Global e-Sustainability Initiative

A magnet for ICT companies that can provide solutions to climate change

Luis Neves – GeSI Chairman

About GeSI

- Formed in 2001, GeSI is a strategic partnership of the ICT sector and international organisations committed to creating and promoting technologies and practices that foster economic, environmental and social sustainability, and drive economic growth and productivity.

- GeSI allows members to share and develop ideas, to launch joint initiatives, and to collaborate on projects within and outside the ICT sector.

GeSI Vision

A sustainable world through responsible, ICT-enabled transformation.

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GeSI Mission

By 2014, GeSI is the recognised thought leader, partner of choice and proactive driver of the ICT sustainability agenda as measured by development and use of its tools, broad member base and contribution to relevant policies.

Membership and Partnerships

Members

Partners

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Scope of Activities

- GeSI's work focuses on several key areas:
  - Supply Chain
  - Energy Efficiency
  - Climate Change
  - Public Policy
  - e-Waste

Supply Chain

- **Promoting good conduct and developing tools, management practices and processes to deal with CSR risks in the ICT supply chain.**

    1. **E-TASC (Electronics- Tool for Accountable Supply Chains)**
        - Tool for ICT companies to manage corporate responsibility throughout their supply chain.

            http://e-tasc.achilles.com/

    2. **Conflict minerals**
        - Initiatives to make the sourcing of minerals in the ICT supply chain more transparent and traceable.

            http://www.conflictfreesmelter.org/

    3. **Learning and capability building**
        - Training and materials to increase awareness of social and environmental issues in the ICT supply chain.

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Energy Efficiency

Mission of the EEWG

define high level strategic actions focused on energy efficiency and general sustainability with the objective of accelerating the introduction of ICT practices and services addressing global sustainability.

The EEWG aims to:

1. promote and accelerate the market availability of more efficient ICT products, architectures and practices (from an energy efficiency point of view);
2. promote good conduct; share information; research solutions and develop and implement projects; management practices; processes; systems or new knowledge to assist each participant.
3. assist all players in eliminating duplication of efforts or divergences;
4. assist with filling in gaps in standardisation
5. improve/facilitate the cooperation and coordination among SDOs and forums;.

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Energy Efficiency

- **Developing common industry standards for energy efficiency.**

  1. Working on a methodology and appropriate KPIs to evaluate the energy efficiency of fixed access networks to supplement an existing methodology for mobile networks.

  2. Providing input to the development of standards for the common external power supply and universal charger.

Climate Change

- **Developing methodologies and standards to identify and measure the positive impact of ICT in reducing carbon emissions.**

  1. Collaborating with the Carbon Trust, WBCSD and WRI on an ICT sector guidance to the Greenhouse Gas Protocol Product Accounting and Reporting Standard to measure the carbon emissions of ICT products and services.

  2. Providing input to methodologies looking at the impact of ICTs on organisations, cities, individuals etc. developed in ITU-T Study Group 5.

Climate Change contd.

- **GeSI studies:**

  1. SMART 2020 (2008) identified the potential of ICTs to reduce global carbon emissions by 15%, worth EUR 600 billion by 2020. It examined the enabling impact of ICTs to reduce emissions in sectors such as smart motors, smart logistics, smart buildings and smart grids.

     www.gesi.org/ReportsPublications/Smart2020/tabid/192/Default.aspx

  2. **The follow-up ICT Enablement Methodology (2010) provided a framework to identify and quantify the benefits of ICT solutions in these sectors.**

  3. This year's study with the Yankee Group examines the energy reduction potential of online activities (e.g. e-commerce) enabled by broadband.

ICT Enablement Methodology

- Practical tool for stakeholders to assess carbon emission reductions stemming from ICT

- Provides a common yardstick for assessing not just the direct emissions of ICT solutions, but also their enabling effect

- Supplanted by concrete case studies showing the assessment tool in action

- Link: www.gesi.org/ReportsPublications/AssessmentMethodology.aspx

Public Policy

- **Engaging policy-makers to promote the role of ICTs in sustainability and the transition to a low-carbon economy.**

  1. Launched by GeSI at COP16, the *Guadalajara Declaration* stressed the strategic role that innovative ICT solutions can play in global climate change negotiations under the United Nations Framework Convention for Climate Change (UNFCCC).

     http://www.gesi.org/Initiatives/PublicPolicy/tabid/74/Default.aspx

  2. This year's *Low-Carbon ICT Leadership Benchmark* examines the extent to which governments have adopted low-carbon ICT solutions in climate change strategies. It will be accompanied by policy recommendations.

     http://www.global-ict-leadership.net/

Public Policy contd.

3. COP 17 – ICT coalition on Climate Change

- *At the 17th Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC) which will be held in Durban, South Africa, GeSI will engage in different activities aiming at promoting the role of ICT in reducing CO2 emissions*

- *Transformative Step of the Day is a partnership promoted by GeSI in cooperation with the UNFCCC, the ITU and the UNGC*

  in Durban on December the 5th GeSI will be launching this initiative which will be supported by an "app" application and   an on-line tool to highlight government leadership and best practices of the ICT industry towards mitigating climate change.

e-Waste

- **In partnership with Solving the e-Waste Problem (StEP), building capacity for e-waste management particularly in developing markets.**

  1. Organising an E-Waste Academy to share existing knowledge and research into effective e-waste management and regulation with policy-makers, recyclers and other stakeholders.

  2. Benchmarking countries' performance and identifying key success factors for e-waste management.

Contact details

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Energy Efficiency Working Group

Co-Chairs
Flavio Cucchietti (Telecom Italia)
Gilbert Buty (Alcatel lucent)

Luis Neves – GeSI Chairman

Reasons and Goals

Reasons

Deployment of broadband fixed & mobile networks (e.g. NGN) and ICT services (Data Centres) = increase of energy consumption

Fragmented actions on energy efficiency among different Standardisation Bodies/Fora

Environmental responsibility policies
Energy cost continuously growing, specific taxes included

Goals

Share critical issues among members and **agree on common solutions**

Define high level strategic actions towards Standardisation

Define high level analysis (evaluation of energy trends and KPI definitions)

Operational needs and Aims

Needs		Aims	
Equipment Consumption	Broadband fixed & mobile deployed networks, growing of energy consumption	**Simple KPIs**	Measure of energy consumption
Global Energy Consumption	Energy Efficiency among operational networking	**Global KPIs**	Monitoring of Energy Efficiency
Carbon & Energy Valuation	Environmental Responsibility & Additional Costs growing	**High level analysis**	Carbon & Energy translator tools

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Critical Areas

Area	Sub-Area	Description
Access	xDSL	Hundreds millions of xDSL lines to be deployed will have a great impact on the Operators' energy bills
Data Centres	Environmental Conditions IT equipment efficiency	Need for extension of temperature ranges, in order to allow energy saving and extend free/renewable cooling Need for improved IT equipment (less energy hungry); proposal for efficiency ranking
Core/Metro/IP	Switches and Routers	Energy optimized IP and LAN
Customer Networking	DSL NT/ONT STB and end user equipment Mobile phones	•The consumer has littlevoice on products.The energy saving policies must optimize both network AND user side. •Need for STB and End User Equipment with new power save functionalities •Need for eco-designed mobile phones
Efficient Cooling/ Environment Eqt	Cooling @ CO/IDC	Need to implement new solutions in order to reduce the impact of the cooling
External Power Supplies	Gateways and Routers	DSL and FTTH gateways will increase significantly in the next 10 years and it has been observed that the external power supplies of these equipment are typically different from Vendor to Vendor, and sometimes even from different models of the same category of the same Vendor.

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Working Methods

Situation	Risk	Decision
Specification Statement	Standardisation documentation survey	Standardisation Landscape Map (See next slide)
Gap Analysis	Risk of inconsistency	Action Points (AP)
	Lack of standardisation	
Action Point Operators/Vendors Common Position	Proposal of Technical solution	Proposed Common position towards organizations (Authorities/SDOs/Fora)
	Identification of target organization	
Action Point Order	Negotiation/Agreement on Technical solution	Common position implementation towards organizations (Authorities/SDOs/Fora)
	Agreement on Target organization	
AP Order Management	AP follow-up	GeSI general management & Carbon/Environment actions GeSI

Standardization Map