

Environmental and Social Data Sheet

Overview

Project Name:	STM SEMICONDUCT R&D ITALY-FRANCE
Project Number:	2021-0441
Country:	France / Italy
Project Description:	The project relates to the promoter's semiconductor RDI and manufacturing activities for the development of the next generation of energy efficiency, resources saving and environment protection semiconductor technologies, devices and solutions.
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

Semiconductor manufacturing facilities and RDI for semiconductors are not specifically covered by Annexes I & II of EU Directive 2014/52/EU amending the EIA Directive 2011/92/EU.

The proposed RDI activities will take place mainly inside buildings at existing RDI or manufacturing facilities already being used for similar activities, and are not expected to have a significant environmental impact on the surroundings.

For the manufacturing component of the project, the proposed investment programme includes lines capacity increase and clean room expansions for the manufacturing of innovative processes within existing manufacturing facilities as well as the construction and fit out of a first stage of a new manufacturing facility. All of these manufacturing related investments will also be performed within existing industrial sites already used for similar activities. The operational permits for the construction of the new facility and the expansions are already in place.

A large part of the products resulting from the projects RDI activities will induce energy efficiency gains in their area of application.

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.

EIB Carbon Footprint Exercise

The estimated annual absolute CO₂ emissions of project in a standard year of operation amount to 22.9 kt CO₂ eq. The two main contributors to the CO₂ emissions are the use of perfluorinated compounds (PFCs) in the manufacturing of the semiconductors and the use of gas and electricity for the operation and cooling/heating of the manufacturing equipment.

The estimated annual relative CO₂ emissions amount to 0 as the promoter will make use of the most advanced equipment, abatement systems and energy efficiency tools.

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.

Other Environmental and Social Aspects

The promoter fulfils the requirements of the ROHS Directive (Restriction of Hazardous Substances) for its products. All of the promoter's manufacturing operations are OHSAS18001 certified, and the sites included in the investment programme are certified under EMAS (Eco-Management and Audit Scheme) regulation.

Both of the manufacturing sites covered by the project fall under the Seveso directive as upper tier establishment and have the relevant emergency plans and risk management in place.

The promoter is an active member of the Electronics Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI) and implements all the actions and procedures developed by this joint working group aimed at sourcing conflict-free minerals.

Semiconductors are the basic components for the digitalisation of all sectors of the economy. They are therefore 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).

In addition of the improved energy efficiency of the new developed technologies and devices (the so-called "greening of"), the availability of such, more powerful, solutions will allow for the development of applications aiming at CO₂ emission reduction, energy efficiency, etc., such as the smart grid or electric vehicles (the so-called "greening by").

Conclusions and Recommendations

Semiconductor manufacturing facilities and RDI for semiconductors are not specifically covered by Annexes I & II of EU Directive 2014/52/EU amending the EIA Directive 2011/92/EU.

A large part of the products resulting from the projects RDI activities will induce energy efficiency gains in their area of application.

Overall, the project is eligible for EIB financing in environmental and social terms.