Anatel's ESG
Climate Seal

Brazilian National Telecommunications Agency (Anatel)

September 25th, 2025

Climate Seal ESG
(Anatel &IDB)

- **Launched in 2025** under principles of responsive regulation
- **Goal:** Climate-focused certification for telecom providers and ICT subsectors with strong ESG (Environmental) practices
- **Tools:** indicators, reporting templates, training
- **Impact:** boost climate strategies, transparency &coordinated ICT regulation

Sector Diagnosis: Landscape

Comprehensive Scope

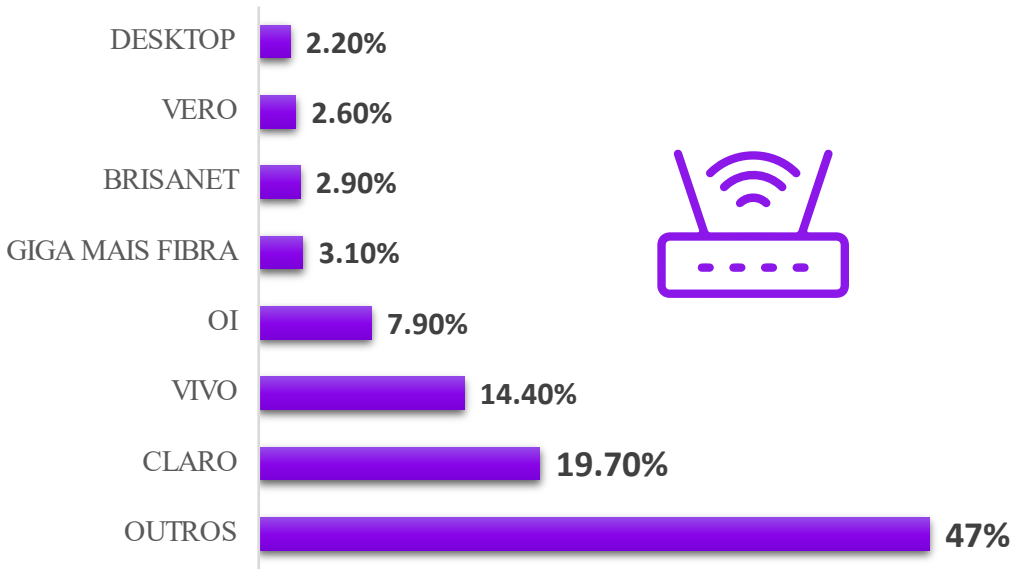
- Fixed &Mobile Service Providers
- Broadband Service Providers
- Equipment Manufacturers
- Data Centers

87 Companies Participated

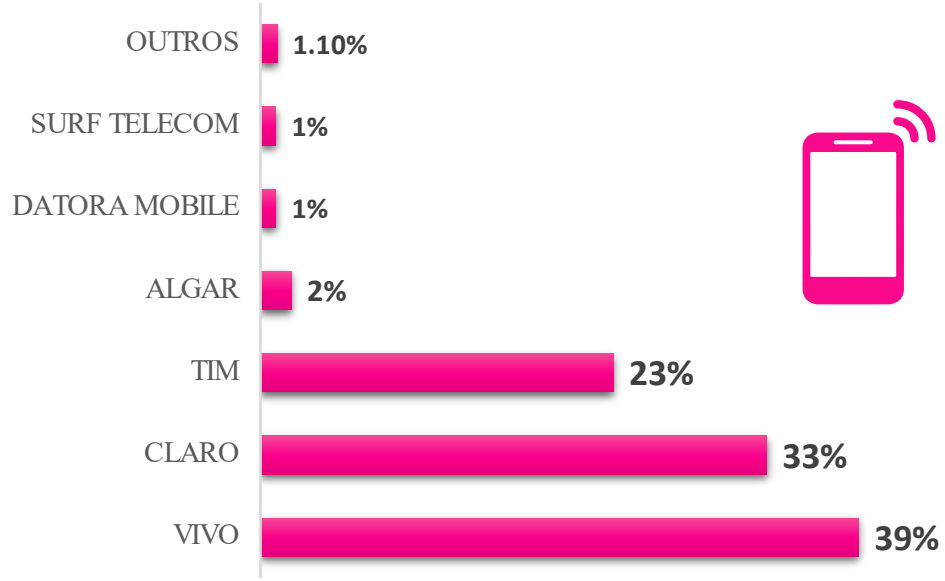
- 78 in quantitative phase (survey)
- 9 in qualitative phase (interviews)

Market share of telecom services providers in Brazil

Fixed Broadband Providers



Mobile Broadband Providers



- Highly fragmented market
- Top 3 (Claro, Vivo, Oi) = ~40 % share
- 60 % shared by >10,000 small ISPs
- Small ISPs: early ESG maturity

- Highly concentrated market
- Top 4 providers = 96% share
- High ESG maturity
- Active in voluntary GHG disclosure programs

Brazilian TIC Sector Diagnosis: Methodology

Primary Data Collection

- Quantitative survey (e-questionnaire)
- Qualitative interviews (in-depth)
- National representative
- Local strategies developed
- Global strategies applied in Brazil

Diagnosis:
Climate Profile Assessment

Key Dimensions

1. **Governance &Control** – dedicated ESG teams, leadership, training, policies

2. **Climate Strategy** – Paris Agreement alignment, science-based targets (SBTi), renewable energy, carbon off-set

3. **Monitoring &Transparency** – GHG monitoring, use of global reporting standards (GRI, CDP, IFRS, SASB)

4. **Waste Management** – policies for electronic waste & recycling

Diagnosis:
Levels of Commitment

Advanced

- Formalized processes, clear targets, GHG monitoring, transparent disclosure

Moderate

- Some ESG initiatives, but partial or not formalized, monitoring irregular

Low/Nonexistent

- Limited or no ESG strategy, weak governance, lack of disclosure

Institutional Profile

Institutional Profile

by Revenue

- **Large companies** (R$500M– 1B+): higher ESG maturity (25–75%)
- **Mid/Small companies** (<R$300M): low maturity (4–8%), high variability
- Key finding
  Some small companies shows innovative ESG practices aligned with best in class

Annual Revenue	#	%	Maturity	
>R$ 1 billion	12	14%	Advanced: Moderate: None/Low:	75% 25% 0%
From R$ 500M to R$ 1B	4	5%	Advanced: Moderate: None/Low:	25% 50% 25%
From R$ 4,8M to R$ 300M	25	29%	Advanced: Moderate: None/Low:	8% 24% 68%
Up to R$ 4,8M	37	46%	Advanced: Moderate: None/Low:	4% 15% 80%
Total	87	100%	–	

Advanced: clear transition plan, formal targets, regular monitoring, internal incentives
Moderate: initiatives exist, but partial or without measurable targets
Low/None: no defined strategy or only rudimentary practices

Institutional Profile

ESG Structure

- **Equipment Manufacturers & Data Centers** lead in ESG organizational structures
- **Telecom Operators:** half of them have ESG function in top management, but mid-management is most common
- **Others (services):** lowest formal ESG function (~30%), governance varies widely

Economic Activity	#	%	Maturity	
Telecommunications Operators	67	77%	Advanced: Moderate: None/Low:	13% 21% 66%
Equipment Manufacturers	8	9%	Advanced: Moderate: None/Low:	38% 13% 50%
Data Center Operators	2	2%	Advanced: Moderate: None/Low:	50% 50% 0%
Others (complementary services)*	10	11%	Advanced: Moderate: None/Low:	10% 20% 70%
Total	**87**	**100%**	–	

Complementary service providers to the telecom/tech ecosystem (e.g., consulting, applied tech, management solutions, services for specific audiences like public bodies).

Climate Strategy

Climate Strategy

- **Large companies (>R$ 1Bi):** robust transition plans & SBTi-aligned targets
- **Mid-sized (R$500M–R$ 1Bi):** advanced disclosures, but still on implementation of best practices
- **Small (<R$300M):** high variability, need support to standardization &strategy to call to action

Annual Revenue	#	%	Climate Maturity	
>R$ 1billion	12	14%	Advanced: Moderate: None/Low:	42% 33% 25%
From R$ 500M to R$ 1B	4	5%	Advanced: Moderate: None/Low:	25% 25% 50%
From R$ 4,8M to R$ 300M	25	29%	Advanced: Moderate: None/Low:	8% 4% 88%
Up to R$ 4,8M	37	46%	Advanced: Moderate: None/Low:	2% 13% 85%
Total	**87**	**100%**	–	

Advanced: transition plan aligned with 1.5°C, formal targets, regular monitoring, incentives
Moderate: initiatives exist, but limited or without measurable targets
Low/None: no defined climate strategy or only basic practices

Climate Investment

- **Alignment with SDGs** rises with company size &sector relevance
- **Telecom &Data Centers:** lead with established practices
- **Equipment Manufacturers:** >50% focused on product life cycle sustainability
- **Smaller &complementary firms:** uneven progress, need stronger frameworks

Economic Activity	#	%	Climate Maturity	
Telecommunications Operators	67	77%	Advanced: Moderate: None/Low:	9% 13% 78%
Equipment Manufacturers	8	9%	Advanced: Moderate: None/Low:	25% 13% 63%
Data Center Operators	2	2%	Advanced: Moderate: None/Low:	100% 0% 0%
Others (complementary services)*	10	11%	Advanced: Moderate: None/Low:	10% 0% 90%
Total	87	100%	–	

Complementary service providers to the telecom/tech ecosystem (e.g., consulting, applied tech, management solutions, services for specific audiences like public bodies).

Supply Chain Engagement

Supply Chain Engagement

- **~40% apply environmental criteria** (emissions, energy, waste)
- **Still early use in supplier selection/ evaluation**
- **70% engaged firms promote collaboration** (training, policies)

Annual Revenue	#	%	SC Engagement	
>R$ 1bi	12	14%	Performs: Engagement: Investment:	50% 83% 0%
From R$ 500M to R$ 1B	4	5%	Performs: Engagement: Investment:	50% 50% 0%
From R$ 4,8M to R$ 300M	25	29%	Performs: Engagement: Investment:	56% 14% 21%
Up to R$ 4,8M	37	46%	Performs: Engagement: Investment:	35% 15% 15%
Total	**87**	**100%**	–	

Average result of the indicated supplier engagement initiatives.

Supply Chain Engagement

Product Life Cycle Management

- **50%** of Data Centers & Manufacturers monitor life cycle
- **Only 21%** of Telecom Operators do the same

Economic Activity	#	%	Engagement	
Telecommunications Operators	67	77%	Performs: Engagement: Investment:	40% 22% 11%
Equipment Manufacturers	8	9%	Performs: Engagement: Investment:	38% 67% 33%
Data Center Operators	2	2%	Performs: Engagement: Investment:	50% 0% 0%
Others (complementary services)*	10	11%	Performs: Awareness: Investment:	40% 25% 50%
Total	**87**	**100%**	–	

Complementary service providers to the telecom/tech ecosystem (e.g., consulting, applied tech, management solutions, services for specific audiences like public bodies).


Emissions &Energy

Emissions &Energy

Emissions (GHG)

- **Only 16% of firms report GHG inventories** (~20.4M tCO2e), mostly large companies
- **98% of Scope 3 emissions** reported by Equipment Manufacturers

Energy

- **45% monitor energy (~8.5B MWh);** >90% of large firms do so
- **46% of firms** forecasts increasement in renewable energy investments (including mid/small companies)

Economic Activity	Emissions Scopes (tCO2e)		
	3	2	1
Data Center Operator	5%	6%	89%
Telecommunications Operators	84%	4%	12%

Economic Activity	Energy (MWh)			
	Grid	Self Generation	Fossil Fuels	Free Market
Data Center Operator	50%	0%	0%	50%
Telecommunications Operators	61%	19%	2%	20%
Others	73%	0%	0%	27%


Recycling and Waste Disposal

Recycling and Waste Disposal

Recycling &Collection Process

- **Large operators:**
  broader coverage (all e-waste)
- **Small/medium:**
  focus mainly on own products

Annual Revenue	#	%	Collection Process
>R$ 1bi	12	14%	92%
From R$ 500M to R$ 1B	4	5%	75%
From R$ 4,8M to R$ 300M	25	29%	64%
Up to R$ 4,8M	37	46%	54%
Total	**87**	**100%**	**63%**

Recycling and Waste Disposal

Declared Practices

- **Recycling:** 68% (most common), **Reuse:** 53% (Telecom: 57%), **Proper disposal:** 49%
- **Manufacturers:** 83% has recycling processes (above average)
- **~50% of companies with collection process** offer incentives (financial/ non-financial)

Economic Activity	#	%	Collection Process
Telecommunications Operators	67	77%	64%
Equipment Manufacturers	8	9%	88%
Data Center Operators	2	2%	50%
Others (complementary services)*	10	11%	40%
Total	**87**	**100%**	**63%**

Complementary service providers to the telecom/tech ecosystem (e.g., consulting, applied tech, management solutions, services for specific audiences like public bodies).

The data collection methodology

Blue print report: Climate Seal Pilot Project

Telecom

Level III

Dimension / Subdimension	Perg.
Envorimental	**34**
Supply Chain Engagement	3
Actions for Climate Risk Adaptation and Mitigation	4
Methodologies for Carbon Emissions Calculation and Reduction Strategies	6
Energy Consumption	4
Energy Efficiency	2
Use of Advanced Technologies for Energy Management	5
Network and Energy Infrastructure Management	3
Circular Economy and E-Waste Reduction	7
Social	**5**
Promotion of Universal Connectivity	2
Promotion of Meaningful Connectivity – Digital Empowerment	2
Promotion of Meaningful Connectivity – Protection and Security	1
Governance	**16**
Climate Governance Structuring	8
Risk and Opportunity Management	1
Adherence to Global ESG Commitments	3
Use of International Framework References	1
Transparency and Regularity in Environmental and Climate Data Disclosure	3

Level II

Dimension / Subdimension	Perg.
Envorimental	**32**
Supply Chain Engagement	3
Actions for Climate Risk Adaptation and Mitigation	4
Methodologies for Carbon Emissions Calculation and Reduction Strategies	5
Energy Consumption	4
Energy Efficiency	2
Use of Advanced Technologies for Energy Management	5
Network and Energy Infrastructure Management	3
Circular Economy and E-Waste Reduction	6
Social	**5**
Promotion of Universal Connectivity	2
Promotion of Meaningful Connectivity – Digital Empowerment	2
Promotion of Meaningful Connectivity – Protection and Security	1
Governance	**14**
Climate Governance Structuring	5
Risk and Opportunity Management	1
Adherence to Global ESG Commitments	3
Use of International Framework References	1
Transparency and Regularity in Environmental and Climate Data Disclosure	4

Level I

Dimension / Subdimension	Perg.
Envorimental	**25**
Supply Chain Engagement	2
Actions for Climate Risk Adaptation and Mitigation	4
Methodologies for Carbon Emissions Calculation and Reduction Strategies	2
Energy Consumption	3
Energy Efficiency	1
Use of Advanced Technologies for Energy Management	4
Network and Energy Infrastructure Management	3
Circular Economy and E-Waste Reduction	6
Social	**5**
Promotion of Universal Connectivity	2
Promotion of Meaningful Connectivity – Digital Empowerment	2
Promotion of Meaningful Connectivity – Protection and Security	1
Governance	**11**
Climate Governance Structuring	5
Risk and Opportunity Management	1
Adherence to Global ESG Commitments	2
Transparency and Regularity in Environmental and Climate Data Disclosure	3

Manufactures

Level III

Dimension / Subdimension	Perg.
Envorimental	**31**
Supply Chain Engagement	4
Actions for Climate Risk Adaptation and Mitigation	4
Methodologies for Carbon Emissions Calculation and Reduction Strategies	7
Energy Consumption	4
Energy Efficiency	2
Use of Advanced Technologies for Energy Management	4
Circular Economy and E-Waste Reduction	6
Social	**3**
Promotion of Meaningful Connectivity – Digital Empowerment	2
Promotion of Meaningful Connectivity – Protection and Security	1
Governance	**17**
Climate Governance Structuring	8
Risk and Opportunity Management	1
Adherence to Global ESG Commitments	3
Use of International Framework References	1
Transparency and Regularity in Environmental and Climate Data Disclosure	4

Datacenters

Level III

Dimension / Subdimension	Perg.
Envorimental	**28**
Supply Chain Engagement	4
Actions for Climate Risk Adaptation and Mitigation	3
Methodologies for Carbon Emissions Calculation and Reduction Strategies	5
Energy Consumption	4
Energy Efficiency	2
Use of Advanced Technologies for Energy Management	2
Circular Economy and E-Waste Reduction	3
Water Use and Water Resources Management	5
Social	**2**
Promotion of Meaningful Connectivity – Protection and Security	2
Governance	**18**
Climate Governance Structuring	8
Risk and Opportunity Management	2
Adherence to Global ESG Commitments	3
Use of International Framework References	1
Transparency and Regularity in Environmental and Climate Data Disclosure	4

Climate Seal:
Pilot project preliminary results

Data Center A

Equipment Manufacturer B

Telecom Operator C Level III

Telecom Operator D Level II

Telecom Operator E Level I

Telecom Operator F Level I

Final Remarks

- **ICT sector:** key for digital transformation, but with climate challenges (GHG emissions, energy consumption, circular economy)
- **Emission reduction** requires rigorous monitoring &joint public–private action
- **Anatel–IDB partnership:** results expected by late 2025 → basis for long-term regulatory strategies

Thank you

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