



Sustainability Bond Report 2021

Allocation & Impact Report

TIM Sustainability Bond Report 2021

1. Introduction

TIM pursues digital transformation as a key to social and economic development, reducing its environmental impact and helping the communities in which it operates on the path towards decarbonisation.







The constant search for energy efficiency, the containment of emissions and the growing contribution of renewable in its energy mix, allow TIM to pursue along the path of carbon neutrality to 2030, improving efficiency indicators and developing infrastructures and Data Centers to provide more services with less and less consumption of resources.

Since 2020, the Group has placed sustainable development at the centre of its long-term strategy by setting environmental, social and governance objectives and integrating them with the other objectives of the Industrial Plan. The Sustainability Plan is TIM's concrete contribution to achieve the goals of the United Nations 2030 Agenda for Sustainable Development, a commitment that has been constantly recognized by the inclusion of the stock in the main ESG indices and scoring for almost 20 years.

The year 2021 also saw TIM collect the indications of the Science Based Target initiative (SBTi): in July TIM sent its letter of commitment to SBTi in which it expresses the ambition to contribute through targets and related actions to the containment of the global temperature within 1.5° C above pre-industrial levels; in November 2021 the targets relating to Scope 1 and 2 and Scope 3 emissions were sent to SBTi, validation is expected in the first half of 2022.

The objective of Carbon Neutrality by 2030 remains unchanged, for which TIM is deploying the most suitable actions to achieve this goal, based on a cross-functional analysis that takes shape in the TIM Domestic energy transition matrix.

In 2021 TIM already achieved its ESG objectives set in the “Beyond Connectivity” plan and, in June, upgraded its guidance:

	Using 100% renewable energy* by 2025 
	Eliminate indirect emissions (Scope 2) by 2025 
	Improving our domestic eco-efficiency by 50% within 2025
	Become Carbon Neutral by 2030

*Electricity

In December 2020, TIM published its first Sustainability Financing Framework on which Sustainalytics issued its favourable opinion. The Framework is linked to the United Nations Sustainable Development Goals (SDGs) and aligned with the Green Bond Principles 2018 (GBP), the Social Bond Principles 2020 (SBP) and the Sustainability Bond Guidelines 2018 supervised by ICMA¹

With this report, TIM fulfils its commitment to report on the allocation of net proceeds and associated environmental and/or social impacts of its Eligible Projects.

¹ International Capital Market Association

Following a successful roadshow with investors, in January 2021, TIM issued its inaugural EUR 1 billion Sustainability Bond, with 8 years maturity, set to increase the Group's energy efficiency and finance Green and Social projects in Italy:

ISSUER	TIM S.p.A.
TYPE OF DEBT	Senior Unsecured
NOTIONAL	€1,000,000,000
ISSUE PRICE	99.074
CURRENCY	EUR
DOCUMENTATION	EURO MTN
PRICING DATE	01/11/2021
1st SETTLEMENT DATE	01/18/2021
MATURITY	01/18/2029
COUPON	1.625% Fixed Rate
Day Count Fraction:	Actual/Actual (ICMA)
Put/Call Options:	Issuer Call, Issuer Maturity Par Call, Clean-up Call
SECOND PARTY OPINION	Sustainalytics
ISIN CODE	XS2288109676
LISTING	Luxembourg Stock Exchange














2. TIM's Framework










In 2020, TIM published its Sustainability Financing Framework stating its intention to align its sources of financing with its Strategic Plan which places Environmental, Social and Governance (ESG) goals at the heart of its development strategy. The integration of the Sustainability Plan into the three-year Strategic Plan showcases the concrete contribution the Group aims to make to the achievement of the 2030 Sustainable Development Goals.

TIM's Framework is designed as an umbrella document allowing TIM to enter into various types of financing instruments including Green, Social and Sustainability Bonds in public and private format, Loans including but not limited to Term Loans, Project Finance Loans, and Revolving Credit Facilities (RCF).

The Use of Proceeds defined in TIM's Sustainability Financing Framework, are expected to create substantial environmental and/or social benefits by enabling significant reduction in GHG² emissions and energy consumption as well as significantly improving the living conditions of target populations.

The net proceeds from each issue will be used to finance and/or refinance, in whole or in part, existing and/or new Green and Social Eligible Projects in accordance with the TIM Group Sustainability Financing Framework. Going forward, TIM may extend the categories of Eligible Projects and any changes will be documented in an updated TIM Group Sustainability Financing Framework.

Green Eligible Projects	Green Project category	Supported SDG
Energy Efficiency	Network transformation	  
	Network optimization	 
	Innovation	  
	Data Centers	
	Green Buildings	 
Renewable Energy	Renewable Energy	
Circular Economy	Extending product life	

Social Eligible Projects	Social Project category	Supported SDG
Digital Inclusion	Deployment of optic fiber network in underserved areas	 
	TIM digital education project "Operazione Risorgimento Digitale"	  
Response to health crisis such as Covid 19	Deployment of new FTTC facilities to cope with traffic increase during health crisis such as COVID-19	 
	Emergency support initiatives towards vulnerable population, frontline workers, Italian start-up and SME	 

² Greenhouse Gases

3. Project Evaluation

TIM Sustainability Steering Committee assessed and selected the Eligible projects. This Committee is chaired by the CEO and composed of representatives of the Sustainability functions of Investor Relations and Communication, Finance and any other function / Business Unit that has participated in the selection of Eligible Assets.

4. Allocation Report

One of TIM's main challenge is to use the Group's infrastructures and skills to contribute to a new phase of digital evolution of our society, which requires to cooperate with all institutional and private actors, and to use technology to face major environmental, social and economic challenges.

Digital connections are the prerequisite for working from home, remote learning, e-commerce, and the development of new services. Therefore, TIM focuses its investments on the expansion and modernization of broadband fibre network and 5G, while also setting itself important goals on network security.

The switch of the network from copper to fiber, in addition to improving the quality of the professional and personal life of the population, has a strong impact on the energy efficiency of the network itself. The net proceeds of the inaugural EUR 1 billion Sustainability Bond, issued according to TIM's 2020 EMTN programme, were mainly used to refinance these energy efficiency programs.

Network Transformation: modernization of the network to provide broadband to the whole country. As of 2021, 97% of TIM's fixed network is covered by ultrabroadband (UBB)³, of which 94% have FTTX fixed solutions⁴. During 2021, FTTH⁵ activations have continued to grow reaching about ¼ of the country's UIT⁶. The Group's objective is to switch all customers to ultrabroadband (UBB) by 2025, with a mix of FTTC (up to 60% more eco-efficient than ADSL) and FTTH (up to 20x more eco-efficient than ADSL). As for mobile, 5G is up to 5x more eco-efficient than 4G technology and significantly increases data capacity and offers last generation standards able to self-regulate functionalities and consumption.

In the period going from 2019 to 2021, we estimated a saving of 12.000 tons of CO2, with 4.3mln of fibre rolled out.

Data Center: a profound transformation of our Data Centers, which accompanied the birth of Noovle, the cloud company of the Group, was achieved by adopting criteria for eco-sustainable design, energy efficiency and the reduction of space and consumption, despite continuous growth in data traffic. In the period going from 2019 to 2021, we estimated a saving of 4.000 ton of CO2.

Cloud services guarantee maximum efficiency and security in data management, leading to savings and reduction in emissions. Furthermore, cloud defines new production paradigms because it enables new organizational and social scenarios, thus increasing economic and social inclusiveness thanks to the modulation of costs allowed by the cloud itself.

Digital Inclusion: TIM wants to equip the Country with a sound, inclusive and progressively zero environmental impact network infrastructure, and introduce technologies that ensure an effective and sustainable digital transition. In this context, TIM's objective is also to help use the opportunities that the digital world offers, to access a better life. TIM developed "Operazione Risorgimento Digitale", the alliance promoted by TIM and more than 40 partners to close the country's cultural digital divide.

In the first 20 months of activity, the project totalled 70,000 participants via live training initiatives on digital skills and 100,000 people assisted and guided in the use of digital technologies, also thanks to charity initiatives. In total, more than 1 million people became aware of digital culture.

The first phase, which started at the end of 2019 with a physical tour that should have touched all the Italian provinces, was interrupted by the Covid-19 pandemic and then rescheduled into a digital format. Currently, "Operazione Risorgimento Digitale" offers events and training courses, such as online courses for citizens, e-learning initiatives for local public employees and school teachers.

Response to health crisis, such as COVID-19: Following the consequences of the pandemic, TIM has invested almost 7 million euros to develop digital platforms devoted to e-learning, to equip its employees, especially those with greater needs, with electronic devices suitable for effectively carrying out their work remotely (years 2020 and 2021).

³ Download speed \geq 30Mbps

⁴ Fiber to the X, where "X" indicates the part of the network reached by the fiber

⁵ Fiber to the Home

⁶ 1. UIT (technical unit) is a residential or a business site which has had a fixed line connection in the last 10 years (estimated to be 24.3m in Italian market)

Find below the detailed allocation report (Tab A) as of December 31st 2021

Eligible Projects Portfolio		Green Funding			
Green Eligible Categories	Amount (€mln)	Instrument (ISIN)	Issuance Date	Maturity Date	Amount (€mln)
Energy Efficiency	1,090.46				
Network transformation	921.48	XS2082429890	01/11/2021	01/18/2029	1,000
Data Center	168.98				
Social Eligible Categories					
Digital inclusion	0.24				
Response to health crisis, such as COVID-19	6.59				
Total Eligible Project Portfolio	1,097.29	Total Sustainable Funding			1,000

Percentage of net proceeds allocated	100%
Percentage of unallocated proceeds	—%
Allocation to capital expenditures	100%
Percentage of proceeds used for refinancing (Eligible Projects added before Jan-21 bond issuance)	100%
Percentage of proceeds used for financing (Eligible Projects added after Jan-21 bond issuance)	—%
Oldest project refinanced (aligned with 2years look back period)	FY19

5. Impact report

In order to measure the positive impact, some key environmental impact indicators have been established and monitored in line with the provisions of the TIM's Sustainable Financing Framework.

Here are the impacts of our portfolio of Eligible Projects for the years 2019 and 2020 and a further detail for 2021 (Tab B):

	Investments EUR mln	Impacts
Energy Efficiency	Network transformation 921.48 mln	Fibre km increase 2019 vs 2018 1,696,257 Fibre km increase 2020 vs 2019 1,276,309 Fibre km increase 2021 vs 2020 1,336,099 Reduction in energy consumption 2019 vs 2018 4,9 GWh/year Reduction in energy consumption 2020 vs 2019 6,7 GWh/year Reduction in energy consumption 2021 vs 2020 13,9 GWh/year
	Data Center 168.98 mln ⁷	Reduction in energy consumption 2019 vs 2018 1.54 GWh/year Reduction in energy consumption 2020 vs 2018 8.18 GWh/year ^{8,9}
Digital Inclusion & Response to health crisis	Digital Inclusion 0.24 mln Digital platforms for e-learning/devices suitable for special needs/remote working 6.59 mln	No. of beneficiaries "Operazione Risorgimento Digitale" from 2019 70,000 people (training) 1,000,000 people (awareness) 240 colleagues involved in our internal campaign "Nessun escluso"

⁷ IT Data Center (Noovle)

⁸ Baseline 2018 PUE

⁹ Baseline 2018 PUE

Methodology

Energy efficiency / reduction in energy consumption: the calculation of consumption savings is expressed as the absolute reduction, in GWh, compared to a reference year (in our case 2019 or 2018 as shown in the table), of the consumption of the machinery subject to intervention in the 7 data centers subject to intervention.

Energy Efficiency / Data Center / Power Usage Effectiveness (PUE): a measure of how efficient a computing center, or data center, is in using the electricity that powers it. It is a parameter that gives an idea of how much electrical power is dedicated to the power supply of IT equipment compared to auxiliary services (including but not limited to air conditioning, lighting, energy losses, ...). PUE is therefore the ratio between the total power absorbed by the data center (P_t) and that used only by the IT equipment (P_{it}), that is: $PUE = P_t / P_{it}$. The closer the value is to 1 (optimal measure), the more efficient the data center is, i.e. all the energy absorbed by the system is used for IT equipment.

With reference to the PUE data, the trend over the years has had the following evolution:

PUE 2019: 1.59

PUE 2020: 1.54

with a 3.1% improvement.

Digital Inclusion & Response to Health Crisis: The number of participants in live training initiatives on digital skills and the number of people sensitized to digital culture in Italy, which has just over 59 million inhabitants. Most of the economic commitment dedicated to Operation Risorgimento Digitale is made up of Opex.

The targeted TIM employees of the internal "Nessuno escluso" campaign were 240, equal to 0.6% of the employees of the domestic Business Unit.



Examples of projects carried out to make industrial sites more efficient (fixed network exchanges):

- 1) "Reengineering" which involves interventions on cooling systems, retrofit of existing systems, optimization of cold distribution, interventions to reduce external heat inputs, centralized management systems of cooling systems, inversion of the air flow in room conditioners, raising of the water temperature set points of the refrigeration units, introduction of inverter pumps on the water circuit and interventions on power supply systems.
- 2) "Site Energy Management" which introduces ad hoc tests on specific sites and extends free-cooling as far as possible due to the introduction on fixed network exchanges of systems using "machine learning" technology, i.e. capable of adapting the cooling capacity of the entire cooling system at the present thermal load; adiabatic cooling on refrigeration units.

6) Limited Assurance Report



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Independent auditors' report on the Sustainability Bond Report

(Translation from the original Italian text)

To the Board of Directors of
Gruppo TIM S.p.A.

We have been appointed to perform a limited assurance engagement on Sustainability Bond Report 2021 of TIM Group (hereinafter the "Group") prepared to comply with the reference principles established in the Sustainability Financing Framework and in accordance with the "TIM's Framework" section of the Sustainability Bond Report 2021.

Managements responsibility

The Management is responsible for the preparation of the Sustainability Bond Report 2021 in accordance with the "TIM's Framework" section of the Sustainability Bond Report 2021 and in line with the Sustainability Financing Framework.

The Management is also responsible, within the terms provided by law, for that part of internal control that it considers necessary in order to allow the preparation of the Sustainability Bond Report 2021 that is free from material misstatements caused by fraud or not intentional behaviors or events.

Auditors' independence and quality control

We are independent in accordance with the ethics and independence principles of the International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code) issued by the International Ethics Standards Board for Accountants, based on fundamental principles of integrity, objectivity, professional competence and diligence, confidentiality and professional behavior. Our audit firm applies the International Standard on Quality Control 1 (ISQC Italia 1) and, as a result, maintains a quality control system that includes documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable laws and regulations.

Auditors' responsibility

It is our responsibility to express, based on of the procedures performed, a conclusion about the compliance of the Sustainability Bond Report 2021 in accordance with the "TIM's Framework" section of the Sustainability Bond Report 2021 and Sustainability Financing Framework. Our work has been performed in accordance with the principle of "International Standard on Assurance Engagements ISAE 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (hereinafter "ISAE 3000 Revised"), issued by the International Auditing and Assurance Standards Board (IAASB) for limited assurance engagements. This principle requires the planning and execution of work in order to obtain a limited assurance that the Sustainability Bond Report 2021 is free from material misstatements. Therefore, the extent of work performed in our examination was lower than that required for a full examination according to the ISAE 3000 Revised ("reasonable assurance engagement") and, hence, it does not provide assurance that we have become aware of all significant matters and events that would be identified during a reasonable assurance engagement.

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The procedures performed on the Sustainability Bond Report 2021 were based on our professional judgment and included inquiries, primarily with Group's personnel responsible for the procedures performed preparation of the information included in the Sustainability Bond Report 2021, documents analysis, recalculations and other procedures in order to obtain evidences considered appropriate.

We have performed the following procedures:

1. virtual interviews with the personnel of TIM Group involved in the preparation of the Sustainability Bond Report 2021;
2. assessing, through interviews with the personnel of TIM Group, the procedures followed to collect, aggregate and report allocation and impact indicators included in the Sustainability Bond Report 2021;
3. in particular, regarding the significant information contained in the Sustainability Bond Report 2021, with reference to quantitative data, we have conducted both limited documentary evidences and analytical procedures, in order to collect information about the processes and procedures that support the collection, elaboration, processing and transmission of indicators. With reference to qualitative information, we have collected supporting documentation to verify consistency with the available evidence.

Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the Sustainability Bond Report 2021 of TIM Group has not been prepared, in all material aspects, in accordance with the "TIM's Framework" section of Sustainability Bond Report 2021 and in line with the Sustainability Financing Framework.

Torino, 16th March 2022

EY S.p.A.
Signed by: Ettore Abate, Auditor

This report has been translated into the English language solely for the convenience of international readers.