

Luxembourg, 18 July 2018

# Public

# **Environmental and Social Data Sheet**

Overview	
Project Name:	NOKIA 5G
Project Number:	2018-0099
Country:	France/Finland/Germany/Poland/Other EU
Project Description:	The project relates to the development of a new 5G network product portfolio according to the telecom industry's global 5G standards, and the complementary Internet Protocol (IP)/Optical solutions to address the transport challenges posed by the massive amount of traffic that will be generated by the 5G customers. The project will include both development of hardware and software components.
EIA required:	no

Project included in Carbon Footprint Exercise<sup>1</sup>: no

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

## **Environmental and Social Assessment**

### **Environmental Assessment**

Overview

The project consists of the financing of RDI investments and activities to develop new telecommunications equipment that will be carried out in existing premises, which will not change their current authorised scope. Therefore, the project is not expected to have any particular negative environmental impact.

A relevant part of the products developed by the promoter during the project will be mobile telecommunications equipment, which are subject to regulations about radiofrequency electromagnetic field (RF-EMF) exposure limits. Studies are ongoing to further assess the potential long-term effects of use on human health. In the meantime, the RF-EMF radiation produced by mobile handsets has been classified by the International Agency for Research on Cancer, a WHO specialized agency, as possibly carcinogenic to humans. So far, mitigation measures adopted are limits to the radiation of the mobile base stations, restrictions to their locations, the control of the power of the handsets and guidelines for consumer usage. Most countries have adopted EMF exposure limits that are either aligned or stricter than the ones included in the ICNIRP (International Commission on Non-Ionizing Radiation Protection) guidelines. The promoter commercialises its products worldwide and declares that its product portfolio — including macro cells, small cells and Wi-Fi — comply with the established national and international standards and regulations on RF-EMF

<sup>&</sup>lt;sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.



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exposure. To this effect, it assesses the applicable RF exposure compliance boundary of each product in accordance with international standards, such as IEC 62232:2017 and provides installation procedures and training to those working for and with Nokia to ensure that equipment is installed correctly and RF exposure levels are in compliance with established RF-EMF exposure limits.

The new 5G products developed as a result of the project are expected to be at least ten times more energy efficient in terms of energy consumed by unit of data transmitted than those based on previous 4G technology. In essence, 5G networks will consume significantly less energy than existing 4G networks while transmitting the same or several times more data volume.

The promoter's products are compliant with the relevant regulations related to the use of materials and substances in the different jurisdictions where it is present. In particular, these include the REACH Regulation (EC 1907/2006), WEEE Directive (2012/19/EU) and the RoHS2 Directive (2011/65/EU), except for some new substances included in the amendment 2015/863, which Nokia is committed to remove by 2019.

#### **Other Environmental and Social Aspects**

To assist its clients in recycling and re-using legacy equipment, Nokia offers Asset Recovery services, which can cover Nokia's or other manufacturers' products. In 2017, the promoter sent around 2,600 tons of telecoms equipment for material recovery and refurbished around 68,000 units.

Nokia is a signatory of the UN Global Compact since 2001 and prepares an annual Sustainability report using the GRI G4 reporting guidelines in accordance to Core.

## **Conclusions and Recommendations**

The RDI activities included in the project do not fall under Annexes I and II of the EIA Directive 2014/52/EU amending Directive 2011/92/EU, and are therefore not subject to mandatory Environmental Impact Assessments. The project will be carried out in existing premises, which will not change their authorised scope, and is not expected to produce any relevant environmental impact. The promoter's products are expected to comply with all the relevant environmental regulations in all the jurisdictions where it operates. Finally, thanks to the improved energy efficiency of the new 5G technology, future mobile networks will consume significantly less energy than current 4G networks with equivalent installed capacity, making the continued digitalisation of the society environmentally sustainable.

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