



Public

Environmental and Social Data Sheet¹

Overview

Project Name: BEDIMENSIONAL TWO DIMENSIONAL CRYSTALS (IEU GT2)
 Project Number: 2023-0649
 Country: Italy
 Project Description: BeDimensional produces few layer graphene (FLG) and few layer Hexagonal Boron Nitride (FLhBN) for use in 5 main applications (Electrodes, Paints & Coatings, Textiles, Polymers and Lubricants). The project consists of the installation of an industrial batch line in Bolzaneto, Genova with start of operation in 2024 followed by the installation of two continuous lines, dedicated to the production of FLG and FLhBN, in Rosignano, Livorno with start of operation in 2026

EIA required: No
 Invest EU sustainability proofing required Yes
 Project included in Carbon Footprint Exercise²: No

Environmental and Social Assessment

Environmental Assessment

The aim of the project is to support the promoters scale up and commercialisation plans. The process involves the transformation of the 3D (three-dimensional bulk) raw materials, graphite and bulk boron nitride, into 2D (two-dimensional) crystals. The process includes two main steps: (i) the exfoliation step, in which 3D crystals are “sliced” into 2D crystals, whilst suspended in a solvent and (ii) the drying step, in which the solvent used in the exfoliation step is removed and recovered.

The promoter has confirmed in writing that the project does not require an EIA as the project activities neither fall under Annex I nor Annex II of the EU EIA Directive 2011/52/EU amended by Directive 2014/52/EU.

The project is also outside the scope of the AIA (Autorizzazione Integrata Ambientale) permit as described in the applicable Italian laws (Part II of the Decreto Legislativo n. dated 3 April 2006).

The Bolzaneto project has already obtaining the AUA (Autorizzazione Unica Ambientale, regulated by the D.P.R. n59 dated 13 March 2013) from the regional authorities and the Rosignano project will apply for the AUA in Feb 2025 with approval expected in June 2025.

¹ The information contained in the document reflects the requirement related to the environmental, social and climate information to be provided to Investment Committee as required by the Invest EU Regulation and it represents the equivalent of the information required in the template of the InvestEU sustainability proofing summary

² 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.



The Rosignano project will be located on an existing Solvay site and the fire protection will be integrated into the existing Seveso system.

The specific investment activities included in the project will not have any relevant environmental impact.

Climate Assessment

Few layer graphene has multiple uses including as an additive to next generation silicon anodes which will improve adoption rates of electric vehicles and contribute to the decarbonisation of the transport sector.

The project's climate risks have been assessed as minimal. Climate change adaptation does not apply for this project. The project is therefore considered to be 'Paris aligned', both against low carbon and resilience goals, and is in line with the EIB Group Climate Bank Roadmap 2021-2025.

EIB Paris Alignment for Counterparties (PATH) Framework

The counterparty BeDimensional is in scope and screened out of the PATH framework, because it is not considered high emitting or high vulnerability.

Social Assessment

The project does not have any significant negative social impacts. The project will generate positive social impacts through creation of new skilled employment in the area.

Conclusions and Recommendations

The project does not have any significant environment, climate or social impacts.

The product of the project can be used in next generation silicon anodes which will contribute to the decarbonisation of the transport sector.

Sustainability proofing conclusion: the project will be carried out in compliance with applicable national and EU environmental and social legislation. Based on the information provided by the Promoter the project ECS risks and impacts is deemed to be low, no additional mitigation measures required. Therefore, no further sustainability proofing is required.

Conditions

The Promoter is required to provide a copy of the necessary permits for both facilities prior to disbursement.

Undertaking

The promoter is required to inform EIB of any changes to the project that will impact on the required permits or the permitting process.

Overall, and with regard to the contractual condition/undertaking included above, the project is acceptable for EIB financing in environmental and social terms.