



Brazil's ICT GHG Emissions & Energy Monitoring

Key findings and lessons learned

Main challenges encountered and resulting recommendations on Case Study

Brazilian Nacional Telecommunications Agency
(Anatel)

EGTI Geneva, September 10th 2026



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Agência Nacional de Telecomunicações

Measuring National ICT Sector Environmental Impact

General Objective:

Validate ITU EGTI indicator framework through a pilot project in Brazilian ICT Sector

Specific Objectives:

Evaluate data feasibility and availability on the **5 main ICT subsectors**

Produce a case study to identify gaps, barriers and methodological improvements

Produce a national estimation of GHG Emissions and Energy use in the ICT sector

Generate lessons learned to refine the global EGTI Indicators

Methodology:

1

Market Mapping

Target ≥80% of
subsector coverage

2

Engagement

Keep framework to
local use; voluntary
participation

3

Data Collection

GHG Scopes 1 to 3;
Energy by source and
consumption type

4

Data Check

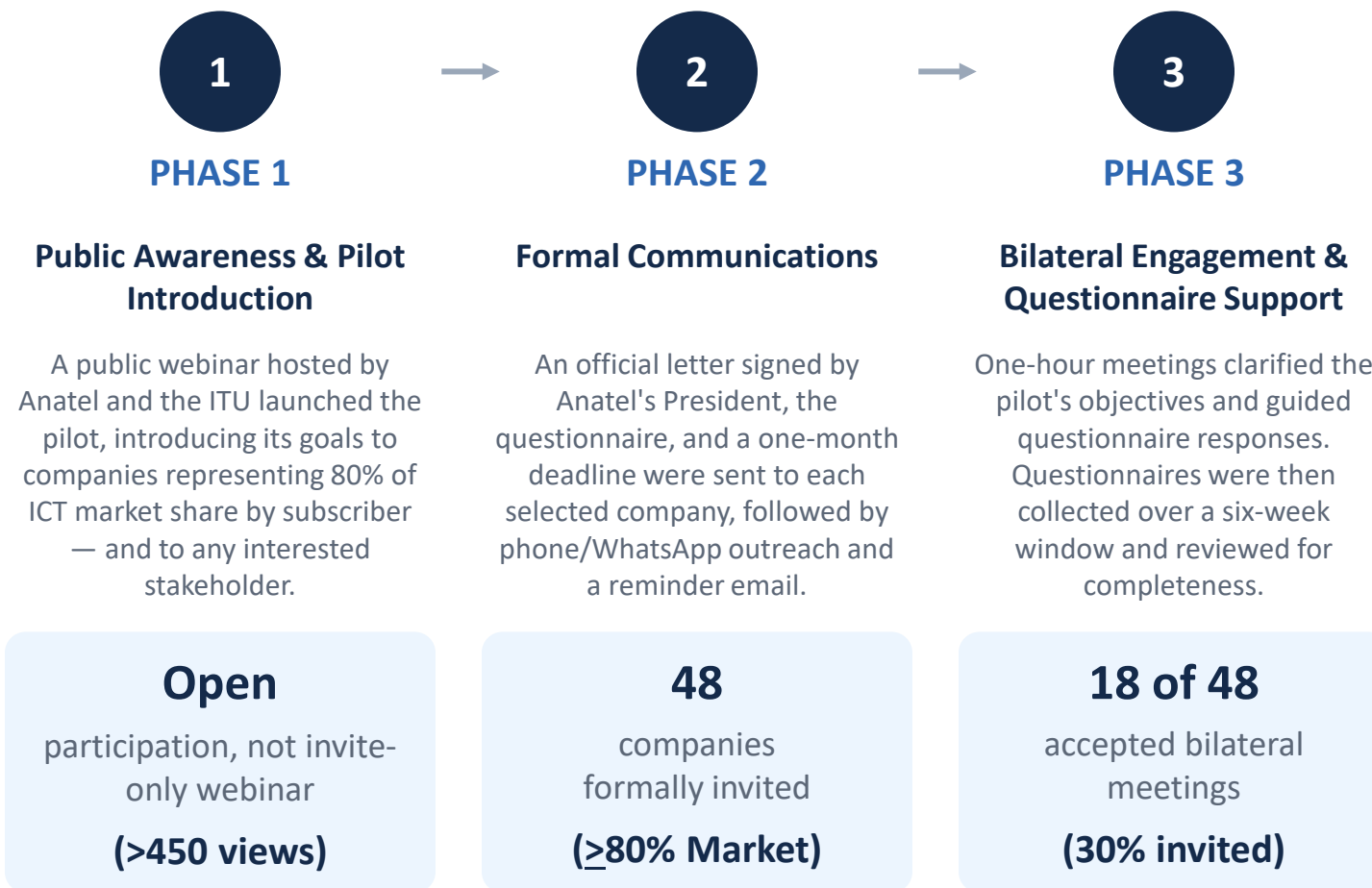
Completeness,
consistency and
consolidation

5

Learning

Companies feedback;
main issues, findings
and improvements

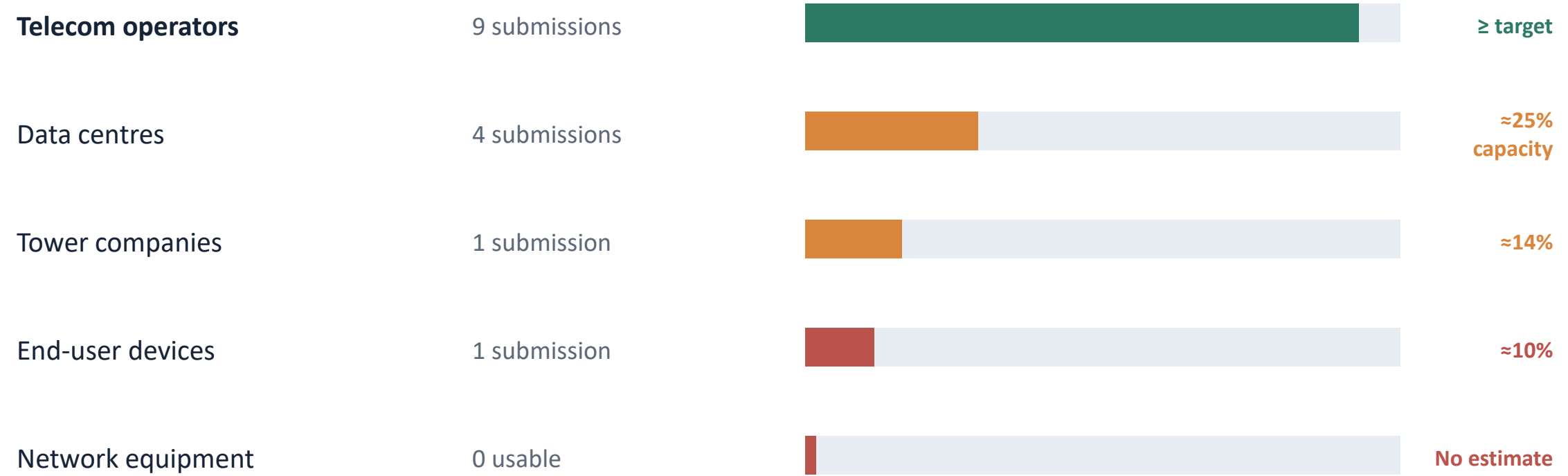
Three engagement phases produced 15 usable submissions



Learning

- **75%** of invited companies are out of Anatel's mandate
- **5 years** of trusted data is **unfeasible** for **27%** respondents
- **1st Half** of the year is the period of data evaluations for the most of participants
- **Global** chains makes **unfeasible** local measurements

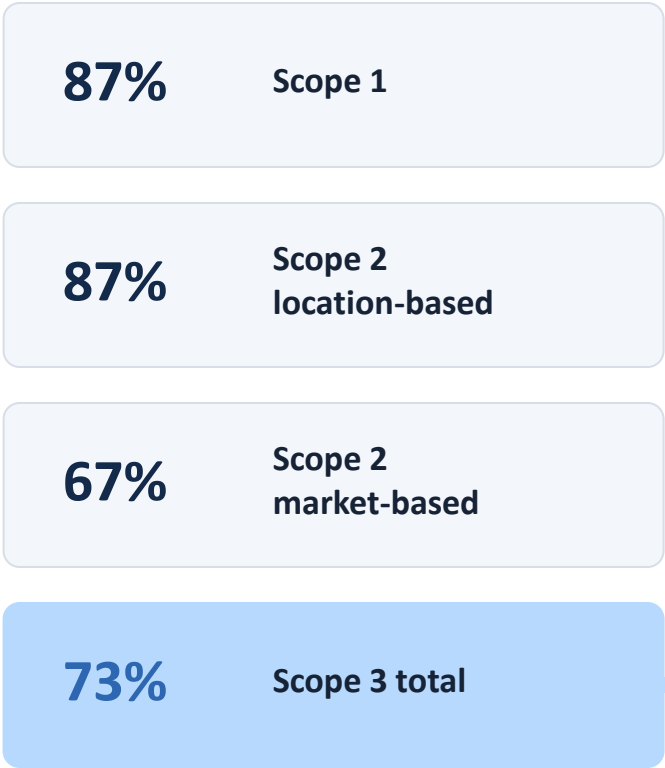
ICT Sector Engagement - Results



Coverage was representative only for telecom operators



GHG Emissions by Scope

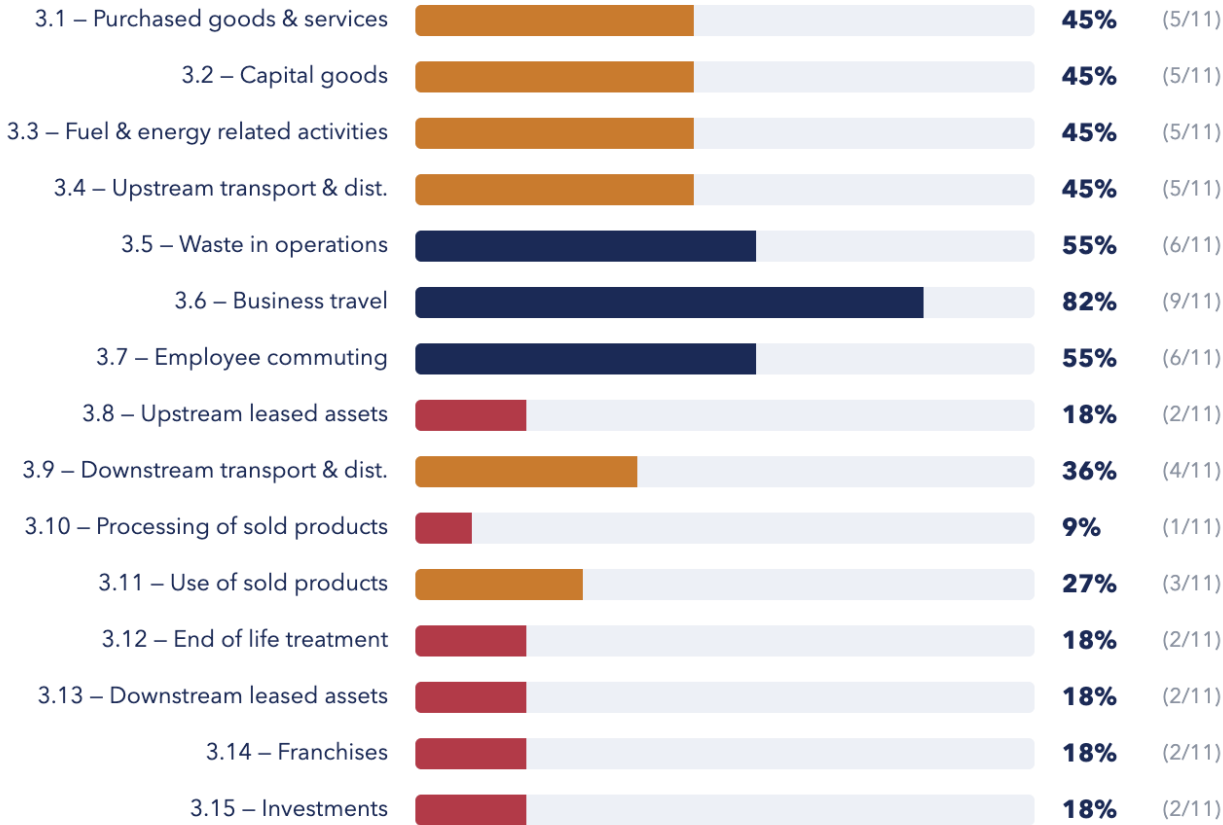


Reporting frequency ≠ environmental materiality

BRAZIL COUNTRY PILOT 2026 · REFERENCE YEAR 2024

Scope 3 Category Coverage

Of the 11 companies that reported a Scope 3 total, share that also broke it down by category



Reported results are directional—not a national inventory

— BRAZIL COUNTRY PILOT

Total Reported Emissions and Energy Results



*Sub-categories (22.8% + 18.0% + 10.8% = 51.6%) do not fully reconcile with the reported 54.8% total, as some respondents provided an aggregate renewable share without a category-level breakdown. Electricity sourcing percentages are calculated as a share of total electricity consumption (8,649.4 GWh), not total energy.



The hardest issues are related to the boundaries

Corporate ≠ sector

- Data availability is directly influenced by company size, global corporate structures and the maturity of sustainability reporting practices
 - IT data centers integrated with telecom networks for internal operations and shared services must be considered
-

Global ≠ national

- Severe limitations in reporting data due to global manufacturing and equipment assembled supply chains
-

Shared infrastructure

- The technological convergence of networks is a limiting factor for data drill down by service, technology or site
 - Shared and outsourced utilities on local assembly are entirely out of scope and regulatory mandate, serving multiple segments of the electrical and electronics industry
-

Value-chain overlap

- The highest level of empirical scope 3 emissions has no available methodology to measure or estimate energy consumption associated with customers' devices and indirect electronics using data services
-

A national footprint cannot be built by simply adding public corporate information

Six design choices make recurring monitoring credible

01

Clear mandate

02

Sector boundaries

03

Tiered indicators

04

Method and units

05

Confidentiality

06

Long-term capacity

ITU support is especially valuable before the first reporting cycle.

Monitoring is feasible

Comparability must be designed

Start phased

Core operational indicators first

Build trust

Support + confidentiality

Expand carefully

Coverage before national claims

Climate data collection in the ICT sector requires institutional coordination, clear mandates, consistent governance arrangements and an engagement strategy capable of building trust with companies that operate under different degrees of regulatory oversight

Thank you