



Luxembourg, 29 March 2023

## Environmental and Social Data Sheet

### Overview

Project Name:	TIM MOBILE NETWORK - 5G EXPANSION
Project Number:	2022-0581
Country:	Italy
Project Description:	The project concerns the rollout and extension of the promoter's 5G mobile network in Italy. Through these investments, the 5G network coverage will significantly increase to then 50% of the population by making also use of the now available 700 MHz band. Furthermore, new 5G technology evolutions will be brought in allowing for even higher network performance, lower latencies and enabling fixed wireless services to provide coverage in areas with poor fixed line coverage.
EIA required:	to be determined <sup>1</sup>
Project included in Carbon Footprint Exercise <sup>2</sup> :	Yes
(details for projects included are provided in section: "EIB Carbon Footprint Exercise")	

### Environmental and Social Assessment

#### Environmental Assessment

The project concerns the modernisation and the coverage expansion of an existing mobile network. The main part of the project relates to the modernisation, which means the replacement of active network equipment and antennas with a new version operating often in more frequency bands. The coverage expansion requires the installation of additional active equipment and antennas at existing or new sites. Such sites can take the form of an independent tower or can be installed on the rooftop of existing buildings. However the promoter itself does not own the mobile tower sites and it uses a tower company for the infrastructure, which is therefore not part of the Project's investments. In addition, there are also investments into the mobile core network and the optical or microwave transmission links included in the project.

The required construction and operational approvals will depend on the type of investments. Where applicable, and after having carried out a study, permits related to a change in the radiation emissions, will be sought by the promoter from the regional agency for environmental protection (ARPA). Where there are changes in the visual impact at existing sites or when the construction of a new site is planned, an additional building permit will be requested from the relevant competent municipal authorities. However, such permits are the responsibility of the tower operator, which takes care of infrastructure aspects at the tower sites on behalf of the promoter.

<sup>1</sup> This is a multi-component investment where it depends on the specific regulations of the relevant regions.

<sup>2</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20 000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20 000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.



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The promoter has a corporate policy based on a number of strategic principles that guide the actions of all areas of the company. These principles include: (i) risk management and minimisation; (ii) regulatory framework; (iii) technology; (iv) contribution to climate change. Therefore appropriate mitigation measures are applied to reduce the visual impact of the site and the equipment if and when required.

The major challenge of mobile telecommunications networks are the radiation emissions with potentially harmful effects to the environment and to the people during the operational phase.

In Europe, the radiation emissions are regulated by the EU Council Recommendation (1999/519/EC) on limitations of exposure of the general public to electromagnetic fields. (based on the ICNIRP<sup>3</sup> principles). Italy transposed the recommendation in 2003 and required even 10 times lower emission thresholds than specified in the above EU recommendation.

In 2022 the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) reconfirmed, that the ICNIRP thresholds are appropriate and this was also acknowledged by the European Commission's science panel. Therefore the level of radiation emissions of the project is compliant with EU required thresholds and thereby it is not expected to pose a significant risk to the general public.

Telecommunication networks are the basic components for the digitalisation of all sectors of the economy. They are essential to enable the deployment of low-carbon and decarbonisation scenarios leading to significant sustainability benefits across the whole economy and fulfil the Paris Alignment criteria as set out in the EIB's CBR (Climate Bank Roadmap).

### **EIB Carbon Footprint Exercise**

The estimated annual emissions of the project in a normal year of operation will be:

- absolute (gross): 54,8 kT CO<sub>2</sub>e/year
- relative (net): -9,5 kT CO<sub>2</sub>e/year

Even though the project relates only to a third of the promoter's current mobile network in Italy, the power consumption of the very powerful 5G equipment in the 3.7 GHz band is rather high compared to the older mobile technologies due to the use of active antennas. The above emissions include site upgrades as well as the deployment of new sites. There is also a replacement of some equipment included, which allows for some emission reductions and this is resulting in the negative value of relative emissions.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

### **EIB Paris Alignment for Counterparties (PATH) Framework**

The counterparty is in scope and screened out for the PATH framework, as its activities are not included in the list of EIB sub-sectors and segments in high-emitting sectors and for high vulnerability.

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## Other Environmental and Social Aspects

The promoter is very active and ambitious in its overall corporate environmental and social standards and it reports regularly on its achievements among other on areas such as social digital inclusion, research cooperation and gender equality. All activities, intended targets and achievements are published in an annual dedicated sustainability report. The data contained in the report comprises TIM's significant positive impacts on its stakeholders, compared to economy, environment and society. TIM reinforces such commitments also through memberships in various associations such as Global Compact (since 2000), Global Reporting Initiative (GRI) and GeSI (Global e-Sustainability Initiative). The annual sustainability reporting complies with GRI G4 comprehensive option including external auditing.

The promoter is listed in various sustainability indexes (status 2019) among which are the Dow Jones Sustainability World and Europe, STOXX, FTSE4GOOD and Vigeo Eiris.

## Conclusions and Recommendations

The project consists mostly of the installation of telecommunication equipment at existing sites already approved for such purposes. There is a smaller component which requires new construction permits due to visual changes at existing sites, or the construction of new sites.

Latest studies re-confirmed that the ICNIRP thresholds are appropriate, while Italy has even 10 times lower thresholds for radiation emissions specified. The project entails strong social benefits through improved mobile 5G broadband coverage, which can be considered a step change compared to current 4G network capabilities.

Considering the above, the project is acceptable for the Bank's financing in environmental and social terms.