

Public

Environmental and Social Data Sheet

Overview

Project Name:	TELEKOM SRBIJA BROADBAND EVOLUTION
Project Number:	2020-0368
Country:	SERBIA
Project Description:	The project relates to the design and early rollout of a 5G mobile telecommunications network throughout Serbia as well as the densification and upgrade of the commercial 4G network. The project will be rolled out throughout the country and includes the deployment of the physical infrastructure (antennas, power and cooling facilities) and the active Radio Access Network equipment. The project also includes investments in the transmission and backhauling network to the mobile sites to cater for the increased bandwidth requirements at the sites.
EIA required:	No
Project included in Carbon Footprint Exercise ¹ :	No

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The project consists of three main components:

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

The activities included in the project involve to a large extent the installation of equipment in existing infrastructures (towers, rooftop sites and other radio access network buildings) that will not change their scope due to the project.

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, 19 May 2021

These installations might require minor refurbishment or adaptation works, which are not expected to have a significant negative environmental impact. If the project would be located within the EU, these activities would not fall under the EIA Directive 2011/92/EU as amended by 2014/52/EU.

Digitalisation and ICT infrastructure play an important role in the transition of several sectors to a low carbon and climate resilient economy. They are the backbone infrastructure that enables the deployment of low-carbon and decarbonisation scenarios leading to significant sustainability benefits across the whole economy. The deployment of latest ICT infrastructure, as the one deployed by the project, fulfil the Paris Alignment criteria set out in the EIB's CBR (Climate Bank Roadmap).

During the operations phase, the main potential impact relate 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. Serbia has adopted exposure limits in principle aligned with the ones stipulated by the EU recommendation (1999/519/EC), which is based on the ICNIRP (International Commission on Non-Ionizing Radiation Protection) 1998 guidelines. In 2020, ICNIRP concluded 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 levels adopted in Serbia ('Official Gazette of RS No 104/2009') follow the ICNIRP methodology but the limits are well below the limits established by ICNIRP, in order to provide increased protection. To verify compliance with the exposure limits, the Serbian Regulator (RATEL) requires measurements of electromagnetic radiation levels of radio base stations. For sites classified as sources of radiation of particular interest, measurements are mandatory every two years. To date, the Company has not exceeded the permitted radiation levels.

In order to review the suitability of the current limits for the new 5G network rollouts, RATEL perform some trials in order to measure the EMF from 5G systems. The measurements have so far shown that 5G EMF levels are very similar to the existing 2G/3G/4G EMF levels and all these levels are far below the Serbian reference levels. Further monitoring will continue to be performed.

EIB Carbon Footprint Exercise

The estimated annual emissions of project in a standard year of operation have been calculated to be of 38.7kTCO_{2e}/year. The power consumption per network node depends on the site configuration. It ranges from 510 W for simple sites including only a carrier aggregation up to 2100W for 4x4 MIMO sites with CA. The equipment included does not relate to a swap-out of existing equipment, therefore in line with the GHG methodology, the relative emissions are zero. 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.

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Other Environmental and Social Aspects

Being the telecommunication market leader in Serbia, the promoter is prepared to implement and operate large-scale projects successfully using proven technologies. In Environmental terms, the promoter follows the relevant national legislation for the deployment and operation of its mobile sites. The promoter is a signatory to the UN Global Compact and publishes all its Environmental and Social related activities in its annual report.

Around 60% of the promoter's staff are male and 40% female, and the group of staff holding a university degree represents around 36% of its own staff. As for the age structure of the employees, most of the employees are 40-49 years of age (44%), followed by the employees between 50 and 59 years of age (37%) and those between 30 and 39 years of age (14%).

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. Potential environmental impact during construction is expected to be limited and, where applicable, the relevant environmental authorities will determine the required mitigation measures as a condition to approve the project. 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 has been classified as acceptable in environmental and social terms for the Bank's financing.