



Luxembourg, 14 December 2022

Environmental and Social Data Sheet

Overview

Project Name:	ORANGE FRANCE 5G NETWORK ROLLOUT
Project Number:	2022-0456
Country:	France
Project Description:	The project relates to the design and early rollout of a 5G mobile telecommunications network throughout France as well as the densification and upgrade of a 4G network. The project will be rolled out throughout the country and is focused the deployment of the active Radio Access equipment. In order to cope with the increased traffic, the project also includes the expansion of the core including also the preparation of the core for the 5G standalone deployment as well as upgrades to the backhauling to provide fibre connectivity to the mobile sites.
EIA required:	No
Project included in Carbon Footprint Exercise ¹ :	Yes
(details for projects included are provided in section: “EIB Carbon Footprint Exercise”)	

Environmental and Social Assessment

Environmental Assessment

The project consists of four main components:

1. Deployment of new 4G and 5G sites for network densification and capacity upgrade;
2. Deployment of 5G radio access network (RAN) nodes and associated equipment, mostly in existing towers and rooftop sites throughout the country;
3. Upgrade of existing radio equipment to be 5G ready and
4. Upgrade of the promoter's core network to 5G together as well as expansion of the fibre connectivity to mobile sites.

For all these components, the project focuses on the active equipment (Radio Access, Backhauling, etc...). The promoter will rent the passive infrastructure (tower, shelters) from third-party tower companies; the passive infrastructure is therefore not part of the project scope.

Regarding component 1, as part of the permitting process for new sites, the third-party tower company presents a “déclaration d'urbanisme”. This declaration is reviewed, amongst others, by environmental regional authorities (DREAL - Direction Régionale de l'Environnement, de l'Aménagement et du Logement).

¹ 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 CO2e/year absolute (gross) or 20 000 tonnes CO2e/year relative (net) – both increases and savings.



Luxembourg, 14 December 2022

Activities included in components 2 to 4 involve to a large extent the installation of equipment in existing infrastructures (towers, rooftop sites and other radio access and core network buildings) that will not change their scope due to the project. These installations might require minor refurbishment or adaptation works, which are not expected to have a significant negative environmental impact.

Where relevant, visual nuisance due to towers and rooftops is mitigated by following the corresponding requirements of the ABF (Architectes de Bâtiments de France) that is consulted as part of the permitting process and may impose height restrictions, specific disguising site formations (tree shape, chimney, etc.) and other similar measures.

Paris Alignment

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 absolute CO₂ emissions of project in a standard year of operation amount to 24 kt CO₂ eq. The contributor to the CO₂ emissions is the use of electricity for the operation and cooling/heating of the equipment. The estimated annual relative CO₂ emissions amount to -6 kt CO₂ eq. due to the project component related to the upgrade of existing radio equipment to be 5G ready.

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.

Other Environmental and Social Aspects

The promoter has undertaken to be Net Zero Carbon by 2040, in line with the IPCC recommendations for a 1.5°C trajectory. The promoter is also part of the Net Zero Initiative, an initiative which proposes a unique framework for private sector action in favour of the carbon neutrality objective.

During the operations phase, the main potential impact would be related to exposure to EMF (Electro Magnetic Field) emissions by RAN equipment. Studies continue to be conducted to further assess the potential long-term effects of exposure to EMF emissions on human health.

So far, mitigation measures adopted are limits to the radiation of the mobile base stations and restrictions to their locations. France has adopted exposure limits aligned with the ones stipulated by the EU recommendation (1999/519/EC), which is based on the ICNIRP



Luxembourg, 14 December 2022

(International Commission on Non-Ionizing Radiation Protection) 1998 guidelines. ICNIRP has recently stated that in terms of the 5G exposure levels measured so far, its 1998 guidelines would also provide protection for the frequency bands that the promoter's network would use.

The European Union Directive 2013 / 35 / EU of 26 June 2013 defines the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields (EMF)).

To verify compliance with the exposure limits, the French National Frequency Agency (ANFR) performs audits at the request of citizens and city councils. In addition, some specific measurement campaigns are done in schools and municipal squares and parks for the ministry of environment and sustainable development.

The promoter has implemented a Group policy on radio waves and health since 2007, in which it undertakes to:

- apply the limits defined by the ICNIRP (International Commission on Non-Ionizing Radiation Protection) and recommended by the WHO for mobiles and mobile network antennas;
- provide transparent and identical information to all of its stakeholders;
- publicize the recommendations for the use of mobile devices issued by health authorities to limit exposure to radio waves;
- contribute to research and standardization efforts to take these aspects into account as early as possible in product design;
- raise awareness of employees working near or on antennas about the safety instructions provided in European Directive 2013/35/EU and in France its Decree No. 2016-1074 of August 3, 2016.

Conclusions and Recommendations

The project consists mostly of the installation of telecommunications equipment in existing sites already approved for such purposes, including also a smaller component of newly built sites. The project focuses on the active equipment: the passive infrastructure deployed by third-party tower companies is not part of the project scope. Potential environmental impact during construction is expected to be limited and, where applicable, the relevant environmental authorities will review the documentation and appropriate mitigation measures will be implemented.

The environmental impact of mobile networks during operations is mainly related to electromagnetic field (EMF) emissions that are mitigated by operation under the exposure limits determined by the regulation and based on the best science currently available.

Therefore, the project is considered to be acceptable in environmental and social terms for the Bank's financing.