15th Symposium on ICT, Environment, Climate Change and Circular Economy

Session 2: Harnessing Data for Sustainable Digital Transformation

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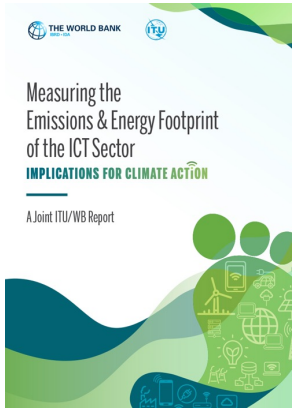
Greening Digital Transformation

Monitoring emissions, energy use and climate commitments of 150 leading tech companies via an **annual industry assessment report.**

Supporting **countries to monitor and track their ICT sector greenhouse gas emissions and energy use** by developing a methodology and database.

Supporting countries in **developing green ICT strategies and policies**, including through the provision of tools, resources and training.



Importance of data

- Increasing production and utilization of digital technologies lead to escalating energy consumption, especially in regions with limited energy resources.
- Precise estimates of GHG emissions from the ICT sector remain elusive compared to other sectors.
  - Estimates range from 1.5 to 4 per cent of global emissions, similar to the airline industry.
  - High-emitting sectors like transport, energy, and forestry have well-established measurement approaches guiding policy and mitigation efforts. Limited measurement of ICT emissions stems from historical priorities, data complexities, and relatively lower emissions.
- Lack of regulated GHG emissions and energy use tracking and reporting hinders the regulatory environment, policy making, target setting, and progress reporting.
- Rapid digitalization is changing this landscape, necessitating a shift in approach. To address these challenges and advance Green Digital Action launched at COP28, ITU is spearheading an initiative to gather and disseminate reliable data on GHG emissions and energy use within the ICT sector, encompassing both companies and countries.

Monitoring GHG emissions from the ICT sector – industry level

Monitoring emissions, energy use and climate commitments of 200 leading tech companies via an **annual industry assessment report.**

- The report jointly authored by the ITU and the World Benchmarking Alliance documents the **GHG emissions and energy use of 200 world leading digital companies**.
- Aligns with ITU's strategic plan's target to enhance the climate and environmental impact of ICTs, recognizing their contribution to global emissions.
- The report functions as a valuable tool that companies can use to gain insights from exemplary approaches. Enabling them to enhance their efforts in reducing emissions and expedite their progress towards achieving net-zero operations. Read the 2023 report here.

Greening Digital Companies 2023

Monitoring Emissions and Climate Commitments

Key messages

Authors: ITU and the World Benchmarking Alliance

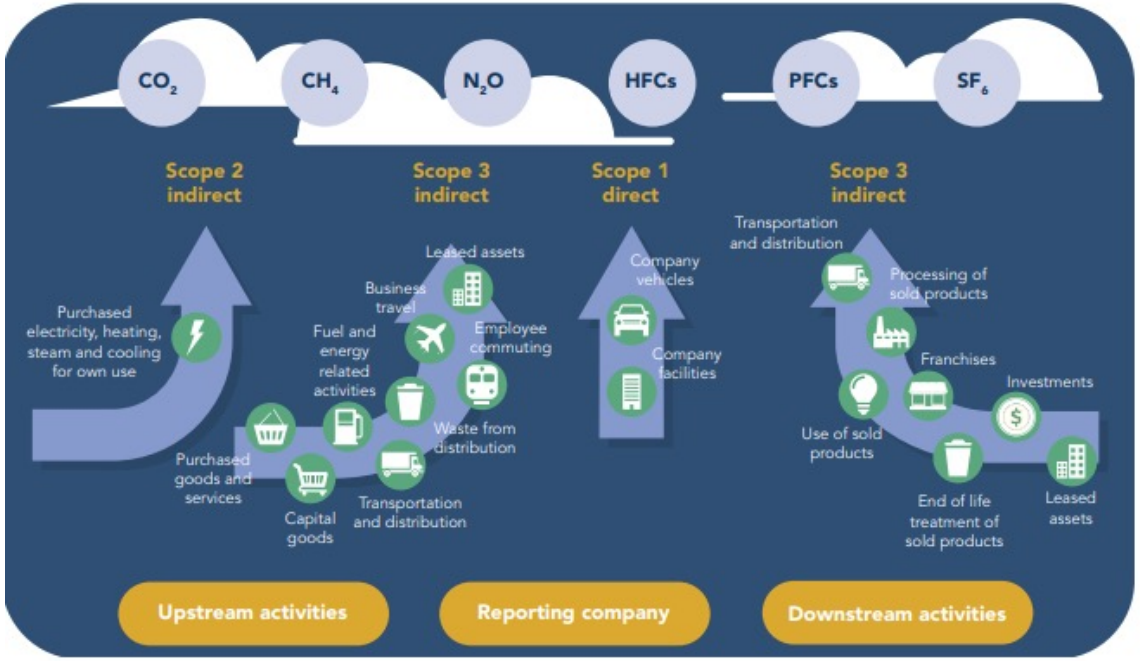
Reporting data

The GHG Protocol is a corporate accounting and reporting standard which companies can use to calculate carbon dioxide equivalent (CO_2e) emissions.

Scope 1 emissions result directly from the company operations.

Scope 2 refers to indirect emissions not controlled by the company.

Scope 3 refers to upstream and downstream emissions related to a company's activities.



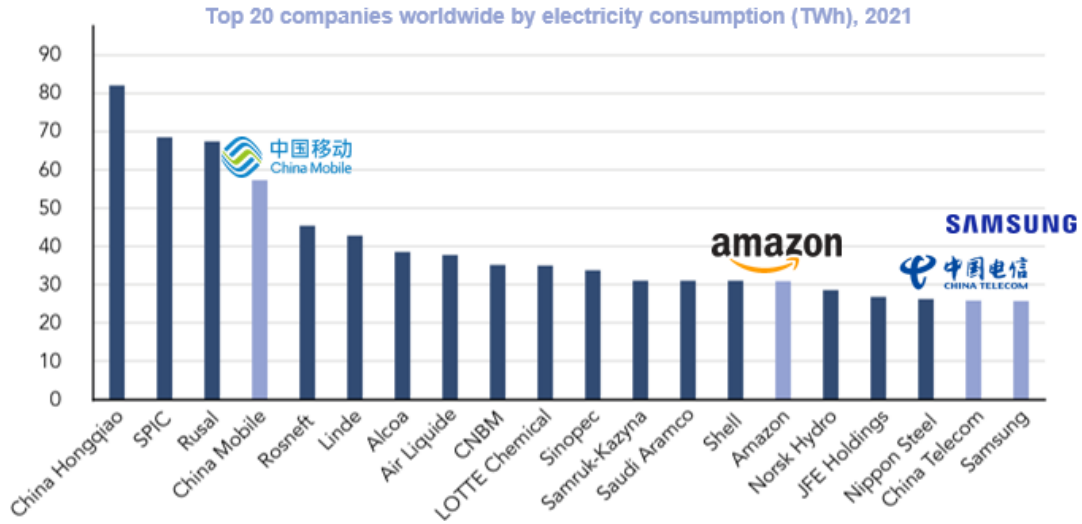
Assessment criteria

- **Performance**
  - Share of renewables in electricity
  - Carbon intensity
  - Scope 2 (market-based) to electricity use
- **Disclosure**
  - Scope 1 & 2 location-based and market-based when relevant
  - Scope 3
  - Scope 3 All relevant categories
  - Electricity
  - Renewable electricity
  - Dedicated report
  - Verification
- **Target**
  - Time-bound commitment to reduce emissions
  - Time bound, non-intensity target for Scope 3
  - Scope 3 target includes all categories
  - Target accepted by SBTi
  - Target approved by SBTi
  - Carbon neutral by 2030
  - Net Zero by 2040

Key messages

- Digital companies have the **potential to drive the low-carbon transition** through renewable energy purchases, carbon removal investments, and emissions reduction efforts.
- Digital companies are **leaders in procuring renewable energy**, accounting for 60 per cent of global purchases in 2021, fostering emissions reduction and renewable energy market growth.
- The growth rate of GHG emissions for these companies is declining due to greener energy grids but **electricity use is rising**, especially in data centers, which presents challenges.

In 2021, 4 digital companies were among the top 20 corporate consumers of electricity globally



Key messages

- The report highlights the importance of **data and monitoring and also verification and reporting transparency**: comprehensive Scope 3 reporting is crucial for assessing companies' full emissions footprint, encompassing supply chain and data center emissions.
    - Among the assessed companies, **140 report certain Scope 3 emissions** categories, while only 76 cover all relevant business categories.
    - **32 of the 200 companies undergo third-party verification of their GHG inventory**, improving verification will enhance transparency and accountability.
    - **Only 31 companies offer dedicated environmental reports or publicly accessible CDP disclosures**. Encouraging full climate data disclosure is crucial for enhancing reporting accuracy and transparency.

Key messages

- Top-performing companies like Apple and Swisscom achieved a perfect score of 9, with Alphabet, Elisa, and VMWare close behind at 8-9. **These leaders set benchmarks for climate transparency, verification, and emission reductions**, making the digital sector a potential global green leader.
- Notably, top performers (scoring 6.8 or 75%, see below) are all based in Europe or the US, signaling the need for companies from other regions to enhance their climate efforts.

Next steps towards Harnessing Data for Sustainable Digital Transformation

- Open data on ICT sector emissions can help inform policy actions and regulatory responses.
- Lack of regulated GHG emissions and energy use tracking and reporting hinders the regulatory environment, policy making, target setting, and progress reporting.
- Standardized approach to gathering data, collaboration with national ICT regulators.
- Development of a global GHG emissions and energy use database.
- Growing need to enhance skills and knowledge to support data collection and reporting.

Take action and learn more

Support the Calls to Action from the Green Digital Action launched at COP28 to driving the ICT sector's transition to net-zero.

Learn more about ITU's ICT sector GHG emissions work:

- Greening Digital Companies Report
- Scope 3 Guidance for Telecommunications Operators (L.Suppl.57)
- Recommendation ITU-T L.1470 - Greenhouse gas emissions trajectories for the information and communication technology sector compatible with the UNFCCC Paris Agreement
- ITU-D Climate Change programme

Green Digital Action

Thank you

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