

Greening Digital Companies 2026:

Key Highlights

I. Key takeaways

A. What are the main findings? What is the report/publication saying that is new?

- Launched at the Green Digital Transformation session of the World Telecommunication/Information and Communication Technology Policy Forum (WTPF) 2026, the 2026 report is the fifth edition jointly produced by ITU and the World Benchmarking Alliance assessing the climate performance of 200 leading digital companies.
- The central finding is a growing gap between climate ambition and delivery. Over five editions, corporate climate leadership has evolved from making commitments and purchasing renewable electricity towards demonstrating implementation and measurable emissions reductions. Companies continue to improve disclosure and target setting, but emissions performance is not improving at the same pace.
- For the first time in 2026, the report introduced the assessment of **climate transition plans**, shifting the focus from whether companies have climate commitments to whether they have credible roadmaps for delivering them. 81 companies (41%) have comprehensive transition plans covering all five core elements assessed in the report. Implementation across value chains remains much weaker than planning. Only 48 companies (24% of all 200 assessed) disclose active supplier-engagement measures, and just 26 companies (13%) combine a comprehensive transition plan with upstream and downstream value-chain coverage and active engagement with both suppliers and customers.
- AI-related growth is reshaping the sector's emissions trajectory. Expansion in data centres, cloud computing, high-performance computing, advanced cooling systems and semiconductor production is driving higher electricity demand. Among four major cloud and AI infrastructure providers examined, operational emissions in 2024 stood at 192-239% of their 2020 levels, compared with 89% for a group of 14 large telecommunication operators studied. The report does not attribute all this growth solely to AI since companies are not providing AI related breakdowns, while also recognizing AI's potential to enable wider climate action.
- The report highlights the growing importance of location-based emissions accounting.
- Value-chain (Scope 3) emissions remain the **sector's largest climate challenge.** Among the 93 companies reporting complete GHG inventories, **Scope 3 accounted for 76% of total reported emissions**, compared with 5% for Scope 1 and 19% for Scope 2 — more than three times operational emissions. Complete Scope 3 disclosure also declined, from **106 companies in the previous reporting cycle to 93 in 2024**.



- Electricity demand is large and highly concentrated. The 163 companies reporting electricity consumption used 494 TWh in 2024 — around 1.7% of global electricity consumption. The 10 largest electricity consumers alone accounted for 54% of reported electricity use.
- Digital companies remain among the world's largest corporate purchasers of renewable electricity globally; however, only 25 companies indicated sourcing 100% renewable electricity in this report cycle. The report places greater emphasis on the difference between contractual renewable-energy claims and the emissions associated with the electricity grids companies use. Among companies analysed with both measures, market-based Scope 2 emissions fell substantially between 2020 and 2024, while location-based Scope 2 emissions increased - reinforcing the importance of reporting both metrics and focusing on physical electricity-system decarbonization.
- Greater coordination between digital companies, governments, regulators, utilities and energy providers will be essential as AI and digital infrastructure expand. The report calls for digital growth to be aligned with clean-energy development, grid decarbonization and stronger value-chain action so that rising electricity demand does not undermine climate commitments.

B. How does it help stakeholders?

- Guides digital companies and policymakers with actionable, data-driven insights to help align digital transformation with global climate goals.
- The 2026 report data will be added to the ITU Greening Digital Dashboard following the report's launch, enabling stakeholders to track climate progress and identify gaps across the ICT sector.
- Supports national monitoring efforts through the ITU-D Expert Group on Telecommunication/ICT Indicators (EGTI) Subgroup on National GHG Emission Monitoring Indicators. Insights from this report directly inform the subgroup's work, contributing to improved national-level tracking of emissions.
- Equips regulators to monitor digital sector emissions at the national level and inform evidence-based policy development, and promotes stronger cross-sector and cross-regional collaboration.
- Strengthens ITU's country-level support via the Telecommunication Development Bureau (BDT), in line with the ITU Strategic Plan 2024–2027, which includes measurable targets for climate action.
- Contributes to the implementation of BDT's mandate (through WTDC Resolution 66 (Rev. Baku, 2025)) by strengthening transparency and accountability on the climate performance of the ICT sector, and report annually on progress.
- Advances ITU's Green Digital Action initiative, which encourages the development of low-carbon, circular digital economies and urges companies to disclose and reduce emissions.
- Aligns with the global climate agenda and with COP31 on the horizon, ITU calls on governments and industry to ensure that digital sector emissions are fully reflected in updated national climate pledges and adaptation strategies.

II. Key statistics[1]

A. Electricity, energy and renewable electricity

- 163 digital companies reported electricity consumption, collectively consuming **494 TWh of electricity in 2024** — equivalent to approximately **1.7% of global electricity consumption**.
- 167 companies reported total energy consumption (inclusive of electricity and other sources such as natural gas and diesel), amounting to 667 TWh in 2024.
- Electricity consumption is highly concentrated: the **10 largest electricity-consuming companies alone accounted for 54%** of all reported electricity use, despite representing only 5% of the 200 companies assessed.
- The combined electricity consumption of the top 10 companies (269 TWh) **exceeded the annual electricity consumption of Australia** (257 TWh), illustrating the scale of energy demand concentrated among a small number of digital companies.
- Companies headquartered in East Asia and the Pacific accounted for the largest share of electricity consumption (289.3 TWh), followed by North America (189.6 TWh). Together, these two regions represented more than 80% of reported electricity consumption. There is a strong regional clean-power disparity so location and gird decarbonization are important: companies headquartered in East Asia and the Pacific accounted for only 19% of renewable electricity, versus 68% in North America and 69% in Europe and Central Asia.
- Across reporting companies, **renewable electricity accounted for 45%** of total electricity consumption, while 55% remained non-renewable.
- **145** companies disclosed their renewable electricity share. Among them, **48 companies** sourced at least **80% renewable electricity**, while only **25 companies (13% of all assessed companies)** reported sourcing **100% renewable electricity**.
- Renewable electricity adoption varies considerably across ICT subsectors. **IT software and services companies** reported the highest renewable electricity share (**79%**), followed by **electronics manufacturers (36%)** and **telecommunication companies (23%)**, reflecting differences in business models, infrastructure and renewable energy procurement opportunities.
- The rapid expansion of **artificial intelligence (AI)** and data centre infrastructure is accelerating electricity demand, making renewable electricity procurement and clean energy strategies increasingly critical to limiting emissions growth across the ICT sector.

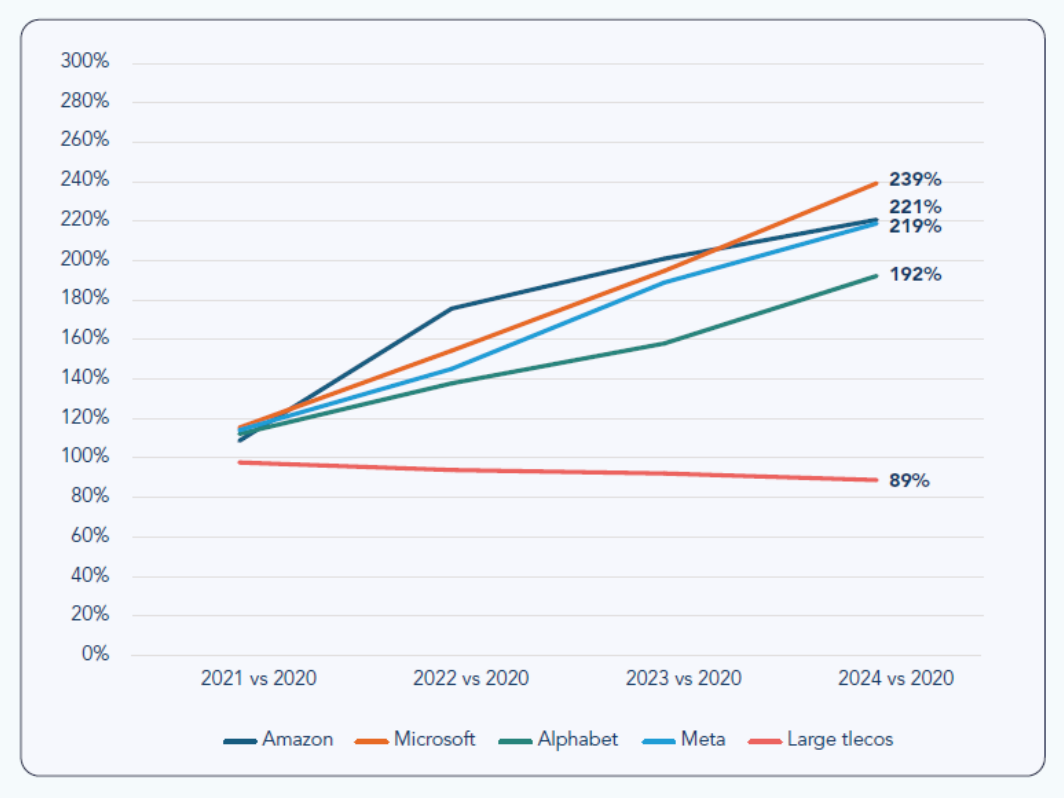
B. Emissions remain high as artificial intelligence (AI) related infrastructure increases electricity demand

- Operational emissions nearly doubled or more among leading AI providers (Figure 1), compared to their 2020 levels:
    - Microsoft: 239% of 2020 levels
    - Amazon: 221% of 2020 levels
    - Meta: 219% of 2020 levels
    - Alphabet: 192% of 2020 levels

[1] *The Greening Digital Companies report is based on the most recent full fiscal year for which consistent publicly available data can be obtained across all companies – currently 2024 – which is reflected in the key statistics here.*

- Over the same period, operational emissions among major telecommunication operators **declined to 89% of 2020 levels**, illustrating the diverging climate trajectories between AI-driven infrastructure providers and network operators.
- The rapid expansion of AI infrastructure is fundamentally changing the ICT sector's climate challenge. Future emissions reductions will depend not only on greater renewable electricity procurement, but also on the pace at which electricity systems themselves are decarbonized.

Figure 1. Trajectory of operational emissions (including location-based Scope 2 emissions) among Amazon, Microsoft, Alphabet and Meta, compared with large telecommunication companies, indexed to 2020 levels, 2021-2024



C. Climate disclosure continues to improve, but transparency gaps remain

- **89%** of assessed companies (177 of 200) disclosed **Scope 1 greenhouse gas (GHG) emissions**, demonstrating that operational emissions reporting has become standard practice across the digital sector.
- **81%** of companies (162 of 200) reported **location-based Scope 2 emissions**, while **69%** (138 of 200) reported **market-based Scope 2 emissions**, highlighting the continued importance of reporting both metrics to better understand actual electricity grid dependence and the impact of renewable electricity procurement.
- **47%** of companies (93 of 200) disclosed emissions across **all relevant Scope 3 categories**, and the same proportion reported a complete GHG inventory covering Scopes 1, 2 and 3. Since Scope 3 emissions typically represent the largest share of a digital company's climate footprint, improving value chain disclosure remains a major priority. Despite wider progress, Scope 3 reporting got worse compared to results in last year's report where 106 companies disclosed all relevant categories.



- **84%** of companies reported **total energy consumption**, while **82%** disclosed **total electricity consumption**, indicating continued progress in energy transparency across the ICT sector.
- Only **13%** (25 of 200) reported operating on **100% renewable electricity** during the reporting year.
- **30%** of assessed companies published a **dedicated climate report**, demonstrating growing corporate commitment to transparent climate governance and disclosure.
- Only **25%** of companies obtained **third-party verification** of their GHG inventories, indicating that independent assurance remains an important area for improvement.

D. Operational emissions continue to rise

- The 200 assessed digital companies reported **301 million tCO_2e** of combined **Scope 1 and location-based Scope 2 emissions** in 2024 — equivalent to approximately **0.8% of global energy-related emissions**.
- Operational emissions **increased by 1.2%** compared with 2023 data cycle, demonstrating that emissions reductions are not yet keeping pace with the sector's continued growth.
- **177 companies** disclosed Scope 1 emissions, totalling **47 million tCO_2e**.
- **162 companies** reported location-based Scope 2 emissions of **245 million tCO_2e**.
- **138 companies** reported market-based Scope 2 emissions of **81 million tCO_2e**.
- Market-based Scope 2 emissions were 164 million tCO_2e lower than location-based emissions, illustrating the significant **impact of renewable** electricity procurement through instruments such as power purchase agreements (PPAs) and renewable energy certificates (RECs).
- **92%** of all reported operational emissions were generated by just **50 companies**, highlighting the concentration of emissions among a relatively small group of major digital companies.
- The **10 largest operational emitters** alone accounted for **163 million tCO_2e**, representing **54%** of all reported Scope 1 and Scope 2 emissions. These 10 also have no SBTi-validated target aligned with a 1.5°C pathway.
- Despite their significant emissions footprint, only **27 of the top 50 operational emitters** have adopted **absolute (non-intensity-based) emissions reduction targets**, highlighting a significant gap between emissions responsibility and mitigation ambition.

E. Scope 3 emissions remain the largest climate challenge

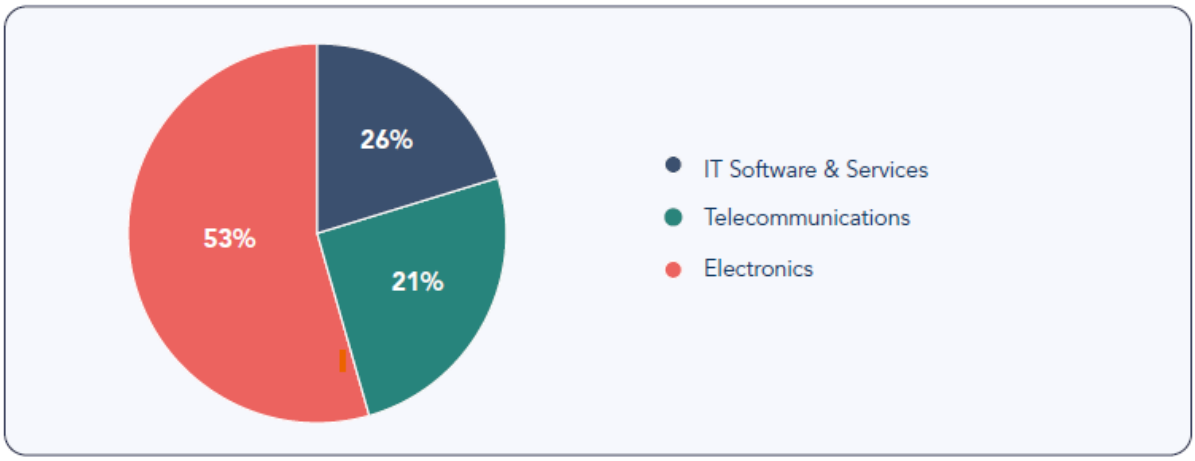
- **93 companies** disclosed emissions across **all relevant Scope 3 categories**, down from **106 companies** in the previous reporting cycle (Figure 2).
- These companies reported a combined **924 million tCO_2e** of **Scope 3 emissions**, showing that value-chain emissions remain the largest component of the digital sector's climate footprint.

Figure 2. Breakdown of 93 companies disclosing both operational (Scope 1 and 2) and indirect (Scope 3) emissions, 2024.48



- An analysis of the 15 GHG Protocol Scope 3 categories reveals a **pronounced concentration in two categories** together account for approximately **79% of all disclosed Scope 3 emissions**
    - **Category 11 (Use of Sold Products)** accounted for **529 million tCO_2e (52%)**, reflecting the electricity consumed by digital products throughout their lifetime.
    - **Category 1 (Purchased Goods and Services)** accounted for **271 million tCO_2e (27%)**, underscoring the growing importance of supplier engagement and supply-chain decarbonization.

Figure 3. Share of total reported Scope 1, location-based Scope 2 and Scope 3 emissions by ICT subsector



F. Science-based targets are becoming the norm — but major emitters still lag

- **76%** of assessed companies (**151 out of 200**) have established **near-term Scope 1 and 2 emissions reduction targets**, demonstrating that climate target setting has become standard practice across the digital sector.



- **114 companies** have **Science Based Targets initiative (SBTi)-validated** operational emissions targets. SBTi provides the leading global framework for companies to set emissions reduction targets aligned with limiting global warming to 1.5°C.
- Of these companies:
    - **85 companies (75%)** are **on track** to achieve their near-term targets.
    - **14 companies** are reducing emissions too slowly.
    - **14 companies** have seen emissions **increase or remain unchanged** since their baseline year.
    - **1 company** did not disclose sufficient information to assess progress.
- Among the 82 companies examined with SBTi targets and both Scope 2 measures, market-based Scope 2 emissions fell from 79.9 $MtCO_2e$ in 2020 to 36.3 $MtCO_2e$ in 2024, while location-based emissions rose from 79.9 $MtCO_2e$ to 89.5 $MtCO_2e$. Reported renewable-energy progress can mask rising emissions from the grids companies actually use.
- Despite widespread target setting, **only 4 of the 15 highest operational emitters** have validated science-based operational emissions targets, meaning that companies with SBTi-validated targets account for **less than 30% of total operational emissions** reported by the sector.

G. Net-zero commitments continue to expand

- **90 digital companies** have committed to achieving **net-zero emissions**; nearly **45%** of all net-zero commitments target **2050**.
- Among these companies:
    - **6** target **2030** (9 in last year's report)
    - **42** target **2040** (42 in last year's report)
    - **42** target **2050** (41 in last year's report)
- Electronics companies continue to demonstrate the highest level of long-term ambition among the three ICT subsectors.

H. NEW IN THE 2026 REPORT: Climate Transition Plans

The digital sector is shifting from target setting to implementation

For the first time, the report assesses whether digital companies have developed **credible Climate Transition Plans** that translate climate commitments into actionable roadmaps for achieving net-zero emissions.

- **Methodology:** The 200 digital companies were assessed as part of an evaluation of 2 000 of the world's most influential companies across sectors and jurisdictions using the ACT Core methodology. Based on this assessment, a proper transition plan is one that considers "actions taken within company operations and through their value chain," such as expectations on supplier emission reductions.
- **Result: 81 companies (41%)** have "comprehensive" Climate Transition Plans, which means **all five core components** (seen in Figure 4) assessed in this report are covered.



Figure 4. Transition plan components guided by the principles of ambition, action and accountability. Adapted from TPT disclosure framework.

Component	What it covers
Strategic ambition (foundations)	The overall strategic ambition for the transition of a company, including its commitments, priorities, and how the transition plan is embedded in its business strategy and planning processes.
Implementation strategy	The specific actions, policies, and portfolio and business model changes the company is taking or planning to deliver on its transition objectives, including capital allocation, product and service changes, and operational adjustments.
Engagement strategy	How the company works with value chain partners, industry peers, policy-makers, and affected stakeholders - including workers and communities - to support the broader transition.
Metrics and targets	The quantitative targets the company has set (apart from the GHG emissions reduction targets), the metrics used to track progress, and how these are aligned with its transition objectives and relevant science-based pathways.
Governance	The board and management structures responsible for overseeing and delivering the transition plan, including accountability mechanisms and how climate-related performance is linked to remuneration.

- **178 companies (89%)** disclose concrete implementation measures within their own operations, products and services, making implementation strategy the most widely reported component of transition planning.
- **65 companies (80% of those with comprehensive plans)** extend their transition plans to address **upstream value-chain emissions**.
- **64 companies (79%)** also consider **downstream emissions** within their transition planning
- **48 companies (60%)** describe **supplier engagement measures** aimed to reduce emissions across their suppliers, through:
    - Information collection
    - Engagement and incentivisation
    - Innovation and collaboration
- Only **28 companies (14%)** disclose **customer engagement measures** to reduce downstream emissions — even though **Use of Sold Products (Scope 3 Category 11)** represents the **largest source of Scope 3 emissions** across the sector at 52%.
- There is a gap between transition planning and actual value-chain engagement.
    - Only 26 companies (13%) combine a comprehensive Climate Transition Plan with upstream and downstream value-chain coverage with active engagement with both suppliers and customers.

I. Climate performance continues to improve across the digital sector

The 2026 assessment evaluates each company across **three dimensions**:

- **Climate targets**
- **Climate data disclosure**
- **Climate performance**

Companies can achieve a maximum score of **9 points**, reflecting their overall climate maturity:

- **13 companies** scored **90% or higher** (only **8 companies** in the last year's report).
- **1 company** (Swisscom) achieved the **maximum possible score.**
- **38 companies** achieved an overall score of **75% or above (Figure 3)**, continuing the steady improvement observed since 2023.
- **101 companies** obtained a **passing score (50% or higher)** — an increase from **94 companies** in the previous report.
- Only **18 companies** received a **score of zero** (declined from **22** in last year's report).
- Top-performing companies remain concentrated in **Europe and North America**, while companies headquartered in **East Asia and the Pacific** and **South Asia** are increasingly represented among the highest-scoring performers.
- Since 2023, companies have shown continuous improvement in **climate data disclosure** and **science-based target setting**, while **actual emissions performance** has progressed more slowly.

Figure 5. Companies scoring 75% or above on climate assessment (n=38), 2024

