Gold Standard
for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v. 1.2**

RELATED SUPPORT

– **TEMPLATE GUIDE Key Project Information & Project Design Document v.1.2**

Aluminum Recycling – A Solution for CO_2 Emission Reduction by AS METAL, Romania

This document contains the following Sections

Key Project Information
Section A – Description of project
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KEY PROJECT INFORMATION

GS ID of Project	10878
Title of Project	Aluminum Recycling – A Solution for CO_2 Emission Reduction by AS METAL, Romania
Time of First Submission Date	02/10/2020
Date of Design Certification	09/08/2023
Version number of the PDD	Version 4
Completion date of version	11.10.2023
Project Developer	AS Metal COM SRL.
Project Representative	Carbon Expert International Srl.
Project Participants and any communities involved	-
Host Country (ies)	Romania
Activity Requirements applied	☐ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☒ N/A
Scale of the project activity	☐ Micro scale ☒ Small Scale ☐ Large Scale
Other Requirements applied	GS4GG principles&requirements v1.2
Methodology (ies) applied and version number	AMS-III.AJ. Recovery and recycling of materials from solid wastes - Version 9.0
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	☐ Regular ☒ Retroactive

Table 1 – Estimated Sustainable Development Contributions

Sustainable Development Goals Targeted	SDG Impact (defined inError! Reference source not found.)	Estimated Annual Average	Unit of Products
SDG 4 – Quality education	GSDM-I4.4.1 Number of employees provided skill development training	64	employees
SDG 5 – Gender equality	GSDM-I5.5.1 Number of women serving in managerial/ leadership /ownership role	3	Women
	GSDG-I5.5.2 Proportion of women in managerial positions	50	%
SDG 7 – Affordable and clean energy	GSDM-I7.3.1 Total energy savings	129,432	MWhelectricity /year
SDG 8 – Decent work and economic growth	GSDM-I8.5.1 Total number of jobs	64	employees
SDG 13 - Climate Action	GSDM-I13.2.1 Amount of GHGs emissions avoided or sequestered	56,282	VERs

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

AS METAL COM SRL is located in Romania on the Southern outskirts of the capital, Bucharest. The site where it operates being located within an industrial platform of 35,000 sq.m. with metallurgical specificity. We are specialized and authorized in the recycling of aluminum metal waste so that we transform this waste into secondary raw materials ready to be reintroduced into the industrial circuit. The secondary aluminum raw materials put on the market by AS METAL COM SRL correspond to the requirements of the European Industrial Standards (Recyclable materials EN 13920 1-16:2003 Aluminum and aluminum alloys, Scrap.), the American Standards Institute of Scrap Recycling Industries Inc., as well as to the Directives and the European Environmental Regulations, such as the EU Regulation 333/2011 establishing criteria determining when certain types of scrap metal cease to be waste under Directive 2008/98/EC of the European Parliament and of the Council[1].
The technologies used by AS METAL COM SRL allow to recover and separate metal waste with a fraction mass, mainly of aluminum resulting from the processing of post

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011R0333

consumer aluminum waste and other ferrous and non-ferrous metal substances which in turn are put on the market in accordance with the industry standards that govern them. Our technological processes guarantee a high recovery efficiency not only through the reported quantities but especially through their quality. The certification of the quality of secondary aluminum raw materials produced by our company is ensured by the determinations and analyzes performed in our own laboratory and by the certifications obtained regarding the functionality of the integrated quality management system, environment management system, and occupational health and safety management system for the fields of activity "Development of Secondary aluminium alloys, ferrous and nonferrous metal waste recovery. Pretreatment and treatment of obsolete vehicles. Wholesale of waste and scrap" (ISO 9001:2015; ISO 14001:2015; ISO 45001:2015)[2] as well as the implementation of the requirements of the European Regulation 333/2011 establishing the conditions in which certain aluminum and iron waste are no longer considered waste. According to this regulation, in the case of the project activity the aluminum is considered waste as an input material in the production process and it is not considered anymore waste, but secondary or intermediary product as output, which corresponds also to the Gold Standard principle from GS4GG Section 3.1.1.1. related to types of projects and the recognistion of the recycled aluminum waste as "a *usable product with sustainable development benefits".*

Thus, the project falls under the Gold Standard (GS) eligible type of projects: Waste Handling and Disposal. The output capacity of the aluminum recycling plant is given by the types of processed aluminum waste and it is between 49,000 up to 77,500 tons/year.

One of the impacts of the project is the reduction of CO2 emissions through aluminum recycling, displacing the primary aluminum production from raw materials (mined minerals, bauxite). In the case of primary aluminum production from raw materials, which is the baseline scenario, the process has a much greater consumption of energy and therefore a much higher environmental impact regarding CO2 emissions.

The total GHG emission reductions for the 5 years crediting period (2021-2026) are estimated at 281,410 tCO2e. The annual average GHG emission estimation is 56,282 tCO2e.

The start date of the project is 10th December 2019 when AS METAL COM SRL invested in the first technology recycling line with the intention to produce secondary raw material according to Regulation 333/2011 for aluminum and iron and the inclusion of other types of metal waste in European standards in terms of quality and chemical composition[3].

According to the applied methodology, AMS.III.AJ_version 9.0, the Project boundary includes the physical geographical sites of:

[2] The ISO documents can be found here: http://asmetal.ro/calitate/?lang=en. The company has been evaluated by ECOVADIS on 2021 and obtained the silver medal for its impact practices on the environment, workforce, human rights, ethics and sustainable acquisitions.
[3] The documents evidence of the start date have been submitted to the auditor at validation.

(a) Waste collection sites (e.g. door-to-door collection);

(b) The recycling facility;

(c) Processing/manufacturing facility;

(d) Virgin material production

(e) MSW disposal site or treatment plant in the baseline scenario.

As mentioned above, the project's main objective is the reduction of CO2 emissions through aluminum recycling in comparison with the primary aluminum production from raw materials. The baseline scenario used for this project being aluminum production accomplished in two phases: the Bayer process of refining the bauxite ore to obtain aluminum oxide, and the Hall-Heroult process of smelting the aluminum oxide to release pure aluminum, which are almost 8.4 more pollutant than the process of producing secondary aluminum from waste.

The activity of the project is a model for other similar aluminum recycling facilities in Romania and Eastern Europe, which deliver sustainable development. Furthermore, the project is in line with specific UN requirements and with the circular economy directives, aimed at eliminating waste and the continual use of resources directives.
Therefore, the Project has the following benefits:

- contributes to local environmental sustainability since recycling decreases the overall energy use, GHGs and environmental burden from natural resources extraction.
- reduces the amount of waste to be disposed in the landfills;
- helps with one of the basic environmental principles, the proximity principle, increasing the nearby capacity for recycling;
- contributes towards better working conditions in the local region;
- improves local and regional economic development;
- contributes to the development of local technological capacity because the manpower and the technical maintenance are provided domestically in the country;
- contributes to regional integration and connection with other sectors;
- contributes to the local municipalities' funds for social insurance, such as health and pension funds, and to local and social community development;
- increases employment opportunities in the area where the project is located;

The project contributes to the following five UN Sustainable Development Goals:
SDG 4 – Quality education
SDG 5 – Gender equality
SDG 7 – Affordable and clean energy
SDG 8 – Decent work and economic growth
SDG 13 – Climate action

A.1.1. Eligibility of the project under Gold Standard

Section 3.1.1 of GS4GG mentions the following:

"3.1.1.1 A Project type is automatically eligible for Gold Standard Certification if there are approved Gold Standard Activity Requirements and/or Gold Standard Impact Quantification Methodologies associated with it or as referenced in Gold Standard Product Requirements. These are published to the Gold Standard website and shall be followed where provided for a given Project type."

The Project is associated with the CDM methodology AMS-III.AJ. "Recovery and recycling of materials from solid wastes" - version 9.0, which is included into Gold Standard Impact Quantification Methodologies, being a small scale project.

The Project does not have any Gold Standard Activity Requirements. The project follows Gold Standard Product Requirements "GHG Emissions Reduction & Sequestration- version 2.0".

As per the cover page of the PDD, the Product Requirements applied is "GHG Emissions Reduction & Sequestration Product Requirement"- version 2.0". As per the Product requirements, one of the type of projects eligible under GS is *"c. Waste Handling & Disposal: The waste handling and disposal category refers to all waste handling Projects that deliver an energy service (e.g. LFG with some of the recovered methane used for electricity generation) or a usable product with sustainable development benefits (e.g. composting)."* In our project case the usable product is the aluminum recycled product, which delivers sustainable development benefits.

Thus, the project falls under the Gold Standard eligible type of projects: Waste Handling and Disposal.

The project developer understands that the output usable products from aluminum recycling activity must be at the same technical standard of performance as that obtained from the primary resource, which is also a condition of the methodology. At the same time, the aluminum recycling is an important element in the concept of circular economy and sustainable development with direct applicability in the steel industry. We are talking about a completely different technology for obtaining recycled aluminum products, that regardless of the source of energy (renewable energy or fossil fuels resources), will retain its advantages (much lower energy consumption and depollution effect) in the development of some sustainable industries with minimal impact on the environment and human health.

"3.1.1.2 For Project types that are not automatically eligible, a Project Developer may submit to Gold Standard for approval. This shall be done at minimum as part of the Preliminary Review, though it is recommended to engage with Gold Standard earlier to establish the criteria and requirements for approval."

The Project is currently aproved as of July 23, 2021 by the Gold Standard under Preliminary Review.

"3.1.1.3 Project types applying for Gold Standard approval are referred to the Gold

Standard Vision and Mission. The Project Developer shall demonstrate how the Project would contribute to these and how the Gold Standard for the Global Goals Requirements would be met in their application for approval."

The Project contributes to climate security and sustainable development since, through its aluminum waste recycling activities, it reduces energy consumption that would otherwise be required for the production of aluminum products made of virgin inputs.
Moreover, the Project is in line with specific UN requirements regarding Sustainable Development Goals (SDGs) because it:

- contributes to local environmental sustainability since recycling decreases the overall energy use, GHGs and environmental burden from natural resources extraction.
- reduces the amount of aluminum waste to be disposed in the landfills;
- helps with one of the basic environmental principles, the proximity principle, increasing the nearby capacity for recycling;
- contributes towards better working conditions in the local region;
- improves local and regional economic development;
- contributes to the development of local technological capacity because the manpower and the technical maintenance are provided domestically in the country;
- contributes to regional integration and connection with other sectors;
- contributes to the local municipalities' funds for social insurance, such as health and pension funds, and to local and social community development;
- increases employment opportunities in the area where the project is located.

The Project Developer has demonstrated in Section A3 from the PDD how the Gold Standard for the Global Goals Requirements would be met in regards to the following SDGs:
SDG 4 – Quality education
SDG 5 – Gender equality
SDG 7 – Affordable and clean energy
SDG 8 – Decent work and economic growth
SDG 13 – Climate action

"3.1.1.4 In reviewing a new Project type for approval, Gold Standard may establish new Requirements to be met by the Project in order to achieve Gold Standard Design Certification and ongoing Gold Standard Certified Project status. Where required, Gold Standard shall engage expert peer reviewers to establish these Requirements, at the Project Developer's expense."
The Project Developer understands this principle, and will consequently comply with the further eligibility criteria.

"3.1.1.5 Gold Standard does not support Project types associated with geo-engineering or energy generated from fossil fuel or nuclear, fossil fuel switch, or any project that supports, enhances or prolongs such energy generation. In certain cases, concerning energy efficiency involving fossil fuels (*for example, LPG stoves*), an exception is made. This is captured in the relevant Activity Requirements, Gold Standard Approved Methodologies and/or Product Requirements."

The Project is not associated with the Project types mentioned above. As per 3.1.1.1. mentioned above, the project falls under the GS eligible type of projects: Waste Handling and Disposal.

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project

AS METAL COM SRL. is the project developer, which has full and uncontested legal ownership of VERs, legal rights to alter use of resources, and also full and uncontested legal land title. AS METAL COM SRL. opened an account on SustainCert and Impact Registry on 3rd November 2020 and all necessary documents, including company registration certificate and standing certificate have been submitted to Gold Standard to prove its legal ownership of Gold Standard generated products and legal rights over the project resources, including the land.

A.2. Location of project

ROMANIA, Bucharest, Sos. Berceni 104 G, sector 4
The project takes place at AS METAL COM SRL's headquarter, located in the Southern part of Bucharest, Romania on an industrial platform of about 35,000 square meters.
The GPS coordinates are the following: 44°21'18.1"N, 26°08'44.7"E

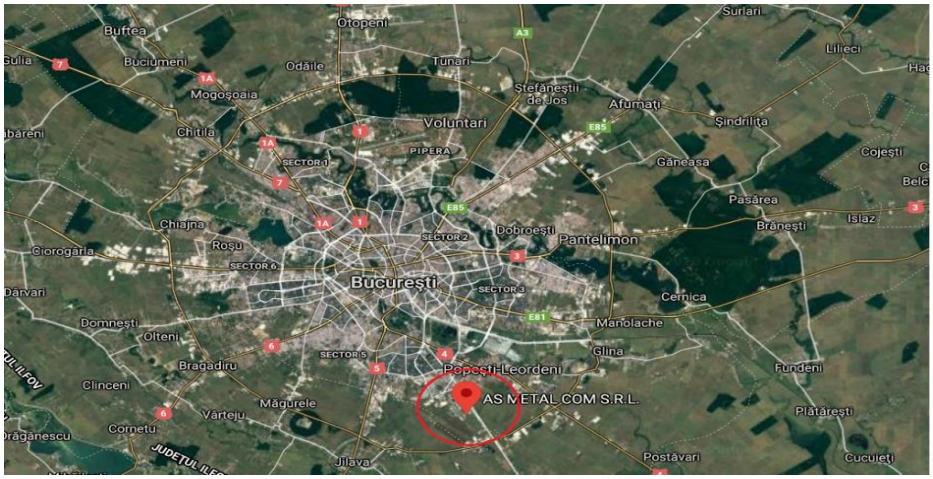


Figure 1: Project location

A.3. Technologies and/or measures

In the pre-project activity, before the start date of the project (2019), the activity of the platform department within SC AS METAL COM SRL consisted in a manual pre-sorting and a simple mechanical sorting of aluminum waste.

After starting the project, the activity consists of:
- automatic sorting of aluminum from non-ferrous metallic materials by color or depending on density;
- sorting of ferrous metal materials using magnets;
- sorting of non-metallic materials;

The total production capacity of the aluminum recycling lines varies between 49,000 tons/year and 77,500 tons/year depending on the type of waste used in the input. [4]

DESCRIPTION OF THE TECHNOLOGICAL FLOW

In order to obtain secondary aluminum raw materials, the technologies used in AS METAL COM SRL use the properties of the substances in terms of density, color, magnetism and other particular characteristics related to physical-mechanical properties.

[4] The pre-project authorization document has been supplied to the validator. The project has applied for a new environment authorization according to its new recycling activities, which has been issued by the state authorities on 22nd April 2021.

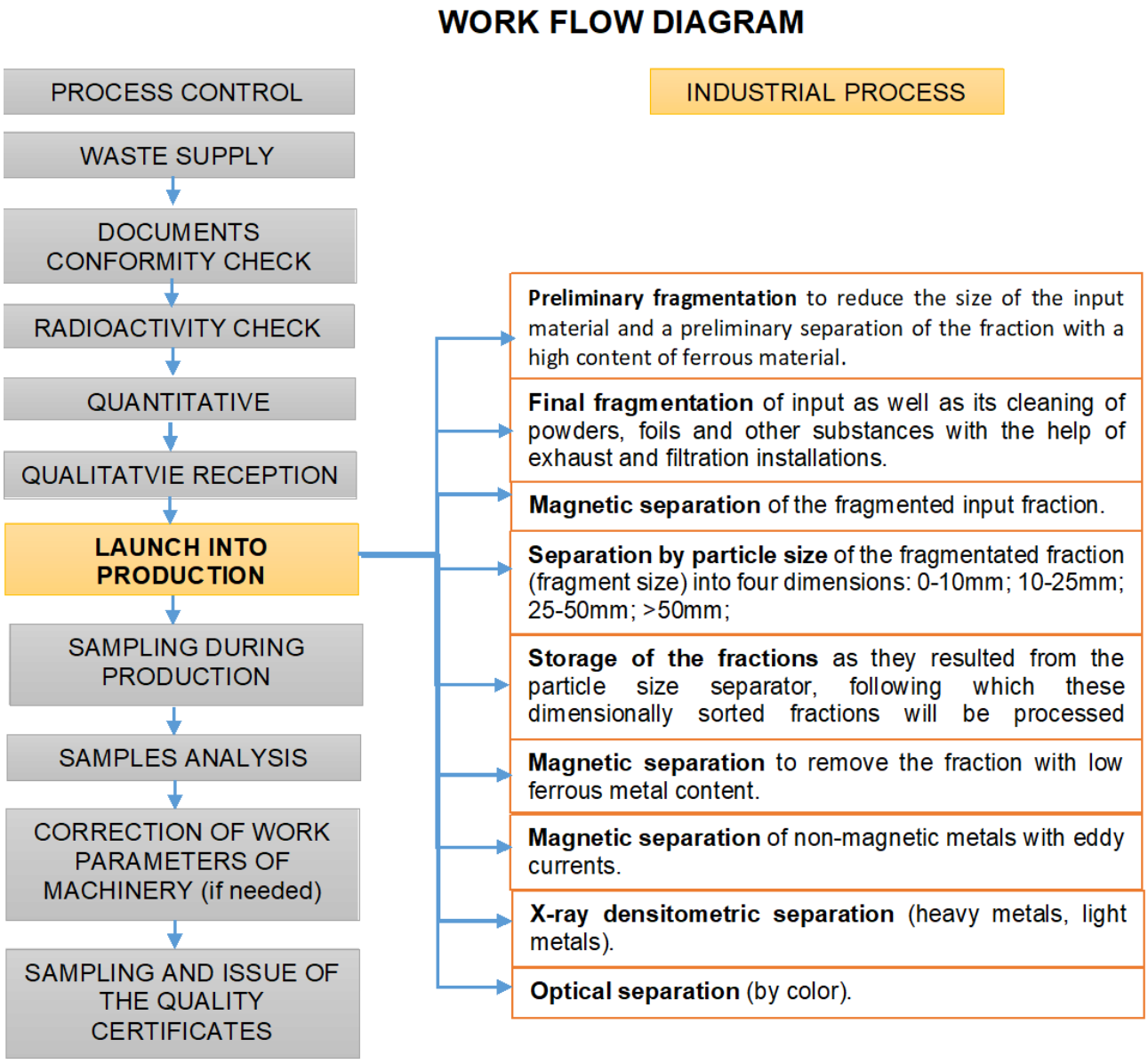


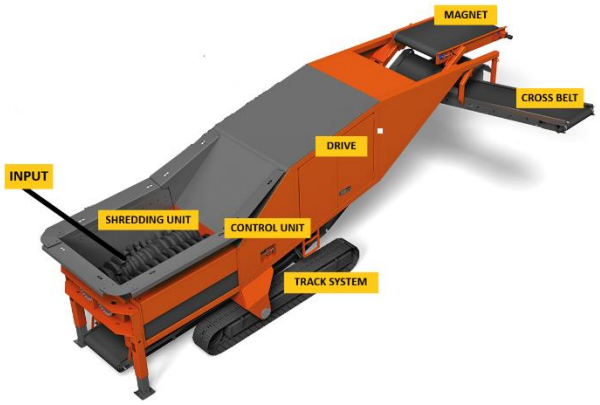
Figure 2: Work flow diagram

MACHINERY AND PROCESS DESCRIPTION

Preliminary fragmentation to reduce the size of the input material and a preliminary separation of the fraction with high content of ferrous material for future processing is performed with the Arjes VZ 950 machine, with a productivity of 40 tons/hour. The Arjes machine is 3 years old, it was used in the pre-project activities and it has a lifespan of 20 years.

The machine consists of:

- track system that allows the movement of the machine near the material to be pre-fragmented
- large material loading bunker, baled material, etc.
- the mechanical assembly consisting of two shafts that performs the pre-fragmentation of the material. The rotation speed of the shafts is 15-45 rpm having the possibility to change the direction of rotation of the shafts in case of their blocking until the material is completely pre-fragmented. The shafts can rotate synchronously, asynchronously or independently.
- conveyor belt for unloading the material after pre-fragmentation.
- permanent magnet tape for a preliminary separation into two fractions, a non-ferrous and non-metal fraction and a ferrous fraction. The separation yield of the two fractions does not exceed 80%. (accuracy of separation)



Picture 1: Arjes machine components

Picture 2 & 3: Loading Arjes machine, Arjes work in progress

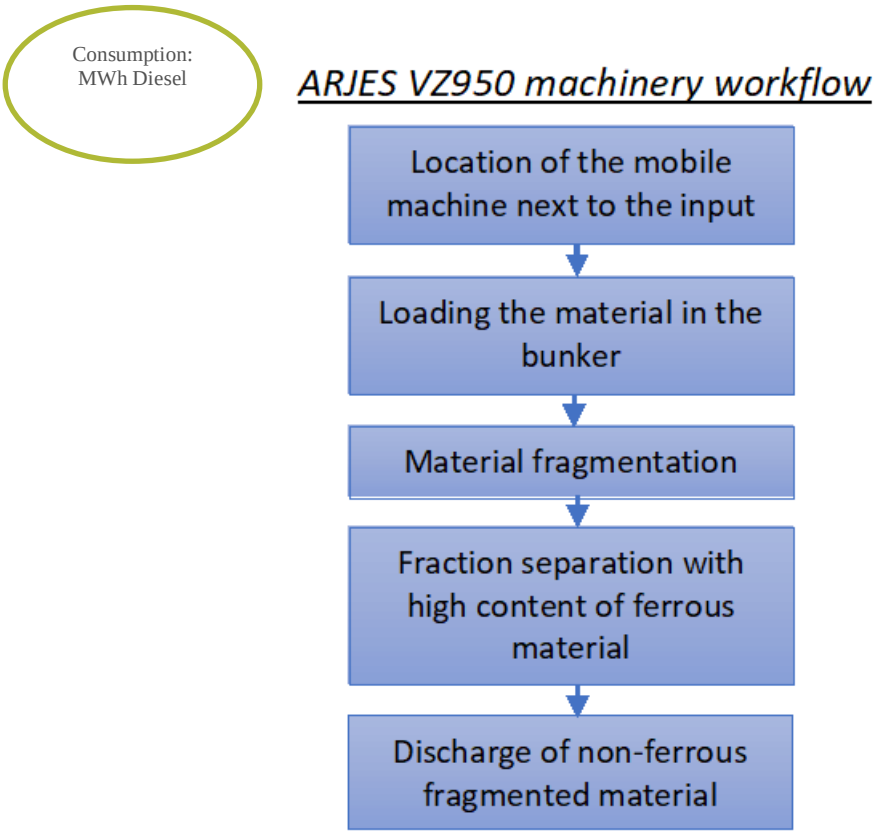


Figure 3: Work flow diagram of ARJES VZ950 machinery

In order to achieve the material input necessary for automatic sorting installations, the pre-fragmented material is introduced in a technological line where the following operations are performed:

- **Fragmentation** of the material in order to detach the "bonded" substances (ex: iron screws embedded in aluminum)
- **Magnetic separation** of the fragmented input fraction.
- **Separation by particle size** of the fragmentated fraction (fragment size) into four dimensions: 0-10mm; 10-25mm; 25-50mm; >50mm; (TROMEL)
- **Storage of the fractions** as they resulted from the particle size separator, following which these dimensionally sorted fractions will be processed individually.

The final fragmentation is achieved by introducing the material into a mill with high speed hammers which has an exhaust grille 200 mm x 80 mm and an exhaust and filtration system that allows the cleaning of the material during the fragmentation (separation of dust, light textile material and foils from various substances). The productivity of this installation is 8 tons / hour.


Picture 4 & 5: Final fragmentation installation and particle size separation

The fragmented material is then transferred by means of conveyor belts to the electromagnet mounted before the particle size sorter, where a separation of the ferrous metal fraction from the non-ferrous metal fraction is achieved.


Picture 6 & 7: Final fragmentation installation and electromagnet

Picture 8: Final fragmentation installation and particle size separation work in progress

The impure non-ferrous metal fraction enters the particle size separator where it is separated into four dimensions: 0-10 mm, 10-25 mm, 25-50 mm, and fraction greater than 50 mm.
The material is impure containing organic material (plastic, etc.)

All these fractions are stored separately, and will be introduced on the automatic sorting installations.

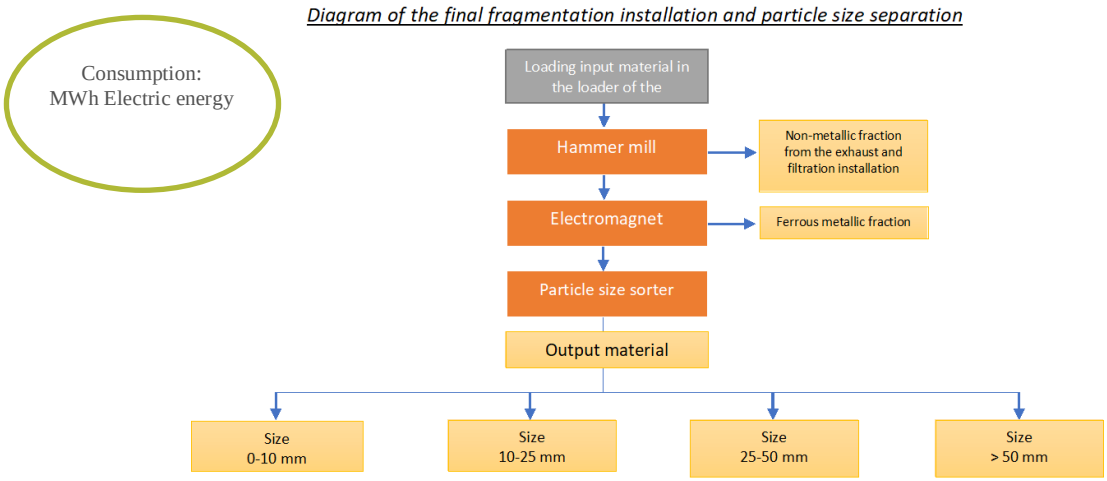


Figure 4: Diagram of the final fragmentation installation

Following the checks and determinations of mass size performed on these fractions, the launch into production is performed on the automatic sorting installations.

AS METAL COM SRL uses three types of installations for waste separation:

a) X-ray densitometric separation (TOMRA X-TRAC)
b) Magnetic separation and Eddy Current (GAUSS, STEINERT, SGM MAGNETICS)
c) Optical separation and metal detection (TOMRA – COMBISENSE)

a) X-ray densitometric separator is part of a complex installation that has in its component a magnetic separator, a vortex current separator (Eddy Current) and the X-ray densitometric sorter. This metal separator installation is 3 years old, it was used in the pre-project activities and it has a lifespan of 20 years. The productivity of the installation is 4 tons/hour. The installation is fed with material resulting from the granulometric sorting through a vibrating loader.

Picture 9 & 10: Vibrating loader and vibrating loader work in progress

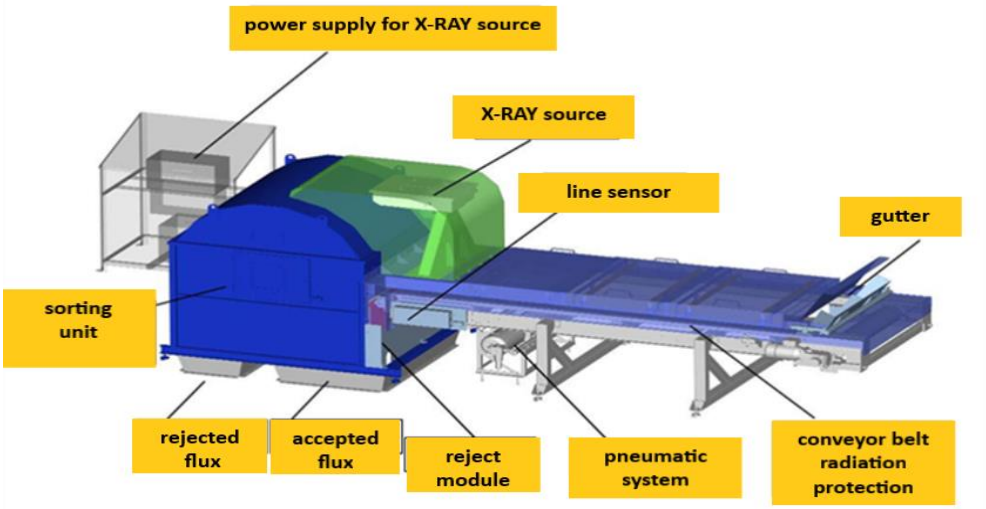
The material is transferred from the conveyor belts to the magnetic sorter where an advanced separation of the ferrous metal fraction is performed.

Picture 11, 12 & 13: Conveyor belt, magnetic drum & entire separation installation

The non-ferrous metallic material enters the eddy current separation installation where the material is cleaned of the non-metallic fraction.

Picture 13 & 14: Components of eddy current separation installation

The last stage of this processing installation is the separation of the aluminum fraction from the heavy metal fraction using the MikroSort X-Tract densitometric separator. This is the first authorized X-ray densitometric separation installation in Romania.



Picture 15: X-RAY densitometric separation installation

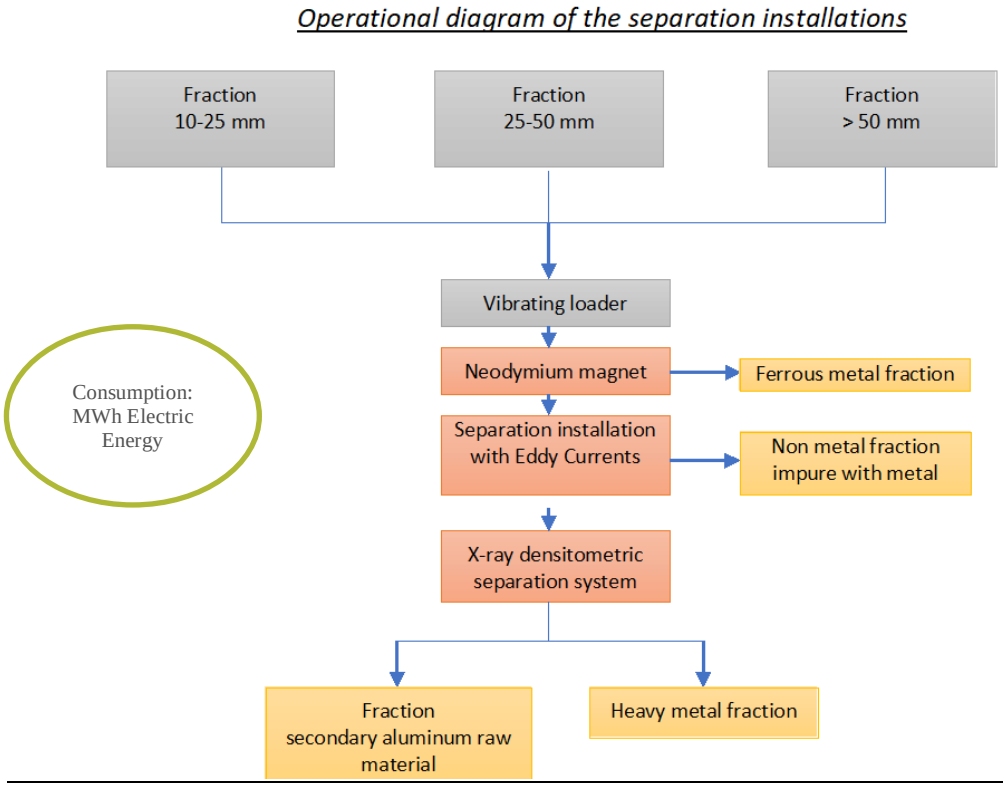
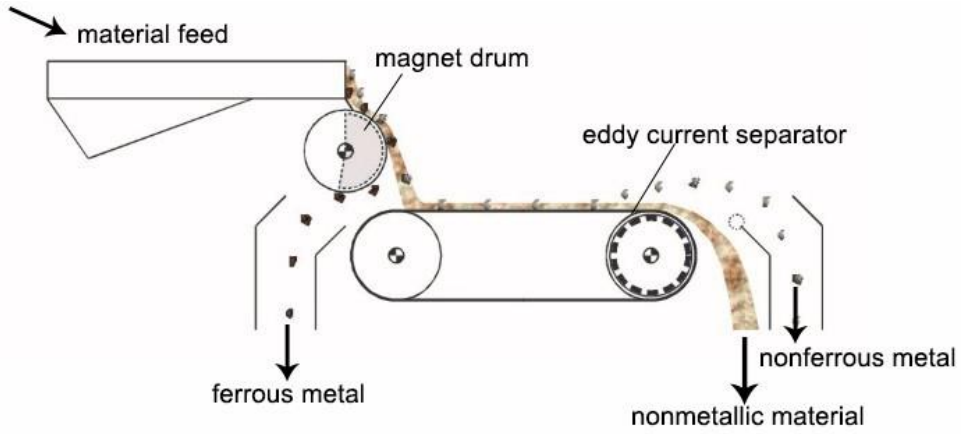


Figure 5: Diagram of the separation installations

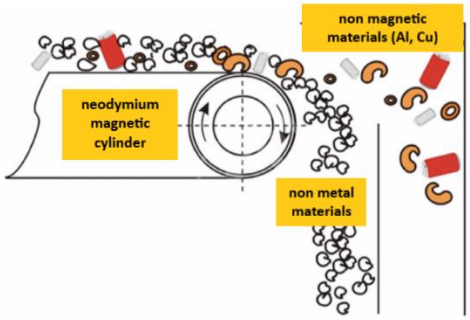
b) **AS METAL COM SRL company uses Eddy Current separation installations**, which were put into operation on 30th April 2020. The lifespan of the Eddy current separation installations is 20 years.



Picture 16: Eddy Current separation installation

These newly installed separators are representative for the new generation of magnetic separators and also allow the separation of non-magnetic metals from magnetic metals and other non-metallic particles.

The separator consists of a conveyor at the end of which is placed a magnetic induction cylinder. The separation method starts from the different conductivity of each metal. During the rotation of the magnetic cylinder, eddy currents arise as a result of which non-magnetic metals are "thrown" from the magnetic cylinder. The non-metallic material on the conveyor falls naturally. The magnetic metals are driven along the axis of the magnetic cylinder where they come off.



Picture 17: Eddy Current separation installation - detail

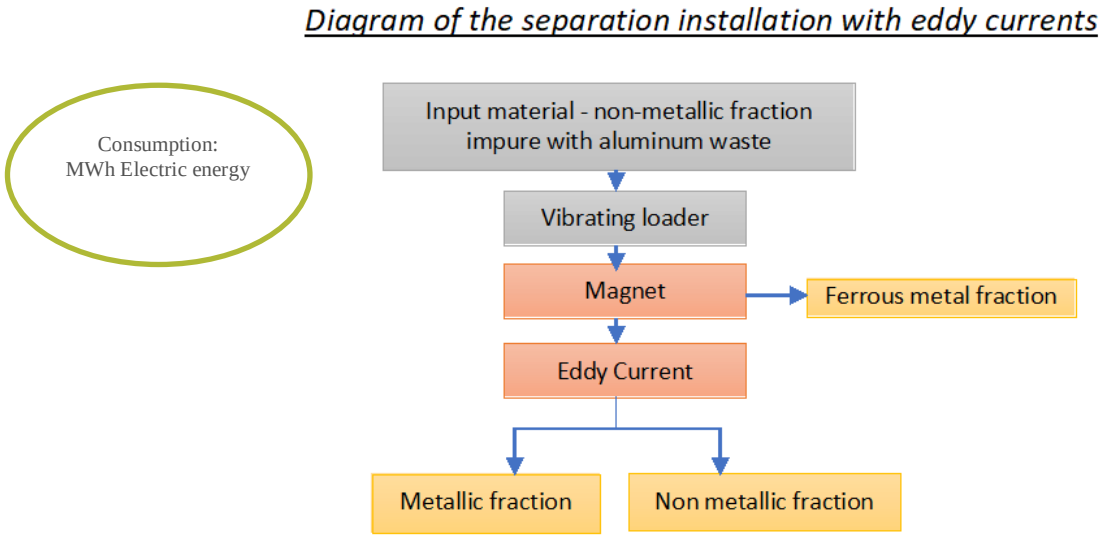


Figure 6: Diagram of the separation installation

The productivity of Eddy current separators is directly proportional to the size of the fragments contained in the input fractions, as follows:

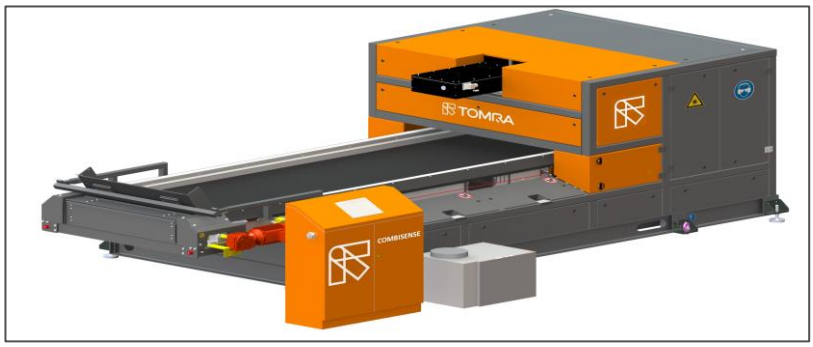
Separation installation	**SGM**	**STEINERT**	**GAUSS**
Minimum size of the fragments contained by the input fraction	2 - 10 mm	6 - 200 mm	20 – 200 mm
Productivity	1.5 - 3 tons/hour	7 - 12 tons/hour	4-7 tons/hour

The dimensions of the input fractions allow a high recovery of the metal from the residual material coming from the fragmentation installations. Output material with an impurity content below 2% (organic material, paint).


Picture 18 & 19: Eddy Current separation installation - components


Picture 20 & 21: Eddy Current separation installation shelter

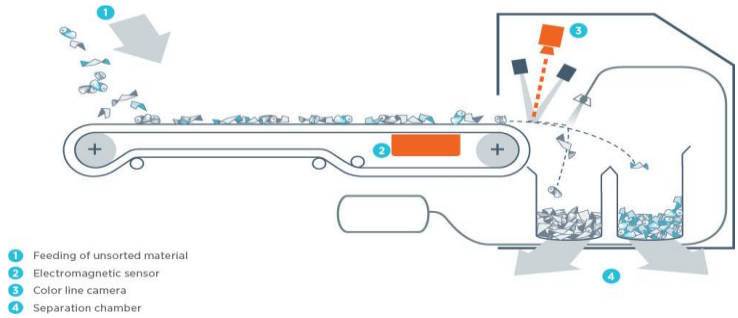
c) The COMBISENSE optical separation and metal detection installation was put into operation on 15th April 2020 being used for the color separation of the heavy metal fraction or for the product resulted from the densitometric separation installation. This is the first authorized optical separation installation in the region.



Picture 22: TOMRA COMBISENS machine

The new separation technology consists of a sensor with high sensitivity, a color camera with optimized resolution and color balance. This camera collects multiple material features at the same time. The collected information can be combined through a digital image processing even at the pixel level. Thus, materials with a common characteristic can be separated according to another defining characteristic for the type of material.

Separation of metal mixtures	Production of purified mono-fractions from a mixture of metals, eg copper, brass, silver metals.
Electronic waste separation	Production of purified mono-fractions, e.g. printed circuit boards, copper.
Metal recovery	Recovery of all metals from the mixed inlet stream.
Stainless steel recovery	Production of purified stainless steel fractions from an inlet stream
Materials recovery plastic	Recovery of all coloured plastics with metal removal.



Picture 23: TOMRA COMBISENS machine – optical sorting installation

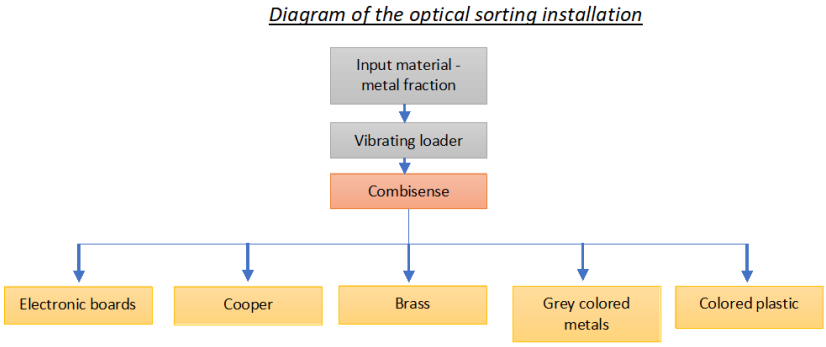


Figure 7: Diagram of the optical sorting installation

The industrial design of the installations and their capacities allow the processing of a flow of metallic aluminum waste between 3.5 - 10 tons/hour depending on the characteristics of the input waste and the necessary processing established at the launch in manufacturing.

Picture 24 & 25: TOMRA COMBISENS vibrant loader & conveyor belt

Picture 26: TOMRA COMBISENS machine – optical sorting installation

PROCESS CONTROLS

Control of input material:

- radioactive materials control - is performed with a portable flow rate meter and a fixed Barthold type, model GammaScan LB 112 detection system for radioactive or radioactively contaminated materials,
- quantitative control
- documentary control
- quality control

Interphase control. During the production process, samples are taken, determinations and analyses are made to determine the correct functioning of the processing line.

Final control. Determinations and analyses are made on the samples taken from the output materials in order to certify that the status of secondary raw material is obtained according to the industrial standards and the regulations regarding the environmental protection.

Reference norms:

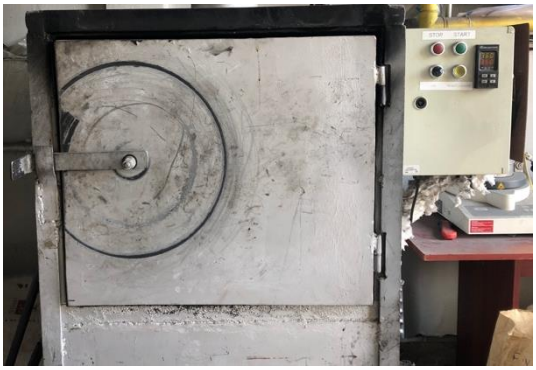
- Law 211/2011 on the waste regime; Waste Directive 2008/98 / EC
- Commission Decision of 18 December 2014 amending Decision 2000/532 / EC establishing a list of wastes under Directive 2008/98 / EC of the European Parliament and of the Council
- Regulation 333/2011 establishing the conditions in which certain aluminum and iron waste are no longer considered waste
- EN 13920 1-16 Aluminum and aluminum alloys; Recyclable materials
- INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INC

Samples are taken using the quarter method described in the sampling procedure of standard EN 13920-1 for recyclable aluminum materials in the form of small pieces.

The determinations within the secondary raw material production laboratory are performed with the help of the company's equipment
- scale for determining the quantity of material subject to determinations and for weighing the results


Picture 27 & 28: Scale

- oven for determining humidity and volatile substances. The amount of moisture or the content of oil and emulsions is calculated as the difference between the two masses, before drying and after drying.




Picture 29 & 30: Oven

- magnets for removing the free iron content. While the magnetic iron can be removed from the representative sample by means of a magnet, the ferritic steel must be carefully identified by visual inspection and must be removed manually or by means of a special magnet. The removed iron must be weighed and reported to the mass of the initial sample to calculate its percentage content.

Picture 31: Magnets

- Vibrating sieve for separating the dust material content.

Picture 32: Vibrating sieve

- Tilting crucible ovens, capacity 40 kg and 10 kg. The collected and unused sample is melted in a crucible to determine the chemical composition and melting yield.

Picture 33: Crucible oven

- Spectral devices for determining the chemical composition:

ARL iSpark 8860

SPECTRO Xsort

Picture 34 & 35: Spectral device

RECYCLED PRODUCTS

After the final control (from the process control) is realized, the intermediary aluminum recycled product is obtained and is ready to be reintroduced into the industrial circuit as secondary aluminum raw material.

You can find below our aluminum recycled product range:

EN 13920-2	Unalloyed aluminum scrap
EN 13920-5	Scrap consisting of two or more wrought alloy of the same series
EN 13920-6	Scrap consisting of two or more wrought alloy
EN 13920-8	Scrap consisting of non-ferrous materials from shredding processes destined to aluminum separation processes
TASTE	Old pure aluminum wire and cable
TASSEL	Old mixed aluminum wire and cable
TALL	Consist of clean E.C aluminum, chopped or shredded, free of screening, hair wire, copper, insulation and other non-metalic items.
TALK	Consists of clean aluminum and copper radiatos, and/or aluminum fins on cooper tubing, free or brass tubing, iron and other foreign contamination.
TAINT/TABOR	Shall consist of clean old alloy aluminum sheet of two or more alloys, free of foil, venetian blinds, castings, hair wire, screen wire, food or beverage containers, radiator shells, airplane sheet, bottle caps, plastic, dirt, and other non-metallic items. Oil and grease not to total more than 1%.
TALE	Shall consist of clean, low copper aluminum siding scrap, painted one or two sides, free of plastic coating, iron, dirt, corrosion, fiber, foam, or fiberglass backing or other non-metallic items
TUTU	Shall consist of old extruded aluminum of one alloy, typically alloy 6063, 6061. Material must be free of iron, thermo break,

	saw chips, zinc corners, dirt, paper, cardboard, and other foreign contamination. Percentages of paint or other alloys to be agreed upon by buyer and seller
TUTU ISO	Shall consist of old extruded aluminum of one alloy, typically alloy 6063, 6061. Material must be free of iron, thermo break, saw chips, zinc corners, dirt, paper, cardboard, and other foreign contamination
TOTO	Material to consist of new production and old/used 6063 extrusions that may contain up to (but not exceed) 10 percent painted extrusions and 10 percent 6061 alloy extrusions. Must not contain other alloys of aluminum. Material should be free of zinc corners, iron attachments, felt, plastic, paper, cardboard, thermo break, and dirt and other contaminants
TROMA	Shall consist of clean, single-piece, unplated aluminum wheels of a single specified alloy, free of all inserts, steel, wheel weights, valve stems, tires, grease and oil and other non-metallic items
TRUMP	Shall consist of all clean automobile aluminum castings of sufficient size to be readily identified and to be free from iron, dirt, brass, bushings, and nonmetallic items
TENSE	Shall consist of all clean aluminum castings which may contain auto and airplane castings but no ingots, and to be free of iron, brass, dirt and other non-metallic items. Oil and grease not to total more than 2%.
TENSE with iron	Shall consist of used aluminum castings which may contain auto and airplane castings and also, other castings from various mechanical assemblies, gearboxes, etc., but no ingots, and to be free of free iron, brass, dirt and other non-metallic items. Allowed impurities (iron attached, dirt, oils) must be between 5% - 30%.
TALC	Shall consist of old aluminum food and/or beverage cans. The material is to be free of other scrap metals, foil, tin cans, plastic bottles, paper, glass and other non-metallic items.
TWITCH	Floated fragmentizer aluminum scrap. Derived from wet or dry media separation device, the material must be dry and not contain air bag canisters, or any sealed or pressurized items.
TALCRED	Shredded aluminum used beverage can (UBC)
TALDORK	Briquetued aluminum used beverage can (UBC) scrap
TALDON	Baled aluminum used beverage can (UBC) scrap
ZORBA	Shall be made up of a combination of the nonferrous metals: aluminum, copper, lead, magnesium, stainless steel, nickel, tin and zinc, in elemental or alloyed(solid) form.

Figure 8: Aluminum product range output

Each of these aluminum recycled products are presented to clients with specific technical sheets, as you can see an example in the below table.

TECHNICAL SHEET FOR ALUMINUM SCRAP

TUTU

Statement of compliance	Industrial standard	Quantity	Processing	Logistic and density conditions
Regulation no. 333/2011	13920-5	22 tonnes	Shredded	Bulk

CHARACTERISTICS

Size	Impurities	Metal yield
~ 25 mm	max 2%	>90%
~ 50 mm	max 2%	>92%

CHEMICAL COMPOSITION

Element	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
%	0.2-0.6	0.1-0.35	max 0.1	Max 0.1	0.35-0.9	max 0.1	max 0.15	max 0.10

AS METAL COM S.R.L. Sediul social: Sos. Berceni nr. 104G, Sector 4, Tel.: +40213193957 Fax.: +40213188013
e-mail: info@asmetal.ro
Nr.Reg.Com. J40/2499/1993; Cod Unic de Inregistrare 3272093, Atribut Fiscal: RO – Capital social 1.288.000 RON
RO13 WBAN 0099 9608 8271 RO01
Intesa Sanpaolo Romania Agentia Bucuresti Unirii

Figure 9: Technical sheet for aluminum scrap Tutu

The Project positively contributes to the following SDGs:

1. Quality education (SDG 4): Trough its educational programs, internships and trainings on recycling, sustainable development, climate change and circular economy dedicated to employees, young employed persons and other people, the project actively contributes to the targets of the SDG 4.

2. Gender equality (SDG 5): One of the main benefits of the project is its approach toward gender equality, women being promoted in management position, including the high level management, contributing to the Target 5.5: „Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life."

3. Affordable and clean energy (SDG 7): The project is reducing GHG emissions through energy saving compared to the enrgy consumed for the aluminum production from virgin materials. Moreover, the project uses approx. 45% renewable energy in the total consumed energy per year.

4. Decent work and economic growth (SDG 8): The Project creates the conditions that allow people to have quality jobs that stimulate the economy while not harming the environment. The total number of AS METAL COM SRL employees is 91 as they undertake recycling activities on the recycling plant and also on the furnance plant. In the recycling plant, there are 20 employees, from which 12 employees are women. Therefore, the Project offers job opportunities and decent working conditions for the people in the region, without any discrimination of age, gender or nationality. The Project contributes to achieving the national recycling target in Romania's economy, and consequently contributing to the regional and national economic growth. According to the most recent document published on Eurostat, Romania recycling rates from municipal solid waste according is just 11.3% in 2021[5], which is very low compared to the EU current target from the European Circular Economy Package, which are further reinforced by the Green Deal package of "a common EU target for recycling 65% of municipal waste in 2030".

5. Climate action (SDG 13): This Project is reducing GHG emissions using a less carbon intensive processes when recycling aluminum waste than the usually used in aluminum production plants using virgin raw material. The estimated SDG impact is 56,282 tons CO2eq/year. Thus, the Project uses energy purposefully and sparingly. Through technical and organizational measures, it minimizes the amount of residues, waste as well as polluting emissions.

A.4. Scale of the project

The project falls under the sectoral scope 13 "Waste handling and disposal" with annual emissions reductions of 56,282 tCO2.

According to Appendix B to the "Simplified modalities and procedures for small-scale CDM project activities"[6], the project falls under Small scale projects.

A.5. Funding sources of project

[5] https://ec.europa.eu/eurostat/databrowser/view/cei_wm011/default/table?lang=en
[6] https://cdm.unfccc.int/methodologies/DB/ML2R31TXDR1YL6JEWWVGNLMHKX52YS

The project is funded through company's own resources and private funding. There has been no public funding into the project.

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

The project applies the CDM methodology "AMS-III.AJ. Recovery and recycling of materials from solid wastes" - version 9.0 provided at: <http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html>.
Sectoral Scope: 13. Waste handling and disposal

This methodology comprises activities for the recovery and recycling of materials in municipal solid waste (MSW) to process them into intermediate (the Project case) or finished products, displacing the production of virgin materials in dedicated facilities, thereby resulting in avoidance of energy use.

The Project covers the emissions associated with Scope point (c) from the above-mentioned methodology:

(c) *Production of metals (i.e. aluminium and steel) from mined ore or virgin raw materials that is displaced by the recycled metals due to the project activity.*

Project participant shall apply the "General guidelines for SSC CDM methodologies"-version 23.1 and the Tool 21 " Demonstration of additionality of small-scale project activities" – version 13.1.

It is assumed that baseline emissions include emissions associated with energy consumption for the production of aluminum from virgin raw materials.

This methodology also refers to the latest approved version of the following approved methodology:

(a) "AMS-III.BA.: Recovery and recycling of materials from E-waste" - version 3.0;
(b) "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion" – version 3.0;
(c) "TOOL04: Emissions from solid waste disposal sites" -version 8.0
(d) "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" – version 3.0;
(e) "TOOL07: Tool to calculate the emission factor for an electricity system" version 7.0

(f) "TOOL09: Determining the baseline efficiency of thermal or electric energy generation systems" version 3.0

The applicable requirements for monitoring are specified in the "General guidelines for SSC CDM methodologies"-version 23.1 and GS monitoring plan.

The emission factors used in calculation are the followings:

1. The emission factors for electricity consumption and gas consumption: "The annual report with the Emissions Factors"[7], issued by the National Energy Regulatory Authority from Romania.

2. Emission factors for diesel: "List of the national values for the emission factors and net calorific values, specific to each type of fuel and type of activity - values are determined based on EU-ETS reports from 2012"[8].

B.2. Applicability of methodology (ies)

The Project activity meets all the applicability criteria as set out in "AMS-III.AJ. Recovery and recycling of materials from solid wastes" - version 09.0, being a Case B "Greenfield facility and/or capacity addition to existing facilities with formal sector participation". The Project is a Greenfield facility with formal sector participation in the aluminum recycling field of activity since in Romania the waste sector is regulated and is not allowed the informal waste sector. Moreover, this is a greenfield project because the recycling activities of the project have been developing only after the start date of the project, 10.12.2019, as follows:

- automatic sorting of aluminum from non-ferrous metallic materials by color or depending on density;
- sorting of ferrous metal materials using magnets;
- sorting of non-metallic materials;

These recycling activities are done using the following technology lines, which were purchased on this purpose:

- Floating line
- Arjes Pre-shredder
- Fine fraction processing line SGM
- Steinert magnetic separator
- Tomra optical Sorter – Combisense
- X-ray System

[7] The annual report with the emission factor for electricity can be found at: https://anre.ro/wp-content/uploads/2023/02/Raport_anual_ANRE_2020.pdf

[8] http://www.mmediu.ro/app/webroot/uploads/files/2014-03-18_Lista_valorilor_nationale_FE_PCN-2014.pdf

In the table below, we will explain how the project activity meets the applicability criteria of the methodology Case B:

1. This methodology comprises activities for the recovery and recycling of materials in municipal solid waste (MSW) to process them into intermediate or finished products, displacing the production of virgin materials in dedicated facilities, thereby resulting in avoidance of energy use. For paper and cardboard recycling, if the baseline scenario is the decay in a disposal site, the avoided methane emissions may be claimed.	Aluminium production by electrolytic smelting is an energy-intensive process, which causes high emissions. In addition to dust and fluorides (and fluorine compounds), these include SO2 and CO, which are generated from the consumption of carbon electrodes. Our recycling aluminum project comprises activities for the recovery and recycling of materials in municipal solid waste (MSW) to process them into intermediate aluminum products, such as SR EN 13920-4, SR EN 13920-5, SR EN 13920-6[9], displacing the production of virgin materials in dedicated facilities of aluminum recycling, thereby resulting in avoidance of energy consumption and CO2 emissions.
2.The methodology covers the emissions associated with: (a) Production of virgin pellets of plastics consisting of either high density polyethylene (HDPE), low density polyethylene (LDPE), Polyethylene Terephthalate (PET) or Polypropylene (PP). For the sake of this methodology, "plastic" means HDPE, LDPE, PET and PP, unless otherwise specified; (b) Production of container glass using virgin input ("container glass" hereafter) that is displaced by the recycled container	The Project covers the emissions associated with: (a) Not applicable (b) Not applicable (c) Production of metals (aluminium) from mined ore or virgin raw materials that is displaced by the recycled metals due to the project activity.

[9] The name of these products are according with the EU Standards for aluminum and aluminum alloys.

glass ("container glass cullet" hereafter) due to the project activity; (c) Production of metals (i.e. aluminium and steel) from mined ore or virgin raw materials that is displaced by the recycled metals due to the project activity.	
3. The methodology is applicable in the following two cases Case A: Project activities that target the participation of the informal waste sector In Case A, the recycling facility is operated by the informal sector. The recycling facility may also receive wastes collected by the formal waste sector (e.g. public collection system). Waste fractions that were already being recycled in the baseline by enterprises in the formal sector cannot be included in the calculations.	Not Applicable since in Romania the waste sector is regulated and is not allowed the informal waste sector.
4.The following applicability conditions shall apply to project activities under this case: (a) The recycling facility may be an existing facility, or a newly implemented facility.	Not Applicable
5.It is possible to directly measure and record the final output of the recycling facility, that is the weight of materials leaving the recycling facility (on a dry basis), segregated by type.	Not Applicable
6.Each type of recycled material is sold directly to a processing/manufacturing facility, or to a chain of intermediary retailers that are able to transfer the materials to final identifiable processing/ manufacturing facilities that process the segregated fractions.	Not Applicable
7.The Project Design Document (PDD) shall explain the procedures such as contractual agreements proposed to eliminate double counting of emission reductions, for example due to the formal waste sector or	Not Applicable

the processing/manufacturing facility, or other parties possibly claiming credits for emission reductions. Similarly, through contractual agreements and other means such as survey/analysis undertaken by a third party, credible proof shall be provided to show that the materials supplied from the recycling facility are used for processing/manufacturing and not for other purposes such as a source of fuel or disposal.	
8.Emission reductions can be claimed for the difference in energy use for the production of materials from virgin inputs versus production from recycled material. In the case of paper or cardboards, emission reductions due to the avoidance of methane formation in anaerobic decay may be claimed if the baseline scenario is the waste disposal in a disposal site without methane recovery.	Not Applicable
9**. Case B: Greenfield facility and/or capacity addition to existing facilities with formal sector participation** In Case B, the recycling facility is owned and operated by the formal waste sector. It may receive recyclable materials from the informal waste sector, but has no participation of the informal sector in its organization or management functions. The following applicability conditions shall apply under this case.	The Project is a Case B: Greenfield facility with formal sector participation The Project is owned and operated by the formal sector and there is no participation of the informal sectors in its organization or management functions.
10. If the recycling facility is an existing activity, the average data on the amount of recycled materials from the previous three years of operation (a minimum of one-year data would be required if the facility is less than three years old) shall be used for the estimation of the baseline recycling activity, and project activity shall consist of the	The recycling aluminum facility is a Greenfield activity with the start date on 10th December 2019 and not a capacity addition to an existing facility, and thus all recycled materials have been considered eligible for the emission reduction calculation.

increase of the recycling capacity above this level. If the recycling facility is newly implemented as a Greenfield activity, all recycled materials are eligible for the emission reduction calculation. However, in this case the project participants shall demonstrate that the materials recycled by the project activity are not diverted from other existing recycling facilities belonging to the formal sector, or, alternatively, that it is not a common practice in the region to recover and recycle these materials from municipal solid waste streams by means of formal businesses.	The project proponent demonstrated for validation that the material recycled has not been diverted from other existing recycling facilities belonging to the formal sector.[10]
11. It is possible to directly measure and record the final output of the recycling facility and the input to the final processing/manufacturing facilities, that is the weight of materials leaving the recycling facility and of those entering the processing/manufacturing facilities (on a dry basis), segregated by type.	The Project directly measures and records the final output of the recycling facility, that is the weight of recycled aluminum material leaving the recycling facility (on a dry basis), segregated by type using calibrated balances.
12. The recycled materials shall be sold directly to a processing/manufacturing facility, or to a chain of intermediary retailers that are able to transfer the recycled materials to a final identifiable processing/manufacturing facility.	In our project, the recycled material is transferred to the second secondary aluminium ingot production section or sold directly to a production facility that directly uses the recycled material.
13. The PDD shall explain how procedures, such as contractual agreements, shall be put in place to eliminate double counting of emission reductions, for example potentially resulting from waste pickers, the recycling facility or the processing/manufacturing facility, or other parties possibly claiming	Contractual agreements have been signed to eliminate double counting of emissions reductions and they were made available at the validation of this Project and prove that the materials supplied from the recycling facility are used for the scope of

[10] Documents have been made available at validation of the Project

credits for emissions reduction. Similarly, through contractual agreement and other means, credible proof shall be provided to show that the materials supplied from the recycling facility are used for processing/manufacturing and not for other purposes such as a source of fuel or disposal.	processing/manufacturing and not for other purposes.
14. For recycling of PET/PP, the project participants shall demonstrate the chemical equivalence of the recycled PET/PP to that of PET/PP made from virgin inputs by the comparison of intrinsic viscosities to ensure that the recycled PET/PP replaces virgin inputs.	Not applicable
15.Emission reductions can only be claimed for the difference in energy use for the production of finished products from virgin inputs versus production from recycled materials. In the case of paper or cardboards, emissions reductions due to avoidance of methane formation in anaerobic decay may be claimed, if the baseline scenario is waste disposal in a disposal site without methane recovery.	The Project emission reductions are based only on the energy saving associated with the recycling of aluminum wastes compared to the energy use for the production of aluminium from virgin raw materials.
16. Applicability conditions for both cases i.e. Case A and Case B In any of the above cases the project proponent shall be able to demonstrate, using three years historic data (market data, official statistics etc.) prior to the start date of the project activity, that the finished products (HDPE, LDPE, PET, PP, steel aluminium, paper and cardboard and glass) were manufactured in the host country of the CDM project using either virgin raw materials produced in country or virgin raw materials imported from another non-Annex I country. This analysis may be limited to only those finished products where recycled	The end products of the recycled aluminum materials from the project activity are recycled aluminum products for diverse applications with strong similar quality than the aluminum produced from virgin materials. The proof evidences regarding the end clients shall be provided to the auditor. Prior to 10th December 2019, which is the start date of the project activity, the aluminium products were produced in Romania using virgin aluminum from Romania, but also imports from both Annex I and non-Annex I countries.

materials have proven to be a technically viable option that is those types of products that are expected to be the end products produced from materials recycled as part of the project activity.	The PP have sent evidences about this to the validator for three years prior to the start date.
17. As an alternative to the requirement stipulated in paragraph 8 above, the project proponents may choose to adjust the baseline emissions by using the baseline correction factor (Bi) as described under the baseline section below.	For consertiveness reasons, the Project proponent has chosen to adjust the baseline emissions by using the baseline correction factor for aluminum Bi=0.72.
18. The recycling facility shall source its materials from MSW; materials from an unknown source are not eligible under this methodology. The project activity consists of separation of the recyclables from bulk MSW by means of manual or magnetic or mechanical separations. If the project activity involves the collection of wastes on a door to door basis, or collection at recipient's containers for the voluntary dispensing of wastes by the local community, all recyclables (paper, plastics, glass, etc.) processed by the recycling plant shall be collected together, selective collection of metals or any other wastes is excluded. As a consequence, wastes not pertaining to the identified baseline waste collection and destination stream that would not be delivered to the baseline disposal site and/or treatment plant (e.g. incineration) are not eligible.	The Project recycling facility sources its materials from MSW; materials from an unknown source are not eligible under this methodology. The Project activity consists of separation of the recyclables from bulk MSW by means preliminary separation, pre-shredded, magnetic separation, shredded, particle size separation, automatic sorting with eddy current, optical sorting and metal detection. The Project activity does not involve the collection of wastes on a door to door basis, or collection at recipient's containers for the voluntary dispensing of wastes by the local community. All aluminum recyclables processed by the recycling plant are collected together, and selective collection of metals or any other wastes is excluded.
19. In the specific case of metals, the methodology excludes collection of the scraps generated from the production process of primary/secondary/finished metal and materials or in the processing of the finished metal and materials into final products, and it covers only postconsumer obsolete wastes. Project proponents shall	Project proponents have provided evidence to the validator that the materials recycled under the project activity are recovered only from end-of-life-wastes and project activity does not divert waste from any historically existing informal or formal recycling activity.

provide evidence that the materials recycled under the project activity are recovered only from end-of-life-wastes and project activity does not divert waste from any historically existing informal or formal recycling activity.	
20. The amount of fuel and electricity consumed by the recycling facility can be measured and recorded.	The amount of fuel and electricity consumed by the recycling facility is measured and recorded and invoices are regularly checked.
21. Project proponents shall demonstrate that the properties of the materials produced from waste recycling are the same as those from virgin materials. For example, if the waste materials such as recycled plastic bottles are converted into building blocks or roof tiles, the emission reductions based on displacement of original virgin materials cannot be claimed under this methodology. For recycled materials, project proponents shall provide documentation proving that the properties of the materials produced are comparable according to standard testing methods for each material.	Documents were submitted at validation of the Project. These documents prove that the properties of the aluminum recycled material produced is comparable to aluminium product from virgin raw materials. Moreover, the best evidence that the properties of recycled aluminium that we produce are comparable to those of aluminium produced from virgin raw material is the fact that primary aluminium consuming companies, which are our clients, have replaced the consumption of primary aluminium raw material with secondary raw material.
22. Measures are limited to those that result in aggregate emission reductions of less than or equal to 60 ktCO2 equivalent annually.	Aggregate emission reductions are less than 60 ktCO2 equivalent annually. This is demonstrated in the ex-ante estimations in section B.6.3. of this PDD.

Figure 10: Methodology criteria and its applicability

B.3. Project boundary

According to the applied methodology, the Project boundary includes the physical geographical sites of:

(a) Waste collection sites (e.g. door-to-door collection);

(b) The recycling facility;

(c) Processing/manufacturing facility;

(d) Virgin material production

(e) MSW disposal site or treatment plant in the baseline scenario.

The project boundary is presented in the figure below:

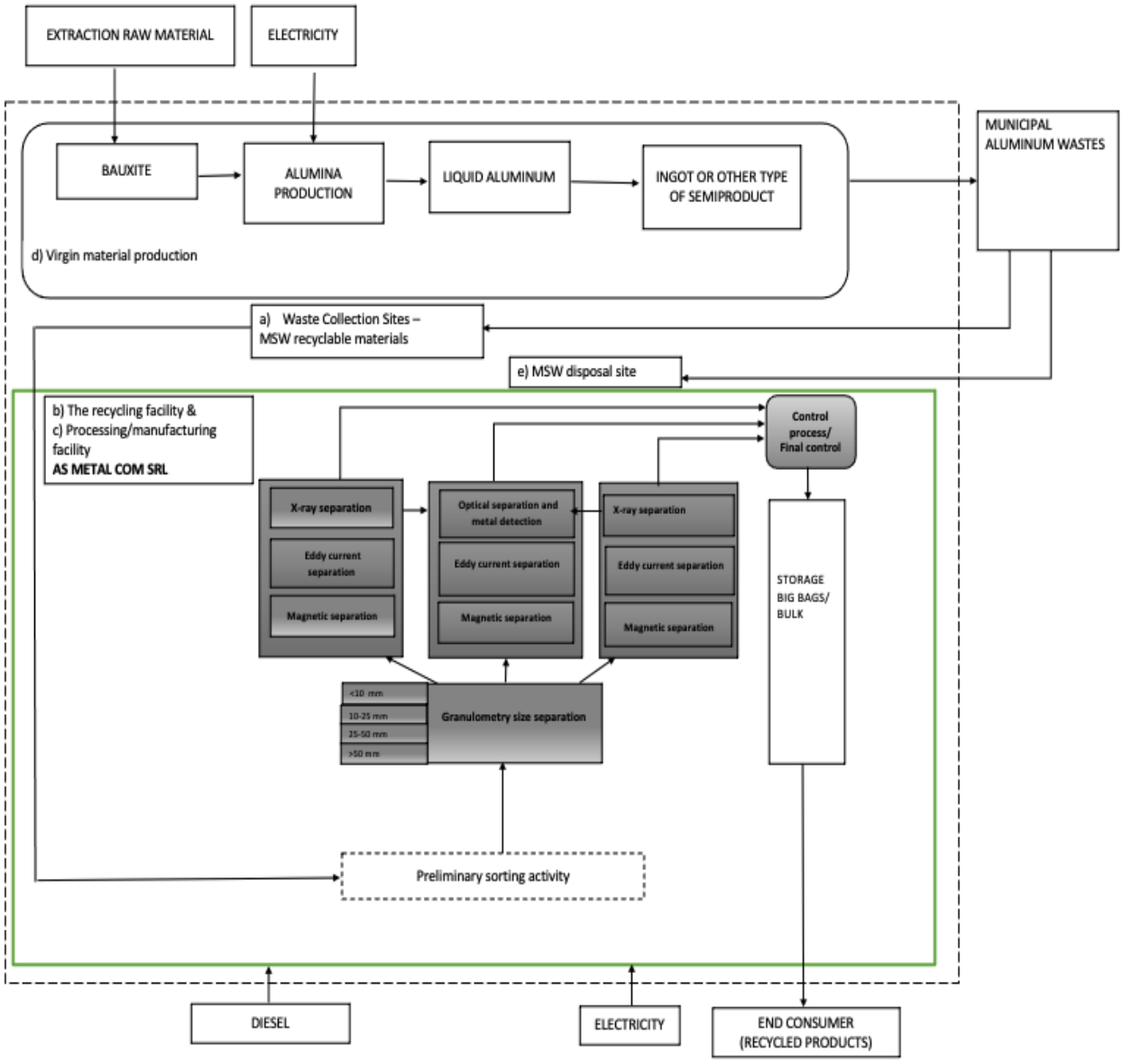


Figure 11: The project boundary

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	Electricity Consumption	CO_2	**Yes**	Electricity is consumed in the baseline.
		CH_4	**No**	Excluded for simplicity/conservativeness
		N_2O	**No**	Excluded for simplicity/conservativeness
Project scenario	Electricity Consumption	CO_2	**Yes**	Electricity is consumed in the project.
		CH_4	**No**	Excluded for simplicity/conservativeness
		N_2O	**No**	Excluded for simplicity/conservativeness
	Diesel Consumption	CO_2	**Yes**	Diesel is consumed in the project.
		CH_4	**No**	Excluded for simplicity/conservativeness
		N_2O	**No**	Excluded for simplicity/conservativeness
	Natural gas Consumption	CO_2	**Yes**	Natural gas is consumed in the project.
		CH_4	**No**	Excluded for simplicity/conservativeness
		N_2O	**No**	Excluded for simplicity/conservativeness

B.4. Establishment and description of baseline scenario

According to the methodology, the baseline scenario includes emissions associated for the production of aluminum, associated with energy consumption for the production of aluminium products from virgin materials.

It is, therefore, considered that baseline emissions include emissions associated with energy consumption for the production of aluminum from virgin materials.

More specifically, there is the same process worldwide of the aluminum production from virgin raw materials, accomplished in two phases: the Bayer process of refining the bauxite ore to obtain aluminum oxide, and the Hall-Heroult process of smelting the aluminum oxide to release pure aluminum, processes significantly more pollutant than the process of producing secondary aluminum from waste.

The emission factors used in calculation are explained in detailed in the section B7.

The following EU legislation is applicable to the project and it has been implemented in the national legislation of Romania:

- The Waste Framework Directive 2008/98/EC
- the Circular Economy Package, which are further reinforced by the Green Deal package of "a common EU target for recycling 65% of municipal waste by 2030"
- The EU Regulation No. 333/2011, establishing criteria determining when certain types of scrap metal cease to be waste under Directive 2008/98/EC
- Law 211/2011 on the waste regime implemented the EU Waste Directive 2008/98/EC
- Emergency Ordinance No. 92/2021 on waste management
- Commission Decision of 18 December 2014 amending Decision 2000/532 / EC establishing a list of wastes under Directive 2008/98 / EC of the European Parliament and of the Council

- European Standard EN 13920 1-16 Aluminum and aluminum alloys; Recyclable materials

There is law enforcement of the above EU legislation due to several factors, which are mentioned in the "Early Warning Report to Romania sent in 24.09.2018 by the European Commission:

- "Romania's separate collection service, including for bio-waste, is not being sufficiently implemented;
- there are not enough economic incentives to move away from disposal;
- extended producer responsibility schemes for packaging are not efficient and do not fully cover the costs of separate collection;
- the necessary infrastructure is still lacking;
- more investment is needed in projects higher up the waste hierarchy (e.g. recycling) that go beyond treatment of residual waste; and
- public engagement in separate collection is very low."

According to Eurostat, the Romania's recycling rate from municipal solid waste in 2020 was 13.7%[11] whilst the EU recycling target rate shall be 65% in 2030. The landfill rate is also one of the highest in Europe: 71.5% in 2017[12] whilst the target is 10% in 2035. The European Commission sent in 24.09.2018 an Early warning report to Romania in which they stated that "Based on an analysis of existing and firmly planned policies in the area of waste management, Romania is considered at risk of missing the 2020 target of 50 % preparation for re-use/recycling of municipal waste."

B.5. Demonstration of additionality

As per the methodology, the additionality of the Project is demonstrated using the last version of CDM Methodological Tool 21 " Demonstration of additionality of small-scale project activities" – version 13.1.
According to the Appendix 1, the Project is not automatic additional and the schema indicates to „Use regular additionality procedure.

For the regular additionality procedure, we have used the latest version of CDM "Tool for the demonstration and assessment of additionality", version 07.0.0. The tool provides a step-wise approach to demonstrate and assess the additionality.

These steps are:

(a) Step 0 Demonstration whether the proposed project activity is the first-of-its-kind;

(b) Step 1 Identification of alternatives to the project activity;

(c) Step 2 Investment analysis;

(d) Step 3 Barriers analysis; and

(e) Step 4 Common practice analysis.

The additionality for the project activity has been assessed in stepwise manner:-

[11] https:// https://ec.europa.eu/eurostat/databrowser/view/t2020_rt120/default/table?lang=en
[12] https://www.eea.europa.eu/data-and-maps/daviz/municipal-waste-landfill-rates-in#tab-chart_1

(a) Step 0

The first of its kind has been demonstrated in line with the Methodological Tool23: "Additionality of first-of-its-kind project activities", version 03.0.

In the case that the proposed project activity is the first-of-its-kind, the Project is additional, according to Figure 1 "Flowchart of the step-wise approach"[13], from the above mentioned CDM Methodological Tool01.

The Project uses the CDM Methodological Tool23: "Additionality of first-of-its-kind project activities", version 03.0. This methodological tool is applicable to the Project which uses CDM versions of baseline and monitoring methodologies, including the CDM Methodological Tool01: "Tool for the demonstration and assessment of additionality, version 07.0.0", which allow using the "first-of-its-kind" approach for demonstrating additionality.

According to Tool23 Methodological tool: "Additionality of first-of-its-kind project activities", version 03.0, the proposed project activity is the first of its kind in the applicable geographical area if: *"The project is the first in the applicable geographical area that applies a technology that is different from technologies that are implemented by any other project, which are able to deliver the same output and have started commercial operation in the applicable geographical area before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of the proposed project activity, whichever is earlier".*

Applicable geographical area: The applicable geographical area for the demonstration of first of its kind activity has been taken as Bucharest-Ilfov.

Bucharest-Ilfov is one of the eight regions for development in Romania, composed of the national capital, Bucharest city and the sorrounding Ilfov County. It is also used as an entity in regional statistical analysis at the European Union NUTS II level. It has a population of 2,121,794 inhabitants (July 2018) and an area of 1,804 km². The network of localities within Bucharest-Ilfov Region consists of 9 cities, 32 communes, and 91 villages.

The region's economy is dominated mostly by the functions of the capital, the active population of the region being linked to the units operating here. The Bucharest-Ilfov region is the largest industrial agglomeration in Romania, where all industrial branches are present. Trade, warehousing, logistics and distribution, administration-communal households, constructions have evolved rapidly, so the region is distancing as a

[13] CDM Methodological Tool23: "Additionality of first-of-its-kind project activities", version 03.0, page 6

development level from other regions despite its unfavorable geographic position. That is why we have taken Bucharest-Ilfov as the applicable geographical area.

The Bucharest-Ilfov region generates 25% of the total national economy and has the largest share in Romania's exports (21.8% in the first eight months of 2015). In Bucharest, there are established almost all major Romanian and multinational companies.

Also in Bucharest are located the most important transportation hubs of railroad, air-national and international of the country. The region is located at the intersection of two European multi-modal corridors: Priority axis no. 7 (Nădlac - Constanţa), Priority axis Giurgiu - Albiţa, planned to be built in the period ahead, and the European Priority axis no. 18 (the proximity of the Danube). Air and multi-modal accessibility are provided by the international airport "Henri Coandă" (Otopeni), the largest international airport in Romania.

Measure: The applicable measure is switch of technology with or without change of energy source including energy efficiency improvement as well as use of renewable energies.

Output: Recycled aluminum has been considered as output, as per the applicable methodology.

Different technologies: Any technology that delivers same output (recycled aluminum) but differs by at least one of the following is considered as different technology:
(a) Energy source: Not applicable in the present case
(b) Feed stock: Not applicable in the present case
(c) Size of installation / **energy savings.**

The aluminum recycling technology is a different technology from the technology of aluminum production from virgin raw materials, conducting to energy savings, which is scientifically recognized by all international and national associations and institutes in this field.

The first of its kind criteria should be demonstrated before the start date of the proposed project activity.

As per GS4GG Principles & Requirements 3.4.3.1 Project Start Date: *"The Project start date shall be the earliest date on which the Project Developer has committed to expenditures related to the implementation of the Project. This does not include the purchase or option to purchase the land upon which a Project is intended to take place.....For distributed technology projects, the start date is the date of*

implementation of the first unit under the project."

The Project start date is 10th December 2019, which is the date of the finance deployment in the COMBISENSE optical separation and metal detection installation.

The project is the first in the applicable geographical area that applies a technology that is different from technologies that are implemented by any other project, which are able to deliver the same output and have started commercial operation in the applicable geographical area before the start date of the proposed project activity on 10th December 2019.

An official Letter from the relevant public institution proving that the project was the first project using this type of technology has been supplied for validation.

Therefore, the first of its kind criteria has been demonstrated accordingly.

Outcome of Step 0: The proposed project is the first-of-its-kind and as per "Tool for the demonstration and assessment of additionality" version 7.0.0, the additionality is demonstrated. Hence, there is no need to proceed to Step 1 and the other steps.

From the positive outcome of step 0, as documented above, it can be concluded, that the proposed project is additional.

B.5.1. Prior Consideration

The Project applies for retroactive registration since its start date is 10th December 2019.

The Project Proponent has submitted on 2nd October 2020 to Gold Standard the application with all documents to open a registry account and the open of the account was confirmed by GS on 30th October 2020 both on SustainCert and Impact Registry. Thus, the date of first submission of project to Gold Standard is 2nd October 2020[14].

As a retroactive project, we will describe below the actions that have been done in order to prove the carbon revenues consideration prior to the start date of the project and continuous actions that have been taking after the start date of the project in order to obtain carbon credits.

The aluminum recycling project has the start date on 10th December 2019.

The management vision of obtaining carbon revenues for their Project began on March 2019, before the start date of the project, but due to lack of information about the

[14] The e-mail to Gold Standard from 2nd October 2020 containing first documents has been submitted to the auditor at validation.

carbon credits and Covid 19 restrictions imposed since March 2020 in Romania, the project delayed submission to the Gold Standard till the November 2020.

The following actions have been done by the company in order to acquire carbon revenues before the start date of the project (10th December 2019). At the same time, after the start date of the project, continuous actions have been taking for the same purpose to obtain carbon credits and will be described in the table below.

Date	Action	Document
15th March 2019	The management decided to discuss with the company ELSACO ELECTRONIC, about the CO2 emissions reductions of the project and the possibility to obtain carbon credits in order to decide to start the investment into the recycling.	Internal Registration document from 15.03.2019
3rd April 2019	Decision of the Executive Director to look for companies that might help to obtain carbon credits for the savings of the CO2 emissions and nomination of the responsible persons for that.	Decision from 03.04.2019
20th May 2019	Meeting with representatives of the audit company RINA Simtex to discuss about the CO2 emission process certification according to ISO 14034 and the possibility to obtain carbon credits if the company is certified ISO 14034.	Internal Registration document from 20.05.2019
23rd August 2019	Meeting of the executive director of AS METAL COM SRL with Constantin Damov, member of the Board of Green Group and discussion about the Greentech's recycling project certified with Gold Standard.	Internal Registration document from 23.08.2019
7th September 2019	The representative of AS METAL COM SRL, Rodica Badila contacted Carbon Expert in order to find more	E-mail from 07.09.2019

	about the carbon credits and the certification process.	
20th September 2019	Correspondence between Carbon Expert and AS METAL COM SRL regarding the CO2 emissions project certification process on the voluntary market	E-mail from 20.09.2019
26th October 2019	Meeting of the executive director of AS METAL COM SRL with Casiana Fometescu from Carbon Expert to discuss the potential of obtaining carbon credits for the aluminum recycling project.	Internal Registration document from 26.10.2019
17th November 2019	Offer from Carbon Expert regarding the consulting services related to the project certification and budget estimation related to the number of carbon credits obtained.	Proposal to AS Metal_Carbon Expert_17.11.2019
26th January 2020	Meeting of the executive director of AS METAL COM SRL with Casiana Fometescu from Carbon Expert to discuss general conditions of the offer and the process of certification.	Internal Registration document from 26.01.2020
10th February 2020	E-mail from Carbon Expert with the draft agreement	E-mail from 10.02.2020
17th August 2020	Due to the pandemic start in February and the lockdown imposed in Romania on 17th March 2020, the management delayed the decision to sign the agreement with Carbon Expert and restarted the discussion in August 2020.	E-mail from 17.08.2020
30th August 2020	Meeting of the executive director of AS METAL COM SRL with Casiana Fometescu from Carbon Expert to renegotiate the contract, considering the instable future economic perspective.	Internal Registration document from 30.08.2020

7thSeptember 2020	Management decision regarding the CO project coordinator of the recycling plant in the person Mihnea Jurca.	Decision from 07.09.2020
15th September 2020	Signed agreement with Carbon Expert for the consultancy on the carbon credits certification process.	Signed agreement Carbon Expert_AS MEtal_15.09.2020
2nd October 2020	Submission of AS METAL COM SRL documents to Gold Standard – Date of first submission	E-mail from 02.10.2020
30th October 2020	Gold Standard approval and accounts opening	E-mail from 30.10.2020
12th November 2020	Listing of the project on Gold Standard Registry	Printscreen listing date from Sustain Cert_AS METAL

Figure 12: Prior consideration actions and document proofs

All these continuous actions taken by AS METAL COM SRL before the start date of the project (10th December 2019) prove the prior consideration of the carbon revenues by the management since March 2019.

Moreover, the project is not registered with any other voluntary or compliance schemes. Although the project is located in Romania, which has implemented a cap and trade system according to the EU ETS (EU Emission Trading Scheme) legislation, aluminum recycling activities are not included in the scope of the EU ETS and cannot trade emissions under the national cap. As the Paris Agreement has entered into force in 2021, the EU and its Member States submitted on 18.12.2020 the Nationally Determined Contribution, which cover the following sectors: Energy, Industrial processes and product use, Agriculture, Waste, Land Use, Land Use Change and Forestry.

The PP understands that if any risk of double counting exists in future, then the project developer shall commit to retiring eligible units equal to the quantity of Gold Standard VERs. Moreover, the PP understands the GS policy regarding corresponding adjustments (CA) and will act according to the new GS guidelines on CAs.

B.5.2. Ongoing Financial Need

Not applicable

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the five SDGs

SDG Impact

Sustainable Development Goals Targeted	Most relevant SDG Target	Indicator (Proposed or SDG Indicator)
1. SDG 4 Quality education	4.4 By 2030, substantially increase the number of youth and adults who have relevants skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	GSDM-I4.4.1 The number of employees trained on recycling vocational skills.
2. SDG 5 Gender Equality	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	GSDM-I5.5.1 Number of women serving in managerial/ leadership /ownership role GSDG-I5.5.2 Proportion of women in managerial positions
3. SDG 7 Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency	GSDM-I7.3.1 Total energy savings
4. SDG 8 Decent work and economic growth	8.5. By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.	GSDM-I8.5.1 Total number of jobs
5. SDG 13 Climate Action (mandatory)	13.2 Integrate climate change measures into national policies, strategies and planning	GSDM-I13.2.1 Amount of GHGs emissions avoided or sequestered

B.6.1. Explanation of methodological choices/approaches for estimating the SDG Impact

SDG 13 Climate Action

According to the methodology AMS.III.AJ – version 9.0, the approach of calculating the outcome of SDG 13 is shown below.

The baseline emissions for the production of aluminum from virgin raw inputs are calculated using following equation:

$$BE_{metal,y} = \sum Q_{i,y} \times B_i \times SE_i$$

Where:

$BE_{metal,y}$ = Baseline emissions for metals recycling in year *y* (tCO2/year) i= Metal type *i* (i.e. Steel or Aluminium)

$Q_{i,y}$ = Quantity of metal type *i* (Steel or Aluminium) recycled and sent to a processing or manufacturing facility in year *y* (t/y)

SE_i = Specific CO2e emission factor for production of metal i (tCO2/t), take value specified in Table 4 from the methodology (page 14)

Moreover, the following conservative assumptions were made to determine the baseline emissions for the production of aluminum from virgin inputs:

(a) There is the same process worldwide of the aluminum production from virgin raw materials, accomplished in two phases: the Bayer process of refining the bauxite ore to obtain aluminum oxide, and the Hall-Heroult process of smelting the aluminum oxide to release pure aluminum

(b) The only source of energy consumed by the preparation and mixing of raw materials is electricity – no fossil-fuels are used;

(c) The Specific CO2e emission factor for production of aluminum (SE_i) 8.4 tCO2/t shall be used as per the methodology. This value applies for Annex I countries too.

According to the methodology AMS.III.AJ – version 9.0, **project emissions** for the production of aluminum from virgin inputs are calculated using following equation. The electricity and fuel energy consumption (EC_y, FC_y) shall be directly monitored.

$$PEy = EC_{PJ,y} \times EF_{el,PJ,y} + \sum(FC_{f,PJ,y} \times NCV_{f,y} \times EF_{f,CO2,y})$$

Where:

PE_y = Project emissions in year y (t CO2/y)

i = Material type – plastics (HDPE, LDPE, PET and PP), container glass cullet,

aluminium or steel

Q_i, = Quantity of material type recycled in year y (t/y)

$EC_{PJ,y}$, = Electricity consumed by the recycling facility in the year y (MWh)

$FC_{f,PJ,y}$, = Fuel type f consumed by recycling facility in the year y (unit mass or volume)

$NCV_{f,y}$ = Net calorific value of the fossil fuel consumed in the recycling facility in year y (GJ/unit mass or volume)

$EF_{f,O2}$ = CO_2 emission factor of the fossil fuel consumed at the recycling facility (tCO_2/GJ) in year y

Leakage

If it is demonstrated that organic biogenic waste segregated in the recycling facility would otherwise have been deposited in a landfill without methane recovery in the baseline scenario, or if the baseline scenario is the incineration of the wastes, then no leakage calculation is required.

Emission reductions

The emission reductions achieved by the project activity shall be determined as the difference between the baseline emissions and the project emissions and leakage.

$$ER_y = BE_y - PE_y - L_y$$

Where:

ER_y = Emission reductions in year y (t CO2e)

L_y = Leakage emissions in year y (t CO2e)

SDG 7 – Affordable and clean energy

Estimating net benefit for SDG 7, indicator Energy Savings:

Net benefit SDG7 = Baseline outcome SDG7 - Project outcome SDG7

Net benefit SDG 7 = The electricity consumed from the production of aluminum from virgin materials – The electricity consumed at the recycling plant

The Baseline is calculated using the following equation:

$BE_{El,y} = Q_{aluminum} * SEC_{aluminum}$

Where:
$BE_{El,y}$: Baseline of the electricity in year y (MWh)
Q_{alu}: Quantity of aluminum recycled in year y, (t)
$SEC_{aluminum}$: Specific electricity consumption at virgin aluminum production facility (MWh/t)

Project outcome SDG7 = $EC_{aluminum,y}$ (MWh)
Where:
$EC_{aluminum,y}$ = Electricity consumption for aluminum production in year y, (MWh)

The electricity consumption is measured yearly with calibrated equipment.

The Net benefit of SDG7 is calculated using the following formula:

Net benefit of SDG7 = Baseline outcome of SDG7 - Project outcome of SDG7

Net benefit SDG7 = $Q_{aluminum} * SEC_{aluminum} - EC_{aluminum,y}$

For all other SDGs mentioned at B6 (with the exception of SDG 7 and SDG 13), the Baseline is zero since in the absence of the project, none of those indicators have been existed.

Therefore, the following equations shall apply for SDG 4, 5 and 8:

Net benefit of SDG = Project outcome of SDG – Baseline outcome of SDG

Net benefit of SDG = Project outcome of SDG – 0

Net benefit of SDG = Project outcome of SDG

More specifically, the proposed aproach is the following:

SDG 4 Quality Education

Trough its educational programs, internships and trainings on recycling, sustainable development, climate change and circular economy dedicated to employees, young employed persons and other people, the project actively contributes to the Target 4.4:

Target 4.4 „By 2030, substantially increase the number of youth and adults who have relevants skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship."

Project Indicator for SDG 4:

1. The Number of employees provided skill development training

Baseline situation:

In the baseline situation, there are not any employees trained on recycling, sustainable development and circular economy, and no trainings to promote recycling and sustainable development. Thus, the baseline outcome benefit is zero.

Project situation:

In the project situation, the PP records the number of employees trained on recycling vocational skills, the number of people trained on recycling, sustainable development and circular economy in order to indicate the contribution to SDG 4.

SDG4 contribution = The Number of employees provided skill development training

SDG 5 Gender Equality

One of the main benefits of the project is its approach toward gender equality, women being promoted in management position, including the high level management, contributing to the Target 5.5:

Target 5.5: „Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life."

Project Indicators for SDG 5:

1. Number of women serving in managerial/ leadership /ownership roleProportion of women in managerial positions in total management positions

Baseline situation:

In the baseline situation, there were no women employed who held any management positions. Therefore, the baseline outcome benefit is zero.

Project situation:

In the project situation the Number of women serving in managerial/ leadership /ownership role and the proportion of women in managerial positions in total management positions are monitored.

1. SDG5 contribution = Number of women serving in managerial/ leadership /ownership role
2. SDG5 contribution = Proportion of women in managerial positions in total management positions

SDG 8 Decent work and economic growth contribution

Through the project activities, it will create jobs which contribute to the target 8.5:

Target 8.5: „By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value."
The number of jobs created by the project with safe and healthy work environment together with number of trainings on safety and health at working environment and also on the technical services required to operate the recycling plant, are monitored by the PP. At the same time, the PP monitors all technical equipment checks and maintenance interventions in order to contribute at the development of SDG 8.

Project indicators for SDG 8:

1. Total number of jobs

Baseline situation:

In baseline situation no jobs created. Therefore, baseline outcome benefit is zero.

Project situation:

In project situation, the number of total number of jobs generated as a result of the project are monitored by the PP.

1. SDG8 contribution = Total number of jobs

B.6.2. Data and parameters fixed ex ante

SDG 13 Climate Action

Data/parameter	SE_j
Unit	tCO_2/t
Description	Specific CO_2e emission factor for production of aluminum

Source of data	CDM methodology: AMS.III.AJ_version 9.0
Value(s) applied	8.4
Choice of data or Measurement methods and procedures	Default value CDM methodology: AMS.III.AJ_version 9.0
Purpose of data	To calculate the baseline scenario
Additional comment	

Data/parameter	B_j
Unit	-
Description	Correction factor based on share of production
Source of data	CDM methodology: AMS.III.AJ_version 9.0
Value(s) applied	0.72
Choice of data or Measurement methods and procedures	Default value CDM methodology: AMS.III.AJ_version 9.0
Purpose of data	To calculate the baseline scenario
Additional comment	

Data/parameter	*Density of diesel*
Unit	Kg/liter
Description	The density of diesel
Source of data	IPCC 2006
Value(s) applied	0.832

Choice of data or Measurement methods and procedures	Default value from the IPCC 2006
Purpose of data	To calculate the project scenario
Additional comment	

Data/parameter	*NCVdiesel*
Unit	TJ/Gg
Description	Net calorific value of the fossil fuel consumed in the recycling facility in year
Source of data	IPCC 2006
Value(s) applied	43
Choice of data or Measurement methods and procedures	Default value from the IPCC 2006
Purpose of data	To calculate the project scenario
Additional comment	

B.6.3. Ex ante estimation of SDG Impact

SDG 13 Climate Action

According to the methodology AMS.III.AJ – version 9.0, **baseline emissions** for the production of aluminum from virgin inputs are calculated using following equation, where all below parameters were explained on B.6.1.:

$$BE_{metal,y} = \sum Q_{i,y} \times B_i \times SE_i$$

The project emissions for the production of aluminum from virgin inputs are calculated using the following equation provided in the applied methodology, and the below

parameters were presented on B.6.1:

$$PE_y = EC_{PJ,y} \times EF_{el,PJ,y} + \sum(FC_{f,PJ,y} \times NCV_{f,y} \times EF_{f,CO2,y})$$

Emission reductions

The emission reductions achieved by the project activity shall be determined as the difference between the baseline emissions and the project emissions and leakage.

$$ER_y = BE_y - PE_y - L_y$$

Where:

ER_y = Emission reductions in year y (t CO2e)

L_y = Leakage emissions in year y (t CO2e)

Since MSW collected does not contain organic biogenic waste segregated in the recycling facility, no leakage calculation is required.

The detailed information data on emissions reduction calculation has been provided in the Excel document " SDG13_1 ER Calculation_AS Metal_year2020_11.09.2023".

For all other SDGs, a detailed calculation method has been explained on B.6.1. and their estimation is provided on B.6.4 based on actual data from the monitored year 2020.

B.6.4. Summary of ex ante estimates of each SDG Impact

1. SDG 4 Quality education

SDG 4 – GSDM-I4.4.1 Number of employees provided skill development training

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	64	64
Year 2	0	64	64
Year 3	0	64	64
Year 4	0	64	64

Year 5	0	64	64
Total	**0**	**64**	**64**
Total number of crediting years 5 years			
Annual average over the crediting period	0	64	64

2. SDG 5 Gender equality

SDG 5 – GSDM-I5.5.1 Number of women serving in managerial/ leadership /ownership role

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	3	3
Year 2	0	3	3
Year 3	0	3	3
Year 4	0	3	3
Year 5	0	3	3
Total	**0**	**3**	**3**
Total number of crediting years 5 years			
Annual average over the crediting period	0	3	3

SDG 5 – GSDG-I5.5.2 Proportion of women in managerial positions (%)

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	50	50
Year 2	0	50	50
Year 3	0	50	50

Year 4	0	50	50
Year 5	0	50	50
Total	**0**	**50**	**50**
Total number of crediting years 5 years			
Annual average over the crediting period	0	50	50

3. SDG 7 Affordable and clean energy

SDG 7 – GSDM-I7.3.1 Total energy savings (MWhelectricity/year)

Year	Baseline estimate	Project estimate	Net benefit
Year 1	130,899	1,467	129,432
Year 2	130,899	1,467	129,432
Year 3	130,899	1,467	129,432
Year 4	130,899	1,467	129,432
Year 5	130,899	1,467	129,432
Total	**654,495**	**7335**	**647,160**
Total number of crediting years 5 years			
Annual average over the crediting period	130,899	1,467	129,432

4. SDG 8 Decent work and economic growth

SDG 8 – GSDM-I8.5.1 Total number of jobs

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	64	64
Year 2	0	64	64

Year 3	0	64	64
Year 4	0	64	64
Year 5	0	64	64
Total	**0**	**64**	**64**
Total number of crediting years 5 years			
Annual average over the crediting period	0	64	64

5. SDG 13 Climate Action

SDG 13 - GSDM-I13.2.1 Amount of GHGs emissions avoided or sequestered

Year	Baseline estimate	Project estimate	Net benefit
Year 1	56,670	388	56,282
Year 2	56,670	388	56,282
Year 3	56,670	388	56,282
Year 4	56,670	388	56,282
Year 5	56,670	388	56,282
Tota	**283,350**	**1,940**	**281,410**
Total number of crediting years 5 years			
Annual average over the crediting period	56,670	388	56,282

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

1. SDG 4 Quality education

Data / Parameter	Number of employees provided skill development training
Unit	No. of employees trained on recycling
Description	Number of employees trained on recycling vocational skills
Source of data	Internal employment reports
Value(s) applied	64
Measurement methods and procedures	Measured
Monitoring frequency	Annualy
QA/QC procedures	The recycling plant annually monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 4
Additional comment	-

2. SDG 5 Gender Equality

Data / Parameter	Number of women serving in managerial/ leadership/ownership role
Unit	No. of women managers
Description	Number of women employed as managers by project activity
Source of data	Internal employment reports
Value(s) applied	3
Measurement methods and procedures	Measured
Monitoring frequency	Annualy

QA/QC procedures	The recycling plant annually monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 5
Additional comment	-

Data / Parameter	Proportion of women in managerial positions
Unit	%
Description	Number of women managers in total managerial positions
Source of data	Internal employment reports
Value(s) applied	50
Measurement methods and procedures	Measured
Monitoring frequency	Annualy
QA/QC procedures	The recycling plant annually monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 5
Additional comment	-

3. SDG 7 Affordable and Clean Energy

Data / Parameter	Total energy saving
Unit	MWhelectricity
Description	Energy saving
Source of data	Internal consumption reports
Value(s) applied	129,432
Measurement methods and procedures	Calculated

Monitoring frequency	Annualy
QA/QC procedures	The recycling plant annually measures this parameter according to the methodology.
Purpose of data	To quantify the impact of SDG 7
Additional comment	-

4. SDG 8 Decent work and economic growth

Data / Parameter	Total number of jobs
Unit	No. of employees
Description	Number of people employed by project activity
Source of data	Internal employment reports
Value(s) applied	64
Measurement methods and procedures	Measured
Monitoring frequency	Annualy
QA/QC procedures	The recycling plant annually monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 8
Additional comment	-

5. SDG 13 Climate Action

Data / Parameter	Emission reduction per year
Unit	tCO2e
Description	Number of emissions reductions per year achieved through the aluminum recycling activity
Source of data	Aluminum recycling plant internal document
Value(s) applied	56,282

Measurement methods and procedures	Measured
Monitoring frequency	Annually
QA/QC procedures	The recycling plant annually monitors this parameter according to the CDM methodology AMS-III.AJ. Recovery and recycling of materials from solid wastes - Version 9.0
Purpose of data	To quantify the impact of SDG 13
Additional comment	-

Data / Parameter	$EC_{i,y}$ = Electricity consumption of the recycling facility
Unit	MWh
Description	Electricity consumption of the recycling facility
Source of data	Aluminum recycling plant
Value(s) applied	589.114
Measurement methods and procedures	Measured with calibrated equipment
Monitoring frequency	Annualy
QA/QC procedures	The recycling plant checks completeness of invoices concerning electricity consumption. The recycling plant checks at least monthly, if consumption fit to the produced quantities. The electricity meter will be calibrated every 10 years according to applicable legislation (Order 148/2012).
Purpose of data	To calculate the project emissions
Additional comment	-

Data / Parameter	Municipal solid waste
Unit	Tons/year

Description	Quantity of municipal solid waste collected at the recycling facility per year
Source of data	Aluminum recycling plant
Value(s) applied	12,016
Measurement methods and procedures	Quantity of municipal metal waste collected – weight in a calibrated balance
Monitoring frequency	Annualy
QA/QC procedures	The balance is calibrated every year.
Purpose of data	To quantify the impact of SDG 13
Additional comment	-

Data / Parameter	Quantity of metal type i (Steel or Aluminium) recycled in year y
Unit	Tons/year
Description	Quantity of aluminium recycled in year 2020
Source of data	Aluminum recycling plant
Value(s) applied	9,370
Measurement methods and procedures	Quantity of aluminium recycled – weight in a calibrated balance
Monitoring frequency	Annualy
QA/QC procedures	The balance is calibrated every year.
Purpose of data	To quantify the impact of SDG 13
Additional comment	-

Data / Parameter	Diesel consumption of the recycling facility

Unit	MWh
Description	Diesel consumption of the recycling facility
Source of data	Aluminum recycling plant
Value(s) applied	644.494
Measurement methods and procedures	Measured with calibrated equipment
Monitoring frequency	Monthly
QA/QC procedures	The recycling plant checks completeness of invoices concerning fuel consumption. The recycling plant checks at least monthly, if consumption fit to the produced quantities.
Purpose of data	To calculate the baseline emissions
Additional comment	-

Data / Parameter	Natural gas consumption of the recycling facility
Unit	MWh
Description	Natural consumption of the recycling facility
Source of data	Aluminum recycling plant
Value(s) applied	233.712
Measurement methods and procedures	Measured with calibrated equipment
Monitoring frequency	Monthly
QA/QC procedures	The recycling plant checks completeness of invoices concerning fuel consumption. The recycling plant checks at least monthly, if consumption fit to the produced quantities.
Purpose of data	To calculate the baseline emissions
Additional comment	-

Data / Parameter	EF_{el}
Unit	**tCO2/MWh**
Description	CO2 emissions factor for energy consumption in the production of aluminum recycled
Source of data	Annual Report from National Energy Regulatory Authority(ANRE) pag 126, year 2020
Value(s) applied	0.213
Measurement methods and procedures	Annually
Monitoring frequency	The recycling plant annually monitors this parameter.
QA/QC procedures	The recycling plant monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 13
Additional comment	-

Data / Parameter	$EF_{\text{natural gas}}$
Unit	**tCO2/MWh**
Description	CO2 emissions factor for natural gas consumption in the production of aluminum recycled
Source of data	Annual Report from National Energy Regulatory Authority(ANRE) pag 126, year 2020
Value(s) applied	0.389
Measurement methods and procedures	Annually
Monitoring frequency	The recycling plant annually monitors this parameter.

QA/QC procedures	The recycling plant monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 13
Additional comment	-

Data / Parameter	$EF_{FF,diesel}$
Unit	**tCO2/TJ**
Description	CO2 emissions factor for diesel consumption in the production of aluminum recycled
Source of data	Romanian publication "The list of the national values of the emission factors and net calorific values, specific to each type of fuel and type of activity - EU-ETS 2012" www.anpm.ro
Value(s) applied	73.56
Measurement methods and procedures	Annually
Monitoring frequency	The recycling plant annually monitors this parameter.
QA/QC procedures	The recycling plant monitors this parameter according to internal procedure.
Purpose of data	To quantify the impact of SDG 13
Additional comment	-

Parameters to monitor the Safeguard Principles:

Data / Parameter	Number of accidents and incidents
Unit	Number of accidents and incidents
Description	Number of accidents and incidents at the recycling plant
Source of data	Internal reports on accidents

Value(s) applied	1
Measurement methods and procedures	Measured
Monitoring frequency	Annually
QA/QC procedures	The recycling plant annually monitors this parameter according to internal procedure
Purpose of data	To monitor the safeguard principle 6.1 Labour rights

B.7.2. Sampling plan

All data used (electricity and fuel consumption, amount of aluminium waste input and recycled output, etc.) will be obtained directly from the measures developed by the technical staff in the recycling plant.

The emission factors for electricity and fuel are consulted and updated trough official Romanian and EU documentation.

B.7.3. Other elements of monitoring plan

The monitoring plan will be implemented by internal technical staff in charge of each recycling process. The plan is made to verify that the emission reductions are real and measurable. The data needed for the emissions reduction calculations will be monitored transparently during the crediting period. The data collection will be done by internal technical staff in the recycling plant depending on the parameter, according to the followings:

1. Data collected

(a) Mass of aluminum waste entering in the recycling facility (input), measured by direct weighing;
(b) Mass of recycled aluminum generated by the recycling facility, measured by direct weighing;
(c) Amount of electricity consumed at the recycling facility for power equipment;
(d) Emission factor for the electrical grid system;
(e) Amount of Diesel consumption per year

2. In addition, these documents collected by the internal technical staff will be made available at verification to auditor:

- Invoices documents regarding each fuel (diesel) consumed at the recycling facility;
- Electricity invoices regarding the electricity consumptions of the recycling facility from the national grid;

- Evidences regarding purchases of the aluminum waste and sales of recycled products (to be collected by the technical staff in charge of the recycling plant operation).

All reports will be centrally kept by the internal staff dedicated to this project and made available to the DOE.

The data to be collected to quantify the impact of the other SDGs will be gathered from several departments, including the Production department, HR department, the CSR department, the ISO department, the Accounting and the Legal department.

3. The data to be monitored

The set of data to be monitored during the project operation phase has been provided in B.7.1.

4. The equipment for monitoring

The weighting system is calibrated each year. The recycling plant checks completeness of invoices concerning electricity and fossil fuel consumptions. The recycling plant checks at least monthly, if consumption fit to the produced quantities. The project proponent also checks continuously the amount of incoming aluminum waste and produced recycled aluminum material.

The company is ISO 9001:2008 certified and all weighting systems are calibrated each year according to operational internal procedures.

5. Verification and calibration of the equipment

The verification and calibration of the weighting system/scales is done accordingly to the Romanian calibration legislation (Order 148/2012), respecting its rules and procedure.

6. Data Management and treatment

All data collected by Production, Technical and Purchasing and other departments from the recycling plant and manufacturers will be centralised at the recycling plant according to the Procedure for the control of documents foreseen by ISO 9001:2008. The recycling plant annualy has financial and energy audits and also ISO quality audits on environment and health working and safety environment.

7. Monitoring Report

All the data from production are monitored in monthly reports issued by the production department.
This documents contains the data for input raw materials, output, consumption of all utilities (electricity, gas, water, fuel etc.)

The data about energy and fuel for all production and departments as well as for administration department are centralised by the technical manager.

The internal technical staff is responsible for preparing the monitoring report under the supervision of the DOE.

All the related records of verification, reading, cross-checking will be readily accessible for the verification of the DOE.

SECTION C. DURATION AND CREDITING PERIOD

C.1. C.1 Duration of project

C.1.1. Start date of project

10/12/2019

C.1.2. Expected operational lifetime of project

40 years

C.2. C.2 Crediting period of project

C.2.1. Start date of crediting period

01/09/2021

C.2.2 Total length of crediting period

5 years renewble twice model: 01/09/2021- 31/08/2026

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1. D.1 Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in Appendix 1, ongoing monitoring is summarised below.

D.2. The table below shall be fully completed after the LSC meeting.

Principles	Mitigation Measures added to the Monitoring Plan

Principle 6.1 Labour Rights	The project developer shall monitor the number of accidents and incidents happened at the recycling plant. All employees are frequently trained on the functionning of the equipment, on health and safety at the environment work.
Other principles	No other mitigation measures were found in the LSC meeting or the Feedback Stakeholder Round.

D.3. D.2 Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	The project is aligned with the key issues and requirements of Gender Sensitive design and implementation of the Gold Standard Gender Policy. The project has its own company policy and complies with all requirements of the company policy AS METAL COM SRL.[15] The standard requirements of ISO 9001 have been taken into account into the company policy. It is the policy of the project that all project employees receive the same protection and treatment and shall have the same rights and opportunities without discrimination for reasons of gender, race, national or family origin, language, religion, political or philosophical. AS METAL COM SRL company policy has a proactive gender-responsive approach, considering that it has its own company policy, which includes gender policy and strategy and commitment to implement its policies and ISO procedures and practices. The Project activities are carried out with 64 employees working on both production and administration. The recycling aluminum plant

[15] The company policy AS METAL COM SRL. document shall be submitted for validation review.

	employs 20 workers, from which 8 men and 12 women. Considering the waste activities undertaken, men are usually more interested to participate in the aluminum waste sorting and processing activities. Yet, in the administrative issues, the percentage of men – women employed is much more tight, from 22 employees 15 are women and 7 are men. The total number and the percentage of men and women employed at the recycling plant and in the administrative domain will be recording for monitoring with the aim of respecting and improving gender equality, and increasing empowerment of women in order to provide with gender indicators align with SDG 5. For both, local communities and project direct employees, the company has established communication mechanisms that seek to inform all stakeholders, and to identify possible actions against human rights, including gender discrimination.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The host country, Romania, is an EU country since 2007 and it has its own legislation in place in accordance with the European legislation, prohibiting the violention of Human Rights and gender discrimination of any kind[16]. Romania has also ratified the international conventions of Human Rights and its protocols on 1954, 1990 and 2015, and it actively enforces the compliance with this country. The project respects life, liberty and security as well as personal and political freedom and also respects economic, social, cultural freedoms and property according to its company policy, which is fully integrated into the national and European legislation.

[16] The Law no.30/1994 on the ratification of the Convention for the Protection of Human Rights and Fundamental Freedoms and its Additional Protocols.

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	No
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

The below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

E.1. E.1 Summary of stakeholder mitigation measures

Due to Covid pandemic restrictions in Romania, the project developer could not organize the Local Stakeholder Consultation (LSC) within the Preliminary review period. It has announced Gold Standard about this on 20th November 2020, and asked the permission to hold an online LSC, respecting all GS applicable rules regarding the preparation of the LSC and its requirements to conduct the LSC meeting.

The GS answer sent to the project developer on 26th November 2020 did not allow to substitute the physical LSC with a remote LSC. The project developer followed the GS recommendation to continue with the organization of the online LSC and undertook the remote LSC meeting on 9th December 2020. It also uploaded a Deviation request on SustainCert Registry on 26th March 2021.

At the online LSC meeting on 9th December 2020, there have been invited stakeholders from all required categories and there was a participation of 16 persons at the online meeting from all categories. The stakeholders had received before the meeting the Key Project Information document and a presentation on the project has been held to the participants of the meeting covering all topics of an LSC, including Safeguarding Principle Assessment and Grievance Mechanism. Several sessions of Q&A have been included in the meeting and the suggestions and inputs of stakeholders have been taken into consideration in the design of the PDD and project development. Evaluation feedback forms have been sent to stakeholders, and only positive comments have been recorded.

During the design review of the project, we have held the phisical LSC meeting on 27th September 2022. The detailed LSC report was uploaded on Sustaincert on 26/01/2023.

During the LSC meeting and the Feedback Round Consultation we found only one mitigation measure in order to reduce the potential risk of the Safeguarding principle 6.1 Labour Rights: The project developer shall record reports of accidents and incidents as well as reports on trainings on various issues, including safety and health at working environment to prevent emergency cases, technical checks and maintenance interventions. These indicators shall be monitored by the project.

E.2 Final continuous input / grievance mechanism

The following grievance mechanism shall be discussed during the LSC:

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.
Continuous Input / Grievance Expression Process Book (mandatory)	Expression Process Book or Grievance Register to be maintained at office of PP, which is the same with the Project location at the aluminum recycling plant. PP office Address and Project Site Address: S.C. AS METAL COM SRL. Sos. Berceni 104G, sect. 4 Bucharest, Romania
GS Contact (mandatory)	help@goldstandard.org
Telephone Access	Company telephone: 0040 21 319 39 57 Mr. Constantin Apostol - CEO, who is based at the Project location is responsible and his mobile number +40 743577083 shall be available for any stakeholders to comment.
E-mail Access	The email addresses: info@asmetal.ro constantin.apostol@asmetal.ro
Internet Webpage	Feedback messages can be sent also via the web link: http://asmetal.ro/reducerea-emisiilor-co2/

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into SECTION D above. Please refer to the instructions in the Guide to Completing this Form below.

The safeguarging principles assessment has been discussed at the LSC meeting on 27.09.2022 and revised according to discussion outcomes.

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)
Principle 1. Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights	1. No	1.The project develper and the project respect human rights and are not complicit in violence or human rights abuses of any kinds. The host country, Romania, is a EU country since 2007, and it has its own legislation in place, in accordance with the European legislation, prohibiting the violation of Human Rights.[17]	1. Not applicable

[17] The Law no. 30/1994 on the ratification of the Convention for the Protection of Human Rights and Fundamental Freedoms and its Additional Protocols

2. The Project shall not discriminate with regards to participation and inclusion	2. No	Romania has also ratified the international conventions of Human Rights and its protocols on 1954, 1990 and 2015, and it actively enforces the compliance with this principle. Thus, human right abuses are not at all common in the host country. 2.The project respects life, liberty, and security as well as personal and political freedom without any discrimination with regards to participation and inclusion. It also respects economic, social, culture freedoms and property. Romania ratified „International Convention of All Forms of Racial Discrimination" in 1970 and also „Convention of All Forms of Discrimination against Women" in 1982.	2. Not applicable
Principle 2. Gender Equality			

1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women	1. No	1.The project is bound to respect national and international legislation on the gender and cannot contribute to adverse impacts on gender equality and/or situation of women. The company policy has a proactive gender-responsive approach, considering that it has its own company policy, which includes gender policy and strategy and commitment to implement its policies and ISO procedures and practices.	1. Not applicable
2. Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work	2. No	2. The project applies the principles of nondiscrimination, equal treatment, and equal pay for equal work.	2. Not applicable
3. The Project shall refer to the country's national gender strategy or equivalent national commitment	3. No	3. Yes, the project is in line with country gender strategy and policies.	3. Not applicable

to aid in assessing gender risks 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)	4. No	5. Not required	4. Not applicable
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	No	The project leads to safer working condition and improvement in health as it replaces fossil fuel with natural gas into the recycling field.	Not applicable
Principle 4.1 Sites of Cultural and Historical Heritage[18]			
Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?	No	The project area does not have any structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture. Hence, not applicable. The location is not positioned in the area with cultural or historical	Not applicable
>>			

[18] An expert opinion has been submitted to the auditor in order to proove principles no. 4.1, 4.2, 4.3, 4.4. 8.1, 8.2, 9.10, 9.11.

		constructions. It is located in the industrial area. The site has the following neighborhoods, most of them private industrial companies: · North: SC DOOSAN - IMGM SA · East: SC DOOSAN - IMGM SA - railway line · South: agricultural land · West: SC TECHNOCONSULT SRL and SC CONSTANTIN GROUP SA An expert opinion has been submitted to the auditor for validation in order to proove all these.	
Principle 4.2 Forced Eviction and Displacement			
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)? >>	No	The project does not require or cause any physical or economic relocation of people. The land was purchased from an industrial enterprise. An expert opinion has been submitted to the auditor for validation in order to proove all these.	Not applicable
Principle 4.3 Land Tenure and Other Rights			

Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership?	No	No. The project does not involve any land use which will have issues related to land tenure or access rights. The land is owned by AS METAL. SC AS METAL SRL is owned by a group of shareholders. The land was purchased from another company in 2001 through the sale-purchase contracts. An expert opinion has been submitted to the auditor for validation in order to proove all these.	Not applicable
Principle 4.4 Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No	The population is of Romanian nationality, regardless of ethnicity. There are no other populations in the area. An expert opinion has been submitted to the auditor for validation in order to proove all these.	Not applicable
Principle 5. Corruption			

1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	There is no corruption mechanism in the project activity.	Not applicable
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions 2. Workers shall be able to establish and join labour organisations 3. Working agreements with all individual workers shall be documented and implemented and include: a) Working hours (must not exceed 48 hours per week on a regular basis), AND	1. No 2. No 3. No	1. The Project Developer ensures that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions 2. Workers are able to establish and join labour organisations 3. Working agreements with all individual workers are documented and implemented and include the points a) to f).	1. Not applicable 2. Not applicable 3. Not applicable

b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave. 4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment, training of workers,	4. No 5. Potentially	4. No child labour is involved. 5. The Project Developer ensures the use of appropriate equipment, training of workers,	4. Not applicable 5. The reports of accidents and incidents as well as reports on trainings

documentation and reporting of accidents and incidents, and emergency preparedness and response measures		documentation and reporting of accidents and incidents, and emergency preparedness and response measures	on various issues, including safety and health at working environment to prevent emergency cases, technical checks and maintenance interventions are envisaged and monitored by the project.
Principle 6.2 Negative Economic Consequences			
1. Does the project cause negative economic consequences during and after project implementation?	No	No, the project does not cause negative economic consequences during and after project implementation. On the contrary, it contributes to sustainable development of the region.	Not applicable
>>			
Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	No, the Project does not increase greenhouse gas emissions over the Baseline Scenario; it decreases emissions compared to the Baseline Scenario.	Not applicable
>>			
Principle 7.2 Energy Supply			

Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	No, the project uses energy from the national grid.	Not applicable
>>			
Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	No. Water in huge quantity is not required for the project which can impact the ground water level or any seasonal flow. The land is not near a stream. The nearest watercourse is the Dambovita River, located about 5 km to the east. The company has 5 mechanical-biological treatment plants related to domestic wastewater from containers - locker room mounted on the sewage network of the objective and 3 decanters in series and an AQUAFIX type hydrocarbon separator	Not applicable
>>			

		related to rainwater from on the concrete platform. An expert opinion has been submitted to the auditor for validation in order to proove all these.	
Principle 8.2 Erosion and/or Water Body Instability			
Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	No	No. Water in huge quantity is not required for the project which can impact the ground water level or any seasonal flow. There are no watercourses in the vicinity An expert opinion has been submitted to the auditor for validation in order to proove all these.	Not applicable
>>			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for production of crops or other products?	No	No. The project does not involve any crop production	Not applicable
>>			
Principle 9.2 Vulnerability to Natural Disaster			
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes,	No	No. The project happens at specific area plant. There is no activity which can affect adversely the natural	Not applicable

subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions? >>		system to cause earthquake, landslides, erosion, flooding, draught or other extreme climatic conditions.	
Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)? >>	No	Not applicable. The project does not involve any crop production or cultivation.	Not applicable
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment? >>	No	No. The project cannot potentially realease any pollutants to the environment since all production stages are strictly monitored.	Not applicable
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous	No	Not applicable. The project does not involve any production processes that	Not applicable

and non-hazardous chemicals and/or materials? >>		use or realease hazardous and nonhazardous chemicals or materials above the limits permitted by the legislation.	
Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers? >>	No	Not applicable. The project does not involve any crop production or cultivation.	Not applicable
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests? >>	No	Not applicable. The project happens at specific area plant.	
Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives? >>	No	Not applicable. The project does not involve any crop production or cultivation.	Not applicable
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry? >>	No	Not applicable	Not applicable
Principle 9.10 High Conservation Value Areas and Critical Habitats			

Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified? >>	No	Not applicable. The area is industrial. In the vicinity there are no areas designated as protected and no protected species. The location is located in the industrial area near SC DOOSAN - IMGB SA. An expert opinion has been submitted to the auditor for validation in order to proove all these.	Not applicable
Principle 9.11 Endangered Species			
Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? AND/OR Does the Project potentially impact other areas where endangered species may be present through transboundary affects?	No	Not applicable It's not necessary. The land is in the urban area. However, an expert opinion has been submitted to the auditor for validation in order to proove it.	Not applicable

APPENDIX 2 - CONTACT INFORMATION OF PROJECT PARTICIPANTS

Organization name	AS METAL COM SRL	
Registration number with relevant authority	RO3272093	
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City	Bucharest	
State/Region	Sector 4	
Postcode	041919	
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Contact person	Constantin Apostol	
Title	Executive Manager	
Salutation	Mr.	
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Middle name	-	
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Organization name	CARBON EXPERT INTERNATIONAL SRL.	
Registration number with relevant authority	31038447	
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State/Region	Sector 6	
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Revision History

Version	Date	Remarks
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on 'gender sensitive' requirements
1.0	10 July 2017	Initial adoption