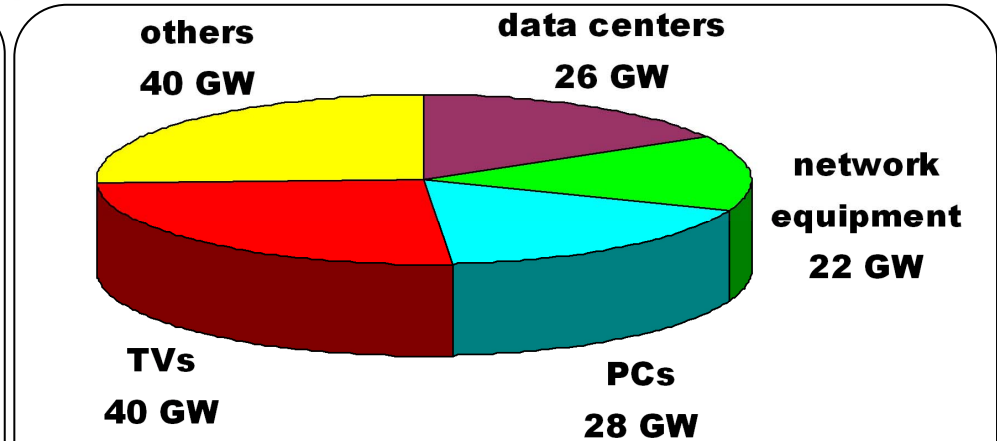
# Energy Consumption of ICT solutions

~8% of total electricity consumption  
~15% by 2020



By 2020, GeSI forecasts 15% global reduction in emissions by applying ICTs, some 7.8 Bn tons

Source: An ICT policy agenda to 2015 for Europe (Swedish Presidency)



Sources: Pickavet & all (UGent-IBBT)

# Can we *measure* the contribution of ICT?

We don't have a common understanding today of how to quantify energy efficiency / carbon emissions gains, in particular at the level of whole systems

**In the ICT sector today, carbon and energy accounting are based on different measurement methodologies, estimates and assumptions**

Consequences are:

- lack of reliable data
- targets set by individual organisations by cannot be compared
- best practices are not transferrable across the industry
- 'green' claims by the industry are spurious

***Until we have reliable data, we are all flying blind!***

**>>> Need a common framework to measure** *(like accounting standards)* **and evaluate gains** *(energy cost-benefit analysis)*

# Green ICT in EU Policy:

**“mobilising ICT to facilitate the transition to an energy-efficient, low-carbon economy”**



**EC Recommendation**  
adopted on October 9 2009



# Industry Response to the EC Recommendation: The ICT4EE Forum

## Focus Areas of the ICT4EE Forum:

- Measuring the Energy Efficiency of ICT Processes (WG1)
  - Methodologies, targets, reporting, auditing and verification
  - Deliver a **common energy performance measurement framework**
  - Adoption and implementation of the framework by individual companies of the ICT sector
    - *Companies should contribute from the beginning if they don't want others to define the measurement framework for them!*
- Enabling Energy Efficiency in other Sectors (WG2)
  - Transport & logistics, buildings & construction, energy supply

# Complexity

- Multiplicity of parallel initiatives on measuring energy/carbon impact of ICT:
  - Standardization: ITU, IEC, ISO, ETSI...
  - Independent: EC code of conducts, Green Grid...
  - International: Green IT Promotion Council, EPEAT...
  - Reporting: CDP, GRI, GHG Protocol Scope 3...

**The ICT4EE Forum is NOT *'just another initiative'* on the topic**

# Key EC Expectations from ICT4EE Forum WG1

- Do not reinvent the wheel, leverage international standardization effort
- WG1 should be an overarching initiative to:
  - Reconcile the various standardisation efforts and other initiatives to ensure **compatibility** and **consistency** of methodologies

1. Representation of the entire ICT sector from the beginning:
  - Very good participation from the telecom sub-sector
  - Large global players from the software & services business, IT equipment manufacturers, component manufacturers are getting on-board to contribute with relevant expertise
2. Definition of the scope of methodologies for measuring energy/carbon of ICT
  - Perimeter of the methodologies
  - LCA / Global Supply Chains / “Scope 3” emissions

# Key EC Expectations from ITU-T SG5 WP3/5

- Deliver the Methodology on Environmental Impact of ICT Goods and Services (including full LCA) by summer 2011
- Deliver the Methodology on Environmental Impact of ICT in Organizations by end 2011 / early 2012
- Develop the Methodology on Environmental Impact of ICT Projects by 2012 in collaboration with ICT4EEF WG2
- Have cooperation established at technical/operational level with other standardisation organizations, in particular IEC, ISO and ETSI
- Keep reporting on progress and drive coordination in the ICT4EE Forum WG1
- Attract non-telecom actors in the development of the ITU methodologies to increase chances of future adoption
- Ensure compatibility and coherence of the ITU methodologies with other methodologies necessary to do a complete mapping of the ICT sector's activities