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Public

Environmental and Social Data Sheet

Overview

Project Name:	ARVEDI RDI & ADVANCED MANUFACTURING TECHNOLOGY
*20*Project Number:	2020-0581
Country:	Italy
Project Description:	The project comprises the promoter's RDI activities and a significant part of the promoter's strategic investment programme over the next years in its two main manufacturing sites. It encompasses (i) RDI activities, (ii) new advanced manufacturing technology (AMT) downstream steel processing lines, (iii) various circular economy measures and (iv) renewable electricity generation in several of its manufacturing facilities. The project covers the years 2020 to 2023.

EIA required:	yes
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 comprises four components: (a) RDI activities, (b) investments in renewable electricity generation, (c) investments in advanced manufacturing technology (AMT) equipment and machinery and (d) investments in circular economy measures. The components above will be implemented in two different existing manufacturing sites of the promoter, one in Cremona and one in Trieste (Italy).

a) RDI activities: The RDI activities will be carried out in existing facilities of the promoter in Italy. These types of activities are not mentioned in the EIA Directive; therefore, these activities are not expected to require an EIA according to Directive 2014/52/EU amending 2011/92/EU. In addition, biodiversity or nature conservation issues are not touched upon, as the project’s activities will be carried out within the borders of existing industrial facilities.

b) The installation of the photovoltaic (PV) electricity generation (13.6 MWp in total) will be installed on rooftops of existing industrial buildings within the different manufacturing facilities of the promoter in Italy and as such, there is no negative environmental impact and no EIA is required.

c) Investments in AMT equipment and machinery: This component encompasses the promoter’s investments in two new highly automated manufacturing lines and various measures that increase the automation level of existing lines. Both new lines will be installed inside an existing industrial building of the promoter.

[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.

In **Trieste** (Investments in AMT equipment and machinery): The item encompasses a new hot dip galvanising line (HDGL) and a new colour coating line (CCL) specifically developed for thin steel coils, and both lines fall under Annex II of the EIA Directive 2014/52/EU amending the Directive 2011/92/EU. Hence, these lines will require a screening decision from the competent authorities. Their implementation will entail an amendment of the existing Autorizzazione Integrata Ambientale (AIA) of the Trieste site.

In **Cremona:** (Investments in AMT equipment and machinery): The promoter will implement various AMT measures that increase the automation level of existing lines. These measures involve minor modifications of different existing and authorised lines. One modification is related to the heating section of an existing and authorised HDGL, line number 2. Based on current knowledge and expectations the modification of the existing and already authorised manufacturing line is not considered to have significant adverse effects on the environment and hence this activity is not considered to be part of Annex II, point 13, of the EIA directive and no screening is required.

d) Investment in circular economy measures: The promoter intends to implement a new scrap treatment and preparation plant. The aim of the project is to have in-house scrap treatment capacities and capabilities in order to further increase the usage of scrap in its raw material mix. The new facility will be installed in an industrial area in **Cremona**. The scrap treatment plant is used for the recovery and preparation of non-hazardous waste, with a total capacity exceeding 10 t per day and the component is part of Annex II of the EIA directive. Hence, this component will require a screening decision from the competent authorities. The implementation of the item will probably entail an amendment of the existing Autorizzazione Integrata Ambientale (AIA).

As far as applicable, all components of the project will be in line with or in some cases even go beyond the respective Best Available Techniques (BAT) conclusions. Overall, the project will have the following beneficial environmental impacts:

- Improve the scrap utilisation rates of the promoter's steel manufacturing processes and hence further reduce the carbon footprint of its products. This will significantly contribute to circular economy.
- Introduce new products with a reduced environmental and carbon footprint into the market leading to indirect GHG emissions reduction and significant material consumption reductions in downstream applications.
- Increase the recovery of valuable raw materials leading to resource efficiency improvements, as post-consumer steel scrap and copper for example.
- Increase renewable electricity generation through the implementation of photovoltaic installations on multiple rooftops of existing manufacturing facilities.

EIB carbon footprint exercise

The carbon footprint is based on the estimation all GHG emissions related to the project. The majority of the emissions stems from new hot dip galvanising line (HDGL) and the colour coating line (CCL). Natural gas consumption as well as electrical power consumption have been considered to estimate the absolute emissions of the project. Although the manufacturing capacity of several downstream processes is increased as part of the project the overall raw steel manufacturing capacity of the promoter is not impacted by the project. After project implementation the estimated annual nominal GHG emissions of the project will amount to 24.5 kt of CO2 per year. The project's baseline scenario represents a realistic scenario that delivers the same output as the proposed project considering comparable

quantities, quality and geographical area. The baseline scenario assumes that the new capacities would be manufactured or treated by competitors using similar equipment with similar GHG emission performances. For the photovoltaic electricity generation the baseline scenario assumes the combined margin GHG emissions factor for Italy.

Based on the bank's carbon footprint exercise methodology it is estimated that the overall project will thus result in emission saving of 3.5 kt of GHG per year.

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.

It has to be emphasized that the promoter is the only flat carbon steel manufacturer in Europe that manufactures steel coils in a significant quantity (4% of European production) using the electric arc furnace (EAF) route and based on secondary raw materials, i.e.: steel scrap to a large extend. Thanks to usage of electricity in the EAFs and steel scrap as raw material this manufacturing route has significantly lower GHG emissions than the primary steel manufacturing based on primary raw materials, i.e.: iron ore and coal. Hence, the promoter's flat carbon steel products have already today the lowest carbon footprint in Europe and the current project will help the promoter to further reduce the carbon footprint of its products.

Other Environmental and Social Aspects

The promoter has clear corporate governance structures and practices with regard to corporate social responsibility and this is entrenched in the company culture. The promoter's major manufacturing site in Cremona is in compliance with ISO 14001 environmental management systems, ISO 45001 regarding operational health and safety matters. The site is as well certified according to Eco-Management and Audit Scheme – EMAS. With the regard to the site in Trieste, the promoter intends to implement ISO 45001 certification for the start of operations of the new lines or shortly after.

Conclusions and Recommendations

The environmental impact of the project's RDI and AMT component is expected to be limited, whereas some outcomes are likely to contribute to more resource efficient steel processing as well as steel products with a reduced carbon and environmental footprint. The increased usage of scrap and the innovative rolling technologies used by the promoter will further decrease the carbon footprint of the promoter's products and hence contribute to reduce GHG emissions directly and indirectly. The in-house renewable electricity generation will as well contribute the GHG emission savings. The project adheres to the conclusions of Best Available Techniques (BAT) as identified by the European Commission for the iron and steel production industry and the Ferrous Metals Processing Industry. The activities in the area of steel coils galvanisation and scrap treatment might require an EIA assessment based on the screening decision of the local competent authority. These activities are fully independent from each other and as well from the rest of the project (not being subject to an EIA). The financing of the separate tranches of these sub-components will be subject to disbursement conditions. Therefore, the project is considered acceptable for Bank financing in environmental and social terms.

Disbursement condition:

1. Considering the implementation of the new hot dip galvanising line (HDGL, in Trieste) the disbursement of the corresponding tranche is subject to the decision of the

competent authorities that this sub-project is screened out, i.e. no EIA is required. If an EIA is required, the disbursement is subject to the reception of the full EIA report.

2. Considering the implementation of the new colour coating line (CCL, in Trieste) the disbursement of the corresponding tranche is subject to the decision of the competent authorities that this sub-project is screened out, i.e. no EIA is required. If an EIA is required, the disbursement is subject to the reception of the full EIA report.
3. Considering the implementation of the new scrap preparation and treatment facility in Cremona the disbursement of the corresponding tranche is subject to the decision of the competent authorities that this sub-project is screened out, i.e. no EIA is required. If an EIA is required, the disbursement is subject to the reception of the full EIA report and the renewed or amended Autorizzazione Integrata Ambientale (AIA) of the site.

Contractual undertakings:

1. In case a screening decision according to the EIA directive would be required for any of the other components part of the project (i.e. neither the scrap treatment and preparation facility nor the new HDGL in Trieste) a copy of the screening decision or a copy of the final EIA report shall be send to the bank as soon as available.