

TIM GROUP'S ALIGNMENT WITH THE RECOMMENDATIONS OF  
THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES  
(TCFD)

June 2023



The TIM Group manages climate change-related risks and opportunities in accordance with main international frameworks and standards, reporting its performance in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Specifically, the TCFD promotes the voluntary disclosure of Climate-related financial information with the aim of supporting organizations' stakeholders in properly assessing climate-related risks and opportunities by identifying the **four key areas of recommended climate-related financial reporting: Governance, Strategy, Risk Management e Metrics & Targets**.

The following is an overview of the TIM Group's alignment with the above recommendations, based on the individual domains and related disclosure requirements addressed by the TCFD Framework.



## 1) TIM's governance on climate-related risks and opportunities



- a) *Information regarding the Board's oversight of climate-related risks and opportunities*
- b) *Role of management in assessing and managing climate-related risks and opportunities*

TIM has a solid corporate governance system to minimize business risks and costs, including those related to environmental themes.

In particular, on ESG aspects, the Board of Directors is supported by two endoconsiliar committees with specific responsibilities, with appropriate expertise to the tasks they are called upon to perform, and which have a dedicated annual budget with spending autonomy:

- **Sustainability Committee:** composed of five directors with advisory, proactive, monitoring and instructional duties, it supports and directs the activities of the Board and management, on the Environmental (including purely climate aspects), Social and Governance sustainability front, in terms of positioning, objectives, processes, specific initiatives at the Group level.  
The Committee reviewed and endorsed the decarbonization program initiated to reduce Scope 1, 2 and 3 emissions, in line with the Science Based Targets initiative, and achieve Carbon Neutrality targets by 2030 and Net-Zero targets by 2040.  
Thus, the Board of Directors, through the Sustainability Committee validates and oversees the strategy in the Climate area and the implementation of environmental sustainability policies, considering in its assessments the risks and opportunities related to environmental aspects and climate change. In this regard, the Sustainability Committee is also involved in the ESG aspects of the activities overseen by the remaining endoconsiliar committees, in terms of sharing documents or joint investigations.
- **Control and Risk Committee:** composed of nonexecutive directors, all of whom are currently independent, the Committee monitors observance of corporate governance rules, regulatory developments and best practices in the area of controls and corporate governance, oversees the preparation of financial and nonfinancial reporting for the period (which provides disclosure on climate performance), and collaborates with the Sustainability Committee in the assessment and management of sustainability risks, including those related to environmental issues. In this context, the same Committee annually oversees and approves the materiality analysis, which considers Climate Change a relevant issue for the Group.

Both committees have the opportunity to access information and question the corporate functions necessary to carry out their tasks.

At the management level, the oversight of sustainability issues in Environmental (including climate aspects), Social and Governance is entrusted to the Institutional Communication, Sustainability & Sponsorship (ICS) Function, which reports directly to the CEO. Within the above function, a 'Sustainability' organizational function was established in April 2022, representing a single pole dedicated to defining, guiding and managing sustainability. The Function specifically, defines in collaboration with other corporate functions the ESG targets for the Business Plan, identifies sustainability initiatives to support the Plan, drafts the Non-financial Statement, oversees sustainability ratings in coordination with the CFO, collaborates with the Risk Management Function in order to assess and manage risks related to environmental (including climate issues), social and governance aspects.

The head of the Institutional Communication, Sustainability & Sponsorship function jointly with the Sustainability team participates in all Sustainability Committee meetings, regarding which the Chairman provides specific information to the Board of Directors.

The management of sustainability issues is also present in the mandate of some corporate functions with direct organizational impacts on the economy, environment and people, which act in synergy with the Sustainability Function (Chief Human Resources & Organization Office, Procurement, Chief Network, Operations & Wholesale Office, etc.).

Within the Group, TIM Brazil also has its own governance structure with four Endoconsiliar Committees supporting the Board of Directors. Sustainability topics are managed by a Sustainability Function and at the strategic level by the ESG Committee, which interacts with the Compensation Committee and the Control and Risk Committee.

Lastly, in order to give full substance to our people's commitment to environmental issues, within the long-term incentive plans of the CEO, top management and certain managers of TIM's business units, we include targets linked to the reduction of CO<sub>2</sub> emissions, which can be achieved through an increase in the renewable energy component of total energy consumption (percentage is defined as MWh from self-produced and purchased renewable sources divided by total MWh consumed). In addition, business unit managers, depending on their sphere of operation, benefit from a short-term incentive (MBO) system, which is also accompanied by targets that aim to achieve CO<sub>2</sub> emission reductions through an increase in the use of renewable energy in total energy consumption, and through energy efficiency projects and aimed at introducing low-carbon solutions (e.g., smart working, smart mobility).

## 2) Actual and potential impacts of climate-related risks and opportunities on TIM's business, strategy, and financial planning



- a) *Climate-related risks and opportunities identified in the short-, medium-, and long-term.*
- b) *Impact of climate-related risks and opportunities on the organization's activities, strategy and financial planning.*
- c) *Resilience of the organization's strategy, considering different climate scenarios, including scenarios of temperatures equal to or below 2°C.*

The TIM Group, one of the world's leading ICT players, structurally bases its business on fixed network, mobile and data center infrastructures that consume large amounts of energy, growing year by year, impacting the environment in terms of CO<sub>2</sub> emissions.

Our direct production activities and value chain activities may have an impact on climate change in terms of greenhouse gas emissions and global warming as a result of fossil fuel consumption, non-renewable energy sources and refrigerant gas leakage, and the use of suppliers.

Strongly aware of our role in building a low-carbon future, we are committed to the mitigation and/or resolution of negative climate change impacts through:

- the inclusion of ESG issues in the Group's strategic planning;
- setting specific ESG targets in the Business Plan of which as many as six are focused on the environment;
- the implementation of projects (in 2022 more than 40) aimed at the progressive decarbonization of supply chain activities, efficient management and with increasing use of renewable sources for infrastructure; the choice of sustainable suppliers to contain the emissions of the entire value chain; and the development of low-emission solutions, products and services for customers;
- the definition of Codes of Conduct and Policies that commit the company and relevant stakeholders, including the Environmental Policy in line with the main international reference standards (e.g., ISO 14001, ISO 14064, ISO 50001, GHG Protocol);
- the implementation of offsetting initiatives aimed at neutralizing emissions from certain Group activities;
- transparent and systematic communication to its stakeholders of its climate strategy commitments.

Our commitment to minimizing impacts related to climate change also translates at the operations level with the achievement, by the Group's main functions and/or companies that have a significant impact on stakeholders, of certifications in line with ISO 14001 and ISO 50001.

Further evidence of the Group's commitment to climate mitigation is the validation of its emission reduction commitments by the Science Based Targets initiative (SBTi). Finally, the Group is an active member of numerous national and international industry associations and nonprofit organizations whose objective is environmental protection, including:

- European Green Digital Coalition;
- GSMA Foundation;
- European Telecommunications Network Operators' Association (ETNO);
- European Telecommunications Standards Institute (ETSI);
- Global e-Sustainability Initiative (GeSI);
- International Telecommunication Union (ITU)
- Eco Rating.

Climate change events can have physical, economic and regulatory implications, with financial repercussions on the company's image and reputation. To prevent, monitor and mitigate the possible negative impacts of risks, TIM has defined its own risk matrix, which includes an adaptation plan, defined on the basis of the specific context in which the company operates, covering all existing operations (in terms of revenue, 100%) and future new operations (in terms of revenue, 100%).

With respect to existing operations, we have the ambition to implement adaptation solutions in a timeframe of less than 5 years, with the opportunity to strengthen resilience and efficiency of our assets and to start a process of energy transition.

In the Climate area, the Enterprise Risk Management Function identifies and assesses in the short, medium, and long term the physical risks associated with rising temperatures that cause extreme and unexpected weather precipitation, landslides, floods, or overflows. In particular, it considers:

- **Hydrogeological risks** related to damage caused to real estate and network assets, increased Assurance Costs (Assurance Cost Overspending), and reduced capacity due to temperature increase stress (Decreased job performance)
- **Transition risks** arising from the potential introduction of a Carbon Tax applied to CO<sub>2</sub> emissions and increased spending on energy to purchase or produce renewable energy to curb emissions (Energy Overspending).

In this context, TIM may have to manage excessive Opex and Capex spending to ensure business continuity, expected quality to customers, and compliance with Strategic Plan goals through the following targeted interventions:

- optimization of the placement of all types of equipment within the real estate;
- insurance coverage for catastrophic natural events;
- structural interventions aimed at containing the effects of flooding/flooding;
- analysis of hydrogeological risk maps for network planning and development;
- prioritization of decommissioning of energy-intensive equipment and technologies based on risk level;
- agreements with network providers to regulate service restoration efforts during extreme weather events.

Risks and opportunities   Example 1			
Impacted value chain part	Primary potential financial impact	Time horizon	Impact magnitude
Direct operations	Increase in direct costs	Long term	Medium-low
<b>RISK</b> <b>Emerging Regulation   Introduction of a carbon tax</b>	Company- specific description		
	<p>Growing investments in fixed network infrastructure (for ultra broadband fiber networks), mobile network infrastructure (new 5G technology) and data centers (Cloud Region) lead to increasing demand for the Group's energy and, consequently, also to an increase in CO2 emissions generated from the consumption of fuels for electricity generation (Scope1) and electricity purchase (Scope2). In this context, a regulatory intervention aimed at introducing a carbon tax to reduce the use of fossil fuels seems to be a realistic measure in order to put pressure on companies. The evolving legislative scenario suggests the possible introduction of a carbon tax within 5 years in the EU if the Emissions Trading Scheme (ETS) fails. The introduction of a carbon tax on emissions generated by the company would increase operating costs both directly (fuels for vehicles, fuels used for heating and electricity generation) and indirectly (increase in the cost of electricity/kWh), since a significant portion of electricity in Italy is still produced using fossil fuels.</p>		
	Explanation of financial impact		
	<p>The carbon tax could cause an increase in the price of fossil fuels and electricity generated from those fuels, which would have an economic impact on TIM's operating costs. In addition, it is also assumed to increase the cost of renewable energy procurement, as the costs of developing renewable energy generation technologies could be passed on to the cost of electricity for users such as TIM. The financial impact estimated by the Group is based on Scope 1+2 emissions generated by the Group in 2022 (99 percent in Italy) and a conservative estimate of the carbon tax price based on currently available information. Considering post-Covid trends, carbon tax prices are expected to reach €100/tCO2 prospectively by 2030 (Bloomberg NEF). A conservative estimate could be 94 €/tCO2 (ref. isole24ore 14/02/22), implying a significant increase in the cost of fossil fuels and electricity.</p>		
	Risk response cost		
	<p>The estimated cost of risk response is quantified based on the initiatives the Group puts in place to reduce its emission impact:- adopting a certified Environmental Management System in line with the ISO 14001 Standard and taking on ambitious science-based targets (SBTi)- increased use of renewable energy sources (agreements to purchase PPAs and development of facilities for self-generation)- creation of a plan of interventions, at the national level, to upgrade infrastructure and efficiency of air conditioning systems on power plants, in order to ensure a lower impact in terms of emissions- progressive modernization of technological assets of industrial properties according to a replacement plan that takes into account the obsolescence and strategic nature of the sites, in order to strengthen the resilience of assets supporting the business and reduce their environmental impacts- energy-saving projects such as the implementation of Building Energy Management Systems, based on a series of HW IoT devices for the monitoring, control and predictive management of technological systems (power and air conditioning) in the halls of fixed-line power plants.</p>		

Risks and opportunities   Example 2			
Impacted value chain part	Primary potential financial impact	Time horizon	Impact magnitude
Direct operations	Increase in capital expenditures	Long term	Medium-high
<b>RISK</b> <b>Acute Physical   Flood (coastal, riverine, pluvial, phreatic)</b>	Company- specific description		
	<p>TIM offers fixed and mobile voice and data services, operating through a substantial number of sites, widely distributed throughout the country where switching centers, data centers and other ICT equipment are located. In addition, the network includes all connections, wired or overhead. Climate changes in recent years have brought extreme weather situations, such as intense rainfall phenomena (flash floods) and storms with strong winds (windstorms). The nationwide distribution of TIM's assets therefore exposes the company to possible direct and indirect damage from such events. As a non-exhaustive example, windstorms can affect air links, while floods have major impacts on buildings where our switching and data centers are housed. The geographical areas at risk are numerous and depend on the type of event: earthquakes are more likely in regions classified as having a higher seismic risk, such as Campania, Emilia Romagna, Abruzzo, and the Apennine area in general. Flash floods are more likely to have an impact, as happened in the northeastern area of the country, i.e., Veneto, Trentino Alto Adige, Friuli Venezia Giulia, Emilia Romagna, and Liguria.</p>		
	Explanation of financial impact		
	<p>During the period 2022-2023, analyses were conducted with the help of the TIMgis system linking the Hydrogeological Risk Maps of ISPRA (the public agency under the supervision of the Ministry of Ecological Transition) with the TIM geo-referenced databases of properties and the network, valued at reconstruction/replacement cost. The focus was on assets located in high-risk areas. In the assessment, the level of vulnerability was defined for both properties and the network with the goal of estimating the potential impact of a catastrophic event (e.g., a once-in-200-years event-0.5 percent of cases). IMF (International Monetary Fund) surveys show that in Italy, in the face of the 1.1° degree rise as measured by ISTAT, there has been an increase in the frequency of natural disasters. The most frequent are those related to Hydrogeological risk (44%) followed by storms with 23%, for a total of 67% of natural disasters that strike the Italian territory. From the correlation between risk exposure value, vulnerability of real estate assets and network, historical frequency of major damage events of the IMF, and temperature estimated for the coming years by NGFS (Network for Greening the Financial System), the possible increase in risk value to 2030 and 2050 was quantified with an algorithm.</p>		
	Risk response cost		
	<p>In order to cover the potential losses arising also from this type of event and, more specifically, to cover the losses caused by disasters, the TIM Group has implemented an appropriate All Risks Property insurance program. The premium rate the All-Risks insurance does not discriminate between the different causes of accident and the type of asset insured. Below is a summary case study for the risk in question. The main feature of telecommunications operators is that their assets are distributed throughout the country. In a context of rapid evolution of weather and physical events due to climate change, this widespread distribution also leads to increased exposure to damage related to extreme weather situations. With the aim of reducing as much as possible the exposure to these intense rainy phenomena and windstorms, TIM has carried out an in-depth analysis to estimate the potential direct losses related to these events, mapping the real estate assets and network infrastructures. All information is then input into specific simulation models to obtain the expected direct losses related to these events.</p>		



Risks and opportunities   Example 3			
Impacted value chain part	Primary potential financial impact	Time horizon	Impact magnitude
Downstream	Increased revenue from increased demand for products and services. Quantitative estimate: 697,538,000 €.	Short term	High
Company- specific description			
The ICT sector can contribute to the fight against climate change by raising awareness of the opportunities arising from the digitization of services for citizens, businesses and public administrations, which act positively in terms of the emission impact on the physical movement of people and things. For example, TIM offers digital solutions that help customers reduce their energy consumption such as cloud, telemedicine, smartworking, smart industry and smart agriculture, smart metering and smart parking solutions that leverage 5g technology and IOT services to reduce energy consumption and resource use. TIM has also developed a line of products designed and manufactured with sustainability in mind, promoting circular trade-in models to reuse/recycle materials and reduce environmental impact.			
Explanation of financial impact			
The financial impact shown refers to 2022 revenues from eligible activities according to the EU Taxonomy, i.e., economic activities explicitly included in the European Taxonomy because they contribute substantially to climate change mitigation or adaptation. TIM's revenues according to the EU Taxonomy: a) 8.1 data processing, hosting, and related activities: €509,437,000 (mitigation);- b) 8.2 Data-driver solutions for GHG emission reduction: €185,242,000; c) 8.3 Programming and transmission activities: €2,857,000 (of which €2,813,000 eligible and €44,000 aligned). The sum of these products and services is 697,538,000 €. Information is published in the TIM Group's 2022 non-financial reporting document.			
Cost and strategy for realizing the opportunity			
Estimated cost of realizing the opportunity: €150,243,300 Services are tailored to the specific needs of clients through a market analysis. Costs refer to operating expenses of eligible activities according to the European Taxonomy, i.e., economic activities explicitly included in the European Taxonomy because they contribute substantially to climate change mitigation or adaptation. TIM's Opex activities according to the EU Taxonomy: a) 8.1 data processing, hosting and related activities: €150,243,000 (mitigation); b) 8.2 Data-driver solutions for GHG emission reduction: €300. The sum of these products and services is 150,243,300 €. The information is made public in the TIM Group Sustainability Report 2022. Below is a summary case-study for the relevant opportunity. The ICT industry has a great opportunity to contribute to the fight against climate change by serving as an enabler for digitization/virtualization. With the new framework of the EU Taxonomy Regulation, TIM can also enhance this aspect of its business that contributes to climate change mitigation and adaptation. In this context, the key point for the company is to create business opportunities to increase revenues and offer low-carbon products/services. TIM has focused its efforts on, among other things, defining and launching a range of products/services that support customers in reducing their energy consumption.			

TIM also adopts qualitative and quantitative scenario analyses with Group-wide coverage to make assessments with respect to its climate strategy. Specifically, two scenarios aligned with keeping the global temperature below 1.5° C were considered in the analyses, among those proposed by NGFS (Network for Greening the Financial System



- **Transition Scenario | NGFS | 1,5°C:** quantitative analysis against the Net zero target to 2040 focused on a) potential regulatory obligations aimed at offsetting non-reducible CO2 emissions, such as the introduction of the carbon tax; b) increased costs associated with the 'introduction of the carbon tax. In a time frame up to 2040, a linear estimate of the gradual reduction of CO2 emissions was made, and with time intervals of ten years, the possible failure to reach the target was also estimated with hypothetical deviations of 10%, 20%, 30% and the related potential economic impact.
- **Physical climate scenario | NGFS | 1,5°C:** scenario analysis that can be effectively applied to the Company's climate strategy in the coming years. The analysis of climate change risks is included in the Group's Risk Management (RM) framework, and climate-related risks that may affect the Company's assets (such as river flooding and flooding) and, more generally, the Group's business continuity were assessed. Specifically, the analysis focused on hydrogeological risk and risk on job performance. With respect to hydrogeological risk, with the help of the TIMgis system, the hydrogeological risk maps made by ISPRA (the public agency under the supervision of the Ministry of Ecological Transition) were correlated with the TIM georeferenced databases of properties and network valued at reconstruction/replacement cost. By relating the frequency of the phenomena detected by IMF with the temperatures recorded by ISTAT and with the help of the NGFS database, it was possible to define the increase in risk value. Specifically, from the correlation between the risk exposure value, the vulnerability of Real Estate Assets and the Cable Network, the historical frequency of damaging events relevant to the IMF, and the temperature estimated for the coming years by the NGFS, the possible increase in the risk value to 2030 was quantified. Regarding the risk of work performance disruption, the analysis shows that global

labor productivity is significantly reduced by hot and humid weather conditions by 9.84 percent. Thus, the impact on work performance in TIM varies with the increase in temperature.

TIM has assessed the most significant events related to weather changes in the ICT sector that could affect the conduct of its business activities, disrupting service business continuity and putting financial results at risk.

- Regarding the transition scenario and the introduction of a potential carbon tax during this decade, the impact on business strategy was immediate: an estimate was made of the annual cost of a carbon tax based on the total emissions produced by the Group in 2022, considering a unit price of 94 €/tCO<sub>2</sub> (ref. ilsole24ore 14/02/22). To avoid this average annual cost, TIM has revised its target of using 100% renewable electricity, bringing it forward to 2025 for the Italian operations; while for the Brazilian scope the target is substantially met.
- Regarding the physical risk scenario, TIM conducts a climate risk assessment to assess the potential damage to assets and monitor its evolution over time, downstream of mitigation actions. As part of crisis event management, to ensure that the Essential Communication Services continue to function for all stakeholders, drills are conducted to test their operation and simulate their handling of critical events and emergencies caused by natural disasters, civil defense events, computer failures, etc. Vulnerability assessment tests are also carried out periodically for risks associated with IT systems to verify the efficiency and effectiveness of implemented security countermeasures.

The above analyses result in corrective action plans, when necessary, while residual risks are covered by specific insurance plans.

Within the table below are represented the main areas of TIM Group strategy that are impacted or could be impacted by climate change risks and opportunities.

Risks and opportunities related to climate change   Influence on TIM's strategy	
Impacted area	Description of the influence
Products , services and solutions	Climate change represents an opportunity for TIM to develop environmentally friendly products, services and solutions. In this direction, it contributes to the fight against climate change by promoting the closing of the country's digital divide with investments in ultra broadband connectivity, digital solutions for people, businesses and institutions that enable digitization such as cloud services, smart working, telemedicine, and smart agriculture. In particular, the adoption of cloud technology enables the storage and processing of data with flexibility, efficiency, speed, is one of the main levers to accelerate the digitization process, as well as a driver for the development of the economy (DESI 2020 Report - Digital Economy and Society Index - the Report on the Digital Transformation of Italy). In this context, 2021 saw the establishment of Noovle SpA, the TIM Group's cloud company that has given further impetus to growth and digital transformation in Italy, among the main partners of Google Cloud in the Italian market. Noovle aims to grow businesses and organizations by leveraging the full potential of digital, offering reliable secure and sustainable public, private, hybrid and edge computing solutions
Supply chain and/or value chain	TIM does not produce products but collaborates with its suppliers in the development of products with the aim of directing purchasing choices towards increasingly efficient solutions in terms of performance and environmental impact. This is a joint effort of the requesting lines and the Procurement function, which adopt sustainability parameters at all stages of the purchasing process, for example by introducing a specific ESG grid in tenders, or qualifying suppliers for inclusion in the register also based on specific ESG parameters, thus contributing to monitoring the sustainability performance of the supply chain with a view to reducing its carbon footprint. The potential impact of climate change on the Group's supply chain is also the subject of specific audit activities that the Procurement function conducts annually on its suppliers as part of the Joint Audit Cooperation. The association founded in 2010, whose members include the world's leading ICT players, has in recent years audited 910 manufacturing plants of the most strategic suppliers in all areas of the world (98 in 2022), and is expected to increase the number of audited supplier plants in the coming years. The audit activities that the Procurement function implements towards its suppliers are followed by the necessary adaptation and mitigation activities
Investment in research and development	Climate change represents an opportunity for TIM to develop environmentally friendly products, services and solutions. The research and development of innovative technologies and services, processes and business models, carried out by the Group's R&D department in collaboration with the Marketing function, is a key factor in helping to overcome socio-cultural barriers and develop increasingly advanced services that can help improve efficiency and reduce energy consumption and emissions for businesses, public administrations and citizens. Overall, TIM has committed about 1,200 people to technological innovation and engineering in Italy in 2022, for a total investment for the TIM Group of 906 million euros.
Operations	TIM's ESG Plan 23-25, integrated into the Business Plan, confirms the company's commitment to reducing emissions and containing energy consumption even as voice and data traffic volumes increase. In 2022, TIM continued to work to reduce emissions and contain energy consumption related to investments in next-generation networks and data centers, while increasing the use of energy from renewable sources. Analyses for new business models through external partnership agreements, in a non-capital-intensive logic, were initiated in 2021. In 2022, in addition to the reinstatement of 101 small-scale Photovoltaic plants in the country, we plan for 2023 the activation of an additional 14 photovoltaic plants and another 5 under evaluation for a combined total power output of ~6 GWh/y. In 2021, TIM also signed one of the largest Corporate Power Purchase Agreements (PPA) with ERG to purchase energy from renewable sources of 340GWh/year (22-30) to which an additional 200 GWh/year (period 23-31) was added in 2023, confirming the great desire to contribute to the achievement of the national renewable development targets set by the National Energy and Climate Plan (NREAP) to 2030. TIM's energy efficiency interventions have also been recognized with the award of Energy Efficiency Titles, which attest to the achievement of energy savings in the end use of energy through virtuous energy-saving interventions. One Energy Efficiency Title corresponds to 1 ton of oil equivalent (TOE) saved. In 2022, TIM obtained 14,000 Energy Efficiency Titles with a total value of 3.8 million through Decommissioning, Building Energy Management Systems (BEMS), Energy Performance Contracts (EPCs) and High Efficiency Cogenerator (CAR) installation activities.

The impact of climate change risks and opportunities on the Group's financial planning was also assessed with respect to revenues, operating costs, capital expenditures, capital allocation, access to capital, and assets:

- **Revenues:** revenues refer to what is accounted for within the EU taxonomy disclosed by the Group and for 2022 are about 4.4 percent of total revenues. They basically consider cloud based services, eco-friendly products and vertical IOT solutions with a positive impact on emissions.

Although this percentage can be classified as medium-low, it is considered strategic as it refers to the opportunity for "Development and/or expansion of low-emission goods and services."

- **Operating costs:** operating costs refer to energy purchased in the form of electricity and fuels. Total energy costs amount to about 7 percent of total purchases and are expected to increase year by year due to increased energy demand for grid development and services. However, all the energy efficiency initiatives implemented in Italy each year are offsetting potential increases in energy consumption and are even enabling some savings, thus reducing overall energy consumption and energy costs. Opportunity costs arising from products/services considered eligible in line with the EU Taxonomy relate to the opportunity "Development and/or expansion of low-emission goods and services" (11 percent in 2022). The impact on operating costs can be considered medium to low but is significant.
- **Capital Expenditure/Capital Allocation:** for TIM, energy efficiency projects, require the allocation of economic resources. The impact on capital expenditures can be considered medium to low, but it is significant.
- **Access to capital:** the efficiency of TIM's approach has been recognized with the awarding of Energy Efficiency Certificates. In 2022, TIM was awarded 14,000 Energy Efficiency Certificates with a total value of 3.8 million related to Decommissioning, Building Energy Management Systems (BEMS), Energy Performance Contracts (EPCs), and High Efficiency Cogenerator (CAR) implementation activities. The impact can be considered low but strategic. As investors increasingly look at companies' performance on climate change, we expect TIM's access to capital and its stock market value to benefit from recognition of all the actions put in place to reduce its carbon footprint and to support other sectors of the economy and governments to do the same.
- **Asset:** assets are defined as the infrastructure and equipment used to provide communication services to subscribers. The likelihood and impact of climate-related catastrophic events are considered in our Enterprise Risk Management process, and funds are allocated for both adequate insurance coverage and network planning to ensure the possibility of recovering the economic value of assets and continuity of service, which is strategic for the company and our customers.

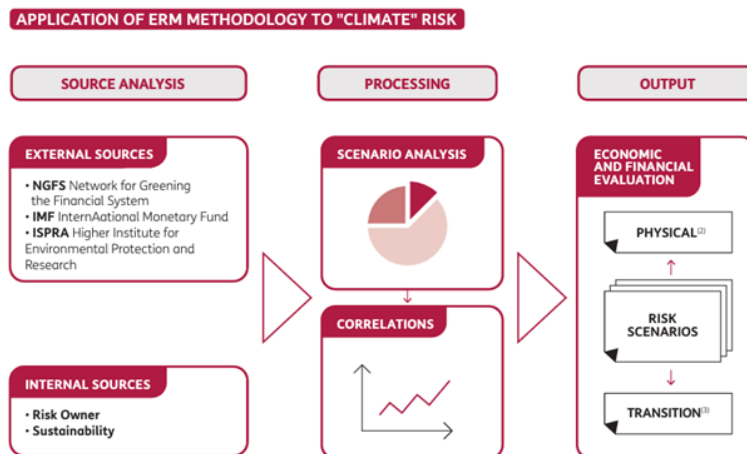
### 3) How the organization identifies, assesses and manages climate-related risks



- Organization's processes for identifying and assessing climate-related risks.*
- The organization's processes for managing climate-related risks.*
- Integration of climate-related risks and opportunities into current decision-making and strategy formulation.*

To identify, assess, and manage risks and opportunities related to climate change in the short (2025), medium (2030), and long term (2050), the TIM Group puts in place a climate risk management process on an interim basis (more than once a year) that is integrated into the broader corporate risk management process, providing full disclosure of the correlations between risks and opportunities related to climate change and the Group's entire value chain (own operations, downstream and upstream), for proper formulation of business strategies.





Specifically, within the structure of the Chief Finance Officer, the Enterprise Risk Management (ERM) and Insurance & Brokering functions work with risk owners to identify and assess risks and are responsible for updating the risk register (the so-called Risk Universe). In addition, these functions support risk owners in the selection of risk mitigation activities, ensuring constant monitoring of their implementation. Based on interviews with process owners on the objectives of the corporate business plan, risks are confirmed/modified/removed and assessed on 2 dimensions, impact and probability, and then allocated in a 3X3 matrix (Risk Heat Map). Possible reputational and criminal impacts are also considered. In addition, the Enterprise Risk Management function, in collaboration with the Sustainability function, has developed a methodology for assessing and monitoring ESG risks using a Key Risk approach.

For strategic risk, the assessment is carried out through a probabilistic framework supplemented by econometric models that measure risks not only at the individual factor level, but also from the perspective of the risk portfolio, considering the correlation between the risks themselves. The results are probability distributions over multiple scenarios to assess the worst case and its economic impact. In particular, within this framework, climate risks related to transient and physical scenarios are assessed by considering climate developments to account for potential business risks and opportunities.

The above process is used to determine which identified climate risks and opportunities could have a substantial financial or strategic impact for the organization in the short, medium and long term. The climate changes experienced in recent years have generated extreme weather situations, including intense rainfall events (flash floods) and storms with high winds. The nationwide distribution of our assets therefore exposes the company to possible direct and indirect damage from such events.

In order to assess the potential damage that the Assets could suffer and manage this risk, TIM uses a specific Risk Analysis tool. Desk analyses are also carried out through a specific tool that makes it possible to assess the risk profile of plants (risk ranking) and monitor their evolution over time. On the plants deemed most relevant/strategic and on those found to be most critical, on-site analyses are carried out in addition to desk assessments.

Probabilistic analyses were conducted to estimate the potential direct loss (damage to assets) from the occurrence of adverse weather phenomena such as flooding/flooding/windstorms. Specifically, this assessment estimates the potential impact of a catastrophic event, such as an event occurring every 200 years (0.5 percent of cases). The actions put in place, such as flood protection systems, appropriate relocation of facilities, and burying cables where possible, can limit the damage associated with the most frequent cases.

In addition, to cover losses from catastrophes, the TIM Group has put in place an appropriate "All Risks Property" insurance program.

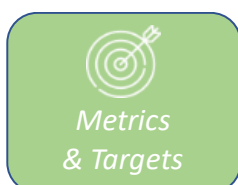
In 2021, an analysis was initiated to begin estimating possible indirect business interruption losses from natural catastrophic events with impacts on assets. The results of the Risk Management

process are shared with the Risk Management Steering Committee, which aims to ensure the governance of the Group's Risk Management process through the validation and coordination of preventive action plans to contain the level of risk exposure within acceptable limits. The results of the Risk Management Steering Committee's activities are reported to the Audit and Risk Committee.

Within the following table are represented the types of risks considered in the company's climate risk assessment:

Types of risk considered in climate risk assessment		
Typology	Relevance	Description
Current regulation	Relevant	The incorporation of European Directive 2014/95/EU into Italian national legislation has made the reporting of environmental impacts, particularly greenhouse gas emissions, mandatory. In addition to emissions and carbon intensity, a company must provide disclosure with respect to its strategy and on plans to contribute to national efforts to meet the Paris Agreement targets. Reporting must be complete and reliable and is subject to verification by the national public authority responsible for regulating Italy's financial markets.
Emerging regulation	Relevant	With a view to meeting the targets set by each country that has ratified the Paris Agreement, a carbon tax seems to be a realistic measure. Several European countries have already introduced a carbon tax and more are expected to join. Italy may also decide to introduce a carbon tax to pressure industry to reduce its use of fossil fuels. A carbon tax is also being considered in Brazil. The evolving legislative scenario suggests to us that a carbon tax could be introduced in the EU within 5 years if the ETS fails. Considering the post Covid trends, carbon tax prices are expected to reach 100 euro/tCO <sub>2</sub> in perspective by 2030 (Bloomberg NEF). A conservative estimate could be 94 €/tCO <sub>2</sub> (ref. Ilsole24ore 14/02/22), resulting in a significant increase in the cost of fossil fuels and electricity, with an impact on TIM's operating costs. The Group manages risk by investing in energy efficiency projects that allow economic savings and a reduction in emissions, thus maintaining energy consumption at acceptable levels, while increasing the use of renewable energy sources.
Technology	Relevant	The new ICT technologies, when considering their entire life cycle, lead to increased energy consumption. However, the Digital With Purpose report developed by the Global e-Sustainability Initiative estimates that the global ICT sector's "footprint" of greenhouse gas emissions will rise from 1.6% in 2017 to only 1.7% in 2030, remaining substantially stable. The much higher footprint in business-as-usual conditions is partially offset by a reduction in energy intensity in production and data centers and by clean energy growth rates. The spread of digital technology will generate a positive impact allowing the reduction of carbon dioxide emissions estimated at seven times the growth of the related footprint in the period between 2019 and 2030. For the TIM Group, therefore, the impact of ICT on climate change can be seen more as an opportunity than a risk, provided that the Group and the ICT sector in general continue to identify and implement energy efficient solutions for networks, infrastructure, products and services.
Legal	Not relevant	Changes in the climate also involve changes in regulatory and regulatory aspects. However, we do not believe that the negative impact on the climate of TIM's production activities could be so significant as to generate causes and disputes, also considering the fact that the Company continuously invests in energy efficiency measures to reduce energy consumption and emissions. Through the reporting of non-financial information, which the TIM Group has been carrying out for over 25 years, it also regularly fulfils legal obligations, paying particular attention to the emissions strategy.
Market	Relevant	The Group's strategic customers, such as households, businesses and institutions, are paying increasing attention to their energy consumption. This is why we are committed to providing them with energy efficient and cost-effective products, services and solutions. Although the ICT sector is expanding, the demand for services and products continues to be influenced by the cost factor. In addition, increasing environmental literacy makes consumers increasingly aware of the consequences of their purchasing choices, increasingly turning towards energy-efficient and low-carbon products and solutions.
Reputation	Relevant	Sustainability is an integral part of TIM's strategic planning. The fight against climate change is one of the main ESG intervention directions and is the basis of the Group's Environmental Policy. A bad reputation in this area can damage the trust of customers and investors, with significant consequences also for the business in terms of increasing the costs of acquiring new customers and retaining existing ones, reduction in operating margins. These considerations are supported by RepTrak's Global Trend Report (2020) that business leaders identify climate change as one of the top five priorities in which it impacts reputation. Additionally, always a global study of RepTrak (2019), argues that acting in response to environmental concerns contributes to significantly increasing a company's reputation by making consumers switch from a distrustful attitude to that of promoting the company's brand.
Acute physical	Relevant	Serious weather events, such as floods and hurricanes, are increasing in number and intensity in the territories in which TIM operates, therefore the operational continuity and vulnerability of assets assume a central role in the Company's Enterprise Risk Management process. On the other hand, periods of extreme drought could increase costs and even reduce the availability of hydropower, with consequent repercussions on TIM's activities, in Brazil. A specific analysis of hydrogeological risk was carried out, which allowed the estimation of the incremental value of risk exposure by 2050.
Chronic physical	Relevant	Average temperatures are rising and weather conditions require extensive use of cooling for offices and industrial infrastructure. As a result, electricity consumption is expected to gradually increase, leading to higher operating costs. Energy efficiency interventions are therefore guaranteed as part of the business plan with the allocation of a specific budget to ensure the right balance between investment and payback time. A specific analysis was also conducted on work performance risks, which show that labor productivity can be negatively impacted by an increase in temperature.

#### 4) Metrics and targets for assessing and managing relevant climate-related risks and opportunities



- Metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.*
- Greenhouse gas (GHG) emissions Scope 1, Scope 2, and, if appropriate, Scope 3, and associated risks.*
- Targets used by the organization to manage climate-related risks and opportunities and performance against targets.*

In line with what was disclosed as part of the 2023-2025 Business Plan, TIM has voluntarily set ambitious specific targets aimed at ensuring the Group's contribution to the transition to a low-carbon economy. Specifically, the TIM Group has adopted the following targets:

- Net Zero<sup>1</sup> (Scope 1+2+3) by 2040;
- Carbon Neutrality (Scope 1+2) by 2030;
- 75% reduction in emissions from the Company's production activity (Scope 1) and power purchase (Scope 2) by 2030 (baseline 2019) - target validated in 2022 by SBTi;
- 47% reduction in Scope 3 emissions (categories 1, 2 and 11 - 2019 baseline) by 2030 - target validated in 2022 by SBTi;
- Covering 100% of the Group's electricity needs through renewable sources by 2025.



Therefore, in order to assess progress against its objectives and targets, and in managing climate change risks and opportunities, the Group conducts continuous monitoring of the following indicators/metrics:

- amount of Scope 1 emissions generated by production (direct emissions);
- amount of Scope 2 emissions generated by the purchase of electricity;
- amount of Scope 3 emissions produced (categories 1, 2 and 11);
- organization's GHG emission intensity rate (carbon intensity);
- amount of electricity consumed from renewable sources out of total electricity consumed.

The effectiveness of the actions taken by the Group to manage the negative impacts and risks and opportunities related to climate change is demonstrated by the performance achieved. In particular, with reference to the assumed environmental targets, the 2022 closures are reported:

- the 13% vs 2019 reduction in Scope 1+2+3 emissions generated in 2022;
- the reduction of about 43% vs 2019 of Scope 1+2 emissions generated in 2022 (SBTi target);
- the reduction of more than 8% vs 2019 of Scope 3 emissions generated (categories 1, 2 and 11 SBTi target);
- Group-wide achievement of 61% of electricity from renewable sources in total electricity.

The effectiveness of the Group's environmental strategy is also demonstrated through the following performance:

- the 12% vs 2021 reduction in Scope 1 emissions generated by production;
- The 16% vs 2021 reduction in Scope 2 emissions generated from power purchase;
- the 13% reduction vs 2021 of Scope 3 emissions generated (categories 1, 2 and 11);
- the 26% vs 2021 reduction in BU Domestic's GHG emissions intensity (carbon intensity).

The following is an overview regarding our annual environmental targets, all of which are targeted during 2022:

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<sup>1</sup> In the future, we intend to submit the Net Zero target for validation by SBTi. In this regard, we are aware that in order to achieve a 2040 net zero target according to the SBTi standard, offsetting residual carbon emissions in the long term is only possible for residual emissions that cannot be abated due to inherent business limitations. Specifically, this will include, in line with the standard, assessing the possibility of abating 95 percent of Scope 1+2 emissions, offsetting the remaining 5 percent; and abating 90 percent of Scope 3 emissions, offsetting the remaining 10 percent.

GHG Emissions	Closing 2022 (t CO <sub>2</sub> eq)	Target 2022 (t CO <sub>2</sub> eq)
Scope 1	112.989	120.000
Scope 2	341.807*	370.000
Scope 3	4.606.523	4.800.000

\* Emissions are calculated using the market-based methodology.

Efficiency	Closing 2022 (kgCO <sub>2</sub> /Tbit)	Target 2022 (kgCO <sub>2</sub> /Tbit)
Carbon Intensity	2,17	2,20

Total energy consumption	Closing 2022 (M.J)	Target 2022 (M.J)
Renewable energy	5.220.727.039	5.000.000.000
Non renewable energy	4.395.041.870	4.000.000.000

Totale Risorse consumate/waste	Closing 2022	Target 2022
Water (Italy)	1.495.813 m <sup>3</sup>	1.500.000 m <sup>3</sup>
Total waste disposed (Group)	694 t	700 t

Below is an overview of the Scope 1, Scope 2 and Scope 3 emissions generated by the TIM Group in the period 2020-2022:

TIM's Group emissions				
Tipologia	u.m.	2022	2021	2020
Scope 1 Emissions	tCO <sub>2</sub> eq	112.989	127.810	130.650
Trigeneration		57.922	77.175	73.229
Transport		33.046	31.017	33.960
Ozone-depleting gases		10.499	9.688	11.816
Heating		7.945	8.522	9.852
Self-production of energy from mixed sources		3.578	1.408	1.793
Scope 2 Emissions (market-based)		341.807	405.235	495.623
Scope 3 Emissions		4.606.523	5.270.033	-
Purchased goods and services (cat. 1)		862.780	912.842	-
Capital Goods (cat. 2)		3.338.948	3.914.964	-
Use of sold products (cat. 11)		404.795	442.227	-