



# Natural Resource Management

Issue Brief

## Introduction

As part of our commitment to sustainable management, we have developed a series of initiatives aimed at the responsible use of natural resources and the mitigation of the environmental impacts of our operations. We invest in innovation and technology to make our processes, services and products more efficient. Furthermore, we promote strategies and actions to train and raise awareness among employees, leaders and other stakeholders about the importance of adopting sustainable practices, contributing to the advancement of the topic in the telecommunications sector and in society.

Our Environmental Management System (SGA) has national coverage, based on the requirements of the ISO 14001 standard. Since 2010, the company has had this certification within the scope of Network Management and Operation in the states of Espírito Santo, Rio de Janeiro and São Paulo. These guidelines cover all the Company's operations and the actions of suppliers and partners within the scope of TIM's activities and are based on three pillars: protecting the environment, meeting legal and corporate regulatory requirements and promoting continuous improvement of its EMS.

TIM's Environmental Management System (EMS) covers **33.61% of the company's buildings** within the scope of ISO 14001 certification, and **43.35% outside the certification scope**, based on a methodology that considers the proportion of revenue by region in relation to certifications obtained over the past three years (2022 to 2024). This approach assumes that the economic representativeness of each unit reflects its operational and environmental relevance.

In 2024, the São Paulo Regional Office accounted for approximately 21% of the company's total revenue, while the Rio de Janeiro Regional Office represented 12.5%, among others. Over the past three years, legal compliance assessments outside the certification scope were conducted in buildings located in the following states: Pará, Pernambuco, Minas Gerais, Paraná, Rio Grande do Sul, Santa Catarina, and the Federal District, totaling seven states, which together represent 43.35% of total revenue.

As part of internal evaluation processes, TIM has implemented the Environmental Mitigation Plan in 87 buildings. To calculate its coverage, the analysis considered the states covered by the plan and their respective revenue contributions to TIM's total revenue, resulting in a coverage rate of 23.04%. This methodology enables a precise estimate of EMS coverage in relation to the company's operations, considering both financial impact and the physical distribution of facilities.

In 2025, TIM also launched the Risk Assessment Program, a technical analysis of company buildings aimed at identifying risks related to environmental, health, and safety aspects, following a similar approach to the Environmental Mitigation Plan. In this first cycle, 22 buildings were assessed, all of which had already been included in the mitigation plan, reinforcing TIM's commitment to continuous improvement and integrated management of socio-environmental risks.

Type of Verification	Covered States	Revenue Percentage
<b>ISO 14001</b>	SP, RJ e ES	33,61 %
<b>Environmental conformity</b>	PA, PE, MG, PR, RS, SC e DF	43,35 %
<b>Environmental Mitigation Plan</b>	Other States	23,04 %

An annual diagnostic of legal compliance processes is conducted through third-party audits, which identify gaps and propose corrective and improvement actions. Internal audits of the Environmental Management System (EMS) aim to verify overall system compliance and implement corrective actions whenever non-conformities are identified.

The Audit Program is established, implemented, and maintained under the responsibility of TIM’s Sustainability department, taking into account the environmental relevance of each unit, environmental performance during the period, results of previous audits, the introduction of new processes that may affect the EMS, and applicable regulatory requirements. Audit findings are managed through the Action Plans tool, which consolidates the official action plan for addressing control items identified during audits.

The EMS workflow consists of six stages: Policy, Leadership and Structure; Planning; Support; Operation; Performance Evaluation; and Improvement. TIM Group’s leadership in Brazil demonstrates its commitment to EMS implementation and continuous improvement through:

- Communication with employees on sustainability-related topics;
- Establishment and dissemination of the Environmental Policy;
- Definition and monitoring of EMS objectives;
- Execution of Management Reviews;
- Allocation of financial resources for effective EMS operation and improvement.

To reinforce leadership commitment, specific responsibilities related to the EMS are assigned to Executive Management, which is actively involved in the development of the ESG Report, the strategic scope of the EMS, and the approval of institutional policies.

Based on the Environmental Policy and the ESG Plan’s environmental priorities, strategic issues for TIM are translated into EMS objectives and targets. Other environmental indicators, for which specific targets may not be defined, are treated as monitoring indicators. Both strategic and monitoring indicators must reflect a commitment to continuous improvement.

In addition, TIM Group in Brazil monitors a wide range of sustainability indicators across its operations, following the guidelines of the Global Reporting Initiative (GRI) and SASB Standards (Telecommunications Services), with the aim of tracking performance and efficiency in areas

such as fuel, electricity, and water consumption, waste generation, and greenhouse gas (GHG) emissions.

TIM's People Management department ensures the implementation of corporate education programs aligned with the Corporate Learning Policy. All employees, upon hiring, participate in Environmental Management training, available on TIM's corporate network, which includes the "5Rs" practices (Reduce, Reuse, Recycle, Rethink, Refuse). Additionally, employees whose activities may generate significant environmental impacts receive function-specific training, such as the Eco Protectors Program, launched in 2024. Over 4,000 hours of training were delivered to **556 Eco Protectors**—a group composed of TIM employees and partners who perform or oversee operational activities with potential environmental impacts.

TIM also has Conecta, a training program that covers topics such as water management, waste management, energy efficiency, biodiversity management, health promotion and occupational safety, among others, thus reinforcing TIM's commitment to the best practices of environment.

As part of the evolution of our environmental culture, TIM also provides specific content on environmental management and emergency response through the Connect platform. The objective is to ensure that all professionals performing activities on behalf of TIM are fully aligned with our Environmental Management System (EMS).

## Water Management

TIM identifies and seeks to reduce risks that have the potential to cause damage to water, soil, air, fauna, flora, communities and biodiversity, in addition to supporting forest conservation initiatives in the Amazon. Among the extreme events caused by climate change that can damage facilities and infrastructure with a direct impact on our business, water (energy) shortages, storms and cyclones have been identified. In relation to water scarcity, it is worth highlighting that energy from water sources has an important representation in the Brazilian electrical matrix.

Aiming to mitigate this risk, we promote initiatives aimed at generating our own energy and reducing consumption in our services and facilities, restructuring processes and searching for technologies to achieve maximum efficiency. We invested in contracting energy from renewable sources, through the Distributed Generation Project with solar, hydroelectric and biogas plants, among others, reducing dependence on the Brazilian energy grid. In 2023, as part of TIM's environmental strategy, we began diagnosing the environmental performance of power plants, through sampling. The objective is to act more closely with partners, contributing to socio-environmental development.

Although the company's activities do not depend on intensive water use, we annually carry out a process of monitoring, reviewing, analyzing water use and auditing data, allowing improvements in water efficiency performance, as part of our commitment to efficient consumption of resources.

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TIM Brasil's headquarters, located in Rio de Janeiro, holds a Leadership in Energy and Environmental Design (LEED) Silver certification, granted through the building's property management company. The unit meets the criteria under the Water Efficiency category of the certification, featuring water-saving fixtures, water reuse infrastructure, and systems that minimize water usage for cooling purposes.

Complementing this strategy, the São Cristóvão building (RJ) operates with a closed-loop cooling system, in which water undergoes chemical treatment to allow for recirculation, thereby reducing both consumption and discharge. In the Santo André unit, a rainwater harvesting system stands out, contributing directly to the sustainable use of water resources.

In addition to these initiatives, TIM conducts semiannual potable water quality analyses, ensuring that water consumption meets the required health and safety standards. This practice reinforces the company's commitment to employee well-being and responsible natural resource management.

In 2024, TIM's total water withdrawal reached 52,000 m<sup>3</sup>, surpassing the company's target of a 1% reduction in water consumption compared to 2023. For 2025, TIM has set a target to reduce water consumption by 1% compared to 2024. Most of the water used in operations is supplied by local sanitation service providers, with water trucks contracted when necessary. Water quality is continuously monitored through semiannual potability testing.

	Units	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<b>A. Water withdrawal (excluding saltwater)</b>	Million cubic meters	0.074	0.040	0.049	0.054	0.052
<b>B. Water discharge <sup>1</sup> (excluding saltwater)</b>	Million cubic meters	0.059	0.032	0.039	0.043	0.042
<b>Total net freshwater consumption (A-B)</b>	Million cubic meters	0.015	0.008	0.010	0.011	0.010

In the buildings we manage, effluents are generally disposed of in public sewage networks, following environmental and urban planning rules in each location. Destination and treatment are in line with legislation and are the responsibility of the responsible concessionaire, with no negative environmental impact on water bodies. Aiming to reduce consumption, we promote awareness-raising activities among the workforce and adopt some water reuse initiatives, such as the rainwater treatment plant in our building in São Paulo, flow reducers in taps and flushes with smart valves.

Currently, TIM is seeking new projects for mixed-use buildings, and in 2024, a critical mapping of all facilities was conducted to enhance water efficiency.

The conscious and efficient management of water resources is carried out responsibly and aligned with best sustainability practices, integrating initiatives that promote the efficient use of water across our operations. To support this, TIM has implemented a robust monthly water consumption monitoring system, enabling precise tracking of water performance across units and the rapid identification of any deviations from expected patterns.

Regular water meter inspections are conducted to ensure the reliability of collected data, allowing for informed decision-making based on accurate and up-to-date information.

In addition, TIM maintains a qualified technical team on-site, prepared to conduct inspections and respond immediately to identify and resolve potential leaks or anomalies in the hydraulic system. This preventive and corrective approach ensures rational water use, contributes to environmental preservation, and helps reduce operational costs.

<sup>1</sup> It is important to clarify that, since the company does not use directly sourced water—only water purchased from public supply concessionaires—there is a terminology difference between the table above and the 2024 ESG Report. In the ESG Report, the water consumption figure of 0.052 million m<sup>3</sup> actually refers to water withdrawal. To ensure clarity in water consumption reporting, TIM adopted a return rate of 0.8, as recommended by NBR 9649 – Sewer Network Design Standard. Therefore, the volume of 0.042 million m<sup>3</sup> refers to water discharged, and 0.010 million m<sup>3</sup> corresponds to the actual water consumed.

TIM maintains an active partnership with local water supply concessionaires, establishing a direct interface for fast and effective communication in the event of any incident. This integration enables agile responses to situations requiring external support, such as supply interruptions, pressure fluctuations, or meter reading failures.

## **Energy Management**

The telecommunications sector is highly dependent on the continuous supply of electrical energy to ensure the functioning of its operations. In this context, we work to prioritize the use of renewable energy, reduce consumption in general and optimize management during operation, reducing greenhouse gas emissions.

We are always attentive to changes in standards in Brazil so that processes and internal regulations are adequate and in compliance with legislation. Furthermore, we participate in thematic committees with other telecommunications companies, contributing to the review of laws that impact the sector, such as electricity.

Regarding climate change, we are now part of the select group of companies considered global leaders in managing this issue. We achieved an A grade in the CDP Climate questionnaire Change, recognition resulting from our efforts to reduce our greenhouse gas (GHG) emissions. We assume international commitments with the TIM Group, such as those linked to the Science Based Target initiative (SBTi) and strengthen projects that aim to efficiently use resources and renewable energy.

One of our main strategies to guarantee its origin from renewable sources, reducing the environmental impact of our activities, is the Distributed Generation Project (GD). At the end of 2023, TIM had 101 small plants powering operations in different states, with a predominance of solar plants. Our DG matrix was responsible for almost half of the company's total consumption.

To define the geographic scope of the scenario analysis, TIM assessed the representativeness and impact of its activities in three groups: energy, operations and logistics, and infrastructure. These sectors are especially important as they are more susceptible to climate effects and are relevant to TIM's business strategy. The climate scenarios were constructed based on projections from the Intergovernmental Panel on Climate Change (IPCC) and using the dataset Coupled Model Intercomparison Project Phase 5 (CMIP5), considering three variables: temperature, precipitation and consecutive dry days. Additionally, in the risk mapping process, we align our time horizons with science-based goals and our renewable energy objectives for the short, medium and long term, counting from the base year (2019). We also consider the timeframes used in the physical climate risk vulnerability analysis and the 2019-2040 climate change strategy.

We also work with the acquisition of clean energy on the free market and certificates of origin for renewable energy (I-RECs). Since 2021, 100% of the electricity consumed by TIM has been sourced from renewable energy, considering various procurement formats.

In 2024, TIM offset its Scope 1 greenhouse gas (GHG) emissions—originating from its own operations—through the acquisition of carbon credits from projects focused on Reducing Emissions from Deforestation and Forest Degradation (REDD+) and Renewable Energy (RE), both of which were also supported in 2023. The two REDD+ projects aim to preserve the Amazon biome and are certified under the Verified Carbon Standard (VCS) and the Climate, Community & Biodiversity Standard (CCB).

The Renewable Energy (RE) project is recognized with the VCS + Social Carbon seal for offering, in addition to carbon credits, socio-environmental benefits for the local community. The project also encourages the "I protect the Tatu Bola" program, aimed at the protection and conservation of this species.

Our objective is to reduce energy consumption while maintaining the quality of products and services. The 2024-26 Strategic Plan reinforces this premise by maintaining the goal of increasing eco-efficiency in data traffic by 110% by 2025. In 2024, TIM achieved a cumulative increase of 148% compared to 2019.

O monitoramento é feito por meio do indicador de ecoeficiência, calculado a partir da relação entre o serviço de dados oferecido ao cliente (bits) e o impacto da empresa no meio ambiente (Joules de energia consumida). Apesar de o tráfego de dados ter crescido significativamente, o consumo de energia correspondente aumentou em proporção muito menor, resultado das ações de incremento da ecoeficiência.

The energy used by TIM’s data centers follows the same guidelines and targets established in the company’s ESG Plan, and is therefore 100% renewable, supported by the purchase of International Renewable Energy Certificates (I-RECs). In 2024, total consumption reached 104,133 MWh.

	2021	2022	2023	2024
<b>Total energy used in data centers (MWh)</b>	96.063	97.208	111.860	104.133
<b>Percentage of renewable energy (of total energy)</b>	100	100	100	100

To measure efficiency of our equipment, we use the Power Usage indicator Effectiveness (PUE), which considers the relationship between the total energy of the facilities and the energy of the equipment. The variation in PUE is small between years and reflects the improvement in efficiency due to network virtualization. In 2024, TIM set a target to reach a Power Usage Effectiveness (PUE) of 1.60 and achieved 1.64. The increase compared to the previous year is mainly due to ongoing projects such as the migration of TIM’s data center services to the cloud (Journey to Cloud) and the relocation of the IT data center from Santo André (SP) to São Cristóvão (RJ).

TIM invests in innovation to reduce energy consumption. We are becoming the main partner in so-called Public Private Partnerships (PPP) by leveraging solutions for energy efficiency in public lighting.

Systems with built-in connectivity allow remote management of luminaires, which improves energy efficiency and quality of service. In Curitiba (PR) this solution will contribute to a 33% reduction in energy consumption, compared to the performance of the previous model. By the end of 2024, TIM had installed over 340,000 public lighting points across the country, supporting the development of Smart Cities. Cities such as Porto Alegre (RS), Uberaba (SP), and Petrolina (PE) have also adopted this intelligent lighting management system.

As part of its commitment to continuous improvement in energy performance, TIM is structuring its Energy Management System (EnMS) in accordance with the ABNT NBR ISO 50001:2018 standard, the International Performance Measurement and Verification Protocol (IPMVP), and the Lean Six Sigma (LSS) methodology. As part of this process, a Gap Analysis audit was conducted to assess the company's level of compliance with ISO 50001 and identify areas for improvement. The results have guided strategic decision-making and supported investment planning in innovative, efficient, and sustainable technologies.

To ensure credibility and transparency in the results of energy management initiatives and projects, TIM will implement an advanced telemetry system as an integral part of its EnMS. This system will enable real-time monitoring of consumption and operational conditions, rapid identification of deviations, and optimization of investments—ensuring that projected savings are sustained over time and enabling more accurate and frequent energy audits.

Throughout 2025, the company has intensified investments in network infrastructure modernization and energy efficiency, through research and development of energy-saving projects. These initiatives not only reduce TIM's electricity consumption but also optimize water use, reduce refrigerant gas consumption, and replace outdated equipment with more efficient and sustainable technologies.

Combined with strategic actions and consumption management, these energy efficiency projects are expected to generate an estimated R\$ 0.7 million in energy cost savings in 2025, totaling R\$ 2.6 million by December 2026. These results will positively impact the company's financial position and cash flow, strengthening operational margins and freeing up resources for new investments

Key projects contributing to these results include the shutdown of obsolete 2G and 3G technologies, deactivation of equipment cabinets, and modernization of cooling systems, UPS units, and rectifier power supplies. TIM is also developing Free cooling systems, which use heat exchange between external and internal air in technical rooms, significantly reducing the need for conventional air conditioning.

In switching centers and data centers—facilities with high energy demand for powering servers and infrastructure—TIM continues to invest in equipment renewal and optimization, as well as in the decommissioning of low-efficiency structures. Among the implemented upgrades, the replacement of outdated cooling systems with high-precision, high-efficiency solutions stands out, reducing both energy consumption and maintenance costs.

It is worth noting that all these energy efficiency initiatives are aligned with the ABNT NBR ISO 50001:2018 standard and the International Performance Measurement and Verification Protocol (IPMVP), both internationally recognized frameworks.

Another project that uses renewable energy and contributes to the expansion of TIM's 4G coverage in difficult-to-access areas is Sky Coverage. Started in 2021, in partnership with Highline and later with IHS and Winity, connectivity is generated through antennas, powered by self-generated solar energy with photovoltaic panels, connected via satellite. TIM ended the year 2024 with 134 active off-grid sites.

To encourage the use of renewable energy among employees, in 2023 we launched the “Energy Club”, a benefit program that offers discounts on electricity bills with the use of energy from renewable sources. By the end of 2024, 1,500 people in Rio de Janeiro, Paraná, Minas Gerais, and parts of São Paulo had joined the initiative. To benefit from the discounts, which can reach 20% of the electricity bill, the TIM employee must join and be in a coverage area of the participating concessionaires. There is no investment required and there are no monthly or loyalty costs. The energy generated in solar plants from the operator's partner companies in the initiative is passed on to the concessionaires, who apply the discount to the employee's bill

The energy consumption of ERBs is another important impact of the operation. Aware of the challenge of preserving the environment, TIM has been making significant investments in renewable energy projects. Associated with these actions, we are also modernizing the emergency battery technology used in ERBs and technical buildings, by replacing lead acid batteries with lithium-ion batteries.

The continuous maintenance of adequate environmental conditions in our buildings is a constant commitment at TIM. Proactively, in 2024, detailed assessments of the environmental conditions of 87 operational buildings owned by the company were conducted.

## **Waste Management**

The concept of circular economy deals with a model of production and consumption that involves sharing, reusing, repairing, renewing and recycling materials and products, whenever possible. In this way, the life cycle of items is extended, avoiding waste and waste generation, and reducing the demand for raw materials. Conceptually, this means that it is a migration from a Consumer Economy to a Circular Economy.

The waste management process at TIM has a dedicated structure and begins with the definition of roles and responsibilities for the main activities related to the topic. In this process, the Solid Waste Management Plan (PGRS) and the Waste List are prepared and updated, which is also verified and aims to catalog the waste generated and disposed of by TIM, classify according to the level of danger and provide the responsible functions with for its management of subsidies and basic guidelines for its management, for example, for filling out the online waste transport manifest (MTR), storage, transport, destination, treatment and disposal.

In compliance with the National Solid Waste Policy (Law No. 12,305/2010) and Decree 10,240/2020, TIM shares with business partners the responsibility for receiving and properly disposing of electronic equipment for post-consumer domestic use (such as smartphones, modems, batteries and accessories). We provide consumers with the possibility of exchanging used cell phones or smartwatches (watches) for discounts to purchase new products, enabling the extension of the life cycle of this equipment, and disposal points for cell phones and accessories for recycling materials and return to the production chain.

In 2023, we entered a partnership with Abree (Brazilian Association for the Recycling of Electronic and Domestic Appliances), with the aim of expanding our reverse logistics program for post-consumer electronic waste. The association has several screening points throughout Brazil and the partnership enables improvements in the population's awareness strategy through environmental education. Today, we have collection boxes spread across more than 300 points, such as our own stores – easily accessible to anyone – and administrative buildings, focusing on employees and service providers. At these collection points, disused cell phones and their accessories (headphones, data cables, chargers, etc.), chips, plastic and cardboard phone packaging, as well as used batteries and other portable equipment can be discarded. We also carried out several engagement actions with our employees, guiding and encouraging store teams to promote the program to consumers. We launched, for example, a campaign with challenges that generate points in the incentive program, to recognize stores that reach a certain collection volume.

We also promote, with our customers, the TIM Troca Smart initiative, a program carried out in partnership with Trocafone – a Brazilian company specializing in pre-owned smartphones – and which allows used cell phones or smartwatches (watches) to be exchanged for a discount to purchase new ones. , in the Company's own stores. In 2024, 0.05 tons of customer mobile phones destined for recycling were collected through this initiative, and 0.7 tons were recovered with potential for reuse. We also evaluate the conditions for reusing equipment called CPE (Customer Premises Equipment) coming from customers who requested cancellation or stopped paying for the company's services, in 2024, 21 tons were collected. We also collect damaged modems, which undergo technical inspection to evaluate the possibility of reusing peripherals and necessary adjustments so that they can be reused. This way, we avoid purchasing new equipment, minimizing financial costs, reducing disposal and increasing its useful life. In 2024, 163,000 FTTH modems were refurbished, generating R\$ 60 million in savings. A total of 128 tons of this material (FTTC + FTTH) were collected, with 87 tons successfully reconditioned—representing approximately 68% reuse, with the equipment returned to customers in suitable operating condition.

TIM has made continuous progress in improving its operational processes by strengthening internal audit practices. In 2024, audits were conducted in 87 company buildings, focusing on various environmental aspects, including waste management. Additionally, 22 units underwent further assessments in 2025, reinforcing the company's commitment to sustainability.

These audits enabled a detailed mapping of waste generated across operations, revealing opportunities for improvement that led to the implementation of several projects, such as:

- Environmentally appropriate disposal of cigarette butts;
- Redirecting general waste to more sustainable solutions in buildings located in São Paulo and Rio de Janeiro;
- Incorporating customer cable and power supply waste from the fixed network into the electronic waste reverse logistics program;
- Implementing organic waste composting in the break room of the CEO building.

These actions reflect TIM's commitment to responsible waste management and the promotion of sustainable practices across its infrastructure.

In addition to internal processes, TIM conducts second-party audits with suppliers performing critical activities, including those involved in waste management, to ensure alignment with TIM's social and environmental guidelines. These audits are carried out on a sampling basis during the first 12 months of the contract. After this period, suppliers with major non-conformities are re-audited after one year, while those without relevant non-conformities are reassessed after two years. Major non-conformities are defined as failures that directly impact service delivery or pose risks to health, safety, or the environment.

TIM has strategically invested in innovation and applied research in waste management, focusing on waste reduction, material reuse, and waste valorization as a resource. These initiatives are aligned with the company's ESG Plan and contribute directly to the advancement of the circular economy and the generation of environmental and operational value.

TIM's waste management actions are guided by its Environmental Policy and ESG Plan, with a target to reuse or recycle at least 95% of solid waste by 2025—a goal already surpassed in 2024, reaching 99.9%. In the field of innovation, the company has invested in new projects and partnerships to strengthen its environmental pillar, including:

- **Expansion of the reverse logistics program** in partnership with ABREE, including new collection points, national educational campaigns, and the #NossaResposta engagement initiative. This program ensured the environmentally appropriate disposal of thousands of kilograms of electronic waste, including cables and power supplies collected from customer residences, enabling their reintegration into the production cycle. A total of 6.8 tons of waste were collected under this program, with a 98% recycling rate, reinforcing awareness and circular economy practices.
- **Reuse of equipment**, including modems and customer cables, which are collected, evaluated, and refurbished whenever possible. In 2024, 68% of this material was reused and returned to customers in suitable condition.
- **Battery and component recycling**, through licensed partners, involving sorting, reverse manufacturing, and recycling of cables and metals.
- **Zero Landfill Project**, launched in 2024 in administrative buildings in São Paulo and Rio de Janeiro, using recovery and energy conversion technologies to prevent 14.6 tons of waste from being sent to landfills.

These initiatives combine technology, strategic partnerships, and social engagement to reduce waste, extend the lifespan of equipment, and ensure the environmentally appropriate disposal of waste. All of this work is supported by data collected through audits and inspections, which guide the continuous improvement of waste management processes.

TIM has expanded its efforts in initiatives that promote sustainability through the offering of products and services that generate positive environmental impact and contribute to a more resilient and efficient economy. These activities are directly related to key topics such as climate change mitigation and adaptation, responsible use of natural resources, circular economy, pollution control, and biodiversity protection.

One of TIM's main innovation focuses is reverse logistics for electronic waste, involving technologies for sorting, recovery, and reuse of equipment. TIM defines e-waste as electronic devices discarded after the end of their useful life, such as mobile phones, modems, routers, batteries, cables, and accessories. These materials are classified according to current legislation and are primarily directed to recycling or reuse, with support from specialized partners.

In June, during World Environment Day, TIM launched the #NossaResponsa campaign, aimed at communicating the company's commitments and raising awareness about the proper disposal of electronic waste in designated collection bins. The campaign included educational activities and an inspiring lecture titled "Imagine That You Can Transform the Future Today". As a result, approximately 370 kg of electronic waste were collected in building collection bins during the month.

The impact of the lecture was so significant that a second edition was held in August, focusing on the importance of sustainability and how individual and collective actions can make a difference.

The topic was also addressed during leadership meetings and the Bem+Estar Week, through a new lecture titled "Waste and Circular Economy: Your Role in the Transformation", aimed at demonstrating how individual actions can significantly contribute to environmental protection through everyday practices, including Reverse Logistics and Selective Waste Collection.

This year, TIM also participated in three key episodes of the Band News program, aired in May, June, and August, where sustainability topics were discussed. In addition, TIM's social media channels were actively used to share informative posts on commemorative dates, reinforcing the company's commitment to sustainability and engaging the community in conscious actions.

During the TIM Talks+Family event in October, all participants were invited to bring electronic waste. Across all these campaigns, TIM reinforced its responsibility in Reverse Logistics and emphasized the role of employees as consumers within the reverse logistics chain, encouraging proper disposal of electronic waste at TIM's collection points.

In November 2024, the second phase of the #NossaResponsa Campaign was launched, featuring an inspiring lecture on the principles and benefits of the circular economy, with a focus on electronic waste reverse logistics. As a result, approximately 252 kg of electronic waste were collected.

To further engage store teams in collecting consumer electronic waste, TIM launched the #NossaResponsa Challenge, a campaign that awards points in the incentive program to recognize stores that reach specific collection volumes. In addition to recognition, the challenge promotes a stronger environmental culture. As a result, approximately 580 kg of electronic waste were collected.

The initiative has become so comprehensive that TIM identified a strategic opportunity to strengthen its reverse logistics program. Through the collection of power supplies and cables from customer residences—whether due to disconnection or maintenance (when materials are no longer repairable), TIM ensured the proper disposal of approximately 3,560 kg of these items in 2024 alone.

Additionally, TIM participated in an educational campaign in schools in the Federal District, in partnership with ABREE, which resulted in the collection of around 1,125 kg of electronic waste.

TIM's dedication to this topic in 2024 yielded significant results: the company more than tripled the amount of waste collected compared to the previous year. In total, 6,812.50 kg of electronic waste were collected, with a recycling rate of 98%.

In all our actions, we reinforce the role of employees as consumers in the reverse logistics chain, encouraging the appropriate disposal of waste. TIM's Environmental Policy guides efficient and responsible management of solid waste, one of the objectives we assume in our ESG Plan, with the goal of recycling at least 95% of solid waste by 2025.

The Zero Landfill Project, launched in 2024 in TIM's administrative and mixed-use buildings in São Paulo and Rio de Janeiro, prevented 14.6 tons of waste from being sent to landfills through recovery and energy conversion technologies. This initiative reinforces TIM's commitment to waste valorization, recognizing its potential for both economic and environmental return.

TIM adopts a structured approach to post-consumer electronic waste reverse logistics, through proprietary programs that include the collection of used devices and the offering of benefits for exchanging them for new equipment at TIM stores. These initiatives ensure waste traceability, promote environmentally responsible disposal, and encourage the reintegration of materials into the production chain, including waste generated outside the organization.

Among the waste generated, electronic waste stands out as a key category, especially given TIM's role as a telecommunications company. In 2024, a total of 1,316.68 tons of electronic waste was recorded, originating from obsolete, damaged, or replaced equipment in operational and administrative units. This waste is sent for specialized treatment, ensuring traceability and compliance with current environmental regulations.

The company maintains strict internal controls to ensure that all electronic waste is properly recorded, stored, and disposed of, contributing to the reduction of environmental impacts and the recovery of valuable materials, such as metals and electronic components.

	Unit	FY 2021	FY 2022	FY 2023	FY 2024
<b>Total weight of WEEE collected from takeback programs</b>	<b>Metric Tonnes</b>	0.3	0.3	1.6	6.8
<b>Percentage of takeback WEEE reused / resold / recycled</b>	<b>Percentage</b>	97.43%	93.38%	98.07%	98.28%
<b>Percentage of takeback WEEE disposed / landfilled</b>	<b>Percentage</b>	2.57%	6.62%	1.93%	1.72%

The installation and operation of Radio Base Stations (ERBs), as well as technical buildings and data centers, must comply with a series of municipal, state and federal regulations. Therefore, we have teams to license and monitor the compliance of our websites. The implementation and operation of our ERBs are following the regulatory guidelines and security standards established by the National Telecommunications Agency (Anatel), in addition to complying with Law No. 6,938/1981 and Resolution No. 237/97 of the National Environmental Council (Conama). Regarding ERBs and technical buildings, we manage impacts at the time of construction, due to the local movement of workers and works. We seek to mitigate these impacts through practices that aim to reduce the consumption of natural resources, energy efficiency and minimize waste generation.

To minimize waste generation and avoid atmospheric emissions, TIM promotes the adoption of digital invoicing for its customers. By the end of 2024, TIM had 63.5 million accesses across postpaid, prepaid, fixed telephony, and internet services. The issuance of invoices and billing statements consumed 162 tons of FSC-certified paper, representing a 26% reduction compared to the previous year.

As part of its climate change mitigation efforts, TIM has promoted the adoption of digital billing. Through this initiative, the company avoided the use of 8.1 thousand tons of paper throughout 2024, along with the associated waste generation, resulting in R\$ 471 million in cost savings and preventing the emission of approximately 10,735 tCO<sub>2</sub>e under Scope 3, based on the life cycle analysis method of the raw material used, as recognized by the GHG Protocol.

**TIM's CSR Coordination**

*Regulation, Institutions, Public Relations & Sustainability | ESG*

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