



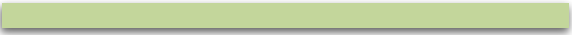
PROGOLD®

Where Passions Melt

QUANTIFICATION AND REPORTING OF
GREENHOUSE GAS EMISSIONS FOR THE
ORGANIZATION IN ACCORDANCE WITH THE
UNI EN ISO 14064-1:2019 STANDARD

GREENHOUSE GAS EMISSIONS INVENTORY REPORT 2023

UNI EN ISO 14064-1:2019





Progold S.p.a., GREENHOUSE GAS EMISSIONS INVENTORY REPORT 2023, Rev.3.1 of 22/01/2025

Quantification of greenhouse gas emissions according to UNI EN ISO 14064-1 by:

Kairos Srl



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1 GENERAL DESCRIPTION

The company **Progold S.p.a.** (or **Progold**, or the **Organization**) is a company specialized in the production and marketing of alloys and master alloys for jewelry

It has a factory located in Trissino, (VI).

Production site

Via Postale Vecchia 26/A
36070 Trissino (VI), Italy



UNI EN ISO 9001:2015
UNI EN ISO 14001:2015
SA 8000
UNI EN ISO 14021:2021
UNI EN ISO 14064-1:2019
RJC CoP & CoC

This technical report, prepared by the Organization with the collaboration of external consultants, according to the scheme of the UNI EN ISO 14064-1:2019 standard, describes the principles, concepts and methods concerning the quantification and reporting of direct and indirect greenhouse gas (GHG) emissions of the Via Postale Vecchia 26/A, 36070 Trissino (VI), Italy.

The intended users of the GHG Report are represented by all parties potentially interested in the activities of the Organization, in particular companies belonging to the sectors of:

- Production of alloys and alloy mothers for jewelry;
- Production of solder pastes;
- Direct 3D printing of precious metals for jewelry and watchmaking components;
- Distribution of products for electroplating.

This report will be prepared annually and will be published on the Company's website (www.progold.com) and freely available for consultation.

This document is subject to third-party verification with a reasonable assurance level and a materiality threshold of 0% in relation to the information declared.

1.1 Context of the Organization

Progold S.p.A. was founded in Vicenza in 1997. Over the years, the company has specialized in the production, research, development and distribution of master alloys and alloys for the gold and silversmith sector combined with a technical consultancy service of the highest level, quickly becoming a reference player in this sector. The Company is also active in the brazing paste alloy business. Since 2015, it has also been offering a production service for precious semi-finished products through the innovative technology of direct 3D printing in precious metal through its Progol3D® business unit. Progold's internal research and development department works to offer a technologically innovative and quality product to improve the processing of gold, silver and platinum, eliminating the most common production drawbacks. Progold's consolidated know-how and proven reputation are at the service of any customer need.

At the end of 2021, Progold was acquired by Bluclad S.p.a., a Tuscan company founded in 2008 and a leader in the development of galvanic finishing cycles for metal accessories. At the same time, the Xolutions® brand was registered, testifying to the desire of the two companies to pool their skills and know-how to create an integrated platform at the service of the luxury market.

1.2 GHG Policy

The Organization, as part of its business management system, has established its own policy with respect to the environment of which an extract is reported.

- Calculate the **Environmental Footprint** of the activity according to the UNI EN ISO 14064-1:2019 standard by analyzing and accounting for GHG emissions;
- Define a **Carbon Management** system aimed at minimizing emissions into the atmosphere;
- Develop a plan to **Offset** greenhouse gas emissions related to residual emissions with equivalent measures;
- Remedy the negative impacts of activities on the environment;
- Responsible waste management;
- Comply with applicable legal requirements concerning its environmental aspects;
- Maintain and improve the environmental management system.



1.3 Regulatory references

UNI EN ISO 14064-1:2019. Greenhouse gases – Part 1: Organisational specifications and guidance for quantifying and reporting greenhouse gas emissions and removal.

UNI ISO/TR 14069:2017. Greenhouse gases – Quantification and reporting of greenhouse gas emissions for organizations – Guidelines for the application of ISO 14064-1.

1.4 Terms and definitions

The terms and definitions set out in the reference regulations in Section 1.2 apply.

1.5 Principles

The application of the principles is essential to ensure that GHG-related information is accounted for fairly and correctly. The principles underlying the requirements of this report guide the application of the reference standard by the Organization.



Relevance



Completeness



Coherence



Accuracy



Transparency

1.6 Inventory Objectives

The business objectives of the GHG report are:

- Understand and track the GHG emissions produced by Progold in an accurate, consistent and transparent manner to understand the environmental impacts of the Organization
- Identify opportunities to reduce GHG emissions
- Publicly disclose this information in a transparent and verified manner.



Analyze impacts
of GHG



Establish
Measurable goals



Identify the
Opportunities for reduction



Publication
and participation

2 GHG INVENTORY BOUNDARIES

The organisational boundaries relating to this relationship are represented by the perimeter of the Plant in Via Postale Vecchia 26/A, 36070 Trissino (VI), where the Organisation carries out the following activities:

- Production of alloys and alloy mothers for jewelry;
- Production of solder pastes;
- Direct 3D printing of precious metals for jewelry and watchmaking components;
- Distribution of products for electroplating.

Progold has full ownership and management of its own operations.



3 REPORTING BOUNDARIES

This report reports and reports the direct and indirect emissions expressed in t CO₂e in accordance with UNI EN ISO 14064-1:2019.

Direct and indirect emissions are reported separately for GHGs CO₂, CH₄, N₂O and SF₆. GHG emissions such as NF₃, HFCs and PFCs were not explicitly reported in the report as they are not present in significant quantities (their sum is less than 0.1% of total emissions).

Regulatory reference	Description	Applicability
5.2.4 a	Direct GHG emissions and removals	✓
5.2.4 b	Indirect GHG emissions from imported energy	✓
5.2.4 c	Indirect GHG emissions from transport	✓
5.2.4 d	Indirect GHG emissions associated with products (goods and services) purchased and used by the organization (upstream)	✓
5.2.4 and	Indirect GHG emissions associated with the use of products manufactured and sold by the organization (downstream)	✗
5.2.4 f	Indirect GHG emissions from other sources	✗

The model used for the calculation of emissions, reported in Section 8, allows emissions to be further divided into:

- Non-biogenic (fossil) emissions;
- Anthropogenic biogenic emissions.

The Organization uses the control approach to quantify and report GHG emissions and removals. This approach involves accounting for GHG emissions produced by the sources and removed by any absorbers present in the operating site over which it has complete operational control.



4 2023 GHG INVENTORY CATEGORIES

Table 1: GHG Inventory Categories 2023

Nr.	TYPE OF ISSUE	CATEGORY	QUANTIFIED EMISSIONS	EMISSION SOURCES	NOTES
Direct GHG emissions from sources owned or controlled by the Organization					
1.1	Direct GHG emissions from natural gas consumption for heating systems	CONSUMPTION	Yes	Combustion of methane in boilers for heating and hot water production.	
1.2	Direct GHG emissions from the consumption of diesel fuel for heating systems	CONSUMPTION	No		The Organization does not consume diesel for heating systems.
1.3	Direct GHG emissions deriving from the use of cars in the company fleet or controlled by the Organization	TRANSPORT	Yes	Company-owned vehicles for commuting and carrying out its activities	
1.4	Fugitive direct emissions from air conditioning systems	DIRECT	Yes		No GHG leaks were detected.
Indirect GHG emissions from imported energy					
2.1	Indirect GHG emissions related to the purchase and consumption of electricity	CONSUMPTION	Yes	Emissions resulting from the generation of purchased electricity.	
2.2	Indirect GHG emissions related to the purchase and consumption of energy from district heating used to heat and cool workplaces	CONSUMPTION	No		The Organization does not purchase or consume energy from district heating.
Indirect GHG emissions from transport					
3.1	Indirect GHG emissions deriving from the use by employees on mission of cars, planes and trains not directly controlled by the Organization	TRANSPORT	Yes	Cars: Use of Taxis for missions; HS trains for missions in Italy Passenger aircraft for international and intercontinental missions	
3.2	Indirect GHG emissions from employee commuting	TRANSPORT	Yes	16 petrol cars, 21 diesel cars, 2 hybrid cars, 2 methane cars	
3.3	Indirect GHG emissions from the activity of inbound carriers/suppliers	TRANSPORT	Yes	Inbound couriers for the supply of raw materials and packaging	
3.4	Indirect GHG emissions from outbound carriers/suppliers	TRANSPORT	Yes	Freight transport in Italy by van/truck. Intercontinental transport by air freight.	
Indirect GHG emissions from products used by the Organization					
3.5	Indirect GHG emissions from the use of metal raw materials	METALS	Yes	Recycled and non-recycled metals such as, for example, Zinc, Silver, Copper and Gold.	
3.6	Indirect GHG emissions from graphite use	GRAPHITE	Yes	Crucibles, dies and stoppers	
3.7	Direct emissions from the use of technical gases	GAS	Yes	Argon, Hydrogen, Nitrogen, Acetylene and Helium gases	

				used for carrying out work activities.
3.8	Indirect GHG emissions from the use of paper and cardboard products	PAPER AND CARDBOARD	Yes	Boxes and other packaging materials.
3.9	Indirect GHG emissions from the use of chemicals.	CHEMICALS	Yes	Reagents, solvents, polishes.
3.10	Indirect GHG emissions from the use of packaging products other than paper and cardboard	PACKAGING	Yes	Packaging films, bags containing silica gel.
3.11	Indirect GHG emissions from the use of wood products	WOOD	Yes	Wooden pallets for goods storage
3.12	Indirect GHG emissions from water use	CONSUMPTION	Yes	Water for industrial use
3.13	Indirect GHG emissions from waste delivery and disposal	WASTE	Yes	Emissions resulting from the transport of waste to 2 collection centres and related emissions from disposal.

5 SIGNIFICANCE CRITERIA

In order to create a complete, accurate and consistent accounting of GHG emissions and removals, the Organization has identified its criteria for establishing the significance of indirect emissions, considering the purpose of the GHG inventory.

The significance of indirect emissions is assessed in two consecutive steps. In order:

1. Significant Impact Risk Assessment (GRIS);
2. Application of a Cut-Off criterion;

The application of these criteria is not intended as a means of excluding significant amounts of emissions, nor of circumventing regulatory obligations. Any exclusions of significant indirect emissions are justified in Section 6.

5.1 Significant Impact Risk Rating (GRIS)

The Significant Impact Risk Ratio (GRIS) is assessed using three factors:

- Quantity of used/waste produced/transport in a year (Q)
- Degree of Control for the Organization (C)
- Environmental Impact (I)

These factors are estimated with a qualitative scale ranging from low (L=1) to medium (M=2) to high (H=3). GRIS is calculated as:

$$\text{GRIS} = \text{Q} + \text{C} + \text{I}$$

The GRIS is therefore determined by a numerical scale ranging from 3 to 9. Indirect emissions are considered significant if the GRIS is greater than or equal to 5. For the base year (2023) The processes analyzed are

summarized in the table below. The GRIS table is drawn up and updated by the subjects responsible for the development of the GHG Inventory; its revision is instead the responsibility of the review committee of the subjects responsible for the development of the GHG Inventory.

Table 1: Significance Analysis by GRIS for the Base Year (2023)

PROCESSES	QUANTITY (Q)	DEGREE OF CONTROL (C)	ENVIRONMENTAL IMPACT (i)	GRIS (Q+C+I)	SIGNIFICANT FOR THE ORGANIZATION
Category 2: Indirect GHG emissions from imported energy					
Indirect GHG emissions from electricity consumption	H	H	M	8	Yes
Category 3: Indirect GHG emissions from transport					
Indirect GHG emissions deriving from the use by employees on missions of cars, planes and trains not directly controlled by the Company	M	L	H	6	Yes
Indirect GHG emissions from employee commuting	H	H	H	9	Yes
Indirect GHG emissions from the activity of inbound carriers/suppliers	H	H	L	7	Yes
Indirect GHG emissions from outbound carriers/suppliers	H	H	M	8	Yes
Category 3: Indirect GHG emissions from products used by the Organization					
Indirect GHG emissions from the use of metal raw materials	H	H	H	9	Yes
Indirect GHG emissions from graphite use	H	M	L	6	Yes
Direct emissions from the use of technical gases	H	M	L	6	Yes
Indirect GHG emissions from the use of paper and cardboard products	M	M	L	5	Yes
Indirect GHG emissions from the use of chemicals	M	L	H	6	Yes
Indirect GHG emissions from the use of packaging products other than paper and cardboard	H	L	L	5	Yes
Indirect GHG emissions from the use of wood products	M	L	L	4	No

Indirect GHG emissions from water use	L	L	L	3	No
Indirect GHG emissions from waste delivery and disposal	M	L	M	5	Yes

The Organization has established and adopted an appropriate information procedure in order to keep under control any negative impacts associated with the activities related to these processes (see Section 7 – Inventory Quality Management).

5.2 Cut-Off Criterion

With regard to indirect GHG emissions from products used by the Organization, a Cut-Off in terms of mass of 1% is applied to the significant inventory categories shown in Table 2, based on the annual quantities used by the Organization for its production processes.

The application of a Cut-Off in terms of mass of 1% consists of the following steps:

1. Calculation of the total quantity per inventory category for the reference year, through the sum of the individual flows;
2. Calculation of 1% of this total quantity (Cut-Off 1%);
3. Exclusion of flows whose individual quantities are lower than the Cut-Off.

6 EXCLUSIONS

The following are the inventory categories excluded from the study:

- Materials such as abrasives, adapters, needles and caps, binders, waxes, consumables for general machinery, consumables for analytical instruments, labels, chemical laboratory materials, consumables for the maintenance of production and laboratory machinery, powders, salts, galvanic products, syringes (including pistons), toners for printers, or more generally, all materials not included in the inventory categories in Table 1;
- Production machinery, analytical laboratory instruments and computers;
- All flows falling within the Cut-Off threshold.

7 BASE YEAR, BASE YEAR AND REPORTING PERIOD

2023 coincides with the base year and the base year for this document. The reporting period considered runs from 01/01/2023 to 31/12/2023.

8 QUANTIFICATION APPROACHES

The Organization has entrusted the calculation of the quantification of greenhouse gas emissions to an external consulting company (Kairos Srl), which has used the SIMAPRO 9.6.0.1 software (PRè Sustainability B.V.) using the Ecoinvent v.3.10 and Environmental Footprint 3.1 databases.

The flows relating to the consumption of electricity, the vehicles under the control of the Organization and the technical gases acetylene and oxygen have been divided into several flows so as to carry out a correct categorization of emissions. Especially:

1. Emissions related to electricity consumption were obtained by multiplying the annual electricity consumption by the emission factors for the GHGs CO₂ (0.3034 kgCO₂e/kWh), CH₄ (0.000708 kgCO₂e/kWh) and N₂O (0.001221 kgCO₂e/kWh) reported in the ISPRA-NIR 2024 report and were categorized as indirect emissions from imported energy (Category 2);
2. Emissions relating to the production and transport of electricity were calculated by estimating network losses equal to 15% of the value of electricity accounted for in the reference year and were categorised as indirect emissions from products used by the Organisation (Category 4);
3. The emissions related to the combustion of the fuel used by the cars under the control of the Organization were obtained by multiplying the annual amount of fuel by the relative Tank-To-Wheel emission factor (TTW = 3.19 kgCO₂/kg for gasoline and 3.22 kgCO₂/kg for diesel) reported by the Global Logistics Emissions Council Framework (GLEC v.3.1) and were categorized as direct emissions (Category 1);
4. Emissions related to the production and transport of fuels were calculated using flows from the Ecoinvent 3.10 database and were categorized as indirect emissions from products used by the Organization (Category 4);
5. Emissions from the combustion of acetylene and oxygen were modelled according to the stoichiometry of the combustion reaction and were categorised as direct emissions (Category 1);
6. Emissions related to acetylene and oxygen production were calculated using flows from the Ecoinvent 3.10 database and were categorized as indirect emissions from products used by the Organization (Category 4);

With the exception of what is reported in points 1, 3 and 5 of the previous paragraph, the characterization factors used are those reported in the latest version of the IPCC 2021 GWP100 document (incl. CO₂ uptake), as required by the UNI EN ISO 14064-1:2019 standard at point 6.3.

The choice of the databases and models listed above is motivated by their degree of reliability and up-to-dateness. Both the SimaPro software and the Ecoinvent and Environmental Footprint databases are validated for LCA calculation according to ISO 14040:2006/Amd 1:2020 and ISO 14044:2006/Amd 1:2017/Amd 2:2020, as well as being some of the most widely used in the world for this purpose.

In accordance with Annex E of UNI EN ISO 14064-1:2019, the emissions deriving from imported electricity consumed by the Organization are quantified through the *location-based* approach, which involves the application of emission factors that best characterize the electricity grid used.

9 TOTAL ANNUAL GHG EMISSIONS

9.1 GHG Inventory for the Year 2023

Table 3: GHG Inventory 2023

TYPE OF ISSUE	DATA QUALITY	VALUE	UNITS OF MEASUREMENT	PROCESS	DATABASE	NOTES
DIRECT GHG EMISSIONS						
Direct emissions from natural gas consumption for heating systems	primary	7.88 E+03	Smc	Heat, central or small-scale, natural gas (IT) heat production, natural gas, at boiler atmospheric non-modulating <100kW Cut-off, U	Ecoinvent 3.10.0	Used PCI = 0.025337607 MJ/Smc
Direct emissions from the use of cars in the company fleet	primary	1.32 E+04 (petrol); 8.03 E+03 (diesel);	L	Petrol, unleaded (Europe without Switzerland) petrol production, unleaded, petroleum refinery operation Cut-off, U Diesel (Europe without Switzerland) diesel production, petroleum refinery operation Cut-off, U	Ecoinvent 3.10.0	
INDIRECT GHG EMISSIONS FROM IMPORTED ENERGY						
Indirect emissions related to the purchase and consumption of electricity	primary	5.78 E+05	Kwh	Electricity, low voltage (IT) electricity, low voltage, residual mix Cut-off, U	Ecoinvent 3.10.0	
INDIRECT GHG EMISSIONS FROM TRANSPORT						
Indirect emissions deriving from the use by employees on missions of cars, planes and trains not directly controlled by the company.	primary	7.27 E+05 (air); 1.60 E+04 (train)	personkm	Transport, passenger aircraft, very short haul (GLO) transport, passenger aircraft, very short haul Cut-off, U Transport, passenger train (IT) transport, passenger train, high-speed Cut-off, U	Ecoinvent 3.10.0	Continental and intercontinental missions
Indirect emissions from employee commuting	primary	1.43 E+05 (petrol cars); 2.27 E+05 (diesel cars); 4.51 E+04 (hybrid cars); 2.64 E+04 (methane cars);	kilometer	Transport, passenger car, small size, petrol, EURO 5 (RER) transport, passenger car, small size, petrol, EURO 5 Cut-off, U Transport, passenger car, large size, petrol, EURO 5 (RER) transport, passenger car, large size, petrol, EURO 5 Cut-off, U Transport, passenger car, small size, diesel, EURO 5 (RER) transport, passenger car, small size, diesel, EURO 5 Cut-off, U Transport, passenger car, medium size, diesel, EURO 5 (RER) transport, passenger car, medium size, diesel, EURO 5 Cut-off, U Transport, passenger car, electric (GLO) transport, passenger car, electric Cut-off, U Transport, passenger car, small size, natural gas, EURO 5 (RER) transport, passenger car, small size, natural gas, EURO 5 Cut-off, U	Ecoinvent 3.10.0	Used an electric car process to model emissions from using hybrid cars.
Indirect emissions from outbound courier/supplier activity	primary	1,956 E+05 (truck); 1,016 E+06 (aircraft); 1,086 E+05 (ship)	tkm	Transport, freight, lorry 3.5-7.5 metric ton, EURO6 (RER) transport, freight, lorry 3.5-7.5 metric ton, EURO6 Cut-off, U Transport, freight, aircraft, long haul (GLO) transport, freight, aircraft, belly-freight, long haul Cut-off, U Transport, freight, sea, container ship (GLO) transport, freight, sea, container ship Cut-off, U	Ecoinvent 3.10.0	International transport by air cargo.

Indirect emissions from the activity of incoming couriers/suppliers	primary	2.24 E+05 (truck);	tkm	Transport, freight, lorry 3.5-7.5 metric ton, EURO6 (RER) transport, freight, lorry 3.5-7.5 metric ton, EURO6 Cut-off, U	Ecoinvent 3.10.0	
INDIRECT GHG EMISSIONS FROM PRODUCTS USED BY THE ORGANIZATION						
INDIRECT EMISSIONS FROM THE USE OF non-recycled metal raw materials	primary	1.0 E+04 (Zinc) 1.5 E+03 (Copper) 1.15 E+03 (Nickel)	Kg	Zinc (RoW) primary zinc production from concentrate Cut-off, U	Ecoinvent 3.10.0	
INDIRECT EMISSIONS FROM THE USE OF RECYCLED METAL RAW MATERIALS	primary	3.28 E+02 (Silver); 1.78 E+03 (Copper)	t	Silver, recycled, post-consumer (GLO) collection, transport, dismantling, shredding, separation, remelting production mix, at plant 10.49 g/cm3, waste recycling efficiency 98% Partly terminated system Copper scrap, sorted, pressed (RER) treatment of copper scrap by electrolytic refining Cut-off for Progold	EF 3.1 (Silver) and Ecoinvent 3.10.0 (Copper)	
INDIRECT EMISSIONS FROM THE USE OF GRAPHITE MATERIALS	primary	5.42 E+03 (crucibles); 1.88 E+02 (dies); 1.51 E+02 (stopper)	Kg	Graphite (RER) graphite production Cut-off, U	Ecoinvent 3.10.0	
Direct emissions from the use of technical gases	primary	7.80 E+03 (Argon); 5.18 E+03 (Nitrogen)	Kg	Argon, liquid (RER) argon production, liquid Cut-off, U Nitrogen gas production (EU+EFTA+UK) Technology Mix production mix, at plant 100% active substance LCI result	EF 3.1 (Nitrogen) and Ecoinvent 3.10.0 (Argon)	Argon density used 1,784 kg/m3 Nitrogen density used 1.19 kg/m3
INDIRECT EMISSIONS FROM THE USE OF LIQUID CHEMICALS	primary	3.92 E+03 (Solvent AL74); 1.18 E+03 (L77 Polish)	Kg	Phosphoric acid, industrial grade, without water, in 85% solution state (RER) purification of wet-process phosphoric acid to industrial grade, product in 85% solution state Cut-off, U 1-propanol (RER) 1-propanol production Cut-off, U	Ecoinvent 3.10.0	Composition Solvent AL74: 90% 1-propanol; 10% Ethyl acetate.
INDIRECT EMISSIONS FROM THE USE OF PACKAGING	primary	1.73 E+05 (Paper and cardboard); 6.20 E+02 (Packaging film);	Kg	Ethyl acetate (RER) ethyl acetate production Cut-off, U Folding boxboard carton (RER) folding boxboard carton production Cut-off, U Packaging film, low density polyethylene (GLO) market for packaging film, low density polyethylene Cut-off, U	Ecoinvent 3.10.0 (Paper, cardboard and packaging film)	
Indirect emissions from the delivery and disposal of waste	primary	2.16 E+01 (hazardous); 1.42 E+02 (non-hazardous)	t	Hazardous waste, for incineration (Europe without Switzerland) treatment of hazardous waste, hazardous waste incineration Cut-off, U Wastewater, average (Europe without Switzerland) treatment of wastewater, average, wastewater treatment Cut-off, U		Various C.E.R. codes

Emissions by Category for the year 2023

Table 4: Emissions by category 2023

TYPE OF ISSUE	Direct emissions (t CO ₂ e)	Indirect emissions from imported energy (t CO ₂ e)	Indirect emissions from transport (t CO ₂ e)	Indirect emissions from products used by the organization (t CO ₂ e)	Total (t CO ₂ e)
Non-biogenic emissions	67.4	176.6	1193.7	1472.9	2910.6
Anthropogenic biogenic emissions	-	-	1.0	117.9	118.9
TOTAL GROSS EMISSIONS	67.4	176.6	1194.7	1590.8	3029.5
CO ₂ UPTAKE	-	-	-0.6	-85.5	-86.1
TOTAL NET EMISSIONS	67.4	176.6	1194.1	1505.3	2943.4

9.2 Emissions by GHG type for the year 2023

Table 5: Emissions per GHG 2023

TYPE OF EMISSION	CO ₂ (t CO ₂ e)	CH ₄ (t CO ₂ e)	N ₂ O (t CO ₂ e)	SF ₆ (t CO ₂ e)	Total (t CO ₂ e)
Direct emissions	67.3	0.02	0.04	0.0	67.4
Indirect emissions from imported energy	175.5	0.4	0.7	0.0	176.6
Indirect emissions from transport	1095.3	94.8	3.4	0.0	1193.5
Indirect emissions associated with the products used by the organization	1471.5	105.5	13.3	1.6	1591.9
TOTAL GROSS EMISSIONS	2809.7	200.7	17.4	1.6	3029.4
CO ₂ UPTAKE					-86.1
OTHER GHG					0.1
TOTAL NET EMISSIONS					2943.4

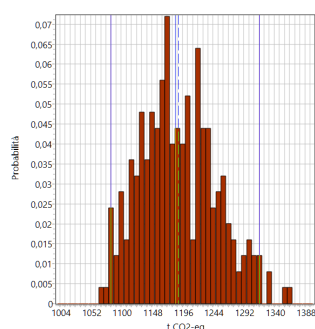
10 Uncertainty Calculation

To assess the uncertainty associated with the GHG emissions inventory, the Company decided to use the uncertainty analysis available on the SimaPro software.

The uncertainty is calculated by the SimaPro software using Monte Carlo analysis. The software, based on what is reported on the database, has a log-normal distribution of values for each process, with a given standard deviation. The Monte Carlo simulation, therefore, takes into account the uncertainties associated with the individual processes and provides as output the uncertainty on the GWP (using IPCC GWP-100 year as a model for the environmental impact analysis).

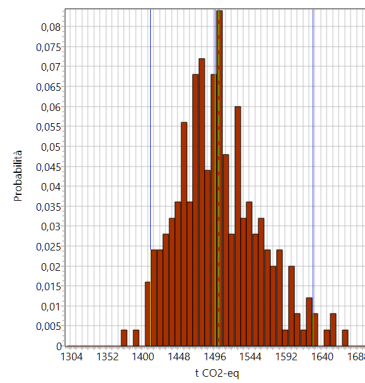
Category 1 (Direct) and 2 (Indirect from Imported Energy) emissions were obtained by applying updated emission factors taken from the ISPRA-NIR 2024 report. For this reason, it was not possible to carry out a Monte Carlo simulation, but given the quality of the emission factors and primary data, an uncertainty of <5% is considered.

INDIRECT EMISSIONS FROM TRANSPORT (CATEGORY 3)



Categoria di danno /	Unità	Media	Mediana	SD	CV	2,5%	97,5%	SEM
GWP100 incl. CO2 up	t CO2-eq	1189,73	1184,08	59,7904	5,02553 %	1083,75	1316,65	3,78148

INDIRECT EMISSIONS ASSOCIATED WITH PRODUCTS USED BY THE ORGANISATION (CATEGORY 4)



Categoria di dann /	Unità	Media	Mediana	SD	CV	2,5%	97,5%	SEM
GWP100 incl. CO2 up	t CO2-eq	1502,97	1498,13	54,8114	3,64687 %	1411,76	1629,18	3,46658

The uncertainty results by emission category are evaluated on the basis of the Coefficients of Variability (CV) obtained from the Monte Carlo simulation. Table 7 shows the criteria for assessing uncertainty.

Table 7: Interpretation of Uncertainty values

Data accuracy	Coefficient of Variability (CV)
High	< 5%
Good	5 - 15%
Acceptable	15 - 30%
Poor	> 30%

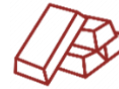
Based on these assessment criteria, all emission categories have high data accuracy.

11 Key Facts



TOTAL EMISSIONS 2023

2943.4 t CO₂e



RAW MATERIALS MADE FROM 100% RECYCLED
PRECIOUS METALS RJC CERTIFIED IN 2023

>95%



EMPLOYEES 2023

56



CERTIFICATIONS 2023

UNI EN ISO 9001:2015
UNI EN ISO 14001:2015
UNI EN ISO 14021:2021
UNI EN ISO 14064-1:2019
SA 8000
RJC CoP
RJC CoC

This study was carried out in accordance with UNI EN ISO 14064-1:2019 by Kairos Srl on behalf of Progold, Via Postale Vecchia 26/A, 36070 Trissino (VI), Italy, VAT IT02623140247.

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