

# 2021 ESG REPORT

ABRIDGED VERSION



# Summary

## 03 Message from the CEO

## 04 ESG Strategy

ESG Journey at TIM	5
ESG 2022-24 Plan	7
2021 ESG Highlights	8
Materiality	9
Commitments and acknowledgements	10

## 11 Governance

Profile and governance structure	13
2021 Highlights	14
Anti-corruption	16
Operation	17
Innovation	19
Customer	20
Suppliers	22
Privacy and data protection	23

## 24 Environmental

Climate change	26
Energy	28
Waste	29

## 30 Social

Digital inclusion	31
Employees	32
TIM's actions in the pandemic	35
Diversity and inclusion	36
Human rights	38
Instituto TIM	39



# Message from the CEO

Assuming the position of CEO of TIM in Brazil is a source of great pride. My relationship with the company goes back many years and I actively participated in the journey that consolidated the company as a leading player in telecommunications in the country. In this journey, the ESG theme played a fundamental role. And it will be even more essential in the continuity of this path for TIM to be the best company in the sector.

In 2021, we are still living with the impacts and uncertainties arising from the Covid-19 pandemic. Despite the challenging scenario, we maintained a robust trajectory of growth and achievements, including in our ESG Plan, with unprecedented actions and recognition.

For the first time, TIM was included in the Sustainability Yearbook (2022), the yearbook prepared by S&P Global, responsible for the Dow Jones Sustainability Index (DJSI), which presents the world's leading sustainability companies and is considered a reference for investors.

Aware of our role in the scenario of combating climate change, we remain firm with the objective of making TIM a carbon neutral company by 2030. In 2021, we assumed a commitment, along with the TIM Group, with the Science Based Target initiative (SBTi), to establish Greenhouse Gas (GHG) reduction targets in line with the ambition of the Paris Agreement and defined by scientific method. Among the results

already achieved in 2021, the reduction of direct and indirect GHG emissions by 94%, compared to 2019, stands out.

In the Social pillar, in addition to the actions of Instituto TIM, we work continuously to strengthen diversity and inclusion in the corporate strategy. Several internal and external initiatives - such as the Positive Women project, which already has more than 50 partner companies - combined with voluntary commitments made on this front, contributed to TIM becoming the first and only Brazilian operator to integrate the Refinitiv Diversity & Inclusion Index, with world leadership among all companies in the sector. We also entered the Bloomberg Gender Equality Index, which brings together more than 400 global companies.

TIM leads the 4G coverage that reached 85% of Brazil and, by 2023, will be in all municipalities, also being a reference in quality, as we were elected as the operator that offers the best video and video-calling experience. We are protagonists in the consolidation of the sector through the acquisition of Oi Móvel, an operation approved a few months ago by the regulatory and antitrust authorities, which will bring even more benefits to all telephony customers in the country. The 5G Auction established us as one of the winners of this important milestone for the economy and society. We are ready to drive the positive revolution of new technology.

Our maturity in the ESG agenda and solid operational and financial performance allowed us to complete, in June 2021, the first issuance of debentures linked to ESG objectives and targets in Brazil. The total funding of R\$ 1.6 billion will boost the achievement of strategic objectives with benefits for society and the environment.

It's an important commitment, which could only be

**"On the ESG agenda, the year 2021 was marked by the achievement of 100% of energy consumption from renewable sources, by the recognition we obtained from the market in the diversity theme and by our first issuance of debentures linked to social, environmental and governance aspects and criteria."**



assumed by the operator that has been listed for the longest time in Novo Mercado and in the Corporate Sustainability Index, both of B3, and which is also included in the list of Pro-Ethics Companies of the Comptroller General's Office (CGU). As signatories of the UN Global Compact, since 2008, we have reinforced our commitment to contribute to the achievement of the Sustainable Development Goals (SDGs), in line with the themes that are material to our business.

All our actions, achievements and movements are the result of well-structured projects and challenging goals, as in the case of energy consumption. The distributed generation plan - which ended 2021 with 46 solar, hydro and biogas plants - joins the acquisition of clean energy in the free market and certificates of renewable energy origin (I-RECs). Through these coordinated actions, we reached the goal of 100% renewable energy in our operation.

It's this positive energy that will fuel the years to come. Our TIM team will continue to transform possibilities into reality, strengthening our core business, accelerating growth beyond connectivity, and working to make TIM a reference in the environmental, social and governance agenda.

**Alberto Mario Griselli**

CEO of TIM Brazil

A dark blue, semi-transparent rectangular graphic on the left side of the page. It contains the title "ESG Strategy" and a list of five bullet points. The background of the entire page is a person wearing a VR headset and a leather jacket, with blue and red lighting effects.

# ESG Strategy

- ESG Journey at TIM
- ESG 2022-24 Plan
- 2021 ESG Highlights
- Materiality
- Commitments and acknowledgements

# ESG Journey at TIM

Climate change, diversity, transparency, human rights, ethical conduct. Topics like these are increasingly in evidence in the social debate, but they are not new at TIM. The Company has a long history of integrating aspects now known as ESG – acronym for the Environmental, Social and Governance spheres – into corporate culture and decision-making. TIM's pioneering spirit and leadership in these areas has been publicly recognized

for over a decade. For 14 years, the Company has been part of the B3 Corporate Sustainability Index Portfolio (ISE-B3), being the company in the sector that has been included in the Index for the longest time. In 2022, TIM was considered one of the most sustainable companies in the world by S&P Global ESG, the organization responsible for the Dow Jones Sustainability Index (DJSI). The Company was included in

the **Sustainability Yearbook 2022** for the evolution of its performance in the DJSI submission process, with a growth of 24.2%. TIM was also chosen as one of the most sustainable companies in Latin America in the Latin Trade IndexAmericas Sustainability Award, by the Inter-American Development Bank and the specialized magazine Latin Trade. The recognition was in the Social category for the Company's performance in creating value

## Transparency and excellence trajectory



for all of Brazil, through inclusion and diversity actions and Instituto TIM projects. TIM has become a reference in promoting diversity and inclusion at a national and international level, with goals, commitments, and implementation of various initiatives in the areas of gender, race, LGBTI+ people, generations, people with disabilities, among others. In 2021, the Company became the first Brazilian operator to integrate the Refinitiv

Diversity & Inclusion Index - occupying the 1<sup>st</sup> position in Telecom globally - and also the first operator to win the GSMA's Diversity in Tech international award, which recognizes worldwide organizations with practices in favor of equality, diversity, and human rights in the technology sector. In early 2022, TIM joined the Bloomberg Gender Equality Index, which brings together 418 companies from 45 countries, only 13 of which are from Brazil.

The experience accumulated along this journey culminated in significant advances in governance, with the creation of the ESG Committee, within the scope of the Board of Directors, in 2020. This instance's main focus of action is to define and monitor TIM's ESG Plan, which covers short, medium, and long-term goals for key corporate sustainability topics and is updated annually.

Another recent evolution is the consolidation of the ESG Indicator System, which enables continuous performance monitoring and contributes to improving the quarterly disclosure of information of this nature. More than 40 areas of the Company participate in the management and collection of more than 500 ESG data, with the involvement of around 200 employees.

## Transparency and excellence trajectory



# ESG 2022-24 Plan

Pillar	Enablers	Commitments	Goals	2021-23 Plan	2021 Results	
<b>Environmental</b> We want to be green	<ul style="list-style-type: none"> <li>Mitigating GHG emissions, in line with scientific goals (<b>SBTi</b> – Science Based Targets initiative) <i>*new*</i></li> <li>Increasing the <b>efficiency and use of green energy</b> through Distributed Generation and acquisition in the <b>Free Market</b></li> <li>Developing <b>cloud data centers</b> to deliver more to our customers with less impact from operations</li> <li>Demobilizing obsolete technologies through <b>innovation and infrastructure sharing</b></li> <li>Promoting efficient and responsible <b>solid waste</b> management</li> </ul>	Carbon neutral <sup>1</sup> (tCO <sub>2</sub> e, scopes 1 and 2)	-100%	<b>2030</b>	-100%	-94%
		Indirect emissions <sup>1</sup> (tCO <sub>2</sub> e, scope 2) ↑	0	<b>2025</b>	-70%	-153% <sup>2</sup>
		Renewable energy ↑	100%		≥90%	100%
		Eco-efficiency in data traffic <sup>1</sup> (bit/Joule)	+80%		+80%	+96%
		Solid waste recycling	≥95%	<b>2023</b>	≥95%	98%
<b>Social</b> New features are a key factor in keeping the lead	<ul style="list-style-type: none"> <li>Promoting an <b>inclusive environment</b>, with <b>equal</b> opportunities, valuing <b>talent</b> and caring for the <b>health and integrity</b> of employees</li> <li>Developing <b>digital education</b> to support connectivity demand</li> <li>Keeping <b>Instituto TIM</b> as a reference in <b>education and ST&amp;I</b> (Science, Technology, and Innovation) projects</li> <li>Extending access to 4G <b>connectivity</b> to all municipalities in Brazil</li> </ul>	Engagement (per year)	≥80%	<b>2023</b>	≥80%	83%
		Black employees	≥40%		≥40%	36%
		Women in leadership	≥35%		≥35%	34%
		Employees trained in the ESG culture	≥99%		≥99%	95%
		Employees trained in digital capabilities	+5,000		+5,000	1,861
		4G presence	100%		100%	85%
<b>Governance</b> Efficient mechanisms to fairly balance the interests of all stakeholders	<ul style="list-style-type: none"> <li>Maintaining the recognition of a company with the highest level of commitment to <b>transparency and corporate governance</b></li> <li>Disseminating <b>ESG principles to high-risk suppliers</b>, developing co-participation in <b>GHG reduction (Scope 3)</b> ↑</li> <li>Adopting best practices related to <b>compliance, information security, data protection and privacy</b></li> <li>Driving <b>customer empowerment</b> through digital transformation</li> </ul>	Customer complaints (regulatory body)	-50% <sup>3</sup>	<b>2023</b>	-50%	-44%
		ISE, Novo Mercado, and Pro-Ethics	Maintain		Maintain	Maintained
		ISO 14001, ISO 9001 and ISO 37001	Maintain		Maintain	Maintained
		ISO 27001	Obtain		Obtain	-

1. Base year 2019.

2. TIM exceeded the goal of 100% reduction of GHG emissions compared to 2019, reaching the percentage of -153% through distributed generation projects, contracting energy in the free market and the compensation of the portion acquired from the National Interconnected System, with the acquisition of renewable energy certificates.

3. Reduce customer complaints at Anatel for personal mobile service by 50% by 2023, compared to 2019, without considering customer complaints from the Oi Móvel base.

*\*new\** New commitment/enabler

↑ Increment of the 2021-23 goal

# 2021 ESG Highlights

## Environmental

 **100%**  
of energy consumption from renewable sources (with purchase of I-RECs)

**96%** Increase in energy efficiency in data traffic

**94%** Reduction in Scopes 1 and 2 GHG emissions (carbon neutral target)

 Improved CDP score, with increased performance from B- (2020) to B (2021)

 Adherence to the SBTi initiative, along with the TIM Group, with GHG reduction targets aligned with the ambition of the Paris Agreement and defined by scientific method

## Social

**83%** favorability in the Climate Survey

**1,861** employees trained in digital capabilities

**REFINITIV®**  **1° st** place among Brazilian companies in the Refinitiv Diversity & Inclusion Index 2021, which measures the performance of companies in diversity, inclusion, and career development initiatives (19<sup>th</sup> place globally)

**TOP 100 COMPANY 2021**  
Diversity and Inclusion Index

 Member of the Bloomberg Gender Equality Index (GEI Bloomberg) 2022

## Governance

**R\$1.6 billion**  
raised through the issuance of infrastructure debentures linked to ESG commitments (1<sup>st</sup> operation in the country's sector classified as sustainability-linked debenture)

**44%** reduction in customer complaints sent via the regulatory body

**14 years**  
consecutive years in the B3 Corporate Sustainability Index (ISE)

**Sustainability Yearbook**  
Member 2022  
**S&P Global**

Sustainability Yearbook Member 2022, recognition for performance evolution in the CSA questionnaire, by S&P Global, which selects companies to be included in the Dow Jones Sustainability Index

# Materiality

TIM's ESG strategy and the content of this report are guided by TIM's materiality matrix. Conducted periodically, on average every two years, the materiality process encompasses the evaluation of references, benchmarking, internal documents and consultations with external stakeholders and Company executives.

In 2020 and 2021, due to the Covid-19 pandemic and its reflexes on the demands, expectations and concerns of civil society, TIM promoted, in the last two years, the review of its materiality matrix. In both cycles, audiences were heard through individual interviews with representatives of customers, suppliers, investors, government, and the press appointed by the Company's areas.

In 2021, the review process resulted in the maintenance of material topics with the respective limits and scopes identified in the previous year. The analysis revealed the expectations of stakeholders with the transparent disclosure of the challenges and opportunities associated with the implementation of the 5G network and Oi's integration. These two subjects were incorporated into the existing themes. In the first case, there is a direct relationship with the themes "Investment in infrastructure and network reliability" and "Customer experience and service quality." In the second, the connection is with the themes "Investment in infrastructure and network reliability," "Energy management" and "Waste management in operation and post-consumption."

## Topics identified as priorities in the materiality process\*



\*Numbered squares refer to the Sustainable Development Goals (SDG) related to each material theme.

# Commitments and acknowledgements

Topics such as human rights, diversity, sustainable development, and good governance practices are some of the cornerstones for the contemporary transformations of society. TIM incorporates these themes in the development of its strategy and operations, sharing advances and experiences to drive improvement and continuous enhancement in a broad way in the business context. Engagement in forums and entities is essential for this exchange of practices, and the recognition obtained publicly contributes to strengthening the corporate reputation.

## SDGs Global Compact

A signatory to the United Nations (UN) Global Compact since 2008, the Company adopts the SDGs as a guideline for formulating integrated strategies

## FGVces Business Initiatives

For more than a decade, TIM has been part of the Entrepreneurial Initiatives network coordinated by the Center for Sustainability Studies of Fundação Getulio Vargas (FGVces), a center for the production of knowledge aimed at exchanging experiences and encouraging the advancement of the sustainability agenda in companies

## B3 Corporate Sustainability Index (ISE)

Present for 14 consecutive years in the index, which brings together Brazilian companies with the best corporate sustainability practices, reflects the Company's maturity and pursuit of continuous advancement

## S&P/B3 Brazil ESG

TIM is a member, for the second year, in the B3 index created in 2020 and which measures the performance of securities that meet sustainability criteria, weighted by S&P DJI ESG scores

## Morgan Stanley Capital International (MSCI) Environmental, Social and Governance Research (ESG)

Integrates index portfolios linked to the MSCI ESG Leaders Index, which carries out governance assessments and analyzes of social and environmental indexes of more than 6,000 publicly traded companies worldwide

## FTSE4Good

The Company is part of the FTSE4Good Index Series (Emerging Markets Index, Latin America Index)

## Teva ESG Women in Leadership Index ®

TIM recognized among the B3 companies with the highest proportion of women on the Board of Directors and Committees

## Refinitiv D&I Index

After evaluating more than 11,000 companies in terms of diversity and inclusion, TIM ranks 19<sup>th</sup> globally and 1<sup>st</sup> nationally in the Refinitiv D&I Index, being the only Brazilian company in the index that assesses diverse and inclusive work environments

## Bloomberg's Gender Equality Index (GEI)

TIM is one of the 13 Brazilian companies included in the portfolio composed of companies committed to internal policies of inclusion and gender equity

## Top Employers Award

TIM has consolidated itself as one of the companies with the best HR practices. The certification is the result of an independent audit by the Top Employer Institute, with 30 years of experience in 120 countries

## CDP

TIM voluntarily responds to the Carbon Disclosure Project (CDP) and is part of the CDPR Climate Resilience Index, created by the entity

## GHG Protocol

Since 2010, TIM has published its GHG emissions inventory in the Brazilian GHG Protocol Program

## Anatel Telecommunications Accessibility Award 2021

First operator to receive the award and once again recognized in 2021 in the first place of the ranking that recognizes companies that provide accessible physical and virtual environments for people with disabilities or that encourage, disseminate, and ensure accessibility rights

## Pro-Ethical Company

For the second consecutive time, TIM integrates the list of Pro-Ethics Companies of the Comptroller General of the Union (CGU), an initiative that promotes a more honest, ethical, and transparent corporate environment. The operator is the only Telecom company in the country to achieve this recognition

## Open Signal

The independent and global institution, which analyzes experiences in mobile networks, recognized TIM in 2021 with the "Best Video Experience" and highest "4G Availability" awards"

## Customer S/A Award

TIM won gold in the award for best practices in customer culture management, competing with other companies throughout Latin America

## ICO2

The Company is part of B3's Carbon Efficient Index (ICO2), which brings together companies committed to transparently reporting their GHG emissions

## GSMA

The Company's efforts were recognized with GSMA's 2021 Diversity in Tech Award, a group that brings together telecom companies from around the world and honors organizations that defend and promote equality, diversity, and human rights in the technology sector

## Novo Mercado

Since 2011, TIM has been part of Novo Mercado, the level with B3's highest corporate governance requirements

# Governance

- Profile and governance structure
- 2021 Highlights
- Anti-corruption
- Operation
- Innovation
- Customer
- Suppliers
- Privacy and data protection

# Imagine the possibilities

**Purpose** To evolve together with courage, transforming technology into freedom

## Brand values

**Courage**  
to innovate and always think differently

**Respect**  
is taking care of everyone and valuing each person

**Freedom**  
to access what matters

## Strategic pillars

**Innovation**

**Customer experience**

**Agility**

## Goals

To reinforce our innovation pillar, increasing preference and decreasing rejection, being perceived as the most loved/remembered operator by 2023



# Profile and governance structure

TIM S.A. is a telecommunications company that provides mobile and fixed telephony, data transmission and ultra-broadband services. These services serve people and companies throughout the Brazilian territory.

The Company is currently listed on B3's Novo Mercado and has American Depositary Receipts (ADRs) listed on the New York Stock Exchange (NYSE) and, therefore, is subject to the rules of the Brazilian Securities and Exchange Commission (CVM) and the Securities and Exchange Commission (SEC). As a result, it must meet the requirements of the Sarbanes-Oxley Act (SOx). Headquartered in Rio de Janeiro (RJ), the Company is controlled by TIM Brasil Serviços e Participações S.A., a company of the Telecom Italia Group.

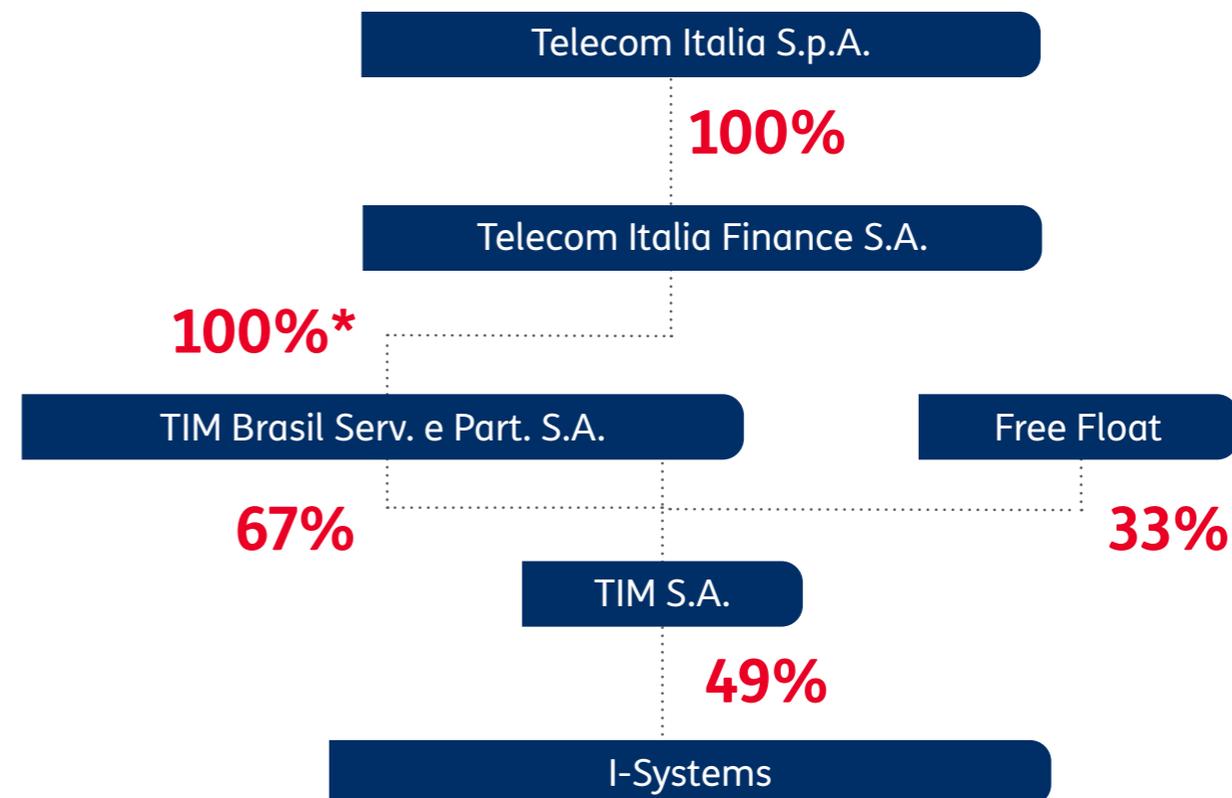
In February 2022, the Administrative Court of the Administrative Council for Economic Defense (CADE) approved the acquisition of the assets of Oi Móvel by TIM, along with operators Vivo and Claro. The effective conclusion of the transaction, which will define an infrastructure balance between the three main competitors in the sector, still depends on the

fulfillment of certain steps provided for in the purchase and sale agreement signed in January 2021. In November 2021, the Company acquired 11 lots from the 5G Auction promoted by Anatel, totaling an offer of R\$ 1.05 billion. In the same month, the transaction with IHS Fiber Brasil was concluded for the sale of 51% of the equity interest of I-Systems (formerly FiberCo), with a total value of R\$ 1.68 billion, of which R\$ 1.1 billion was paid to TIM.

## Governance structure

The Company's management is exercised by the Board of Directors (CdA) and the Executive Board. The CdA has four advisory committees: Statutory Audit Committee (CAE), Control and Risk Committee (CCR), Compensation Committee (CR) and ESG Committee. Also worthy of note are the Compliance and Internal Audit Executive Board, both directly linked to the CdA. The Fiscal Council is responsible for supervising TIM's management and rendering accounts to shareholders.

## Shareholding composition



\*Telecom Italia S.p.A. holds one share of TIM Brasil Serv. e Part. S.A.

# 2021 Highlights

## Financial

Net Revenues

**R\$ 18 billion**

↑ 4.6% (Y/Y)

Net Service Revenues

**R\$ 17.5 billion**

↑ 5% (Y/Y)

TIM Live's Net Revenues

**R\$ 720 million**

↑ 14.7% (Y/Y)

Normalized Net Income

**R\$ 2.2 billion**

↑ 17.5% (Y/Y)

Normalized EBITDA

**R\$ 8.7 billion**

↑ 4.4% (Y/Y)

(EBITDA margin of **48.4%**)

Operating Free Cash Flow

**> R\$ 6 billion**

↑ 32% (Y/Y)

Bad Debt

**2.1%**

of gross revenue (maintains balance)

## Infrastructure

Leadership in 4G coverage, covering

**4,715** cities

↑ 22% and

**98%**

of the Brazilian urban population

→ target by 2023 is to reach

**5,570** municipalities

Expanding 4.5G coverage to

**1,712** new cities

FTTH and FTTC fiber optic

coverage growth, with

**6.7 million** homes passed

↑ 5%

in **37** cities

### 5G is already here

In the 5G Auction, in November 2021, TIM won 11 lots (3 national and 8 regional) for the offer of **R\$ 1.05 billion**. Operations include 100 MHz capacity on 5G's most important frequency, 3.5 GHz.

Another highlight is the acquisition of lots at higher frequencies, called millimeter waves, whose main characteristic is the increase in internet speed.

TIM reinforced its pioneering spirit in technology by carrying out, in October, the first standalone 5G pilot in large markets (SP and RJ).

## Products and Services

**Mobile telephony and internet**  
in 3G, 4G, 4.5G and 5G DSS

**29 million**

prepaid customers, **24.5%** market share

**23 million**

on postpaid,  
market share of **16.8%**

**+ 46.3 million** accesses on 4G,  
**↑ 10.2%**

Mobile ARPU of

**R\$ 26.4/month**

**↑ 5.9%**

**Fixed telephony**

**811 thousand** fixed telephony customers

**↓ 13.2%** compared to 2020

**TIM Live**

**691 thousand** TIM Live fixed ultra  
broadband customers

TIM Live's Ultra Broadband customer  
base grew **6.1%** Y/Y

Penetration of high value offers (more than **100Mbps**)  
at TIM Live's base reached 62%

Launch of the 1 Giga residential plan, with the highest  
upload speed on the market (**500 Mega**)

**Pioneering in agribusiness**

**6.2 million** hectares in the  
field covered by TIM's 4G at the end of 2021

4G Internet in the countryside with a frequency o  
**700MHz**, the same available in large cities in Brazil

**Added value services**

Exclusive offers in partnership with C6 bank  
and Cogna Educação

[Click here](#) and learn more about the  
highlights of TIM's products and services

# Anti-corruption

In 2021, TIM's Integrity Program was certified in accordance with the ISO 37001 standard, an international standard for anti-bribery and anti-corruption management systems. This certification demonstrates to the various stakeholders the organization's commitment to adopting effective controls to combat bribery in all its forms. The Company, the first in the telecommunications sector in Brazil to be recognized, achieved this goal established in its ESG Plan one year in advance.

TIM's Integrity Program (Anti-Bribery and Anti-Corruption Management System - SGAA) is conducted by the Compliance Department and guided by a set of institutional documents: Code of Ethics and Conduct (updated in 2021); Anti-Corruption Policy; Organizational Model (updated in 2021); Conflict of Interest Policy; Contracting Policy with Related Parties; and Anti-Bribery and Anti-Corruption Management System Manual (updated in 2021).

TIM makes available to the internal and external public the Whistleblowing Channel, in bilingual format (Portuguese and English), with internet ([corporate website](#)) and telephone (0800 900 8007)

access. The service is managed by an external and independent company and operates every day, 24 hours a day. Whistleblowers can keep their personal information confidential, if they wish, and follow the progress of the complaint through a protocol, with guaranteed anonymity.

All the Company's leaders and employees are trained and express their commitment to the TIM Integrity Program. In 2021, 98.4% of employees were trained in the Code of Ethics and Conduct and 98.3% in anti-corruption policies and practices. In the same period, the course on the Integrity Program was applied to 89% of the staff.

The Anti-Corruption Program, an integral part of the TIM Integrity Program, follows the guidelines of the Anti-Corruption Policy and continuously monitors 20 sensitive processes and activities, with greater exposure to the risk of corruption. Monitoring involves evaluating internal controls, annually updating a risk matrix for sensitive activities, action plans and identifying opportunities for improvement in these processes and defense mechanisms.

## Material topic: Ethics and Business Governance

16

TIM recognizes that unethical behavior, such as corrupt practices, fraud, among others, have the potential to cause significant financial and reputational impacts to the Company. In the telecommunications sector, the need for large-scale infrastructure can create barriers for the entry of new actors and contribute to the creation of monopolies in the market by a small group of players, for example.

## Goal of the ESG Plan

Maintain ISO 37001 certification until 2023

## Result

Obtained **ISO 37001**  
1 year ahead of target

# Operation

Implementation of Telecom infrastructure is fundamental for society's development. This is because connectivity and access to telephony and the internet is a basic condition of contemporary social dynamics, whether for business, studies, leisure, or any other daily activity.

TIM reinforces its commitment to the evolution of its services and continuous quality improvement to ensure a better user experience for its customers. The focus on expanding and improving the network infrastructure remains a fundamental factor in its business plan.

One of the projects for the expansion of 4G coverage is Sky Coverage, started in the first half of 2021 in partnership with Highline and later with HIS and Winity. The initiative covers the installation of antennas powered by self-generated solar energy in places of difficult access and without availability of the electrical network, connected via satellite. TIM ended the year with 36 active off-grid sites, enabling cellular coverage in unserved regions and contributing to digital inclusion. One example was the tower installed in Acre, in partnership with Energisa, connecting 200 families in Vila Restauração (490 km from the capital Rio Branco) with 4G technology. The expectation is to expand the project to other locations in the country, benefiting more than 6 million people.

## 5G Auction

The realization of the 5G Auction in November 2021 marked the arrival of the technology in Brazil and allowed the targeting of investments for the implementation of this network. TIM effectively concluded its participation strategy in the Auction, with the acquisition of 11 lots, three national and eight regional. Part of these lots is on the 3.5 GHz frequency, the most important in 5G. In addition, the Company acquired higher frequencies, with the so-called millimeter waves, in which the potential for speed and connection quality is even greater.

The applications of 5G are multiple and making them a reality will depend on the joint and coordinated effort of different sectors. The Company is a pioneer in 5G tests in the country, starting these experiments in 2019. Last year, it carried out the first standalone 5G pilot (a network that does not depend on 4G, also known as "pure 5G") in large markets (São Paulo and Rio de Janeiro), as well as demonstrations of the 5G potential applied to different contexts, from public security to agribusiness.

### Material topic: Investment in Network Infrastructure and Reliability

9 11 15

TIM is committed to providing the best user experience and ensuring customer service quality. Therefore, it continually invests in expanding and improving its network infrastructure and coverage area. That way, it guarantees the quality of services and their competitiveness in the sector, in compliance with the legislation. The user's perception that this is an essential service has increased the demand for network reliability.

### ESG Plan Goal

Bring 4G connectivity to 100% of cities in Brazil by 2023

### Results

Municipalities covered by TIM's 4G



## 5G Characteristics

- Higher data transfer speed (can achieve download peaks of up to 20 gigabits per second on millimeter waves)
- 10 to 100 times higher data rates compared to 4G
- Lower latency (connection response, which can reach 1ms)

- Ecosystem generation for the Internet of Things (IoT) and new use cases in both B2B and B2C markets
- Higher number of simultaneous IoT connections (up to 1 million per Kmq)
- Improved connection stability and reliability (99.999% availability perception)

## 5G Applications

- Industry 4.0 (technologies for automation of industrial production chains)
- Fixed Wireless Access (FWA), a great opportunity for the provision of residential broadband through the mobile network
- Precision agriculture

- Telemedicine and remote surgery
- Digital transformation in the financial sector
- Automotive sector
- Augmented and Virtual Reality (AR/VR)
- Public safety, among others

## 5G Perspectives

- New system architectures, with improved communication between machines
- Cloud computing model with gains in terms of scale, flexibility, and security
- New generation networks, enabling the convergence of disruptive technologies such as Edge Computing, Artificial Intelligence, Machine Learning, Blockchain, among others

- Network Slicing, enabling an end-to-end isolated 5G network architecture tailored to meet the diverse requirements required by a specific application
- Open systems for creating solutions and applications
- To be an enabler of digital transformation in the various segments of the industry, increasing the country's efficiency, productivity, and competitiveness
- Positive environmental and social impacts
- Open lab initiatives

# Innovation

In a sector in constant transformation, innovation is an ally and a strategic intangible asset for solving business challenges. At TIM, investment in this topic encompasses several initiatives and focuses on the development of the network infrastructure, aiming to increase the delivery quality to customers and sustainable expansion. All this effort is also premised on engagement and co-creation with stakeholders, such as customers, universities, consumers, and the government.

To coordinate these initiatives, a specialist area in Architecture and Technological Innovation brings together telecommunication professionals, electrical and electronic engineers, computer scientists and other technologists with different backgrounds and experiences.

## Material topic: Innovation applied to products and service

9

TIM recognizes its role as a reference in technology in the country's telecommunications sector and as a leader in innovation. The Company seeks to proactively meet new consumption and market standards, following the change in the profile and behavior of its customers and new technologies to develop and offer products and services.

## Main innovation initiatives at TIM

### TIM Lab

A multidisciplinary environment that plays a strategic role in supporting the validation of Credibility Tests and Proofs of Concept services, collaborating with the main suppliers and technology partners.

### 4G coverage expansion

The reuse of frequency bands previously allocated to 2G and 3G technologies for 4G, a technique called frequency refarming, offers TIM important competitive advantages.

### RAN Sharing

Radio Access Network Sharing (RAN Sharing) is a smart alternative to optimize resource consumption, reduce deployment costs, and accelerate customer service improvement.

### Connected House Experience

TIM inaugurated a technological environment in São Paulo with the aim of offering users the experience of a smart home.

### Internet of Things (IoT)

TIM launched, in 2018, the first NB-IoT (Narrow Band in IoT) commercial network in South America. Since then, the Company has been expanding this service and is already the leader in this segment, with more than 3,700 cities with NB-IoT coverage, in addition to 11.5 million hectares covered.

### New store concept

At the beginning of 2022, TIM launched a new store concept, which integrates the real and virtual worlds.

### Education

The Company entered into a strategic partnership with Kroton, an education group, for the combined offer of 100% digital courses (DL).

### Open RAN in Brazil

TIM has been engaged in initiatives in favor of the development of Open RAN technology, which brings a series of opportunities for the disaggregation of hardware and software, which will allow a movement in the traditional industry in favor of scalability, flexibility, and efficiency in the domain of access networks.

### TIM 5G Challenge

From the partnership with Agtech Garage, the largest startup hub in Agro LATAM, TIM launched a call for startups that want to evolve and pivot their solutions on the 5G network, enabling unprecedented opportunities.

### ConectarAGRO

TIM is the only telephone operator to be part of the ConectarAGRO association with seven other large companies, references in their field of activity.

### Connected Car

TIM developed for FCA (Fiat Chrysler Automotive) the Connected Car Telemetry and User Service-Connected solution, to offer advanced telemetry services, assistance, and other value-added services for FCA car owners.

### Journey to Cloud

A pioneer in the process of migrating 100% of its data centers to the cloud, TIM continued the Journey to Cloud project in 2021, with 44% of the project's workload already migrated.

# Customer

Customer experience and satisfaction are the focus of TIM's operating strategy. In 2021, the Company made progress in investing to improve infrastructure, the offer of products and services and the excellence in service to its more than 52 million customers. In the period, we highlight the expansion of 4.5G coverage and FTTH optical fiber and the beginning of studies, tests, and evaluations for the implementation of the 5G network.

Initiatives that add value to the customer were also relevant. In the context of diversity, TIM became a partner of the Mulheres Positivas app, which provides content and promotes female employability. TIM customers browse the application without consuming the data allowance. In the field of education, the Company entered into a strategic partnership with Cogna Educação to promote distance education through the Ampli platform. The initiative involved exclusive offers to TIM customers, in addition to special discounts on selected courses.

The market's recognition of the effectiveness of the Company's strategy and actions that place customer experience and satisfaction at the center of the strategy was evidenced by the awards won in the year.

## Accessibility and inclusion

The Company has developed a space on its website so that people with visual, hearing and speech disabilities can use accessibility resources and gain autonomy in requesting services and other information.

## Relationship and digitization

The Company offers a 24-hour multichannel service model and solutions for performing self-service in an agile and practical way on digital platforms. One of the main digital channels for customer relationships is the Meu TIM application and the Meu TIM Website. In 2021, the Meu TIM app received the best rating among the service applications of Brazilian operators (grade 4.4 at the Play Store).

## Taís from TIM

Taís, TIM's URA, is the virtual assistant developed by the company that has tools for automatic detection of possible problems in the services. The tool uses neutral language so as not to promote sexist bias during consultations. The change reflects TIM's mentality of increasingly promoting equity in everything within its reach.

## Material topic: Customer experience and service quality

12 16

For TIM, the customer experience is related to the quality of services and attendance. The Company understands that the customer's experience influences the construction of its image, loyalty, market presence and competitiveness. Therefore, it is the central point of its strategic direction.

## Ease of payment

TIM was the first operator to offer PIX on all its bills. In 2021, around 15 million invoices were paid via PIX, which represented 15.9% of the total payments collected.

## Ombudsman

TIM has made available to users, since August 2020, an Ombudsman channel. The service is available to customers who have already activated other service channels by the Company and have not had their demands resolved within the deadline or were not satisfied with the solution presented.

## ESG Plan Goal

Reduce customer complaints at Anatel for personal mobile service by **50%** by 2023, compared to 2019, without considering customer complaints from the Oi Mobile base.

## Results

Anatel complaints reduction

2021		<b>44%</b>
2020		<b>17%</b>

## Customer experience

TIM guides its quality management based on customer experience. This is possible because the Company maintains open communication with its users through satisfaction level surveys and carefully monitors manifestations in consumer protection bodies. This monitoring covers complaints registered at Procon, at Consumidor.gov.br and at Anatel. In addition, TIM provides information on the sector regulation on its institutional website that directly influences tariffs, plans, promotions, and services offered to customers, valuing transparency, and facilitating access to this type of content.

TIM also develops a Transactional Survey, carried out from the call centers, and through it captures the immediate evaluation of the user after contacting the attendant. The Company's customers can periodically evaluate TIM's services via another assessment, the National Mobile Telephony Satisfaction Survey. In 2021, the Company recorded an average overall satisfaction of 7.46.



# Suppliers

Directed by the Supplier Relationship Policy, TIM establishes commitments to be followed by its suppliers, including subcontractors for the provision of services, for the formation of partnerships. The requirements focus on competitiveness, quality, safety, respect for human rights and socio-environmental responsibility.

In the formalization of contracts, suppliers undertake to conduct their operations in accordance with legal obligations and good compliance practices. The agreements also require companies to adhere to the TIM Integrity Program (learn more on page 24) and the Global Compact Principles, and expressly mention the repudiation of child labor or slave-like labor.

Actual or potential TIM suppliers are evaluated based on current labor laws, by consulting the databases of the Business Pact for Integrity and Against Corruption and the Brazilian National Pact for the Eradication of Slave Labor. If violations of labor legislation are recorded, the company is disqualified from providing services or products to the Company.

Based on these processes, in 2021 no suppliers were identified with significant risk for the occurrence of child, forced or slave-like labor.

## Material topic: Strategic and responsible supplier management

8 12

TIM understands that the strategic and responsible supplier management is related to the importance of the supply chain to guarantee the provision of quality services to customers. It is essential for the continuity of supply of products and services by business partners, inhibiting the risk of shortages, and for the joint creation of innovations and differentials in products and services. At the same time, it is fundamental for the creation of positive value in the TIM chain, engaging suppliers in good management practices of social, environmental, and economic aspects.

### 2021 Results

- **96%** of suppliers that went through the qualification process answered the Due Diligence questionnaire on ethics and conflict of interest
- The target for the Company's suppliers that go through the Due Diligence process was set at **85%** for 2022
- In 2021, 1,037 suppliers (**83%** of the total) responded to the socio-environmental questionnaire (assessment of risks such as child and forced labor, health and safety of workers, environmental management, etc.)

### TIM' supply chain

- Comprised of more than 700 national and foreign suppliers with which TIM carried out transactions during 2021. Of this total, 97% are local suppliers
- Provide network infrastructure equipment, telecommunications products, technology services and electrical energy
- Chain also composed of service providers, such as consultancies, audits, and communication agencies

# Privacy and data protection

Customer privacy and data protection is one of the most important issues for TIM's business management. The Company conducts its activities in complete alignment with the General Law for the Protection of Personal Data (LGPD), 13.709/2018, and based on ISO 27001, an international standard that describes best practices for information security management and NIST (Cyber Security Framework), a structure that supports the management and reduction of cybersecurity risk.

Since the LGPD was sanctioned in 2018, the Company has prepared itself in several ways to fully comply with legal requirements. Among the main actions, it trained employees to be aware of the impacts and changes brought about by the law and guided them to follow the guidelines in the collection, use and protection of personal data of customers, employees, suppliers, and other publics.

Among other aspects, the LGPD determines that each individual has the right to know how their data is being treated by the company, and may also request rectifications, deletions from the database and anonymization, which is called Owners' Rights. Since the LGPD came into force, TIM has received more than 700 requests from holders demanding Owners' Rights, all of which have been met. The most frequent requests are: right and access to processed data,

request for data deletion and request for suspension of advertising messages.

TIM has not received any substantiated complaint regarding breach of privacy and/or loss of customer data. Regarding the use of its customers' data, TIM continued to use location information (without any PII - Personally Identifiable Information - or the possibility of reverse engineering to access individual data), in a pro bono joint effort with other main mobile phone operators in Brazil, to measure the social isolation index in order to provide information to governments (more than 50 states and cities) and help in the fight against the covid-19 pandemic. Mobile customer base in 2021: 52,065,959.

In addition, TIM has collected express consent from more than 27 million users (until December 2021), in line with the LGPD, to impact customers with mobile advertising, thus being able to segment, reach and engage partner campaigns for the right customer, in the right communication channel and at the right time.

The person responsible for managing the topic at the Company, as required by law, is the Data Protection Officer (DPO), appointed in 2018. The professional reports directly to the Board of Directors and coordinates practical actions for maturing and improving governance over personal data.

## Material topic: Data protection, customer privacy and cybersecurity

16

TIM understands that data protection and customer privacy is a topic directly related to business continuity and that it has a direct impact on the Company's image and reputation, on customer satisfaction and retention. Failure to comply with legal requirements can generate fines and loss of market confidence. In the pandemic context, cybersecurity has gained even more relevance to keep customer information safe and protect against damage and possible interruptions in the operation.

### ESG Plan Goal

Obtain ISO 27001 certification by 2022

### Result

Goal in progress

[Click here](#) and access TIM's Privacy Policy

# Environmental

- Climate change
- Energy
- Waste



## Environmental Management System

TIM has a set of policies and processes that guide its practices and actions on socio-environmental issues and that reinforce its commitment to environmental management. Fundamental for the competitiveness of companies, sustainability is a priority issue for TIM Group.

The Company's guideline is to always stay ahead of the demands of society and legislation, contributing as a protagonist to the advancement of the telecommunications sector. TIM's Environmental Policy covers all of the Company's operations and is based on three pillars: environmental protection, compliance with corporate legal and regulatory

requirements and promotion of continuous improvement of its Environmental Management System (EMS). The document also strengthens TIM's commitment to other environmental principles, such as adequate waste management, efficient consumption of natural resources and pollution prevention.

To ensure performance in accordance with legal requirements and Environmental Policy guidelines, TIM has teams to license and monitor the compliance of the Company's sites, such as Radio Base Stations (ERBs), technical buildings and data centers.

ERBs generate impacts at the time of their construction, due to the local movement of workers and works. In the operational phase, the main impact is associated with non-ionizing radiation emissions, which are the subject of theoretical and practical reports in order to guarantee the safety of structures for society, in compliance with the limits established by the World Health Organization (WHO). In 2021, the level of electromagnetic emissions at 3,938 sites was measured, as requested by Anatel. The Company also measures the noise level of the network structures, upon demand. In 2021, 15 requests of this nature were answered.

TIM's asset park comprises more than 23 thousand ERBs, all licensed by Anatel, in accordance with local regulations, such as urban and environmental licenses, when applicable. Of this total, 149 are located in sensitive areas for biodiversity (Environmental Protection Areas – APAs or Permanent Protection Areas – APPs). The Company periodically monitors these locations in order to avoid any negative impact.

In 2021, TIM did not receive any significant environmental fine. The Company follows the evolution of the administrative defense presented regarding the fine of R\$ 500 thousand applied in 2016, reported in previous years and for which the possibility of statute of limitations is being raised.

### More connectivity with renewable energy

Applying technology to minimize the impact of antennas on its network, TIM has 1,766 active biosites. These structures, similar to a common pole, accommodate all the telecommunications equipment inside, in addition to housing other urban furniture, such as street lighting and security cameras. As a result, they have a low visual impact on the landscape, in addition to requiring smaller physical spaces for their installation.

In February 2022, TIM activated the first wind-powered biosite in Brazil. The place chosen to receive the novelty was the Pipa beach, in Rio Grande do Norte. Unlike traditional wind towers, the blades are positioned vertically, on top of the metal pole, allowing for a quieter and more efficient movement with less visual impact. GRI 304-2

### Focus on environmental management

The Environmental Management System (SGA) aims to provide TIM with a structure to protect the environment, enabling a response to changes in environmental conditions, in balance with socioeconomic needs. In addition, it aims at the continuous improvement of the organization's environmental performance and the compliance of the activities carried out in accordance with the Environmental Policy.

In line with the Company's strategic planning, the SGA follows the requirements of the ISO 14001 Standard. Since 2010, TIM has been certified in this environmental standard within the scope of Network Management and Operation in the states of Espírito Santo, Rio de Janeiro, and São Paulo.

# Climate change

The mitigation of greenhouse gas (GHG) emissions and the adaptation of operations to the already irreversible effects of climate change are strategic for TIM's value creation. These two perspectives are managed under the guidelines of the Company's Climate Change Management Policy, which determines cornerstones for the theme's management, considering national and international legislation, determinations of regulators and guidelines of the TIM Group.

In 2021, the TIM Group joined the Science Based Target initiative (SBTi) with TIM Group, created by the coalition among CDP, Global Compact, World Resources Institute (WRI) and World Wildlife Fund for Nature (WWF). The objective of the SBTi is to promote best practices for reducing and neutralizing GHG emissions, in line with climate science, engaging companies through a public commitment to submit their emission reduction targets so that they are validated through a scientific method.

## ESG Plan Goal

Achieve carbon neutrality (scopes 1 and 2) by 2030

Zero indirect scope 2 emissions

## Results

### Scopes 1 and 2 reduction



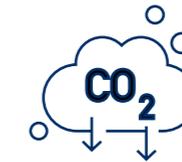
### Scope 2 reduction



As part of this commitment, TIM's GHG inventory is prepared annually, in accordance with the premises of the Brazilian GHG Protocol Program (including optional Scope 3 reporting) and is audited by a third party<sup>1</sup>. Emissions data and practices for governance, strategy and risk and opportunity management in this area are also widely disclosed on a voluntary basis within the scope of CDP, a global initiative for transparency in emissions. In 2021, TIM evolved its score from B- to B.

Additionally, companies that responded to the full version of the CDP Questionnaire for Climate Change also had their supplier engagement performance evaluated. The result is demonstrated in the Supplier Engagement Rating (SER), which considers companies' responses to governance issues, targets, Scope 3 emissions and value chain engagement. In 2021, TIM was classified as A-, an evolution of the 2020 result (B-).

Direct GHG emissions from TIM's operational activities (Scope 1) are mainly associated with stationary emissions from machinery and equipment, such as generators, fugitive emissions from refrigeration systems, extinguishing gases from fire-fighting systems and fuels of the vehicle fleet controlled by TIM. Currently, most of the indirect emissions accounted for by TIM come from the consumption of electricity (Scope 2), while the others, related to the



In 2021, TIM invested in the neutralization of part of GHG emissions through the acquisition of **592 carbon credits** from the forestry project Envira Amazonia Project, REDD+ (Reducing Emissions from Deforestation and Degradation) in partnership with Carbonext.

Company's value chain operations (Scope 3) come from the transport of goods and the displacement of sales teams that demand the use of fuels.

To map the impacts of emissions throughout the life cycle of its products, TIM calculated its Carbon Footprint. The study concluded that for every 1 Mb of data transmitted over 4G technology, 1.47 grams of CO<sub>2</sub>e is emitted. The main factors for this emission are the burning of diesel in the generators and the electricity consumption of the operations.

1. TIM is not among the Gold Seal companies for the Qualification Policy of the GHG Protocol Program because the Verification Body (OV) responsible for auditing the Company's GHG inventory is not accredited by Inmetro in Brazil.

[Click here](#) and access TIM's Climate Change Management Policy

## TIM's GHG emissions inventory

### Scope 1

Direct emissions associated with the operation, especially from the burning of fuels and maintenance of air conditioning and firefighting systems.

The trend of reducing emissions from TIM's vehicle fleet continued in 2021, largely due to the effects of the pandemic. The increase of about 80% in stationary emissions was due to the accounting of emissions from machines and equipment from the plants of the GD Project. Emissions from these activities, mostly methane (CH<sub>4</sub>), totaled 595 tCO<sub>2</sub>e in the period. In addition, the effluents in the CHGs of the CD Project were mapped for the first time, due to a license condition.

### Scope 2

Indirect emissions from the purchase of electricity. For the location approach, emissions are calculated using the average emission factor of the National Interconnected System (SIN), that is, it does not account for the traceability of renewable energy acquired in the free market and through distributed generation. For the purchase choice approach, renewable energy purchased with proven traceability (via renewable energy certificate, I-RECs) is considered.

### Scope 3

Indirect emissions in TIM's value chain, including the commuting of employees to work, air travel for work, waste treatment and logistical activities, among other emitting sources.

In 2021, TIM revised the Scope 3 category, starting to disregard the losses scenario due to transmission and distribution of electricity. For this reason, the values for 2019 and 2020 were recalculated considering this same criterion. In addition, the reduction in GHG emissions observed in the last two years was mainly due to the Covid-19 pandemic, which affected business travel (air travel and travel by taxi) and the commuting of employees, that is, commuting from home to work, due to the adoption of home office.

TIM showed a reduction in indirect Scope 2 and Scope 3 emissions due to energy compensation through the acquisition of renewable energy certificates. In the case of Scope 3, one of the categories of indirect emissions reported by TIM considers emissions resulting from the acquisition of fuel used in extraction, production, and transport.

Scope 1 GHG emissions (tCO <sub>2</sub> e)	2019	2020	2021
Emissions from the TIM operational control vehicle fleet	510	348	335
Stationary Emissions (Generators, Machine and Other Equipment)	661	815	1,474 <sup>1</sup>
Fugitive emissions (refrigerant gases and fire extinguishers) <sup>2</sup>	3,962	4,309	2,584 <sup>3</sup>
Effluents	-	-	2
<b>Total</b>	<b>5,132</b>	<b>5,473</b>	<b>4,395</b>

1. Value considers the biogas plant and the natural gas plant that are now accounted for in scope 1 instead of scope 2, previously reported as electricity acquisition.

2. TIM Brasil and TIM Group use the same database that originates GHG emissions, however, the results presented in tons of carbon equivalent differ between the two companies due to the use of different methodologies. TIM also separately monitors its Non-Kyoto fugitive emissions, which correspond to chemical substances with emissions that are not included in the final accounting of the GHG Inventory, prepared in accordance with the methodology of the Brazilian GHG Protocol Program. However, aware of its environmental commitments, TIM identified the equivalent of 2,122 tCO<sub>2</sub>e of non-Kyoto fugitive emissions in 2021.

3. Reduction of fugitive emissions due to improved preventive maintenance for leaks and accidental trips.

Scope 2 GHG emissions (tCO <sub>2</sub> e)	2019	2020	2021
Location-based <sup>2</sup>	53,806	38,717	51,355 <sup>1</sup>
Market-based <sup>2</sup>	-	-	0

1. In 2021, emissions related to the distributed energy generation project (self-generation) were not accounted for, they began to be accounted for in scope 1 (emissions from the operational activities of the plants). In the same year, TIM reached the percentage of -153% in its indirect emissions (compared to the 2019 baseline), also as a result of the actions aimed at expanding the use of renewable energy and the acquisition of renewable energy certificates (I-RECs), which "offset" the equivalent of 51,355 tCO<sub>2</sub>e.

2. Location-based approach: calculation of emissions considering as an emission factor the average of emissions for the generation of electricity from the National Interconnected System. Market-based approach: quantification of emissions considering the specific emission factor associated with the proven origin of each source generating electricity that the inventory organization has purchased.

Scope 3 GHG emissions (tCO <sub>2</sub> e)	2019	2020	2021
	16,687	9,668	8,199

[Click here](#) and access TIM's GHG Inventory in the Public Emissions Registry of the Brazilian GHG Protocol Program

# Energy

TIM depends on the constant supply of electricity to supply the physical structure of its telecommunications network, operations, data centers, stores, and administrative headquarters. Due to the strategic importance and impacts associated with energy consumption, the topic is material and is part of the ESG Plan's commitments. A specialized team is responsible for energy management, focused on two priority fronts: expanding the presence of renewable sources in the Company's matrix and improving energy efficiency in the grid.

One of the main initiatives in this context is the Geração Distribuída project, which promotes the supply of the grid using small power plants. At the end of 2021, TIM had 46 active plants, which together with the purchase of energy in the Free Market made it possible to reach, in December, the level of 83% of renewable energy from total direct consumption (79% in the annual average). With the acquisition of origin certificates for renewable energy (I-RECs), TIM reached the mark of 100% renewable energy in its operation.

Thus, in 2021, 100% of electricity consumption (652,052 MWh) came directly or indirectly from renewable sources. The goal of the ESG Plan is to maintain this achievement until 2025.

## Material topic: Energy management

7 13

The telecommunications sector is highly dependent on the continuous supply of electrical energy to guarantee the functioning of its operations. For this reason, TIM understands that energy shortages are a significant operational risk, directly related to the Company's costs. Any interruptions in this supply impact the provision of services and the customer experience. It also understands that investing in renewable energy sources contributes to a lower environmental impact and mitigation of risks related to the continuity of its operations.

## ESG Plan Goal

Maintain **100%** of energy consumption from renewable sources by 2025

Maintain the **80%** increase in energy efficiency in data traffic through 2025 compared to 2019

## Results

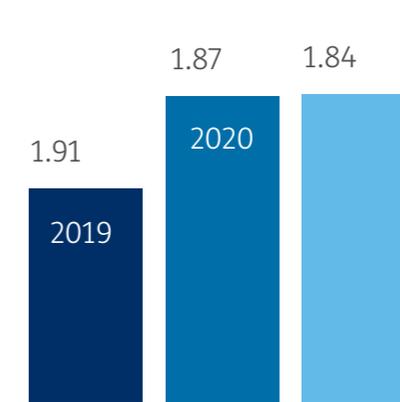
### Renewable energy consumption

2021 **100%**  
2020 **64%**

### Eco-efficiency increase

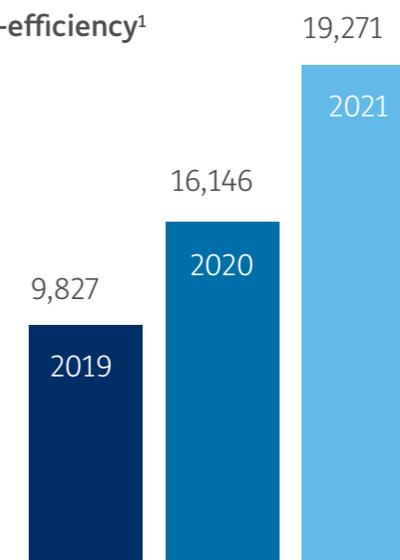
2021 **96%**  
2020 **64%**

### Average PUE<sup>1</sup>



1. The average Power Usage Efficiency (PUE) indicator is used in the industry to measure the efficiency of data centers, considering the relationship between the total energy of the facilities and the energy of the IT equipment. For more information on the methodology proposed by The Green Grid, [click here](#)

### Eco-efficiency<sup>1</sup>



1. Indicator measured in bits traveled per Joule consumed, reflecting the Company's efficiency in increasing voice and data traffic from fixed and mobile networks compared to energy consumption (the higher the better). TIM's network traffic in 2021 was 5,683 PB.

# Waste

The efficient and responsible management of solid waste is one of the objectives assumed by TIM in the ESG Plan and is provided for in the Company's Environmental Policy. In addition, in compliance with the National Solid Waste Policy (Law n° 12.305/2010), TIM shares with business partners the responsibility for receiving and properly disposing of post-consumer electronic equipment (such as smartphones, modems, batteries and accessories). Another vector to reduce the generation of waste is the digitization of services, which reduces the amount of paper needed for issuing invoices and collections.

In the search for constant improvement of its processes, TIM started to report the disposal of waste called CPE (Customer Premises Equipment)<sup>1</sup> from customers (individual or legal entity) who requested cancellation or stopped paying for the service. All material collected goes through the refurbishing process, which evaluates the reuse conditions of the equipment. About 96% of modems returned from customers were recovered and reused and only 4% were discarded, in accordance with the Company's legislation and standards.

Encouraging and promoting the reverse logistics of electrical and electronic products and their components for domestic use is another front of the Company's operations. In this sense, TIM has a goal for 2022 to

collect 3% of this waste, based on the volume sold in its stores in 2018. In 2021, the result achieved was 0.30 ton. Of this total, 97.5% were recycled. The initiative complies with Federal Decree 10.240/20, which determines how mobile phone companies must operate the reverse logistics system to ensure the environmentally appropriate final destination of post-consumer products.

## Material topic: Waste and post-consumption management

12

The Company is aware that the operation generates hazardous and non-hazardous waste, both in administrative processes and in the installation and maintenance of infrastructure. Waste is disposed of correctly, in accordance with the requirements of the legislation, so as not to cause contamination to the environment, nor generate sanctions and fines. In addition, it recognizes its direct and shared responsibility in the management of electronic waste (such as cell phones, batteries, accessories, modems, etc.) and assumes commitments to avoid and/or eliminate waste and reuse and/or recover materials.

## Recycled or recovered

# 6.5



**tons** of electronic waste (cell phones, batteries, accessories, etc.) and corporate modems (CPE)

# 87



**tons** of consumer electronics equipment (modems, repeaters, and accessories)

## ESG Plan Goal

Recycle at least **95%** of solid waste by 2023

## Results

Recycled solid waste



<sup>1</sup> Technical term used to designate the equipment used by customers, whether individuals (cell phones, batteries, modems, and other electronic accessories collected in stores) or legal entities (modems, sources, cables, and other accessories).

# Social

- Digital inclusion
- Employees
- TIM's actions in the pandemic
- Diversity and inclusion
- Human rights
- Instituto TIM

# Digital inclusion

A permanent objective in TIM's strategic planning, the expansion of connectivity has positive impacts on society as a whole. Especially in the last two years, with the context of the new coronavirus pandemic, the benefits of offering telecommunications infrastructure have become even more evident and have reached a level of priority for the maintenance of business and teaching activities.

Two fronts have the greatest impact potential to promote broad digital inclusion across the country: the expansion of the 4G network and initiatives to cover rural areas. TIM has been advancing in these two fields.

TIM was the first operator to successfully complete the process of entering into the Conduct Adjustment Agreement (TAC) with Anatel. The agreement provides for investments until 2024 to improve the quality and customer experience, with the improvement of digital service channels and reduction of complaint rates, as well as an increase in network infrastructure in more than 2 thousand cities. On the other hand, lawsuits against TIM were filed by the entity totaling approximately R\$ 639 million.

Among the commitments undertaken, the implementation and/or expansion of the 4G network in 1,837 municipalities stands out. In addition, it is estimated that 3 million people will benefit from the Additional Commitments, which aim to expand mobile broadband technology to around 350 municipalities with less than 30 thousand inhabitants, especially in the Northeast, North, Midwest regions and north of the state of Minas Gerais that still do not have access to 4G and have a Human Development Index (HDI) below the national average. The projects prioritized in this regulatory instrument are in line with the Public Telecommunications Policy, which provides for an increase in the coverage of mobile broadband access networks, prioritizing the service of cities, towns, isolated urban areas, and clusters that do not have this structure. In 2021, TIM concluded 18 months of the agreement, bringing coverage to 45% of the total of planned municipalities.

## Material topic: Digital inclusion and access to connectivity

1 9

TIM's telecommunications activities generate positive impacts beyond the business. Access to mobile telephony and broadband internet services makes it possible not only to communicate, but also to create countless opportunities for people and companies, functioning as a powerful tool for innovation. This transformation is also connected to digital inclusion through the provision of connectivity in regions without access to these resources, such as isolated communities, rural and low-income areas.

The urgent need to digitize various services and the migration of various activities to the online environment with the pandemic contributed to the recognition of telecommunications as an essential service.

### ESG Plan Goal

Bring 4G connectivity to **100%** of cities in Brazil by 2023

### Results

Municipalities covered by TIM's 4G

2021		<b>85%</b>
2020		<b>70%</b>

# Employees

TIM maintained throughout 2021 its purpose of reconciling the needs of the business and employees, continuously exercising active listening. With the consolidation of remote work methods and dynamics, the Company defined a structured plan for the progressive return to face-to-face work, respecting safety, and distancing protocols to prevent the spread of Covid-19.

Engagement surveys carried out during this period contributed to the identification of strengths and opportunities for the evolution of the hybrid model. Among the positive issues pointed out, the experience of interaction between the teams, the implementation of security protocols and engagement stand out. The displacement time and the greater flexibility of the model were the main improvements indicated.

As in the previous year, corporate activities continued as planned, including the annual performance evaluation. In 2021, 96% of employees went through the process. Another practice maintained was the conduction of the Corporate Climate Survey, which surveyed more than 7,900 employees, reaching a participation rate of 97% of the staff. The survey covers topics such as a culture of integrity, a healthy work environment, trust from management and leadership, and achieved an overall satisfaction result of 83%. In the satisfaction analysis by the respondents' gender, the rate was 82% and 85%, respectively, for men and women.



**9,681**  
employees  
worked at TIM at  
the end of 2021

## Material topic: Health, well-being, and management of employees

4 8

For TIM, employees represent the Company's main asset and drive performance through their knowledge, skills, and attitudes. As part of the strategy to be recognized as an innovative company, the Company's objective is to develop, attract and retain diverse talents, in addition to engaging its employees. The continuity of the coronavirus pandemic reinforced the importance of being concerned about the health and well-being of employees.

## ESG Plan Goals

- Maintain the level of employee engagement of at least 80% by 2023
- Train 99% of employees in the ESG culture by 2023
- Train another 5,000 employees in digital capabilities by 2023

## Results

### Employee engagement

2021		<b>83%</b>
2020		<b>84%</b>

### Trained in ESG culture\*

2021		<b>95%</b>
2020		<b>99%</b>

### Trained in digital capabilities\*

2021		<b>1,861</b>
2020		<b>1,486</b>

\*Data for the years not comparable due to the modification of the calculation methodology in the period

## Training and education

In 2021, employee qualification initiatives continued to focus on the virtual training environment, as social distancing recommendations were maintained in the context of the Covid-19 pandemic. TIM invested more than R\$ 10 million in training and education, diversity and development programs.

The Company continued to focus on the educational strategy of supporting the company's digital transformation, with two major initiatives. The Journey to Cloud consists of a structured retraining plan for all professionals involved in the migration of the infrastructure to the virtual environment and the Agile Journey aims to disseminate the culture, as well as the methods and tools of the Agile Methodologies.

Two leadership development initiatives were highlighted in 2021. The E-Coaching Program offered 270 newly promoted young leaders five individual sessions with professionals certified by the International Coach Federation (ICF). Another important action was the Executive Mentorship Program, offered to 80 senior executives of the Company.

Within the scope of the ESG Plan, TIM continues to promote the strengthening of the corporate culture for sustainability. On the internal training platform, several courses are available for employees to better understand TIM's sustainable business model.



In 2021, the various training and education fronts totaled an average of 49 hours of training per TIM employee, an increase of 32% over the previous period. This variation is explained by the intensification of training for store and call center teams and the launch of the language program for the entire Company and the intensification of actions aimed at Diversity and Inclusion. In terms of gender, the female audience had an average of 57 hours of training, while the male audience had 42 hours.

### TIM Talks

Held annually, this meeting brings together employees from all over the country to discuss the most evident topics in the sector, such as 5G, Cloud, Artificial Intelligence, Privacy, among others. In 2021, for the second consecutive year, the event was attended by both internal and external audiences and was held in 100% digital format, reaching more than 12 thousand participations and more than 9 thousand views on TIM's YouTube channel. In addition to the presence of representatives from the market, the academic sector, and various institutions, for the first time, TIM Talks had international guests.

# Health and safety

TIM's Occupational Health and Safety Management System brings together processes and initiatives to ensure a safe work environment and promote employee health. These efforts are guided by the Company's Health and Safety Policy, always seeking the best market practices and full compliance with the Regulatory Norms drawn up by the Ministry of Labor and Employment.

Health and safety risks are periodically reviewed and analyzed, in accordance with the Company's internal procedure. Through periodic audits and inspections, all processes and work environments undergo evaluations in order to ensure the effectiveness of health and safety risk prevention procedures.

Every month, the Internal Accident Prevention Commissions (CIPAs) meet to discuss issues related to accident prevention, unsafe conditions identified in inspections and suggestions for improving processes. These teams also strengthen communication and awareness initiatives on the subject, such as the Internal Accident Prevention Week (SIPAT).

All new employees receive training on prevention and promotion of health and safety at work. For outsourced service providers, the Company provides an exclusive training platform, with guidance content on Health, Safety, and the Environment. Periodic drills for emergency cases and the Emergency Response Plan (PAE) complement this management structure.

Work safety indicators	2019	2020	2021
Work accidents	7.0	4.0	6.0
Frequency rate <sup>1</sup>	0.4	0.3	0.4
Severity rate <sup>2</sup>	5.6	1.8	2.8

1. Calculated as the total number of accidents per 1 million man-hours worked.  
 2. Calculated as the total number of days lost per 1 million man-hours worked.



[Click here and access TIM's Occupational Health and Safety Policy](#)

# TIM's actions in the pandemic



Throughout 2021, TIM maintained the measures implemented to prevent the spread of the new coronavirus and combat the impacts of the Covid-19 pandemic. A set of protocols and initiatives contributed to the safety of employees, customers, suppliers, and society as a whole. With the advancement of the national vaccination program, activities in the offices began to be resumed in a hybrid model of face-to-face and remote work for the administrative public.

## Employees

- Beginning of the face-to-face return to the offices in October 2021 in a hybrid model, following a structured plan to guarantee all safety conditions for professionals
- Creation of structured and mandatory learning initiatives for employees with content related to the pandemic, such as remote work practices, well-being and mental health and protocols of conduct
- Maintenance of remote work for all employees where this modality was possible, including the customer relationship center teams
- Compliance with the Contingency and Risk Mitigation Plan in all on-site activities, in order to preserve the health of employees and ensure operational continuity

- Mapping application of employees and family members in high-risk groups, in line with CDC (Centers for Disease Control and Prevention) techniques
- Conducting Covid-19 testing, especially in stores

## Customers

- Extension of the validity of credits from up to R\$ 20 to 60 days, as an aid to lower-income prepaid customers
- Access to the Coronavirus SUS app and the Ministry of Health hotsite without consuming internet franchise data

## Institutions and society

- First operator in Brazil to close a technological partnership for the application of analysis of aggregated and anonymous data to monitor the effectiveness of measures to combat Covid-19 and participation in the sectoral agreement that allowed access by government agencies to this type of technology to facilitate decision-making in the fight against the pandemic
- Prioritization of the demands of Corporate Subscribers in the government area to maximize the level of availability, especially for hospitals and healthcare institutions
- Involvement in the partnership between operators to offer an internet plan with reduced costs to governments in all spheres, with the objective of offering

free internet to public school students and enabling access to distance learning platforms

- Support from Instituto TIM to the Gesto Solidário campaign, promoted by Instituto Biomob, with the donation of more than 2 thousand market baskets to 600 families in social vulnerability situations in communities in the state of Rio de Janeiro
- Participation in the Saving Lives campaign of the National Bank for Economic and Social Development (BNDES). The R\$ 500,000 donated by TIM benefited 25 hospitals in 20 municipalities in 14 states through the purchase of 450,000 Personal Protective Equipment (PPE), and was also doubled by BNDES, expanding assistance to public and philanthropic hospitals

# Diversity and inclusion

TIM believes in workforce diversity as a fundamental pillar in promoting a positive experience for people. For the Company, it is essential to reflect in the workforce the demographic composition of the society in which it operates. The Diversity and Inclusion Policy guides all the Company's people management practices and activities, encouraging an attitude of respect and encouraging the appreciation of differences, without any type of discrimination.

Several internal initiatives and voluntary commitments made have resulted in important recognitions: TIM became the first Brazilian operator to integrate the Refinitiv Diversity & Inclusion Index and, in February 2022, the Company also joined the Bloomberg Gender Equality Index, which brings together 418 companies from 45 countries, 13 of which are from Brazil.

The Diversity and Inclusion Program brings together initiatives to strengthen corporate culture, with an annual calendar of activities related to the topic (aligned with the United Nations (UN) agenda), which guides the integrated communication and training plan on the topic and the continuous improvement of

## Material topic: Promotion of Diversity and Equal Opportunities

5 8

Promoting a corporate culture of respect and appreciation of differences between people has become a fundamental issue. TIM believes that the more diverse a group, the greater the exchange of experiences and solutions, which contributes to constituting an inclusive work environment, with gains for the processes of attractiveness, engagement, innovation, and competitiveness.

 **68% and 56%**  
of the vacancies in the two 2021 editions of the Internship Program were occupied by black people

## ESG Plan Goal

- Have **35%** of women in leadership roles by 2023
- Reach **40%** of black people in the workforce by 2023

corporate processes to incorporate criteria of gender equity, sexual orientation, racial equality, different generations, and people with disabilities. In 2021, as part of its commitment to promoting an increasingly inclusive, safe, and discrimination-free environment, TIM launched the Respeito Gera Respeito Program, with new guidelines, educational actions and internal and external initiatives focused on the topic. Within the scope of the program, the company joined the Business Coalition for the End of Violence Against Women and Girls, launched a policy for the prevention, deterrence, and management of harassment practices.

A specific management in the Human Resources area is responsible for conducting the activities. At the executive level, the Diversity and Inclusion Committee, led by TIM's president, assesses the evolution of processes and opportunities for advancement. In addition, in a broad way, the Affinity Groups mobilize the almost 500 employees who voluntarily share ideas, propose new initiatives and actions to strengthen an inclusive culture.

Discrimination complaints are received and investigated by TIM's Complaints Channel, with the

## Results



adoption of disciplinary measures in accordance with the Company's internal regulations. In 2021, 14 reports were received, of which 5 were considered unfounded, 2 with inconclusive investigation and 1 valid, related to discrimination by age group. In this confirmed case, TIM applied feedback to the professional involved. Another 6 reports were still under investigation at the end of the period.

In 2021, the Company created talent database for professionals from minority social groups, such as women, black people, LGBTI+ people, people with disabilities and people over 45 years of age, in order to enhance the active search for candidates to expand the diversity in the workforce. In addition, TIM has been promoting internship and young apprentice programs aimed at hiring women, black people, LGBTI+ people, people with disabilities and people over 45 years old.

## TIM highlights in 2021 on the Diversity and Inclusion agenda



Integrates the Bloomberg Gender Equality Index

Protagonism in the Refinitiv Diversity & Inclusion Index 2021 ranking (1<sup>st</sup> place among Brazilian companies and 19<sup>th</sup> place globally)

Among the 10 companies with the highest representation of women on the Board of Directors, becoming part of the Teva ESG Women on the Board Index

Obtaining the WoB Women on Board Initiative seal for the female presence on the Board of Directors



Adherence to the LGBTI+ Business and Rights Forum and creation of a talent database for LGBTI+ people

Recognition in the Diversity in Tech Award category of the 2021 Global Mobile Awards

Adoption of inclusive language in the Cognitive URA; virtual assistant, called Taís, responds with a humanized and non-sexist voice

Adhesion to the Business Network for Social Inclusion (REIS), which brings together more than one hundred companies around the Pact for Inclusion and has the endorsement of the International Labor Organization (ILO)

Adherence to the UN Women's Empowerment Principles (WEPs), with campaign launch and guide to combat sexism

Leadership of the Positive Women Project focused on expanding the employability and presence of women in the labor market. The initiative uses the Mulheres Positivas App as a digital platform to offer more than 200 training courses free of charge and advertise job vacancies in the more than 50 companies participating in the project, in addition to an intercompany mentorship focused on the career development of women from the project companies.



Launch of the Disability Guide without Taboos and the campaign to combat ableism (discrimination against people with disabilities)

Opening of the Young Apprentice Program and the Internship Program with targets for hiring black people and encouraging enrollment and selection of other minority social groups

Adherence to the Generations and Future of Work Forum, launch of an internal referral program for people over 45 and a campaign against ageism (discrimination based on age)



Participation in the Business Coalition for Racial and Gender Equity and creation of a talent bank for black people

Adherence to the Business Coalition to End Violence Against Women and Girls, and launch of the Respeito Gera Respeito Program, with new guidelines, educational actions, and internal/external initiatives to promote environments and relationships free from any type of discrimination, harassment, and violence

Inclusive event for employees and their families, TIM +Família

# Human rights

Treat everyone with dignity, respecting and ensuring the non-violation of internationally recognized rights, including those related to work and non-discrimination. This is TIM's premise to promote respect for human rights in its operations and in its value chain. These topics are continually disclosed to the internal public, mainly through TIM's training platform.

The Company has participated in the Human Rights Working Group in the Brazilian Global Compact Network since 2015 and has established internal regulations on the subject. Among them, we highlight the Policy for the Prevention, Restraint and Management of Moral, Sexual Harassment and Bullying Practices (launched in 2021), the Code of Ethics and Conduct, TIM Group's Human Rights Policy, the Relationship Policy with Suppliers, and the Social Responsibility Policy. All these normative instruments guide the daily conduct of employees and are publicly available on the institutional website and cover, among other matters, the prohibition of child, forced or slave-like labor, the repudiation of attitudes of discrimination and sexual or moral harassment, the guaranteed freedom of union association and collective bargaining and the appreciation and promotion of diversity.

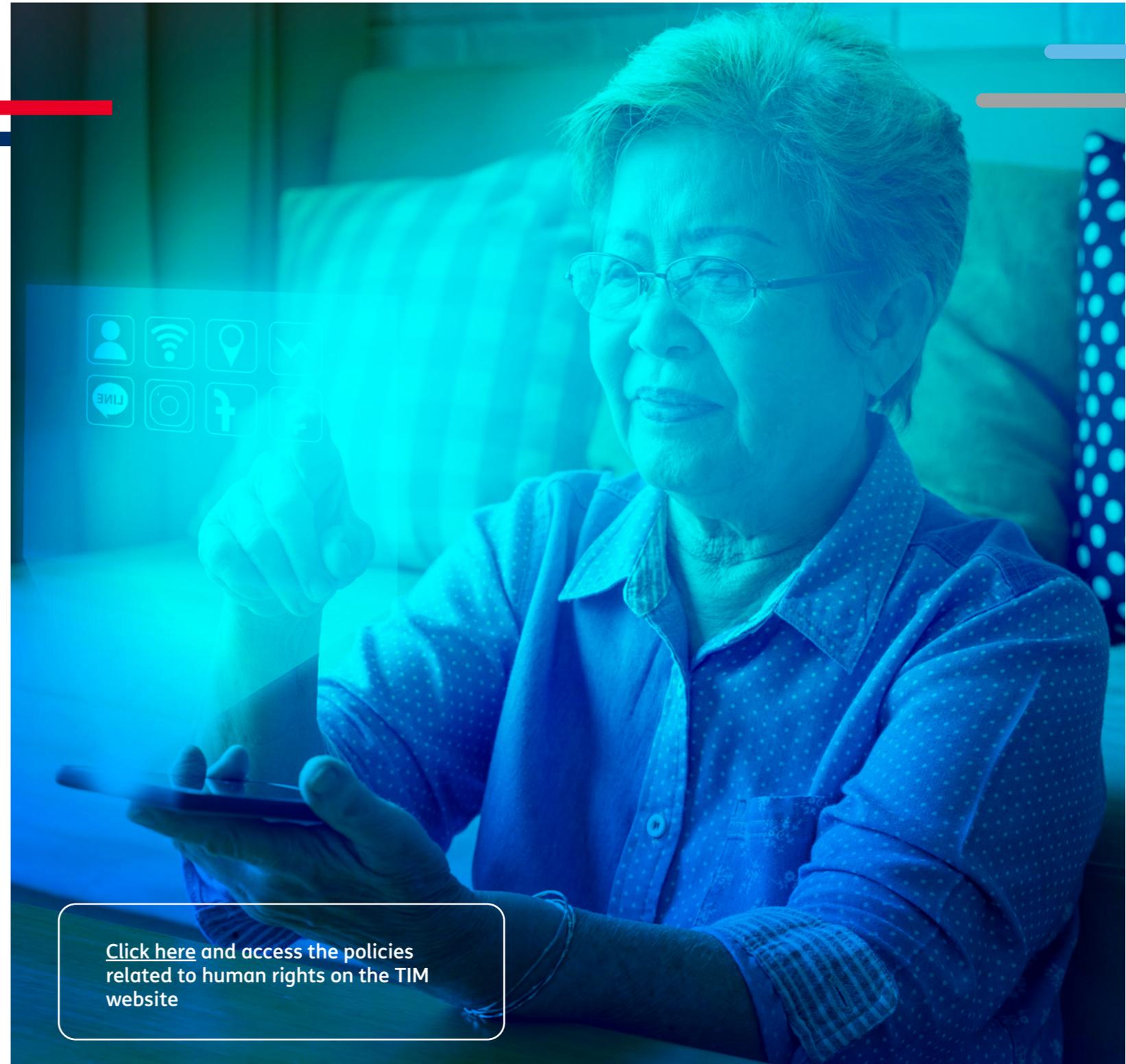


**+ 7,200** hours of human rights training were promoted to TIM employees

**55%** of the internal public was engaged in these training actions on the subject

**100%** of CAPEX contracts in force in the year with a human rights clause

**83%** of suppliers evaluated under human rights criteria



[Click here](#) and access the policies related to human rights on the TIM website

# Instituto TIM

Instituto TIM strengthens and directs the Company's social investment in the promotion of human development, contributing to the corporate ESG strategy. Founded in 2013, the organization believes and works in the democratization of knowledge, science, and technology, with innovation as a lever for transformation. The projects developed are guided by four principles

and have already benefited more than 700 thousand people in around 500 cities, in all Brazilian states.

TIM's Private Social Investment Policy determines the strategic guidelines for activities related to corporate citizenship. The Company's social investments are made through donations to Instituto TIM projects and sponsorships with social benefits. In 2021, more than R\$ 10 million were invested.

## Outstanding projects of Instituto TIM

### Instituto TIM Scholarships – OBMEP

The program offers scholarships for medalists of the Brazilian Public School Mathematics Olympiad (OBMEP) who entered public universities and come from low-income families.

### TIM TEC

Platform that offers free courses in open software aimed at professional education and related to ICTs – information and communication technologies; there are also training courses on the subject for basic education teachers.

### Academic Working Capital (AWC)

Entrepreneurial education program that supports university students determined to transform course conclusion work (TCC) into technology-based businesses; students receive training, mentoring and financial support to purchase materials for the development of prototypes.

### Bateria of Instituto TIM

Initiative that brings together children, youths, and adults, with and without disabilities, residents of Rio de Janeiro to promote social inclusion through music education; the drums are professionally supported by a conductor, monitor musicians and a libra interpreter.



### One By One Partnership

TIM and Instituto TIM promoted in December a volunteer action with employees to “zero” the queue for wheelchairs at the entity, which works to promote more mobility and opportunities for children and young people with disabilities.

### Donations

Support for various initiatives within the scope of the Covid-19 pandemic and assistance to families in situations of social vulnerability and promotion of Science and Technology.

[Click here](#) and learn more about Instituto TIM

## Credits

### **TIM coordination**

Regulatory, Institutional and Press Relations –  
Environmental, Social & Governance – Corporate Social  
Responsibility

### **Content, consulting, and design**

usina82

### **Photography**

TIM and shutterstock image databases

[Click here](#) to access the full  
version of the 2021 ESG Report

