

GREEN BOND Report 2022

FIRST ALLOCATION AND IMPACT REPORT
OF THE SENIOR PREFERRED GREEN BOND



**Banca Popolare
di Sondrio**

FONDATA NEL 1871

On the cover:
Torrente Boggia in Val Bodengo - Gordona - SO

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Introduction: the issuance of the first Senior Preferred Green Bond by BPS

In July 2021, Banca Popolare di Sondrio (**BPS** or the **Bank**) issued its first **Senior Preferred Green Bond (Green Bond)**, for an amount equal to 500 million euros, from the *Euro Medium Term Notes (EMTN)* program.

The issuance of the Green Bond is regulated by a Framework aligned with the Green Bond Principles - Voluntary Process Guidelines for Issuing Green Bonds, released by the International Capital Market Association (**ICMA Guidelines**), updated in June 2021. The compliance of the Framework with the ICMA guidelines was certified by Sustainalytics with a Second Party Opinion issued in July 2021.

The reason behind the Bond issuance not only lie in the economic-financial aspects, but also in the awareness of having, within our client portfolio, many exemplary businesses, attentive to the territory and the well-being of the community. The proceeds of the transaction are then allocated to (re)finance these counterparties: the annual report (**Report** or **Green Bond Report**) aims to disclose about the selection of assets, the use of proceeds and the impacts generated by the (re)financed activities.

BPS committed to allocate the difference between the proceeds raised from the market and allocated amount, over a maximum period of **36 months** and to temporarily allocate the **liquidity in excess** in favour of investments in securities which integrate ESG factors.

Despite the term initially defined, BPS managed to allocate the 500 million euros collected on the market **before the end of 2021**, quickly increasing the size of its green portfolio.

The underlying loans to the Green Bond are **more than 2,000** and include corporates, SMEs and retail.





THE MAIN FEATURES OF THE PORTFOLIO UNDERLYING BPS GREEN BOND

- **Granularity.**
More than 2,000 loans are included. The counterparties are corporates, SMEs and retail.
- **Variety.**
We diversified our portfolio in order to cover all eligible categories.
- **Inclusion of BPS (SUISSE).**
We are among the first banks to also include loans from a foreign subsidiary.
- **The impact of the granted loans at national level.**
Despite the absence of physical branches in some regions of Italy, BPS finances projects throughout the national territory.



JUNE 2021

- Draft of the Framework
- Approval of the Framework



JULY 2021

- Second party opinion
- Investor presentation
- Issuance of the Senior Preferred Green Bond



DECEMBER 2021

- Full allocation



JUNE 2022

- Draft of the Green Bond Report



JULY 2022

- Approval of the Green Bond Report
- Third-party assurance
- Publication

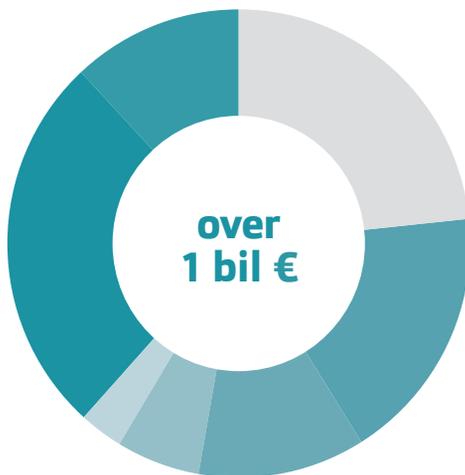
THE PATH FOR THE ISSUANCE OF BPS'S FIRST SENIOR GREEN BOND



Highlights: the key numbers of BPS's Senior Preferred Green Bond

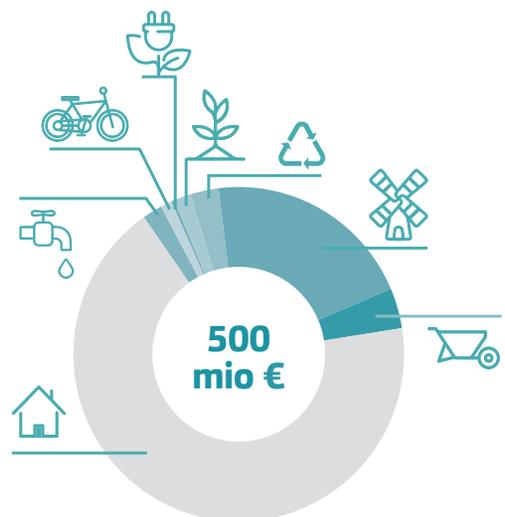
- Loans: **2,124**
- Financed assets located in **Italy** and in some **Swiss cantons**
- Avoided GHG emissions: **33,960 tCO₂e**
- Percentage of portfolio for which it was possible to calculate avoided CO₂ emissions: **90%**
- Energy produced from renewable sources: **96,8 GWh**
- Financing vs. Refinancing: **23%** vs 77%
- Average Maturity: **14.8** years
- Managed Waste: **25** thousands tons¹
- Total agricultural area farmed organically: **6,7** hectares²

■ BPS Potential Green Portfolio



Eligible Portfolio, potentially (re)financeable through the proceeds of the Green Bond in accordance with the BPS Green Bond Framework

Green Bond Portfolio



¹ BPS share – category "Pollution prevention and control"

² BPS share – category "Environmentally sustainable management of living natural resources and land use"

Since 2004
we support
UN Global Compact



Since 2018
we are founding member
of UN Global Compact Network

BPS engagement for environmental protection

For BPS, the **transition** to a greener economy represents not only a **challenge**, but also an **opportunity**. By integrating Environmental, Social and Governance factors (**ESG factors**) into our operations, now regarded as a **key strategic lever**, we intend to progressively achieve a distinctive position in **sustainable finance**.

Not only we wish to evolve the way we do business, but we also want to support our **clients**, who are themselves engaged in the transformation towards a innovative business model whereby ESG factors are integrated into the **entrepreneurial fabric**.

The year 2021 was crucial for the implementation of our strategy: with the approval of the **Sustainability Policy**, the Bank identified the principles, guidelines and relevant issues that are acted upon and monitored in our daily operations in order to meet the **needs of all our stakeholders**, both internal and external.

Electricity supply



First analysis of Scope 3 emissions of a loan portfolio

More than
56 million_{-ton CO₂/eq}

SuperBonus 110%

Total receivables purchased as
of 31 December 2021:
More than
500 million €

Bonds in the ESG segment of the proprietary portfolio



OUR CONTRIBUTION IN 2021

Percentage of **asset**
screened with ESG criteria

BPS (SUISSE)

18%

**Banca Popolare
di Sondrio** FONDATA NEL 1871

23%



Over the past year, the Group has strengthened its commitment to **manage its environmental impacts**, with the approval of its Environmental Policy: building on the Group's Guidelines programmatic guidelines, the document covers the activities and relationships with clients, suppliers, collaborators and partners and their evaluation with a cost-benefit balance, considering their environmental impacts, with the aim of minimizing their negative effects.

Furthermore, the Group defined the steps to define, by the end of 2022, one or more **environmental and climatic targets** and to report the progress made in achieving them through specific **key performance indicators**, aimed at measuring and monitoring the impacts connected to the Group's operations

ENVIRONMENTAL AND CLIMATE-RELATED RISKS MANAGEMENT

The management of **ESG risks** and, more specifically, of climate and environmental risks, represents **a challenge for the financial sector**, driven by the growing regulatory pressure and the increasing occurrence of extreme weather events. In 2021 BPS updated its **ESG Risk Inventory**, a tool to identify the potential exposure of our counterparties to ESG risk factors (so-called ESG Heat-map).

Furthermore, during the first half of 2022, BPS has participated in the **supervisory stress test** exercise undertaken by the European Central Bank, aimed at assessing the level of preparation of the financial system in dealing with economic and financial shocks deriving from climatic and environmental risks.

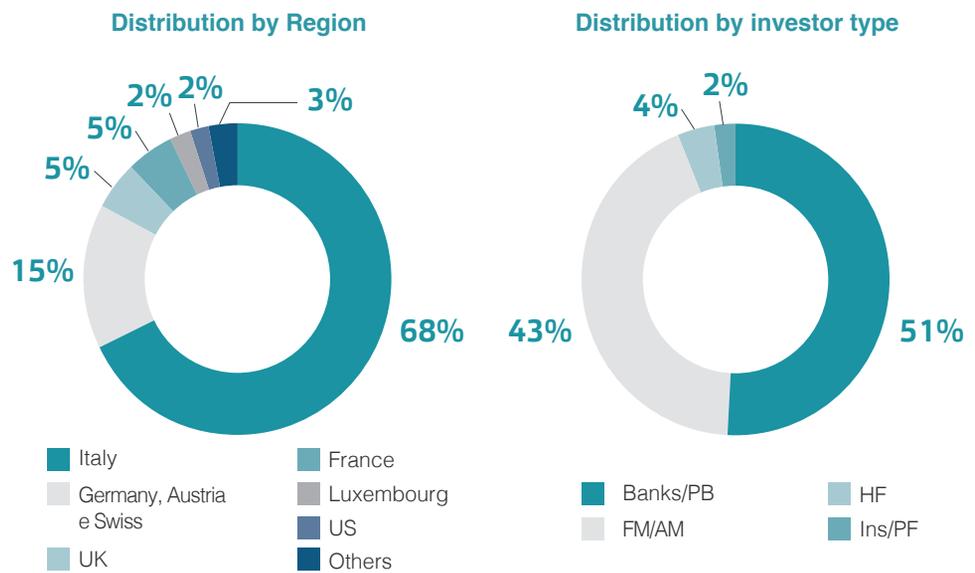


Most relevant SDGs for the Group's operations



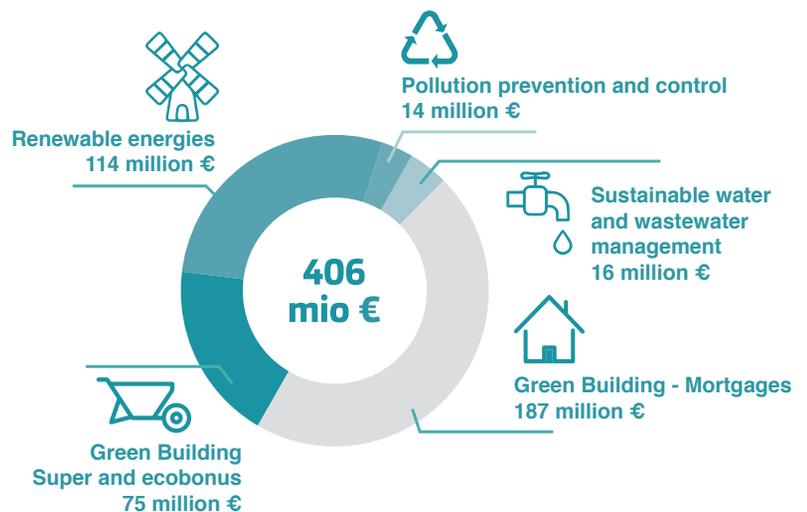
Green Bond outstanding

- Year: 2021
- Notional: 500 million €
- Tenor: 6NC5
- Maturity date: July 13, 2027



Eligible portfolio at the time of issuance

- 81,2% of the proceeds allocated to refinance existing assets
- 3-years lookback period:
- >12 years maturity
- 100% assets located in Italy



BPS Green Bond Framework

Within the **BPS's Green Bond Framework**, following the **ICMA Guidelines**, the so-called four pillars are defined:

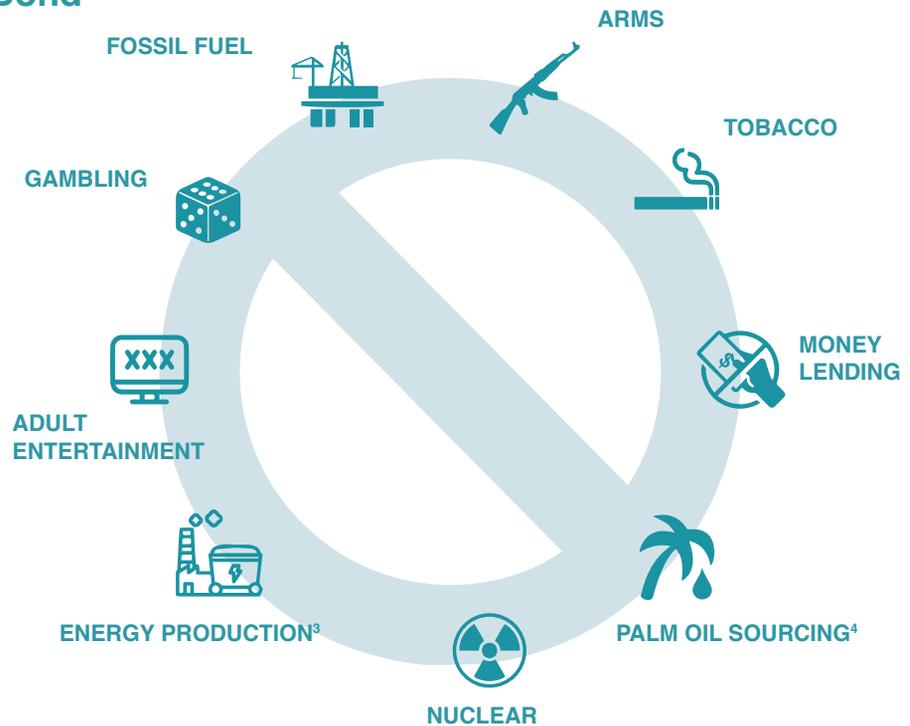
1. how the **proceeds**, which must be linked to green projects or companies, will be **used and allocated**;
2. the **process of selecting and evaluating companies or projects**, which must meet environmental eligibility requirements;
3. the **management of proceeds**;
4. the **reporting** which provides information on the allocation and environmental impact of the projects for which the proceeds are used through the use of defined metrics.

Use of proceeds

- **Green Building:** loans or assets related to the acquisition, construction and renovation of residential and / or commercial energy-efficient building.
- **Renewable energy:** loans for the acquisition, development and management of infrastructure for the production of energy from renewable sources.
- **Clean transportation:** loans related to low carbon transport assets and the purchase, construction and operation of infrastructure dedicated to low-carbon transport.
- **Energy efficiency:** loans relating to assets / activities contributing to the reduction of energy consumption (e.g. energy-saving lighting or district heating).
- **Environmentally sustainable management of living natural resources and land use:** loans for activities that contribute to the sustainable management of natural resources and land use (e.g. organic agriculture or investments in protected areas, such as regional natural parks).
- **Pollution prevention and control:** loans for activities that contribute to the prevention, collection, disposal and recycling of waste.
- **Sustainable water and wastewater management:** loans for activities that improve the quality, efficiency, distribution and conservation of water.

The **look-back period** concept is applied to all the assets included in the Bank's portfolio. Specifically, BPS has selected those loans which, in addition to meeting the environmental eligibility requirements indicated above, were disbursed within the three years prior to the issue of the Bond.

Sectors excluded from the Green Bond



THE SUSTAINABILITY COMMITTEE ROLE

- **approves** the Green Bond Framework and any subsequent updates, informing the Board of Directors;
- **reviews and evaluates** the set of eligible green projects; during the life of the bond, it reviews and evaluates new assets for inclusion in this set;
- oversees the **internal tracking of the bond proceeds** and monitors the management of collected and temporarily unallocated funds;
- **monitors developments** in the market and in the regulatory context for sustainable bonds;
- reviews and approves the **allocation and impact reporting** related to the bond, reporting to the Board of Directors.

³ from oil, coal, lignite and tar sands (this also includes energy-efficient technologies that are carbon-intensive or powered by coal or oil)

⁴ from suppliers that do not possess recognized certifications, such as Roundtable on Sustainable Palm Oil (RSPO)

A further classification of financed or re-financed assets includes:

GREEN PROJECT

A Green Project is any type of loan whose purpose, indicated in the application and supported by appropriate attached forms, is aligned with one of the eligible categories outlined in the Green Bond Framework. The Green Project segment therefore spans the different eligible categories set out in the Green Bond Framework.

PURE PLAYER

Pure Players are companies that derive more than 90% of their turnover from eligible activities. Once identified, any financing identified disbursed to these companies can be included in this category. The Pure Player segment therefore spans the different eligible categories set out in the Green Bond Framework.

GREEN BUILDING – Mortgages

This segment of the portfolio includes assets related to the purchase of real estate with a high energy class. The precise eligibility criteria are set out in the Green Bond Framework.

GREEN BUILDING - Super/EcoBonus

This segment of the portfolio includes all tax credits acquired by the Bank and already present in its tax box related to Super/EcoBonus practices. These assets are included insofar as they relate to work on buildings through which an improvement in their energy efficiency is achieved.

The table below displays the potential quantitative environmental performance metrics as indicated in the Framework. The list is not to be considered exhaustive: this document highlights some additional and more significant metrics for the characteristics of the Green Portfolio taken into consideration

ELIGIBLE CATEGORIES	POTENTIAL QUANTITATIVE PERFORMANCE MEASURES
Renewable energy	GHG emissions avoided (tCO ₂ e)
	Total installed capacity (MW)
Energy efficiency	GHG emissions avoided (tCO ₂ e)
	Expected energy savings per year (MWh)
Clean transportation	GHG emissions avoided (tCO ₂ e)
	New clean transportation infrastructure built (Km)
Green Building	GHG emissions avoided (tCO ₂ e)
	Floor space of green real estate (m ²)
	Expected energy savings per year (MWh)
Environmentally sustainable management of living natural resources and land use	Number of residential buildings belonging to the top 15% of the most carbon efficient buildings
	Total surface financed (hectares)
	Number of agricultural business financed
Pollution prevention and control	Volume of farming input avoided (t/year)
	GHG emissions avoided (tCO ₂ e)
Sustainable water and wastewater management	Waste diverted from landfill (tonnes)
	Volume of water saved / reduced / treated (m ³)
	Total population served by the water system

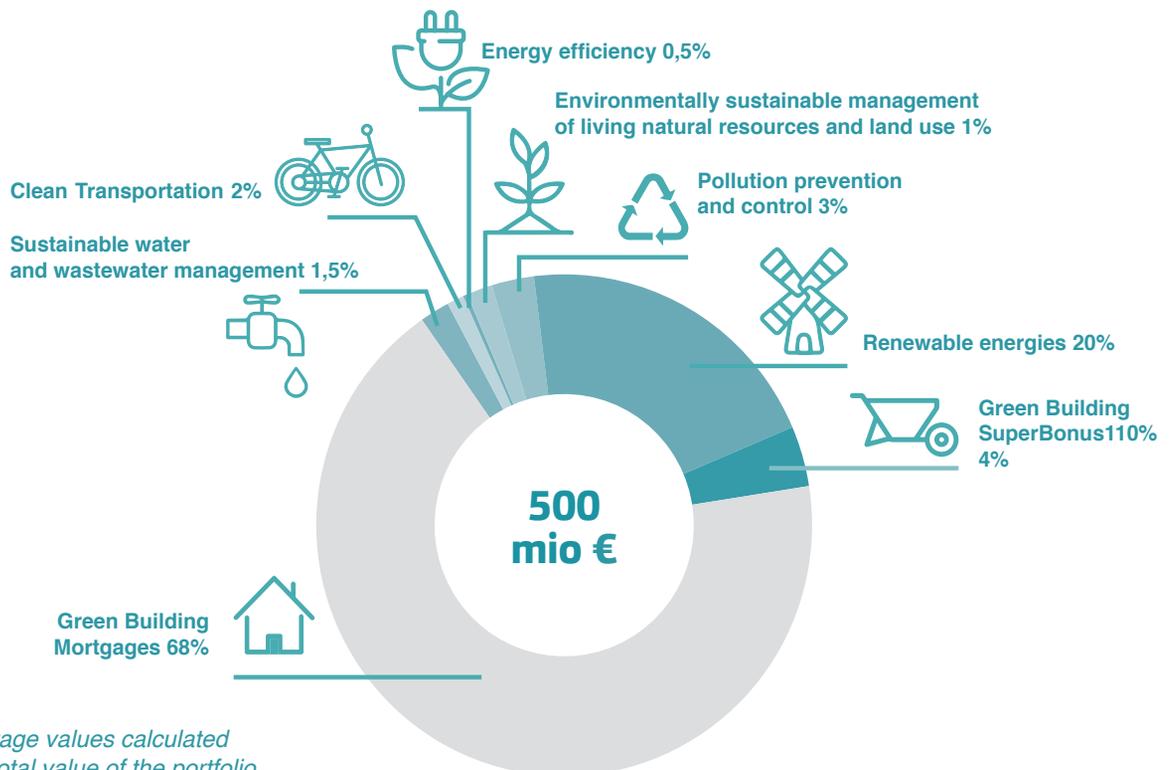


Green Bond Allocation Report: a snapshot of the portfolio as of May 31, 2022

One year after the issuance of the Green Bond, the underlying portfolio reached the amount of **500 million euros** well in advance to what was anticipated to the market.

As of May 31, 2022, the composition of the portfolio still shows a prevalence of loans in the “Green Buildings” category, divided between the 110% SuperBonus component and mortgage loans linked to energy-efficient properties, followed by loans to companies operating in the renewable energy sector.

- Financing vs refinancing: **116** vs 384 million €
- Number of Loans: **2,124**
- Look-back period: **2018**
- Maturity: **14.8** years
- Average amount: **236,000** €
- BPS loans: **495** million €
- BPS (SUISSE) loans: **5** million €
- **5 months** to reach full allocation



Green Bond Impact Report

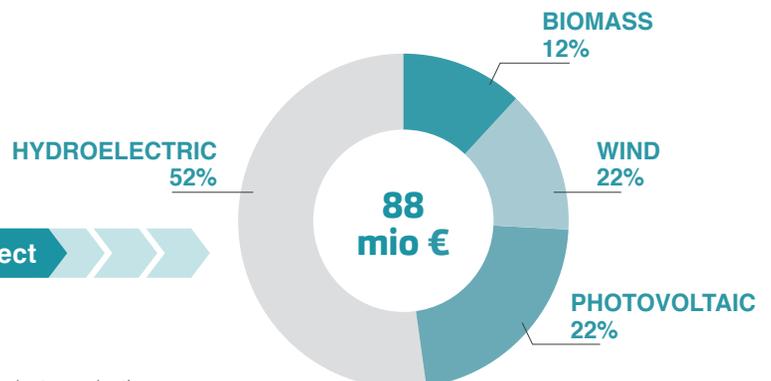
1. Green Project & Pure Player

In the management of the Green Bond portfolio, the Green Project and Pure Player categories group together those medium / long-term loans granted mainly to SMEs which, for specific projects or company peculiarities, ask the Bank for financial support to develop activities whose characteristics fall within those indicated in the “eligible categories” of the Green Bond Framework.



- Renewable energy plants financed in **15** different Italian regions
- Incidence on total allocated amount: **28.2%**
- Total allocated amount: **141** million €
- Number of loans: **73**
- Number of (re) financed renewable energy plants: **87**⁵
- New financing vs refinancing: **20** vs 121 million €
- Average maturity: **8** Years
- Average amount: **1.9** million €
- Pure Player amount: **44** million €
- Green Project amount: **97** million €
- GHG emissions avoided⁶: **25,227** tCO₂e
- Installed capacity: **45** MW
- Energy produced from renewable sources: **96.8** GWh⁷
- Organically farmed area: **6.7** hectares⁸
- Volume of water distributed: **1.6** million cubic meters⁹
- Waste managed: **24,600** tons¹⁰
- Number of charging stations installed: **684**

Focus Renewable Energies - Green Project



⁵ Data relating exclusively to Green Project

⁶ BPS share – calculated considering the renewable energy plants production
– Further details can be found in the *Methodology section*, on page 26

⁷ BPS share – category “Renewable energy”

⁸ BPS share – category “Environmentally sustainable management of living natural resources and land use”

⁹ BPS share – category “Sustainable water and wastewater management”

¹⁰ BPS share – category “Pollution prevention and control”

2. Green Building – SuperBonus 110%

The **SuperBonus 110%** is a form of tax relief born in 2020 to incentivize the **energy requalification** of existing buildings, through a tax credit equal to 110% of the costs incurred. Specifically, to access the tax benefit it is necessary to demonstrate a **two-step increase in energy class reported in the EPC** (Energy Performance Certificate) thanks to the renovation works carried out on the property. Further details on this case are available in the Appendix to the Report.

BPS promptly took action to support its customers in this activity, anticipating to the customers the tax credit they would be entitled to in the five years following the intervention.

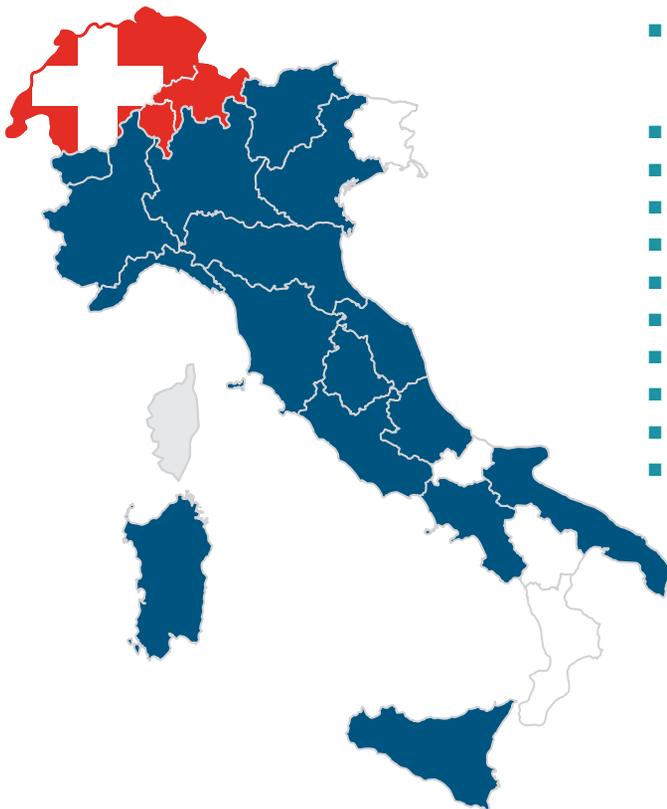
As of May 31, 2022, the total amount of the tax credit linked to the SuperBonus exceeds **500 million euros**. This amount is **only partially included** in the portfolio underlying the issuance of the Green Bond.



- Support for efficiency measures on properties located in **11** different Italian regions
- Incidence on the total allocated amount: **4%**
- Total allocated amount: **20** million €
- Maturity media: **4.71** years
- Number of operations: **156**
- Average amount: **129,000** €
- GHG emissions avoided: **2,233** tons of CO₂
- Savings in demand of primary energy: **10,803** MWh
- Renovated area: **44,229** m²

3. Green Building – Mortgages

A **mortgage** is a loan granted for the purchase, renovation, construction of residential or commercial properties against the **issue of a collateral**. In its Green Bond portfolio, the Bank has included all those loans related to the purchase of Italian and Swiss properties with **high energy performance**.



- Purchases or renovations of energy-efficient properties financed in **16 Italian regions** and **2 Swiss cantons** (Canton of Grisons and Canton of Ticino)
- Incidence on the total allocated amount: **67.7%**
- Total allocated amount: **339 million €**
- Average maturity: **18.2 years**
- Number of transactions: **1,895**
- Average denomination: **179,000 €**
- Positive Carbon Impact (PCI): **6,500 tons of CO₂**
- Positive Carbon Impact million €: **20 tons of CO₂**
- Total area financed: **203,804 m²**
- Loans to class A buildings¹¹: **134 million €**
- Loans to Minergie-certified buildings: **5.6 million CHF**

MINERGIE®

Minergie has been the Swiss construction standard for new, modern and energy-efficient buildings and environmental impacts since 1998.

The brand is supported by the economic sector, the cantons and the Swiss Confederation and is protected against misuse.

Minergie buildings have a very low energy requirement, are heated without fossil fuels and meet their energy needs in whole or in part through the self-production.

¹¹ Only buildings in class A, A+, A1, A2, A3, A4 are included

Introduction to the case studies: some examples of virtuous realities included in the portfolio

The case studies described in this Report constitute some examples of the **various virtuous companies** present in the Bank's Green Bond portfolio; each undertaking differs by type of activity, size and market segment.

In their work, the examined companies demonstrate particular attention in **protecting the environment** and in having a **positive impacts on the environmental and climatic** context of reference: in fact, just as proper water management affects the quality of soil and raw materials, sustainable management of the vine crops positively affects the economic and landscape context, much like proper waste management represents an opportunity too, reintroducing an apparently end-of-life product into the production process (according to a **circular economy** approach).

Despite the diversity of the counterparties in the Green Bond portfolio, the common denominator is always the same: the **attention to the protection of the environment, the territory**, the product quality, the origin of raw materials and biodiversity.



Water Protection

The safeguarding of a limited and increasingly exploited resource such as water is **pivotal to the path of a global sustainable development**. Water availability and climate change are two closely related phenomena, considering that the latter will lead to a reduction in rainfall and greater seasonal variability, with a higher drought in some months and with more frequent and intense meteoric phenomena in the others.

The compromise between the needs of the land and the safeguarding of this increasingly precious resource requires companies operating in the sector to use increasingly effective and efficient water management techniques, while respecting the ecosystem in which they operate.

Glaciers are a very important reserve of water, essential especially in periods of severe drought, when lakes and other artificial basins are in distress; in turn, they are affected by increasingly higher temperatures too and the lack of snow that accumulates on the ice during the winter and that allows it to increase or at least maintain its extension.

A “**witness**” of the climate change is the **Fellaria Glacier**, in Valtellina: despite rising above 3,500 m, it has suffered the loss of huge blocks of ice for years due to high temperatures, causing rapid erosion.



2007



2021

Detail of the front of the Fellaria Glacier - East side
The photographs were kindly granted by the *Lombard Glaciological Service* and by the authors A. Gusmeroli (2007) and R. Scotti (2021).

BrianzAcque

BrianzAcque is a public company, owned and controlled by **55 municipalities** which, according to the in-house providing model, industrially manages the **integrated water service** of the Province of Monza and Brianza. The company figures in the panel of the top 15 Italian operators of the sector and every day it brings over 80 million m³ of water into the homes of over **878 thousand people** and into local companies, it collects wastewater and returns it clean to the ecosystem after a complex process of purification.

With over **49 million euros** of investments in 2021, BrianzAcque is strongly committed to:

- **the fight against climate change**, with innovative types of intervention which have an impact on the entire territory of Brianza: from the development of sewer plans and hydraulic risk studies to the basins for containing rainwater, up to the creation of the first Italian models of Sustainable Drainage Systems;
- **the consolidation of a circular economy process** through the management of sewage sludge, with the **FanghiLab project, the first plant in Europe for the bio-drying of sludge** at the Vimercate treatment plant, capable of drying the residues of the purification cycle through heat generated by bacterial proliferation aimed at obtaining a material suitable for the subsequent energetic enhancement of the sludge and the recovery of nutrients such as phosphorus.

Main performance indicators 2021



The Arcore BioDryer Water Park - Vimercate treatment plant



BioDryer – Depuratore di Vimercate



website: www.brianzacque.it



Sustainable winegrowing

In recent years, consumers have shown more and more interest in the “sustainability” of products, a topic of **primary importance** today, also in the wine industry at a global level.

Sustainability of wine means producing wine while **preserving natural resources** for future generations and researching the **best methods** to achieve the **lowest possible impact** on the environment.

The Valtellina region is an area well prepared to pursue sustainable agriculture by virtue of the conformation of its terraced territory and thanks to a pesticide defence, that has always been at the forefront. In many other contexts, however, an intensive exploitation of the land and the abuse of chemical components have compromised the soil and efforts are now being made to restore the original environment.

The two examples proposed below testify the commitment of local wineries **to enhance biodiversity** with advanced tools to improve the quality of production, reduce the carbon footprint and optimize the use of resources, starting with water, reducing impacts and environmental impacts to the benefit of employees, communities and the local area.

From the “heroic viticulture” of Valtellina, developed through over 2,500 km of dry stone walls, preserving and enhancing the territory, to the suggestive hills of Franciacorta, caressed and tempered by Lake Iseo: two different territories, both suited to viticulture both for international and native vines, guaranteeing a heterogeneous offer and giving **concrete value to the words biodiversity and sustainability** through the respect and enhancement of their territory



Barone Pizzini

“*Organic is the means, the goal is quality*”. This is how Silvano Brescianini, founding partner and director of Barone Pizzini, usually repeats, underlining how the primary objective of the company is to produce quality wines, closely linked to the territory.

In **Franciacorta**, the vineyards of Barone Pizzini extend over about 60 hectares of biological surface, divided into 30 parcels. The altitude is 200/350 m above sea level and the average age of the plants is over 15 years. Barone Pizzini is one of the oldest wineries in Franciacorta and was **the first to produce Franciacorta from certified organic viticulture**.



CARBON FOOTPRINT

In 2011 Barone Pizzini began measuring its carbon footprint, with the main objective of implementing measures to reduce its GHG emissions.

The calculation of emissions is carried out through the International Wine Carbon Protocol (IWCP) methodology, which is then processed with the Ita.Ca (Italian Wine Carbon Calculator) system, the first specific calculator for the wine industry. Barone Pizzini is among the first “green” wineries to be registered to the new CO₂ YIELD - Agri-food Sector Emissions Register. The register was created for the enhancement of carbon credits on the voluntary market of the agri-food sector, which produces 18.8% of total national emissions, and it is addressed to wineries accounting for the CO₂ emissions of their production.



BIODIVERSITY

Biopass (Biodiversity, Landscape, Environment, Soil, Society) is the Italian project for the measurement, protection and increase of biodiversity in viticulture, carried out by Sata Agronomic Studio in collaboration with the working group led by Prof. Leonardo Valenti of the Department of Agricultural and Environmental Sciences of the University of Milan and with the team of Dr. Enzo Mescalchin of the Edmund Mach Foundation of San Michele all'Adige.

Barone Pizzini was among **the first wineries in Italy to join the project** in 2014. In order to consolidate its commitment to the protection of the environment in which it operates, in 2015 the company obtained the “**Biodiversity friendly**” certification, the first standard for the protection of biodiversity in agriculture.



Marcel Zanolari

Marcel Zanolari is a family-run company located in Bianzone in Valtellina and covers an area of about 12 hectares. In addition to the classic Nebbiolo, other more unusual varieties for the territory are also grown: Pinot Nero, Cabernet Sauvignon, Merlot, Pinot Bianco, Moscato, Traminer, as well as resistant varieties (Piwi).

The purpose that drives the company is to express the authentic flavours and emotions of the territory in the wines, while preserving what it offers as much as possible.

The company adopts the philosophy and method of biodynamic cultivation, which places total respect for nature at the centre of its work and places man as an observer and companion, respectful of the delicate balance of the entire ecosystem. **Sustainability in agriculture** is not just a word to “sell” or a pretext to obtain approval, but a concrete and essential reality.

In the cellar, the wines are aged not only in wooden barrels, but also in natural cement and clay amphorae which give the wine uniqueness and particularity without affecting its “original character” but enhancing its expression.

The company has been producing organic wines since 1998; it owns the **Bio CE, Bio Suisse** certifications and since 2015 the **Demeter** certification for Biodynamic wines and it is **the first certified B Corp** Italian winery, that is, a company that voluntarily respects the highest standards of purpose, responsibility and transparency towards the employees, the environment and the community.



website: www.marcelzanolari.com



Circular economy and waste management

In the European Union, more than 2.5 billion tons of waste are produced every year. The EU is updating waste management legislation to promote the transition to a circular economy, as an alternative to the current linear economic model.

A very clear definition of circular economy is that provided by the European Commission:

«**A circular economy aims to maintain the value of the materials and energy used in products in the value chain for an optimal time**, thus minimizing waste and the use of resources. By preventing the occurrence of value losses in the flows of materials, this type of economy creates economic opportunities and competitive advantages on a sustainable basis».

The circular economy is therefore a production and consumption model that involves sharing, lending, reusing, repairing, reconditioning and recycling existing materials and products for as long as possible.

The case studies proposed below represent two realities guided by this concept in their daily work: the first **converts organic waste into energy**, the second uses **electronic waste**, among others, **giving them new life**.



Biowaste CH4 Genova (Asja Ambiente Group)

Asja has been designing, building and operating plants for the production of **renewable energy, electricity and biomethane** (from sun, wind and biogas) since 1995; among other things, it also offers products and services for energy efficiency and environmental sustainability.

Asja plant in Monte Scarpino (GE) produces biomethane using the biogas extracted from the Genoa landfill. The project was born with the aim of converting the existing 11.2 MW power plant into a more advanced one, following the natural evolution of **biogas into biomethane**, thus giving a new identity to a different supply chain from power generation.

The Biowaste CH4 Genova plant represents **the first industrial scale biomethane production plant from landfill gas in Italy**.

To minimize the impact of its emissions, the plant is equipped with an innovative system called E-FLOX, which uses recovery burners designed to thermally treat low calorific value gas (LCV).

Biowaste CH4 Genova plant in numbers:

- **5.5 milioni cubic meters** of biomethane produced in one year
- **3,688 families** that can be satisfied
- **820 cars** that can be refuelled every day
- **4,300 tons of oil saved** in one year



website: www.asja.energy

Methodology

■ Calculation of the environmental impacts for Pure Player and Green Project

With reference to Renewable Energy loans, the documents attached to the lending procedure and relating to the plants are analysed, or, if available, the data made public by the counterparties (for example, on their website). If the technical data are not present, we request these directly to the customer, through the reference branches. The data required are the total installed capacity (MW) and the annual energy production (MWh) necessary for the calculation of the avoided CO₂ emissions. The same procedure applies to loans included in other eligible categories and with different metrics.

The indicator relating to avoided emissions is developed in line with the methodology defined in the ICMA Handbook: Harmonized Framework for Impact Reporting.

The estimate of the avoided emissions, regarding the plants for energy production from renewable sources, is based on an indicator on an annual basis and carried out starting from a reference benchmark value, developed considering the electricity produced by the plants, as originating from the generic electricity grid. The emission factor applied, relating to the Italian national production fuel mix, is provided in the document “Emission factors for the production and consumption of electricity in Italy” published by the Italian Institute for Environmental Protection and Research (ISPRA). Specifically, the emission factor for 2021 corresponding to 260.9 gCO₂e / kWh considers the climate impact of greenhouse gases CO₂, CH₄ and N₂O.

The calculation of avoided emissions for renewable energy projects includes 1,406 tons of CO₂ related to the processes characterized by the use of biomass-based fuels. Although these plants emit GHG into the atmosphere, the biogenic and non-fossil nature of the carbon involved guarantees climate neutrality, in accordance with the provisions of the United Nations Framework Convention on Climate Change (UNFCCC) for the accounting of atmospheric emissions of carbon dioxide. In this context, the biomass is a neutral source with respect to CO₂ emissions, as the CO₂ emitted during combustion is equal to the amount absorbed during the life of the plant with the photosynthesis process.

The definition of the BPS quota is calculated according to the PCAF Global GHG Accounting and Reporting Standard for the Financial Industry guidelines.

Regarding Green Project, the impact that can be calculated by BPS is proportional to the ratio between the amount of the loan granted to the counterparty for an eligible project and the total cost of the investment made.

¹² <https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Handbook-Harmonised-Framework-for-Impact-Reporting-June-2021-100621.pdf>

With reference to the Pure Player, however, the formula indicated by PCAF for the calculation of the relevant emissions is followed

$$\text{Financed emissions} = \sum_i \text{Attribution factor}_i \times \text{Emissions}_i$$

(with i = borrower or investee)

\downarrow

$$\frac{\text{Outstanding amount}_i}{\text{Total equity + debt}_i}$$

■ Definition of financing vs. re-financing

All Bank loans granted following the issuance of the Senior Green Bond, which took place in July 2021, are considered as “financing”, The rest of the funding is labelled as “re-financing”.

■ Calculation of CO₂ avoided for buildings

With reference to the Super Eco Bonus segment, the calculation of CO₂ avoided per calendar year is derived indirectly by comparing the overall energy performance indicators of the building before and after the energy redevelopment intervention, as obtainable from the relative Conventional Energy Performance Certificates attached to the 110% Super Eco-Bonus Credit Transfer.

The CO₂ emission factors are determined starting from the average primary energy conversion coefficients, published annually by the Regulatory Authority for Energy, Grids and Environment (ARERA) and ISPRA.

With reference to the Green Building - Mortgage Loans segment, the calculation method used is disclosed in the attached document, Technical Report - Positive Carbon Impact, provided by CRIF S.p.A.

Appendix

SuperBonus 110%

The Italian Parliament, on July 17, 2020, converted a government provision into law - Legislative Decree 34/2020, the so-called "Relaunch Decree", which implements new urgent measures to support economic and labour policies.

For over 20 years, in Italy there has been a system of tax concessions which can benefit those who undertake building and plant qualification interventions on buildings for residential or similar use.

In particular, the new regulatory system has increased the tax deduction rate, bringing it to 110% of the expenditure incurred, in relation to the execution of energy requalification interventions on existing buildings, guaranteeing reductions in climate emissions linked to internal conditioning services, such as configuring an improvement of two energy classes, pursuant to Directive 2010/31 / EU).

In these cases, the incentive mechanism provides that the contractor can, as a rule, at the end of the works, benefit from a tax credit of up to 110% of the costs incurred.

This credit can be offset by the person entitled in the subsequent five tax returns, or, alternatively, it can be transferred in whole, or even in part, to a third party, including financial intermediaries, who in turn can compensate him for tax purposes.

There are two different credit transfer mechanisms:

- direct transfer: the customer finances the work and accrues the tax credit that he can offset tax or transfer to the Bank.
- indirect transfer "at invoice discount": the company offers a discount on the invoice, up to 100% of the cost of labour and indirectly benefits from the tax credit, which it can offset tax or transfer to the Bank.

The Bank has launched operations allowing the customer to pre-finance, with a commitment to assign the tax credit at the end of the work.

Basically, there are two approaches:

- Frozen credit: the Bank undertakes to collect the tax credit accrued by the customer, at the end of the work, without any advance liquidity (the customer or the company finances them with its own funds).
- Committed credit: the Bank pre-finances the customer / company with a credit not exceeding the corresponding offered for the withdrawal of the tax credit (e.g. Credit [€] x Price).

In both cases the State will finance the customer who will benefit from the tax credit and transfer it to the Bank, but only in the second case the Bank will advance a sum allowing the customer / company to finance the intervention.

Independent Auditor's Report



Banca Popolare di Sondrio S.p.A.

Independent Auditors' report on the Green Bond Report 2022
(Translation from the original Italian text)





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Independent Auditors' report on the Green Bond Report 2022 (Translation from the original Italian text)

To the Board of Directors of Banca Popolare di Sondrio S.p.A.

We were engaged to perform a limited assurance engagement on the accompanying Green Bond Report 2022 of Banca Popolare di Sondrio S.p.A. (the "Bank") for the reporting period ended 31 May 2022, prepared for the purposes defined by the Bank's Green Bond Framework.

Management's responsibility

Management is responsible for the preparation of the Green Bond Report 2022 in accordance with the criteria provided by the Bank's Green Bond Framework, and for the internal controls as management determines is necessary to enable the preparation of the Green Bond Report 2022, that is free from material misstatement, whether due to fraud or error.

Independence and quality control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Control 1 (ISQC Italia 1) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Independent Auditors' responsibility

Our responsibility is to express a conclusion on the Green Bond Report 2022 based on our limited assurance engagement. We conducted our limited assurance engagement in accordance with the provisions of the standard "International Standard on Assurance Engagements 3000 - Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000 revised") issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our procedures to obtain limited assurance whether the Green Bond Report 2022 is free from material misstatement.

The procedures we performed were based on our professional judgment and included inquiries, primarily of persons responsible for the preparation of Green Bond Report 2022, inspection of documents, recalculation, agreeing or reconciling with underlying records and other evidence-gathering procedures that are appropriate in the circumstances.

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Our limited assurance engagement also includes:

- meetings with the staff of the various Departments of the Bank involved in the preparation of the Green Bond Report 2022, in order to understand the characteristics of the projects and companies financed and refinanced through the proceeds of the Green Bond, and to verify the procedures and management systems in place with respect to what is described in the Green Bond Framework;
- verification of the application of the eligibility criteria to projects and companies financed and refinanced through the proceeds of the Green Bond as described in the Green Bond Framework;
- verification of tracking system for the allocation of proceeds raised through the Green Bond issuance to finance and refinance projects and companies as described in the Green Bond Framework;
- verification of the processes of collection, processing and consolidation of data relating to the allocation indicators included in the Green Bond Report 2022;
- verification of the process of transmission, collection, processing and consolidation of data relating to the environmental impact indicators included in the Green Bond Report 2022 and their verification through sample tests;
- verification of the methodologies and references adopted for the development of the environmental impact indicators included in the Green Bond Report 2022.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement conducted in accordance with ISAE 3000 revised and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement.

Conclusion

Based on the procedures we have performed, nothing has come to our attention that causes us to believe that Bank's Green Bond Report for the year ended 31 May 2022 is not prepared, in all material respects, in accordance with the criteria provided by the Bank's Green Bond Framework.

Milan, 28 July 2022

EY S.p.A.
Davide Lisi
(Auditor)

This report has been translated into the English language solely for the convenience of international readers.



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