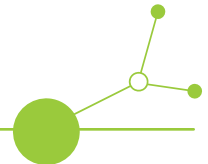


D.3.1.1 Baseline on financing models and instruments, potentials, and policy frameworks in partner countries



Version 1
05/2023





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A. Introduction

The central Europe region faces a very uneven energy transition due unbalanced economic development, distribution of technology and finance flows. Buildings, both public and private, account for 43% of the final energy consumption in EU and have been singled out in the European Green Deal as key drivers of energy transition. Energy efficiency investments must more than double to achieve the EU's new climate and energy targets, and this is increasingly urgent to deliver anticipated progress by 2030. The financing of the transition towards climate neutral buildings remains a key challenge for which the EU is expecting that member states involve private investors to a much bigger extent than before. Therefore, the purpose of this document is to assess the overall state of policies and financial markets in five central European countries for the building sector. A stronger emphasis in this baseline assessment has been placed on the innovative financing models which involve private investors and citizens. The results of this study will be presented to key stakeholders during roundtable sessions as part of the development of the market gap analysis for introduction of innovative financing models.



B. Country overview

1. Italy

1.1. General overview of the financial sector

Italy's financial and banking system has a number of unique features, although its framework is similar to that of other European countries. Italy is characterised by a bank-centric financial system, i.e. a system where businesses and households mainly rely on credit institutions to meet their financial needs instead of drawing directly from the capital market.

Key policy makers: the Italian Ministry of Economy and Finance carries out the tasks and responsibilities of the State in the fields of economic policy, financial policy, budgeting, and tax policies.

Italian financial markets are regulated by CONSOB, the Bank of Italy and the Institute for the Supervision of Insurance (IVASS). CONSOB supervises and regulates Italian securities markets (e.g. the Milan stock exchange). As of January 2023, the European Central Bank directly supervised 12 of the Italian major banks and indirectly the less important Italian banks, through the Bank of Italy. The Bank of Italy is the central bank and the sole bank of issue and it supervises financial intermediaries and seeks to ensure the overall stability and efficiency of the financial system and the compliance with the rules and regulations of those subject to supervision. In order to protect the customers of banks and financial institutions, the Bank of Italy supervises how financial intermediaries treat customers, households and firms, in terms of complying with the rules on transparency and fair conduct and strengthens the instruments to protect individual customers. IVASS supervises and regulates the activity of insurance and reinsurance intermediaries.

In recent years there have been numerous mergers and acquisitions in the banking sector, but the ECB, the OECD and the Italian Government continue to encourage further concentration in the sector in order to improve efficiency. In 2021, Italy had 51 banking groups, 3 cooperative banks and 45 independent banks, as well as 81 branches of foreign banks. In January 2023 there were 12 groups classified as 'significant' according to the criteria of the EU Single Supervisory Mechanism (SSM).

There are many institutions of various kinds supplying medium- and long-term credit. These special credit institutions have as their primary aim the increase of the flow and the reduction of the cost of development finance, either to preferential areas or to priority sectors (for example, agriculture or research) or to small and medium-size business. In addition to this network of special credit institutions, there is a subsystem of credit under which the government shoulders part of the interest burden.

The Italian government is aware that Italian companies continue to over-rely on bank financing and has initiated some programmes to encourage alternative forms of financing, such as venture capital and corporate bonds. The bond market in Italy is quite well-developed while the growth of the capital market and stock exchanges is far less important than in other Western industrialized countries as a result of the special structure of government-sponsored institutions for development finance and subsidized interest rates. The limited venture financing available is usually provided by large commercial banks and a handful of venture capital funds.



The government's support measures for households and businesses and the economic recovery recorded by the country in 2021 helped Italy to mitigate the effects of the pandemic.

In 2022 Italy recorded a GDP growth of 3.7 per cent with respect to 6.6 per cent of the previous year. About 0,5 per cent is attributable to the construction sector.

In fact, the strong growth of the construction sector, which benefited from tax credits for energy efficient renovations, combined with a rebound in tourism and the service sector helped drive the overall expansion of the economy. On the other hand, the large-scale invasion of Ukraine by Russia accentuated the trend, already underway, towards higher energy prices.

During 2022 the financial market conditions in Italy worsened overall, due to persistent inflationary pressures, a tighter-than-expected monetary policy stance and a cyclical slowdown in the second half of the year. The persistent difficulties in supply chains, tightening monetary policy conditions, inflation and Russia's invasion of Ukraine have created uncertainty that has dented the confidence of consumers and investors, prompting them to shift their portfolios to investments perceived as safer. Despite this, the banking system remains solid and capital ratios are above the minimum thresholds set by regulators.

Italian sovereign bond yields rose significantly in the last years, while yield spreads vis-à-vis the corresponding German ten-year bonds widened more moderately. These increases were accompanied by a deterioration in market liquidity conditions. In addition, net issuance of government securities declined, whereas the placement of green bonds continued.

Growth in bank loans came to a halt and the interest rates applied by banks rose, reflecting the process of monetary policy normalization. The effects of the restrictive monetary policy stance were transmitted to the private sector, accompanied by the decrease in credit granted and, in general to the prevalence of tighter and more onerous financing conditions.

After a good start in early 2023, Italy's economic recovery stopped in the second quarter of 2023. The expansion in capital accumulation, pushed by tax credits for housing renovation in 2021-22, ended abruptly in the second quarter of 2023 as the credits became significantly less generous. Real GDP contracted by 0.4% in the second quarter and is estimated to have stagnated in the third. It is, however, expected to resume growing as from the fourth quarter, leading to a projected annual growth of 0.7% in 2023, mainly thanks to the positive carryover from 2022 and first quarter 2023.

Activity in the construction sector continued to expand in the first part of the year (+2,3%), driven by tax incentives to upgrade and improve the energy efficiency of the building stock and by the investments of the Recovery and Resilience Plan. The rises in energy commodity prices and the approval of the REPowerEU plan should spur the achievement of the targets for renewable energy production set in the national energy and climate plan.

Last year's deficit figure also reflects the recent changes in the recording of tax credits for building renovation, which exerted an upward pressure. The reduced budgetary cost of measures to mitigate the impact of high energy prices and the housing tax credits is partially offset by higher pension outlays, from the indexation to the inflation recorded in 2022, and by an increase in investment related to the implementation of the Recovery and Resilience Plan.

The downturn in credit, which began last year, became even more pronounced in the first part of 2023 (-2.3 per cent trend in July); loans to businesses recorded a larger decline than those to



households, affected by reduced demand for investment credit and the increase in interest rates charged. Rising interest rates require a push for innovation in traditional services, such as banking conventions, and in guarantees, both public and private. In order to overcome the bottlenecks of ordinary credit, direct public intervention is needed to support businesses with a mix of incentive instruments and subsidised credit.

Regarding public finance, the trends in PA net borrowing and public sector cash requirements in the current year were strongly affected by the impact of tax credits related to building incentives introduced during the pandemic, in particular the Superbonus. The upward revision of estimates for the disbursement of building renovation incentives leads to higher tax offsets and, therefore, to a cash need of the public sector that will remain high also in the upcoming years. In turn, higher projections of cash requirements lead to an accumulation of public debt, which makes it more difficult to achieve a significant decline in the Italian Government Debt-to-GDP.

For this reason, the implementation of the National Plan for Recovery and Resilience Plan (NRRP) and its effective revision, also with the addition of the new chapter dedicated to the REPowerEU Plan, plays a central role in the government's growth and innovation strategy.

Italy's National Recovery and Resilience Plan (NRRP), which covers the period 2021-2026, combines EUR 191.5 billion of European Union (EU) funds aimed at accelerating the digital and ecological transition with far-reaching reforms that aim to provide solutions to the problems that have long held back Italian growth. To date, Italy has received EUR 67 billion in loans and grants from the EU under the NRP. The further tranches will be disbursed according to the achievement of the milestones and targets agreed with Europe.

The deep renovation of buildings, both public and private, is supported in Italy for the most part by European and national public funds (European structural and investment funds, PNRR, Kyoto fund, etc.). Subsidies, tax deductions and tax credits, and reduced VAT are currently the most widely used financial instruments for these interventions alongside traditional or subsidised bank loans.

Green bonds are also growing on the market as main instrument of sustainable financing. With the proceeds of the Sovereign Green Bonds, Italy finances government expenditures intended to contribute to the achievement of the environmental objectives outlined in the European Taxonomy of Sustainable Activities and help Italy support the Sustainable Development Goals of the UN 2030 Agenda.

The category relating to energy efficiency, represented by a series of facilitation measures granted for expenses incurred for energy renovation interventions in buildings, was allocated a share equal to 12.2% of the total expenses reported (i.e. EUR 1.63 billion). Incentive measures for the production of energy from renewable sources accounted for 2.2% (i.e. EUR 296 million) of the total green expenditure reported in the four-year period 2018-2021.

The issuance of green bonds and access to more favourable financing conditions linked to sustainable investments will be dependent on the alignment of the financed projects with the Taxonomy. The world of utilities (electricity and gas, waste management, water services) is largely among the activities identified by the Taxonomy as environmentally sustainable. Over the next few years, they will have a huge investment requirement, eligible for taxonomy purposes that is estimated in EUR 76 billion between now and 2025, rising to EUR 175 billion by 2030.



The actual national strategy for building energy renovation (STREPIN) foresees an annual energy renovation rate of the residential stock ranging from 1,16% to 0,88% (according to the different models) in order to achieve the 2030 goals.

| | Energy renovated floor area in m ² /year | Energy savings in MTEp/year | CO ₂ -emission reduction in Mt CO ₂ /year | Investments in EUR billion /year |
|----------------------------|---|-----------------------------|---|----------------------------------|
| Cost-optimal model | 24.699.000 | 0,33 | 1,14 | 9,18 |
| Minimum requirements model | 19.832.600 | | | 11,09 |
| NZEB model | 18.806.600 | | | 11,94 |

Source: STREPIN-Elaboration ENEA Estimation of the area to be renovated and related investments in residential buildings by 2030

| | 2020-2030 period | 2030-2040 period | 2040-2050 period |
|--|------------------|------------------|------------------|
| Annual energy renovation rate - residential sector | 0,8% | 1,2% | 1,2% |
| Annual energy renovation rate - tertiary sector | 4,0% | 3,7% | 3,7% |

Source: STREPIN-Elaboration ENEA Estimation of the annual energy renovation rate by 2050 (Cost-optimal model)

Despite the boost of the Superbonus 110%, the current energy renovation rate of the building stock is still below the targets set in the STREPIN strategy.

Furthermore, these targets have been recently made more ambitious with the revision of the National Energy and Climate Plan in June 2023 and represent almost three times the current renovation rate.

| | 2020-2030 period | 2030-2040 period | 2040-2050 period |
|--|------------------|------------------|------------------|
| Annual energy renovation rate - residential sector | 1,9% | 2,7% | 2,7% |
| Annual energy renovation rate - tertiary sector | 2,8% | 2,6% | 2,6% |

Source: PNIEC June 2023-Elaboration ENEA Estimation of the annual energy renovation rate by 2050 to be aligned with the revised energy and climate targets

1.2. Public support schemes

1.2.1. ESIF (European Structural and Investment Funds)

The European Commission actively promotes energy efficiency at regional level through its ESIF funding, in particular for Italy through the European Regional Development Fund (ERDF). The ERDF, aiming at strengthening economic and social cohesion in the European Union by correcting imbalances between its regions, can support national and/or regional programmes.



Under the 2014-2020 programmes Italy, through 75 national and regional programmes, has benefited from ESIF funding of EUR 62.7 billion, 27.7 billion of which are under ERDF fund (44.2%). The national co-financing amounts in total to EUR 30.95 billion.

Under the 2021-2027 programmes the ESIF funding has been reduced to EUR 42.2 billion, with EUR 31.9 billion of co-financing and a share of ERDF funds on the total of 59.7%.

Among ERDF funds 2014-2020, EUR 3.7 billion were assigned to the objective “Low carbon economy” while in the period 2021-2027 EUR 14.5 billion are assigned to the PO2 “Greener Europe”, representing 32% of the total amount of ERDF funds assigned to Italy.

Despite the fact that Italy is one of the largest beneficiaries of ESIF funds in comparison with other member states, it ranks at the bottom of the list in terms of efficiency and effectiveness in the use of allocated resources and, consequently, in terms of its ability to maximise their impact.

Actual monitoring results show that only 64% of the planned ERDF funds for the period 2014-2020 has been already spent and the share is even lower (60%) in the case of projects related to the sector “Low carbon economy”.

The “National Operational Programme on Metropolitan Cities” is one of the Italian national programmes promoting energy efficiency to which ERDF 2014-2020 resources have been allocated. The planned ERDF funding amounted to EUR 1.4 billion, of which EUR 214 million on the low carbon economy priority for the energy refurbishment of public buildings and the efficiency of public lighting.

Among the regional programmes that have benefited from ERDF 2014-2020 resources for energy efficiency measures in buildings, the ERDF 2014-2020 funded “South Tyrol - Sustainable Environment” can be mentioned. The programme has granted funding for a total of EUR 30.9 million for the energy upgrading of 25 public buildings and 26 public residential buildings.

1.2.2. National Recovery and Resilience Plan (NRRP “Italia Domani”)

“Italia Domani”, the National Recovery and Resilience Plan is part of the Next Generation EU (NGEU) programme.

The European Union has earmarked EUR 191.5 billion for the Italian NRRP thanks to grants and loans from the RRF (Recovery and Resilience Facility), the fund dedicated to countering the effects of the pandemic (respectively EUR 68.9 billion financed by grants and EUR 122.6 billion financed by loans). Italy, confirming its concrete commitment to recovery, has increased the financing with EUR 30.6 billion deriving from a Complementary National Fund, financed directly by the State, bringing the total funding of the Italian NRRP to EUR 222.1 billion.

The Italian National Recovery and Resilience Plan foresees investments and a complete set of reforms in 6 different missions. Mission 2 “Green Revolution and Ecological Transition” aims at improving the sustainability and resilience of the economic system and ensuring a fair and inclusive environmental transition.

Component 3 of this mission, “Energy Efficiency and Renovation of Buildings”, aims at providing widespread incentives for the energy efficiency and renovation of buildings, both public (with a special focus on schools) and private. The allocation of resources is about EUR 15,36 billion, broken down as follows:



- 13.95 billion to support Ecobonus, Sismabonus incentives
- 0.41 billion for energy retrofitting of judicial buildings
- 0.8 billion for school building replacement and energy retrofitting plan
- 0.2 billion for the promotion of efficient district heating

As of June 2023, 8.7 billion had already been spent for strengthening the Ecobonus and Sismabonus incentives, corresponding to 62.5 per cent of the allocated budget.

1.2.3. National EE funds

At national level, several funds have been established to support energy efficiency measures and to pursue sustainability objectives.

1.2.3.1. Conto Termico

The Conto Termico promotes interventions aimed at increasing energy efficiency and the production of thermal energy from renewable sources through small-scale systems. The main beneficiaries are public administrations, including social housing, but the fund is also used by companies and individuals. The Fund was established by Ministerial Decree of 28/12/2012 and subsequently amended. Currently, the total amount available for the Fund has been set at 900 million €, of which 400 are reserved for PA.

The Conto Termico allows for incentives ranging from 40% to 65% of the expenses incurred. Specifically:

- Up to 65% for the demolition of an existing building and the reconstruction of nZEB
- Up to 40% for wall and roof insulation, replacement of windows, installation of solar shading, building automation and replacement of standard boilers with condensing boilers.
- Up to 50% for insulation measures in climate zones E or F and up to 55% if the measures are combined with the installation of systems such as condensing boilers, heat pumps or solar thermal systems.
- Up to 65% for the replacement of standard heating/cooling systems with heat pumps, biomass boilers, hybrid systems combined with heat pumps and solar thermal systems.
- Up to 65%, but only for PA, for maintenance work on the building envelope and systems that can improve its energy efficiency.

For each category of intervention, the eligible expenditure for calculating the contribution, the cost ceilings and the value of the incentive are defined. The Conto Termico is cumulative with other non-state incentives. Incentives are provided as non-repayable grants.

From 2018 to 2021, the PA's investments in energy efficiency have increased by 210% thanks to the Conto Termico. Interventions mainly concerned systems powered by thermal renewable sources.

In 2022, incentives of about 247 million euro were recognised through the Conto Termico mechanism, of which more than 171 million euro to private entities for the production of thermal



energy from RES and about 76 million euro for energy efficiency interventions with thermal production from RES in public administration buildings.

About 54% of the incentives were approved for interventions carried out in the northern regions, especially in Lombardy and Veneto. The central regions received a total of about 19% of the incentives, while in the south the remaining 28% of the incentives were approved, mainly for interventions in the production of thermal energy from RES in Puglia and Sicily.

1.2.3.2. National Energy Efficiency Fund (NEEF)

The NEEF is a fund of a mixed nature, established by art. 15 of the Legislative Decree (LD) 102/2014 and regulated by the Ministerial Decree (MD) 21/12/2017, which supports the realisation of the interventions finalised to obtain the achievement of the national energy efficiency objectives, according to what has been established by the Kyoto Protocol, through the granting of guarantees and the provision of subsidised loans.

The owner of the fund is the Ministry of the Environment and Energy Security, while Invitalia (National Agency for the investments attraction and the business development, is a government agency established as a joint-stock company and wholly owned by the Ministry of Economy and Finance) is in charge of the operational management.

In 2021, the Fund had a budget of around EUR 310 million. The 2022 Finance Act refinanced the Fund by providing resources for the disbursement of non-repayable grants up to an overall limit of EUR 8 million per year.

The Fund is divided into two distinct parts: 30% of the resources are earmarked for the provision of guarantees and 70% for the disbursement of subsidised loans at an interest rate of 0.25%. The beneficiaries of the grants can be companies, including ESCOs, and, for the part of the subsidised loans, the public administration.

Funding is available for initiatives to reduce energy consumption in industrial processes, to develop and/or implement district heating and cooling networks and facilities, to improve public services and infrastructure, including public lighting, and to improve the energy performance of buildings.

In the case of enterprises and ESCOs, subsidies will be granted in the form of a loan and/or guarantee. Applications for access to facilities in the form of guarantees and/or warranties and financing may only be made through banks or financial intermediaries for the benefit of the beneficiaries.

For the PA, the facilities will be provided in the form of financing.

The guarantee is provided to companies and ESCOs for individual financing operations (including capital and interest) and covers up to 80% of the eligible costs for amounts between EUR 150,000 and EUR 2.500.000 with a maximum duration of 15 years (Article 9(3) of the Ministerial Decree).

For companies and ESCOs, subsidised financing at a rate of 0.25% is available to cover a maximum of 70% of eligible costs for amounts between EUR 250.000 and EUR 4.000.000 with a maximum duration of 10 years (art. 9, par. 4 of the Ministerial Decree). For public authorities, a maximum of 60% of the eligible costs (80% in the case of public infrastructure works, including public lighting) is provided for amounts between EUR 150.000 and EUR 2.000.000, with a maximum duration of 15 years (Articles 13 and 14 of the Ministerial Decree).



In any case, the beneficiary must guarantee the financial coverage of the investment project equal to the amount not covered by the eligible facilities (and in any case not less than 15%).

The aid may be cumulated with other State aid (EU, national and regional) within the limits of the relevant regulations: Articles 38 and 46 of the GBER and the de minimis rule. In the case of PA, they can be cumulated with grants up to a maximum total funding of 100% of eligible costs.

The counter through which to submit requests was opened on 20 May 2019, and applications will be processed by Invitalia in chronological order of receipt. In general, from the start of the mechanism until 31 December 2021, 26 energy efficiency projects have been accepted for funding, for a total value of around EUR 19 million, corresponding to over EUR 33 million in activated investments, with expected savings of around 10.1 ktoe.

In 2021, new applications for financing were submitted for 12 energy efficiency projects and contracts were signed for 11 projects previously approved for financing. The contracted interventions represent a total activated investment of around EUR 10 million, of which EUR 6.4 million will be financed directly by the Fund.

1.2.3.3. Kyoto Fund

The Kyoto Fund is a revolving fund that finances measures to reduce climate-change emissions in line with the objectives agreed at European and international level. Established by the Law 296 of 27 December 2006, the Kyoto Fund grants loans at a subsidised rate of 0.25% and has a total budget of EUR 635 million. The Fund is managed with the operational support of Cassa Depositi e Prestiti Spa, which handles all the economic and financial aspects of the loans (drawing up the contracts, disbursing the sums and collecting the repayment instalments). As it is a revolving fund, the repayment instalments of the loans granted fall within the financial availability of the Fund, thus contributing to its financing. Active since 2012, it has had several programming cycles over the years, differentiated by purpose and beneficiaries:

- Kyoto Fund 1, which has been activated in 2012 and was intended to finance small-scale renewable energy installations and measures to reduce energy end-use (access open to individuals, companies and public bodies);
- Kyoto Fund 2, which has become operational in 2013 and was intended to finance investments in the "green economy" sectors (access reserved for companies, subject to the hiring of young people under 35 on permanent contracts).

Subsequently, Article 9 of DL 91/2014 allocated EUR 350 million of the Kyoto Fund's allocation to the energy upgrading of publicly owned school buildings (the so-called Kyoto Schools Fund). The Fund, which is governed by Interministerial Decree No. 66 of 14 April 2015, grants subsidised loans of up to EUR 2 million with a maximum term of 20 years to public entities that own the buildings. The loans can be used to finance the replacement of equipment and the refurbishment of the building envelope, as well as the preparation of energy diagnoses of buildings and structures. The call for tenders requires that the buildings undergoing intervention achieve an improvement in energy efficiency rating of at least two classes at the end of the work.

This improvement is certified by comparing the ex-ante energy certification of the building, required at the time of access to the call, and the ex-post energy certification, required when the work is completed. In addition to energy efficiency, it is also possible to apply for part of the



funding for work to secure the building and bring it up to seismic risk prevention standards. The Kyoto Schools Fund, active from 2015 to 2018, has provided financing for the energy efficiency to more than 200 school buildings. Of these, 124 projects have been completed, with a total disbursement of around EUR 50 million.

In particular, 15 energy efficiency projects were completed in 2021, with a total value of approximately EUR 9 million. Moreover, in 2021 the fund was reprogrammed following the amendments to Article 9 of Decree Law 91/2014 introduced by the 2019 Budget Law (Law No. 145, paragraph 743 of 30 December 2018). The basic features and rules of the mechanism remained essentially the same as those of the Kyoto Schools Fund, but now health and sports facilities, which are again owned by public authorities, can also access the subsidies. The new call was open for six months, from June to December 2021, and 24 applications were submitted, with a total value of over EUR 10 million awarded.

Given the availability of funds, the call was reopened in 2022. The budget allocated is EUR 166.267.343,90 and the admission procedure will be carried out in chronological order of receipt of applications until the available budget is exhausted.

1.2.3.4. PREPAC (Central Public Administration Energy Refurbishment Programme)

The Energy Refurbishment Programme of the Central Public Administration called PREPAC aims at retrofitting at least 3% of the useful surface area of the Italian public building stock each year. The programme is reserved exclusively to buildings owned and used by the central PA, including peripheral buildings, listed in the Agenzia del Demanio's IPER portal.

The intervention proposals are admitted for financing according to an annual ranking list and are eligible for financing up to 100% of the construction costs, with the possibility of also accessing other incentives, up to full coverage of expenditure.

The types of eligible interventions concern the building envelope, the technical systems, the realisation of systems for the production of electrical or thermal energy, and other interventions reducing the primary energy consumption of the building. Energy efficiency measures may be individual, combined and/or included in larger renovation projects.

The available resources amount to EUR 355 million. State budget resources deriving from the payment of Emission Trading System (Eu- ETS) allowances by large companies and proceeds provided by Art. 22, c. 4, of Legislative Decree no. 28 of 3 March 2011 (fees applied to the consumption of methane gas charged to end customers) contribute to this financing. The Decree Law No. 73 of 14 July 2020 extended the allocation of PREPAC resources until 2030 with an annual budget of EUR 75 million.

The coordination and monitoring of the Programme's progress is entrusted to a steering committee composed of the Ministry of Economic Development and the Ministry of the Environment.

Between 2014-2020, 230 projects amounting to EUR 315.8 million of investment were accepted for funding. As of 4 December 2020, the amounts paid were, however, EUR 6.837.373, thus showing a limited state of realisation of the programme. In order to increase the utilisation of the programme, the Decree Law No. 17/2022 (L. No. 34/2022) has assigned to the Agenzia del Demanio the role of "facilitator" in the preparation phase of the PREPAC project proposals.



1.2.4. Regional EE funds

1.2.4.1. Emilia Romagna - FESR 2021-2027 (link)

Support for investments in tourism businesses (ERDF 2021-2027, action 1.3.4 - Grants for small and medium-sized enterprises and private entities registered with the REA).

The Region Emilia-Romagna intends to promote the competitiveness and sustainability of tourism businesses that provide accommodation and the attractiveness of the areas and towns where these businesses are located, also thanks to productive investments with due regard for environmental, social and safety sustainability. The contribution granted to each business may not exceed EUR 200,000 and will be granted in the form of a non-repayable fund of a maximum of 40% of the eligible expenditure, or 50% if, at the time of application, one or more of the bonus conditions specified in the call for proposals are met.

Eligible actions may concern renovation and modernisation of accommodation facilities, **including energy efficiency**; extension of accommodation facilities; renewal of equipment and furnishings; improvement of services offered to customers through innovative and digital solutions, **including environmental, social and safety sustainability aspects**. Managers and non-managers can apply for the grant.

Energy and seismic upgrading of public buildings - 2022 (ERDF 2021-2027, action 2.1.1-2.2.1-2.4.1- Grants for Municipalities, Provinces, Metropolitan City, Unions of Municipalities - including the Imola district, in-house companies, Acer)

The call for tenders provided for contributions of at least 70% and up to 80% for the following types of expenditure: energy retrofitting of public buildings; support for the use of renewable energy in public buildings; seismic upgrading and retrofitting linked to energy measures. The funds available amounted to EUR 30.000.000. The call for proposals closed on 27 April 2023.

Support for energy interventions and seismic prevention of enterprises (ERDF 2021-2027, actions 2.1.2, 2.2.2 and 2.4.1 - Grants for enterprises and other entities registered with the rea).

The call supports investments in energy efficiency and the production of clean, low-carbon and affordable energy for self-consumption. Support for energy investments is proposed in synergy with measures to improve the seismic performance of buildings in which economic activities take place.

Eligible interventions are those aimed at: the energy requalification of buildings in which the applicant's activity is carried out; the construction of new energy production plants from renewable sources for self-consumption; seismic improvement/adaptation of the buildings in which the applicant carries out its activities.

The call for proposals closed on 22 February 2023 and provided for a maximum contribution of EUR 150,000. The resources available to finance the submitted projects amounted to EUR 13,000,000. The grant was non-repayable up to a maximum of 25% of the eligible expenditure.



1.2.4.2. Liguria - FESR 2021-2027 (link)

Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and facilities - Municipalities with less than 2,000 inhabitants (ERDF 2021-2027 action 2.1.1 Promoting Energy Efficiency in Public Buildings)

The call, which has a budget of EUR 1 million, is reserved for municipalities with a population of less than 2,000, with the exception of municipalities in inland areas approved and recognised by the National Strategy for Inland Areas (SNAI).

Municipalities may apply for regional co-financing of up to EUR 350,000, with a grant equivalent up to 80% of eligible expenditure. The beneficiary can co-finance the intervention with the “Conto Termico” granted by the GSE. The proposed interventions must achieve an overall energy performance that allows the improvement of at least one energy class of the building in which the intervention is carried out, i.e. a saving of at least 30% of primary energy.

The minimum investment is EUR 100,000, and eligible interventions include the insulation of the building envelope, the replacement of windows and doors, the construction of ventilated walls, any costs related to the removal and disposal of asbestos, the creation of vertical gardens or green roofs, the creation of works to obtain free thermal contributions, the purchase and installation of screening systems, the renovation of the heating system, the purchase and installation of solar thermal systems, the installation of systems and equipment for the automated control and remote management of the building, the improvement of the lighting system or transport systems, and the creation of a district heating network exclusively for own use.

1.2.4.3. Lombardia - FESR 2021-2027 (link)

Eco-efficiency and decarbonisation of existing buildings for public housing services (ERDF 2021-2027 action 2.1.2. support for the efficiency upgrading of public housing stock)

The call is reserved for entire existing buildings intended for public housing services (SAP), exclusively owned by ALER and municipalities belonging to the first five classes of the ex PRERP 2014/2016 requirements.

The works financed are aimed at achieving higher energy and lower emission standards (major renovation of level I or II). The interventions aim to improve the quality and sustainability of the building in order to mitigate the effects of the climate crisis and increase resilience and adaptation.

Projects with a minimum net investment of EUR 100,000 are eligible for support in the form of a non-repayable grant of up to 100% of the cost of eligible work.

1.2.4.4. Alto Adige - FESR 2021-2027 (link)

“Green” - Promotion of energy efficiency in public buildings (ERDF 2021-2027 action 2.1.1 Promoting Energy Efficiency in Public Buildings)

A total of EUR 15 million has been made available for this tender, divided into EUR 5,000,000 for public housing and EUR 10 million for public service buildings. The funding rate is 80%.



Investments for the installation of solar thermal systems, heat pumps and biomass heating systems are also eligible if directly related to the energy renovation and provided that the building to be renovated is not located in an area supplied by a district heating system. On completion of the work, a hydraulic balance must be carried out for each heating element and, where appropriate, for each cooling element.

The operations must provide a significant improvement in energy efficiency class according to the CasaClima regulations. The minimum requirements are the achievement of at least the CasaClima B class (envelope efficiency less than or equal to 50 kWh/m²a and primary energy savings of at least 30%). It is recommended to install a heat pump in combination with a low-temperature heating system wherever possible.

1.3. Fiscal policies

1.3.1. General overview of your country's fiscal system - decentralized/centralized on national level, relevant laws, key institutions that regulate the fiscal system.

Italian buildings account for almost half of the country's energy consumption (44%) and the civil sector is responsible for 29% of direct ETS emissions. Moreover, most of them were built before the adoption of energy efficiency criteria and related legislation. The energy transformation of the building stock is a key point for promoting the decarbonisation of the civil sector.

As underlined in the 2023 version of the PNIEC (integrated National Plan for Energy and Climate), future fiscal policies would aim to increase the rate of renovation of buildings, supporting the use of technologies for the electrification of users' consumption, building automation and the massive diffusion of interventions for the insulation of building surfaces.

According to the PNIEC, the approach that has characterised fiscal policies up to now will change in the near future. Less efficient buildings and situations of energy poverty will become a priority, and the level of fiscal support will vary according to the effectiveness of the interventions in terms of improving the performance of buildings (both private and public), taking into account both the reduction of consumption and the increase in the use of renewable sources.

Tax policies for the renovation of buildings have played a fundamental role in the last years in the increase of energy efficiency and the diffusion of thermal and electric renewable sources in the building sector.

There are currently (2023) three different forms of tax policies available to finance the modernisation and renovation of the Italian housing stock: Superbonus 110%, Ecobonus and Bonus Casa.

All these different forms of tax policies are centralised at national level and regulated by the Ministry of Economy and Finance (MEF), while the tax assessment is carried out by the Revenue Agency (Agenzia delle Entrate), a non-economic public body that works to ensure maximum tax compliance.

Until August 2019, the national tax policy for energy efficiency in private buildings provided for the use of tax deductions. With the introduction of the SuperBonus, two additional options were introduced for the use of the tax credit by the proven beneficiary:



- the transfer of the credit to a third party (company, bank, financial intermediary, etc.) that provides the client with the liquidity to pay for the intervention in exchange for the tax credit;
- the assignment of the credit to the company carrying out the work or to the supplier in the form of an invoice discount.

These two options were later also applied to the other fiscal policies available: Ecobonus and Bonus Casa.

1.3.2. Fiscal instruments which are already being used for supporting EE/RES measures for buildings in your country - their impact/results so far, existence of monitoring methods.

Currently, all the fiscal instruments described in the following paragraphs are monitored by ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development). For each of them, a specific on-line portal has been created, which must be used by the beneficiaries of the fiscal instruments to provide all the technical and fiscal data related to their intervention. Law no. 79/2022 has confirmed the extension of the monitoring system for energy efficiency improvement measures to include all those interventions that, even if they are not primarily designed to achieve an energy improvement, have the capacity to influence the energy performance or consumption of the building. All the data relating to the intervention must be sent to ENEA within 90 days of the end of the work.

1.3.2.1. Bonus Casa

The measure called Bonus Casa was introduced by art. 16-bis of DPR 917/86. It is a structural measure that allows a tax deduction that can be spread over ten years and that can only be used for residential buildings.

Legislative Decree 83/2012 increased the tax deduction to 50%, limiting the maximum amount of expenditure eligible for the tax benefit to EUR 96,000. These values have been extended several times, but according to the current legislation, from 01/01/2025 the tax deduction will return to the normal mode: 36% and a maximum of EUR 48,000 of eligible expenses.

As of 2018, it is mandatory to upload all the information related to the interventions carried out on the dedicated ENEA website. This obligation applies only to the interventions that can generate energy savings or are related to the use of RES.

882.008 interventions were carried out in 2021 (+43.5% compared to 2020 and +47.3% compared to 2019), resulting in 868.6 GWh/year of energy savings and 195 GWh/year of energy produced by RES.

1.3.2.2. Ecobonus

Tax deductions as a fiscal incentive for the energy renovation of existing buildings were introduced by Law 296/2006. The measure is financed from state budget resources and from PNNR resources.



From 2007 onwards, ENEA has monitored the fiscal measure through a dedicated website, where users submit their personal data, building data and technical data related to the interventions carried out.

The tax measure allows a percentage of energy-related costs to be deducted and reimbursed over 10 years from the date of completion of the work.

Over time, the measure has been subject to various changes relating to the types of intervention allowed, the period available for the deduction, the deduction rate.

From 19/05/2020, when DL 34/2020, called Decreto Rilancio, came into force, all taxpayers have been able to use the assignment of credit or discount in the invoice instead of the direct deduction. The Ecobonus can be used regardless of the cadastral category of the building and the type of taxpayer. The 2022 Budget Act extended the duration of the measure until December 2024.

The following table summarises the eligible interventions and the corresponding deduction rate.

| Components and technologies | Deduction rate |
|--|----------------|
| Windows and Doors; Solar Screens; Biomass Boilers; Class A Condensing Boilers | 50% |
| Global Building Upgrading; Class A+ Condensation Boilers (advanced thermoregulation system); Condensing Hot Air Generators; Heat Pumps; Heat Pumps Water Heaters; Envelope Insulation; Solar Collectors; Hybrid Generators; Building Automation Systems; Microgenerators | 65% |
| Interventions in common parts of blocks of flats (envelope insulation with an affected surface area > 25% of the dispersion surface) | 70% |
| Interventions on common parts of blocks of flats (Casing insulation with affected surface > 25% of the dispersion surface + average quality of casing) | 75% |
| Interventions in common parts of blocks of flats (Casing insulation with affected surface area > 25% dispersive surface area + reduction of 1 SEISMIC RISK class) | 80% |
| Interventions in common parts of blocks of flats (Casing insulation with affected surface area > 25% dispersive surface area + reduction of 2 or plus SEISMIC RISK class) | 85% |

Since 2007, when the measure was first activated, 5.5 million interventions have been incentivised by means of the Ecobonus.

In terms of investments, around EUR 7.5 billion have been mobilised in 2021 (+126% compared to 2020). The investments activated since 2014 amount to around EUR 31.2 billion, compared with around EUR 53 billion from 2007.

In terms of energy savings, 21,700 GWh/year have been saved since 2007.

The most common interventions are the existing heating systems with more efficient ones (condensing boilers or heat pumps), the replacement of windows and the installation of solar shading systems.

2014.



1.3.2.3. Superbonus 110%

The 110% Superbonus is a fiscal measure to finance the energy and seismic renovation of residential buildings, including social housing. The aid is granted in the form of a tax deduction deferred for 5 years (4 years for expenditure incurred in 2022) for the entity carrying out the work, or by means of a credit or discount on the invoice instead of a direct deduction. This instrument was meant to stimulate local economies and to create new jobs and includes a wide range of measures such as thermal insulation of the building envelope, efficient window frames, replacement of heating and air conditioning systems and installation of renewable energy systems. It is expected that the investments will allow the refurbishment of more than 100,000 buildings, with a total refurbished area of more than 36 million square metres (of which 3.8 million are anti-seismic). The expected energy savings will be around 191 Ktep/year with a reduction in greenhouse gas emissions of around 667 KtonCo2/year.

To be deductible, the measures must relate to the whole building, both multi-family houses or a single-family houses and ensure at least a two-class energy efficiency improvement.

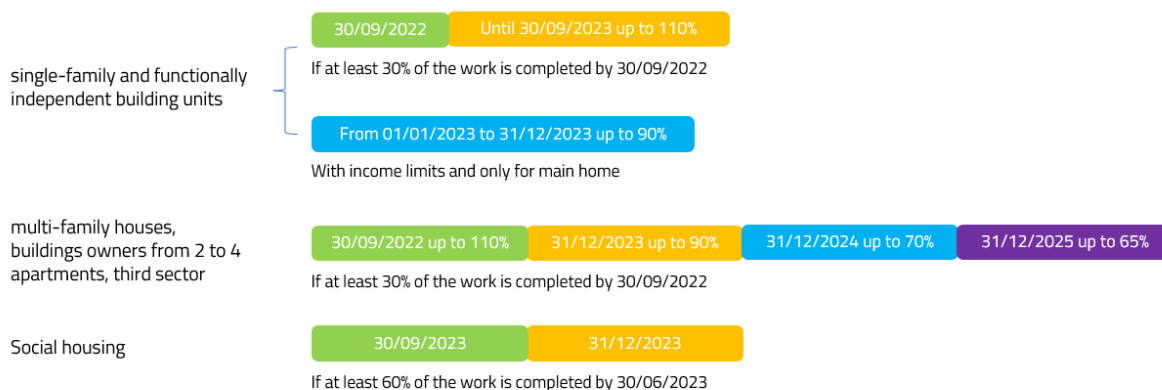
The monitoring activities are carried out by ENEA, the National Agency for Energy Efficiency, which, from September 2021, publishes monthly national and regional data, aggregated and broken down by building typology (number of certificates uploaded on the dedicated website, absolute value of investments eligible for the deduction scheme, absolute values and percentage of work already completed).

On 31 May 2023, the total amount of investments related to the Superbonus have reached EUR 78.353.945.998,78, 411.871 construction site have been started according to the assurances presented from the beginning of the monitoring (August 2021).

As for the building stock that has benefited from Superbonus, the report published in May 2023, lists 64.038 interventions in multi-family buildings, 233.722 interventions in single-family buildings and 114.105 interventions in functionally independent building units.

On 30 September 2022, according to the annual report of ENEA, the energy savings achieved has been equal to 9.410,5 GWh/year.

The figure below shows the next deadlines for the tax system, which will be definitively phased out at the end of 2025.





The Superbonus 110% tax deduction scheme has undergone several changes since its inception. Only the original decree-laws are mentioned below:

- DL 34/2020 known as DL Relaunch (Decree-Law No. 34 of 19 May 2020)
- Law 77/2020.

1.3.3. Applicability/Potentials for introduction of fiscal policies for supporting RES/EE measures in private buildings

As reported above, all the fiscal measures described are reserved for private buildings. The Superbonus measure extended the target group of beneficiaries to include social housing and the third sector.

According to the PNIEC, in order to meet the ambitious 2030 and 2050 targets for the residential sector set by the new EED and EPBD directives currently being adopted, and by the STREPIN 2021 (Strategy for the Energy Renovation of the National Housing Stock), a general reform of fiscal deductions should be carried out, which will address the renovation of existing residential buildings with an integrated and efficient approach and overcome the current fragmentation of the several deductions currently in force.

In fact, an integrated approach would make it possible to optimise the timing and costing of building's renovation, favouring in-depth refurbishment encompassing sustainability in several areas: energy, in terms of efficiency, renewable energy production and electrification of consumption; digitalisation of buildings and dialogue with other infrastructures such as transport; safety, in terms of seismic and fire protection; environmental protection, in terms of reducing water consumption and using green spaces.

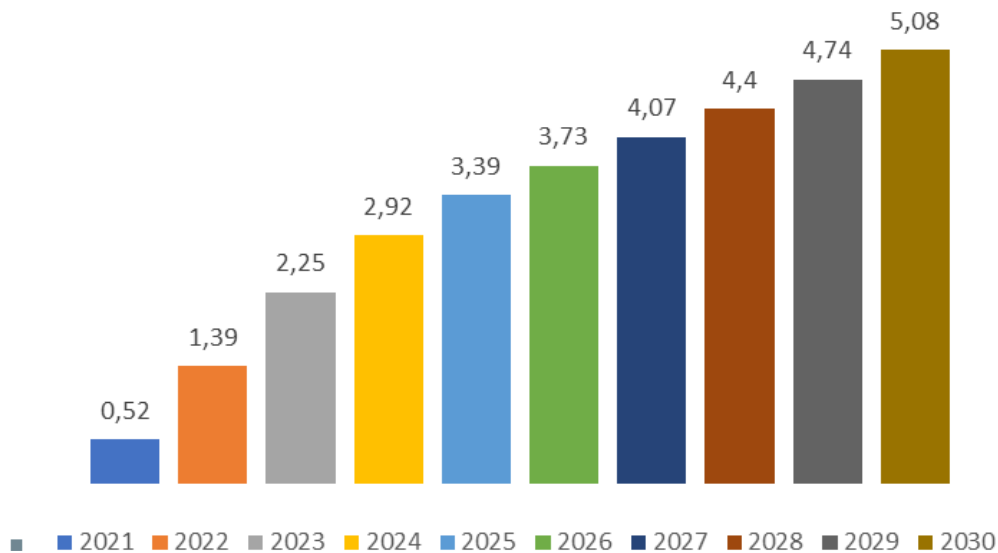
The reform will have to last at least ten years in order to achieve the ambitious targets set for the housing sector.

In particular, it should

- be aimed primarily at properties covered by the EPBD Directive (first homes, low energy class properties, non-historic properties, etc.);
- have guarantee rates spread over 10 years;
- allow both single interventions of any type (energy, seismic, removal of architectural barriers, etc.) and deep energy renovation (combination of several interventions);
- guarantee a single reduced rate for single interventions and, for deep energy improvements, some increasing rates according to the energy performance achieved, also considering seismic performance for high-risk areas. The rates will be more favourable for people on low incomes, energy-poor apartments and social housing. Energy measures will be "leading" compared to all other measures, which will receive the same tariff;
- guarantee specific all-inclusive maximum costs, both for individual interventions and for deep energy renovation interventions, easily verifiable and uniform throughout the national territory;
- be accompanied by supportive financial instruments, such as low-interest loans, even covering the entire investment cost, and credit allocation, with favourable conditions for



people living in energy poverty. In this context, synergies with the reform of the National Energy Efficiency Fund are also envisaged.



Final energy savings expected from tax deductions (Mtep)
Source: National Integrated Plan for Energy and Climate (PNIEC)

1.3.4. Availability of support mechanisms for preparation of projects with this instrument (information/consultation service, capacity building, technical assistance)

Private building owners are well aware of all the tax measures described above. In addition, the possibility of using a credit or discount on the invoice instead of a direct deduction, initially introduced only for the Superbonus and then extended to the other measures, has increased the prevalence of these instruments.

All these fiscal policies can only be activated by the central government.

Article 13 of Legislative Decree 102/2014 requires ENEA to implement a three-year Information and Training Programme (BIP) from 2021 to 2030, aimed at promoting and facilitating the efficient use of energy. The cornerstones of the first BIP 2021-2023, finally approved in 2022, are the valorisation of **active incentive instruments** and the promotion of a culture oriented towards the renovation of buildings. The BIP is the framework for the communication and dissemination activities of the initiative “Italy in Class A”, a national campaign carried out by ENEA.

Legislative Decree 102/2014 provides for an amount of EUR 3 million for each of the years from 2021 to 2030, This budget is made available by the Ministry of the Environment and Energy Security's (MASE) using the share of the annual proceeds from the auction of CO2 emission allowances.

According to PNIEC, in the period 2021-2030 additional emphasis will be placed on information and training activities, and the launch of a new programme will be considered on the basis of the experience gained with the current BIP. In any case, it will be ensured:

- the valorisation of active incentive instruments;



- the promotion of energy efficiency in the civil sector (residential and tertiary);
- the promotion of the decarbonisation of the industrial sector through end-use efficiency, electrification of consumption and renewable gases in the sectors that are difficult to decarbonise, also by strengthening the activities carried out within the framework of energy audits.

Finally, monitoring the savings generated by awareness-raising policies will be explored in order to provide increasingly robust support for decisions in this area and for the achievement of energy efficiency targets.

1.4. Green and climate bonds

1.4.1. National policy for (green/climate) bonds, fiscal treatment (public debt or not), key institutions

Italy joined the 'National Dialogue on Sustainable Finance' programme set up by UNEP in 2016 and contributed to the elaboration of the report 'Financing the Future', which identified 18 measures to promote sustainable finance grouped in 4 areas: policy frameworks, financial innovation, market infrastructure and knowledge building. The report already recommended the establishment of a committee, including both public and private entities, to contribute to the definition of an action plan to expand the Green Bond market segment in Italy.

Following this strategy, the Bioeconomy and Sustainable Taxation Committee (Ministerial Decree no. 338/2019) and the Sustainable Finance Working Group (Ministerial Decree no. 75/2020) were established to promote studies, research and initiatives and elaborate policy recommendations in the field of green finance.

Thanks to the work carried out by the Sustainable Finance Working Group, the Ministry of the Environment has set up an 'Environmental Sustainability Certification' system in accordance with Regulation (EU) No. 852/2020 on the taxonomy for sustainable investments. The system provides indicators and evaluation metrics to measure the level of environmental sustainability of a project, which, if deemed virtuous, can consequently access specific funding. The aim is to encourage the mobilisation of capital towards 'green' initiatives, supporting the decarbonisation process and the energy and ecological transition. The evaluation system is voluntary and is currently in testing phase.

Moreover, to promote further green investments, the Italian Government approved the Decree Law No. 111/2019 (Climate Decree) later converted by Parliament into Law No. 141/2019, which covers all sectors deemed vulnerable to climate change, introducing measures to encourage behaviour and actions with positive environmental impacts.

To further develop the offer of financial instruments in the sustainable finance market the Italian Government has been committed in the past years to promoting a partnership between the public and private sectors. To this purpose, multiple initiatives have been undertaken by various parties including: (1) the Government itself, through the implementation of the Non-Financial Reporting Directive and the issuance of Green Government Bonds (sovereign green bonds); (2) the Bank of Italy, by encouraging greater purchases of green assets; (3) Borsa Italiana, through the listing of Green and Social Bonds.



Through the Budget Law for 2020 (Law No. 160 of 27 December 2019) the Italian state has decided to strengthen its commitment to environmental sustainability by issuing sovereign green bonds (SGB's). The Budget Law for 2020 also foresees the establishment of an Interministerial Committee to support the Department of Treasury in the selection, monitoring and reporting of green expenditure.

In early 2021 the Italian State entered the market of sovereign green bonds through the issuance of the new "BTP Green", widening the country's commitment to the European Commission's framework for achieving climate neutrality by 2050 and the goals set out in the European Green Deal. The first Italian Sovereign Green Bond will finance Italy's Green Transition strategy already started in the past years. The government will also rely on green BTPs to refinance maturing public debt.

Key institutions:

Italian Ministry of Economy and Finance-Ministero dell'Economia e delle Finanze (MEF)

The Ministry of Economy and Finance (MEF) carries out the tasks and responsibilities of the State in the fields of economic policy, financial policy, budgeting, and tax policies. Additionally, it carries out all activities related to the coordination of public spending and its oversight, planning of public investments, monitoring and oversight of public financial management, public debt management, and of State stockholdings.

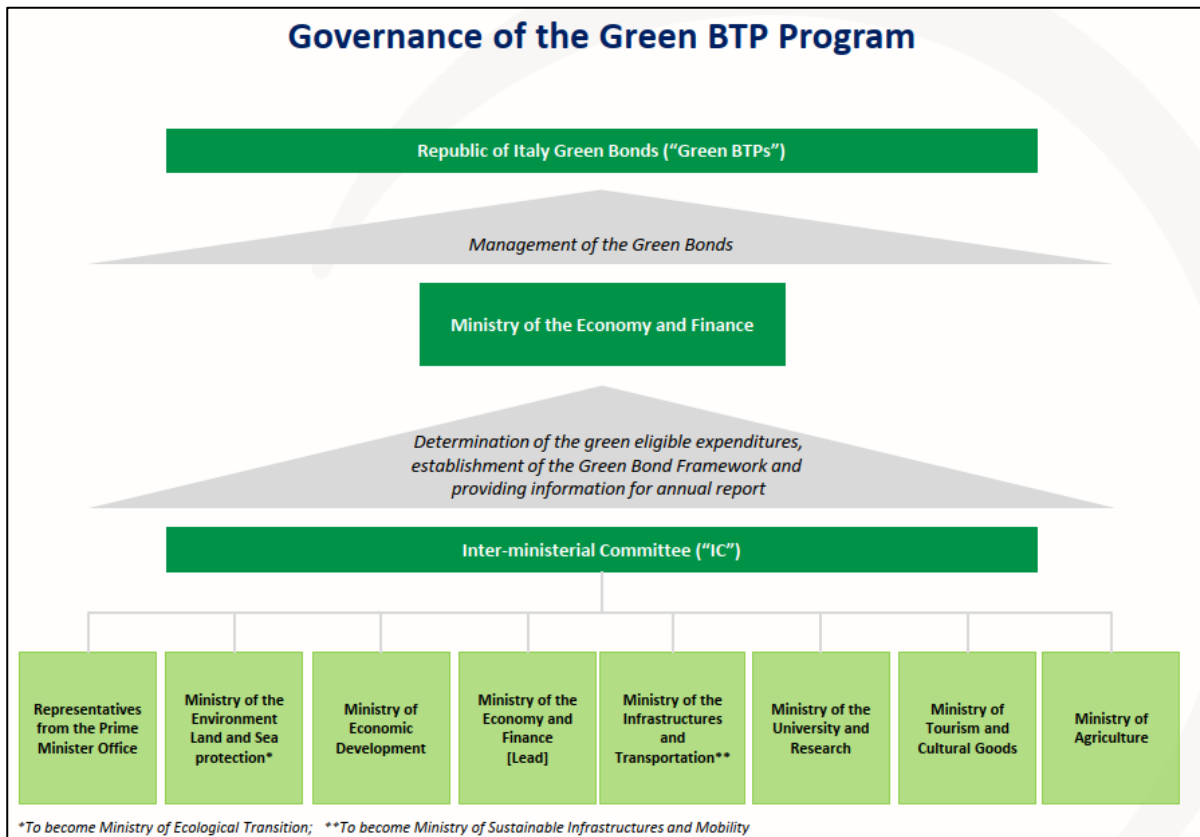
The MEF has contributed to enhance sustainable finance in Italy thanks to the issue of the BTP Green Bond. Italy's sovereign green bond proceeds are intended to contribute to the achievement of one or more of the 6 environmental objectives of the EU Taxonomy and to support the 2030 Sustainable Development Goals (SDGs) stated in the Green Bond Framework and are earmarked for expenses in Renewable Energy, Transport, Low-Carbon Buildings, Water, Waste and Land Use. Eligible expenses must be included in the Italian State budget.

2021: issuance of the first BTP Green 2045

2022: publication of the first report on the allocation of the BTP issued in 2021

2022: issuance of the BTP Green 2035

The issue of the BTP Green with maturity in 2035, placed by the Ministry of Economy and Finance in 2022, for an amount of EUR 6 billion and with a coupon of 4%, won the 'Largest Green Sovereign Bond of 2022' award assigned by the international organisation Climate Bonds Initiative.



Governance of the green BTP Program

Source: Republic of Italy, Green Bond Investor Presentation. MEF Dipartimento del Tesoro 2021

Bank of Italy-Banca d'Italia

Since 2019, the Bank of Italy has started to use ESG criteria in the management of its non-monetary portfolios. In its Sustainable Investment Charter, published in 2021, the Bank has defined three strategic lines of action:

- a) promoting ESG sustainability through disclosure by issuers and financial system operators;
- b) integrating ESG principles into portfolio management, thus helping to expand the use of sustainability best practices;
- c) publishing data and research on sustainable finance, reporting regularly on the results achieved and on the methodologies applied to integrate environmental, social and governance (ESG) criteria into the allocation of its investments and into risk management and fostering the ESG culture in the financial system and among citizens.

The Bank of Italy's annual Report on Sustainable Investment and Climate Risk describes how the institution manages the investment activity of its non-monetary portfolios, and in particular how it takes into account sustainability and climate risks.

Borsa italiana



Borsa Italiana plays an active role in promoting the definition of disclosure standards that can foster the development of Green Bonds. Borsa Italiana joined the Sustainable Stock Exchanges Initiative backed by the United Nations with the aim of supporting the transition to an economy with a low environmental impact and adheres to the Climate Bonds Initiative (through the London Stock Exchange Group). It is also a member of ICMA, the International Capital Markets Association, that promotes the Green Bond Principles, the Social Bond Principles and the Sustainability Bond Guidelines.

Over the past years, Borsa Italiana has been working to raise awareness among issuers to provide the markets with more comprehensive disclosure on their ESG policies, and has made available to the market a number of tools to better identify and analyse the world of sustainable finance, such as:

1. Indices and analysis (FTSE website)
2. London Green Bond Market (website)
3. List of green and/or social instruments in trading on the MOT and ExtraMOT markets

With regard to the latter initiative in particular, as of 13 March 2017, Borsa Italiana has decided to offer institutional and retail investors the opportunity to identify instruments whose proceeds are earmarked to finance projects with specific environmental benefits or impacts ("green bonds") and/or social benefits or impacts ("social bonds"). The identification passes through the initial certification by an independent third party and the renewal, at least annually, of the disclosure regarding the use of proceeds.

1.4.2. Past and current use of municipal/corporate bonds as a source of funding of energy projects, market volume, key projects

Municipal bonds

Beginning in 1995, Italian local governments were allowed to issue bonds according to specific rules. Law No. 724 of 23/12/94 (Art. 35) recognises in fact the possibility for local authorities (municipalities, municipalities consortia, provinces and regions) to issue bearer bonds (BOC, BOP and BOR) with the restriction that each resulting cash inflows must be used for capital investments, mainly for infrastructure projects.

The issuance of these bonds is also subject to certain conditions:

- that the issuing entities are not in financial distress or structural deficit;
- that the regions have not repaid any administration deficit of the local authority;
- that a budget for the financial year providing for the issuance of the bond has been approved by the issuing authority.

The maturity of these bonds shall not be less than five years (however, in the case of consortia, these may not have a maturity earlier than that of the loan) and the bonds may be convertible directly or with warrants into shares in companies owned by the issuing local authorities.

These instruments are not backed by any state guarantee, so the law establishes precise criteria for reimbursement, such as the delegation of payment, which provide the greatest guarantee to



savers. Moreover, the Bank of Italy has to approve their emission. The Municipal bonds can be listed on the regulated markets.

Although the new opportunity offered to local authorities to use the bond market has been favourably received, the constraints imposed by the law have partly hindered issuances. In fact, they are subject to certain conditions linked to a balanced ratio between funds raised and capital invested or to the destination of the funds raised, which must be aimed at investments with a current and prospective market value, as well as to the surplus situation in the issuer's accounts.

The emission of municipal bond had a steady growth reaching a pick in 2005 and 2006, but progressively decreased due to the sovereign financial crisis. Municipal bonds became less appealing and convenient, and municipalities stopped using them after 2011. In Italy 1.587 bonds were issued by municipalities between 1996 and 2011, amounting to EUR 12 billion. For these, the outstanding debt in 2021 is EUR 5.1 billion (MEF monitoring report 2021).

The main causes of this decrease are detectable in the complexity of the regulations, that reduced the transparency toward investors, and in the missing economic advantage compared to other form of indebtedness. The introduction in Italy of the internal stability pact, that became the law n. 243/2012, established the respect of the balanced budget by the local entities: this means a substantially balanced financial situation between current revenue and expenditure as a general budgetary principle. The municipality with an excess of balance, might be indebted for the same amount of the surplus, and that can represent the maximum emission of a green bond. Considering the actual average value of the net balance of each Municipality, just the cities with more than 250.000 inhabitants might have the sufficient resources to issue a municipal bond.

Furthermore, the rating level of most of the Italian municipalities results to be lower than the average of the European municipalities that have successfully issued local (green) bonds.

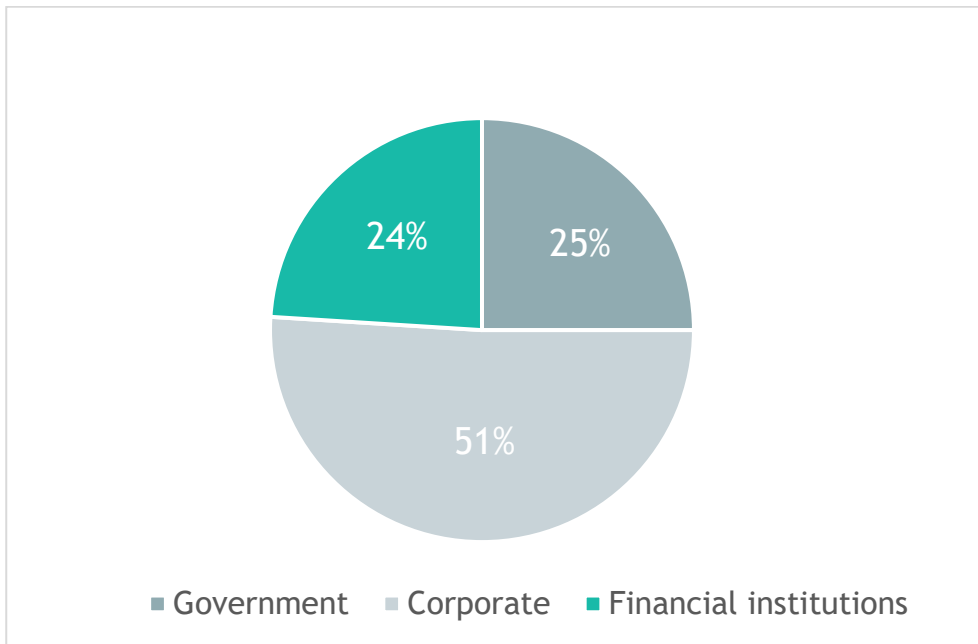
The issuance of local bonds also entails significant fixed costs that can significantly affect the transaction's profitability, such as:

- Costs for obtaining a rating, which, while not mandatory, may be appropriate since it provides subscribers with an assessment of the creditworthiness allowing them to evaluate the investment's riskiness.
- Costs for the initiatives to promote the bond's placement.
- Administrative costs associated with the drafting of the various prospectuses and the subsequent debt management costs, usually handled by specialised financial intermediaries.

For the most part, the issuances in the past years were carried out by the regions. In the end, even if the economic difficulties and the balance conditions made many municipalities take the distance from the emission of bonds, it does not undermine the possibility to use the green bond as an instrument for virtuous municipalities in the Italian context.

Corporate bonds

Green bonds issued by companies represent more than 50% of the cumulative values over the last five years while financial institutions cover 24%.



Sustainable bonds in Italy by issuer category (2021)

Source: *Rapporto Cerved PMI 2022-Elaboration Cerved Rating Agency based on Bloomberg Data*

More than a half of the Italian green bond issuers entered the market in 2017 even though the Italian green bonds market was launched in 2014 with offers coming from the multi utility company Hera and the energy companies Enna Energia and Innovatec.

Since 2014, the number of Italian companies involved in the issuance of green bonds has increased significantly. Compared to other European countries, however, Italy is still lagging behind.

The Italian green bond market is currently largely dominated by utilities and infrastructure companies: in 2022 Enel Spa was present on the market with five sustainability-linked bonds for a total volume issued of EUR 4.6 billion equivalent, SNAM with two SLBs for a total of EUR 1.5 billion and A2A with an issue of EUR 500 million. A2A issued also two green bonds for EUR 1.25 billion, positioning itself as a frequent issuer in the green bond market after Enel. In 2023, ENI Spa issued a sustainability-linked bond for the retail market. The initial offer of EUR 1 billion was expanded to EUR 2 billion due to a higher-than-expected demand from the market, which reached orders of more than EUR 10 billion with a record oversubscription rate of 10 times.

The eligible and most frequently cited project categories in the description of the use of proceeds are renewable energy (26%), energy efficiency (18%), pollution prevention and control (12%) and clean transport (11%), while the category “Green buildings” is mentioned in 7% of cases.

The 'Green Building' category was mostly used in green bonds issued by financial institutions (Unicredit, Banca Intesa, Banca Popolare di Sondrio, Mediobanca) and insurance companies (Generali and Unipol).

Insurance companies with a direct exposure to real estate asset management allocate bond proceeds exclusively to the purchase of green buildings or to the redevelopment (retrofit/recovery) of existing assets in their portfolio; this is the case of Generali Real Estate which has green building and green leasing policies, and is currently the largest issuer of green



bonds allocated to the 'Green Building' category with a total of EUR 1.2 billion in proceeds allocated from bonds issued in 2019 and 2020.

The Unipol Group also earmarked EUR 695 million for sustainability projects in 2022, a figure equal to 69.5% of the total proceeds raised from Green Bond issued in September and November 2020, which the company allocated to the implementation of projects consistent with its green framework, mostly in the categories “Green Buildings” and “Renewable Energy”.

| | | |
|---|-------------------------------------|---------------|
| Green buildings | <i>Tax credit Ecobonus</i> | 188.30 |
| | <i>Unipol Real Estate</i> | 101.45 |
| | Total green buildings | 289.75 |
| Renewable energies | <i>Wind</i> | 140.47 |
| | <i>Solar</i> | 83.74 |
| | <i>Hydro</i> | 26.92 |
| | <i>Geothermal</i> | 2,61 |
| | Total RES | 253.74 |
| Energy efficiency | <i>Heating</i> | 7.88 |
| | <i>Lighting</i> | 13.43 |
| | <i>Mix</i> | 2.09 |
| | Total Energy efficiency | 23.4 |
| Sustainable management | <i>Sustainable forestry</i> | 33.99 |
| | Total Sustainable management | 33.99 |
| Green mobility | <i>Electric vehicles</i> | 26.95 |
| | <i>Hybrid vehicles</i> | 67.37 |
| | Total green mobility | 94.32 |
| Total funds allocated to green projects in EUR million | | 695.20 |

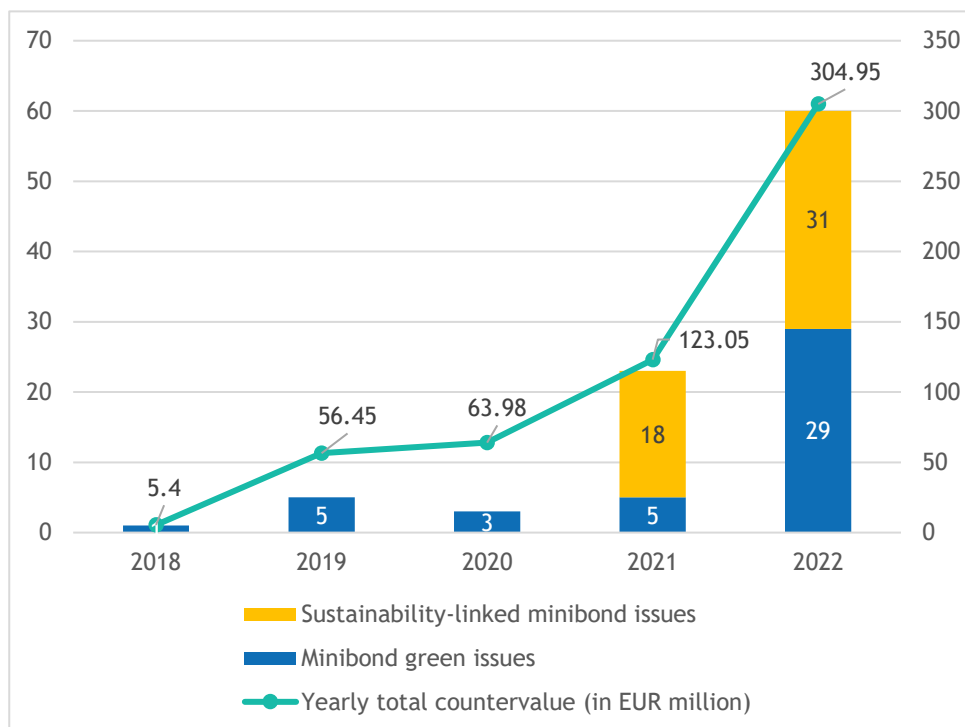
In the case of the financial institutions, bond proceeds are allocated not only to the acquisition, financing or refinancing of real estate portfolios, but also to the financing of loans/mortgages to retail customers and, more recently, to monetise tax credits related to public subsidies for energy efficiency works (known as Superbonus, Ecobonus), or to seismic risk reduction on existing buildings (Seismic Bonus) of private (not corporate) individuals and condominiums. Intesa San Paolo is the second largest issuer of green bonds for 'Green Buildings' with EUR 940m in proceeds from a bond issued in March 2021. In 2017, Intesa Sanpaolo became the first Italian bank to enter the market with a EUR 500 million green bond for renewable energy sources and green loans for construction.

So far, the role of SMEs in the green bond market is still marginal, but the potential, according to an analysis conducted by the Rating Agency Cerved, is large thanks also to the so called “Mini green bonds”. These are bonds issued by corporations or cooperatives (excluding acquisition vehicles, banks, insurance companies and finance companies) in amounts of less than EUR50 million, not quoted on lists open to retail investors.



Green minibonds moved their first steps in 2018, but the breakthrough year was 2021, with 5 issues in addition to 18 sustainability-linked minibonds. In 2022 we have as many as 60 issues split between 29 green mini-bonds and 31 sustainability-linked; the total funding was about EUR 304.95 million, representing 18.5% of the entire minibond market in Italy.

The growth in the last two years of green and sustainability-linked minibonds can be explained by the fact that these are financial instruments that appeal investors but also give good visibility to companies, allowing them to obtain spendable credits with regard to their ESG scoring.



Green minibonds and sustainability-linked minibonds on the Italian market (issues under EUR 50 million) in numbers and value.

Source: 9° Report italiano sui Minibond. Politecnico di Milano - Dipartimento di Ingegneria Gestionale

1.4.3. Existence of national standards/methodology for green/climate bonds and use of EU/global standards (Green Bond Standard/Principle, Climate Bond Standard)

The standards mostly applied to green bonds issued by Italian entities and companies are in line with the Green Bond principles.

Minimum standards are also defined by Borsa Italiana, that admits bonds to trading with the indication of Green Bonds and/or Social Bonds only if a third party certifies the environmental and/or social nature of the projects that are financed through the issuance of these instruments.

This third party verifier shall be:

- independent from the issuer company, its directors, managers and advisors;
- remunerated in such a way as to prevent conflicts of interest arising from the remuneration structure;



- a specialised subject with specific expertise in assessing projects of an environmental and/or social nature.

The issuer of Green Bonds and/or Social Bonds is also obliged to communicate at least once a year the use of the proceeds for projects of environmental and/or social nature. If not, they will not be listed among Green/Social Bonds in Borsa Italiana lists.

For the sovereign green bonds (BTP green) the MEF has elaborated a Green Bond Framework according to the “Green Bond Principles” defined by the International Capital Market Association (ICMA) and with the “EU Green Bond Standards” drafted at EU level. The framework has undergone an independent evaluation (Second Party Opinion) by Vigeo Eiris to validate its consistency with:

- The environmental objectives and the overall sustainability strategy of Italian State
- The quantification of climate and environmental benefits
- The compliance of the eligible expenditures with ICMA's Green Bond Principles and the draft of the EU Green Bond Standards

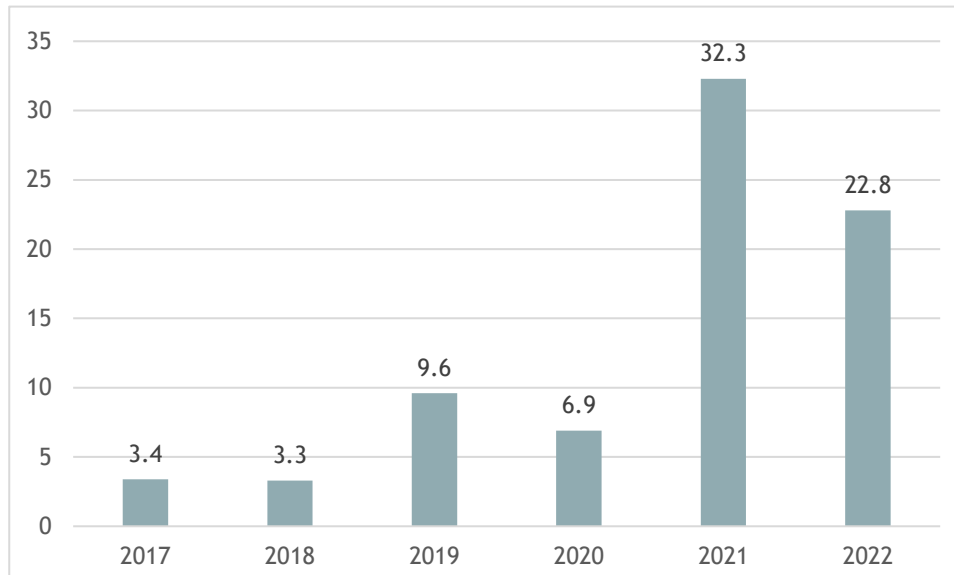
The Framework will be updated regularly in relation to developments of the sector, particularly regarding compliance with any updates to the Green Bond Principles, the European Taxonomy of Sustainable Assets and future EU Green Bond Standards as soon as they become available.

1.4.4. Availability of standardized documentation for issuing and monitoring of green/climate bonds, inclusion of socioeconomic impacts in evaluation and KPIs

Reference to the guidelines/templates made available by ICMA. Not known if other standardised documentation is available.



1.4.5. Market volume/number of Green and Climate bond emissions in the past 3-5 years



Italian Green Social & Sustainable Bonds: volumes in EUR billion per year

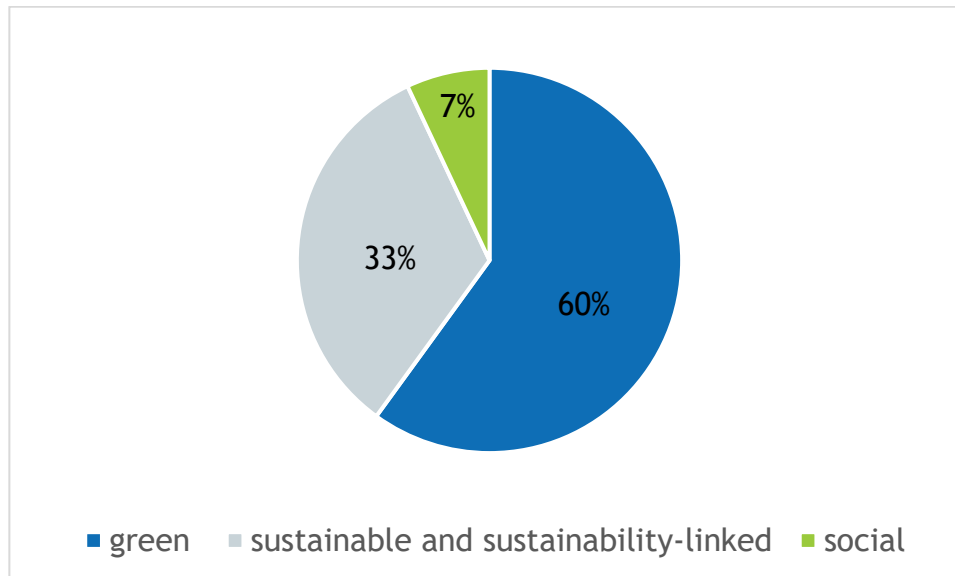
Source: Borsa Italiana, SustainAdvisory

The cumulative volume of GSS bonds issued by Italian companies, outstanding and listed on Borsa Italiana, has approached EUR 100 billion as for 30 June 2023 for a total of 131 GSS bonds issued in the period 2014- first half of 2023.

As for the year 2022, green, social and sustainable or sustainability-linked bonds issued by Italian companies decreased by 29.2% compared to 2021, with total volumes issued of EUR 22.8 billion compared to EUR 32.3 billion in 2021. The number of bonds issued also decreased by 27%, from 33 issued in 2021 down to 26.

After the decrease in 2022 due to the Russian-Ukrainian conflict and the resulting macroeconomic instability, which led to a generalised slowdown in investments and discouraged the demand for bonds, 2023 promises to be a record year for GSS debt issues, which could exceed the record volume of 2021. The number of GSS bonds issues in the first half of 2023 was equal to the number of issues in the whole year 2022, while the volume reached EUR 19.7 billion, compared to EUR 8.1 billion in the same period of 2022.

In the first half of 2023, green bonds accounted for 60% of the market volume, but sustainable and sustainability-linked bonds were also growing steadily with 33% of volume, while social bonds accounted for a residual 7%, declining steadily from year to year.



1.5. Green loans

- *Key financial institutions on the market, available products, trends and market volume in the past 3-5 years (if information is available)*
- *Project evaluation methods (use of economic assessments tools), monitoring of performances by financial institutions (if information is available)*
- *Availability of support mechanisms for preparation of projects with this instrument (information/consultation service, capacity building, technical assistance)*

1.5.1. Key financial institutions on the market, available products, trends and market volume in the past 3-5 years (if information is available)

Green mortgages and loans have become a significant part of banks' offerings in recent years as they constitute a product category that drives market interest, both for private clients and businesses.

Green mortgages and loans for private clients: these products are targeted at the private market and are mainly aimed at the purchase of high-efficiency residential buildings, the implementation of energy and water efficiency measures in existing homes, the purchase of residential renewable energy systems or electric and hybrid cars and vehicles.

Residential mortgages are a vital part of the housing market everywhere. In Italy, data of Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA) indicate that in the years 2018-2020, the proportion of homes purchased on credit was around 70%.

Following the first Italian banks that participated in the pilot project promoted by the Energy Efficient Mortgages Initiative, proposing the first green mortgages in Italy for the purchase or renovation of housing, now almost all major banks in Italy offer this type of mortgage.



Residential green mortgages are products designed to finance the purchase or construction of homes with high energy performance (class B or A) or to support refurbishment of existing residential buildings that allows an improvement of at least 30% in the building's energy performance. In any case, the characteristics and benefits for the clients may differ between banks.

Some institutions have broadened the pool of potential beneficiaries by also considering as eligible buildings those that after the refurbishment work can benefit from 1-2 steps in the energy class rate; a decision that can be interpreted as an attempt to make the green mortgage more accessible, considering that Italy's housing stock has an average energy efficiency level well below the green mortgage eligibility standard.

Clients choosing a green mortgage are offered a discount on the interest rate, usually 0.10 per cent, but there are financial institutions that offer larger discounts and combine free insurance products or environmental consulting services to improve the energy efficiency of the building.

In Italy, the green home loan market has been consolidating over the past two years. Despite a 25% increase in costs due to increasing rates, the number of green mortgages in 2022 grew by 324% compared to 2021. According to the joint observatory of Facile.it and Mutui.it, in 2022 demand for this type of residential loan accounted for 7% of all mortgages requested.

An analysis of the applications for green mortgages submitted during 2022 shows that the average value of the properties subject to this type of financing was EUR 216,090, which corresponds to 15% more than the value of properties linked to a traditional mortgage. In terms of percentage out of the total number of mortgages, the green ones were most popular in the following regions: Trentino-Alto Adige (18.64%), Friuli-Venezia Giulia (8.68%), Umbria (7.81%) Sicily (7.63%), Lombardy (7.62%) and Veneto (7.61%). Regarding the profile of applicants, it turns out that 4 out of 10 applications for green mortgages were submitted by people under 36 years.

One of the most active banks offering residential green mortgages in Italy is Banca Intesa Sanpaolo with the product "Green-Mutuo Domus". The mortgage is granted to those clients who purchase or build a residential property with a high energy class (equal to or higher than B) or renovate a residential property improving its energy performance rating by at least one class. The offer foresees a discount of 0.35% on fixed and variable rates for the repayment plans envisaged and includes a free energy certification service in the case of renovation of the building with consequent improvement of the energy class. Optional green services and products provided by partner companies (Energy Check CasaClima, online consultancy on the offer available on the market for the supply of electricity and gas in line with the customer's consumption habits, purchase of high-efficiency household appliances and other ecological products distributed by partners with an additional zero-rate loan) are also promoted to support the customer choices.

In 2022, approximately 15,650 green mortgages for a total value of over EUR 2.6 billion were issued. For every mortgage granted Banca Intesa contributes to reforestation projects with a donation.



1.5.2. Project evaluation methods (use of economic assessments tools), monitoring of performances by financial institutions (if information is available)

With regard to green residential mortgages, banks define as access requirement minimum efficiency standards for buildings to be purchased or upgraded. The evaluation mostly relies on EPC (energy performance certificates). In the case of retrofiting, the technical service for the elaboration of the EPC can be provided free of charge by the bank.

1.5.3. Availability of support mechanisms for preparation of projects with this instrument (information/consultation service, capacity building, technical assistance)

With regard to green residential mortgages, some banks are offering technical advisory services to clients (usually as optional fee-based services provided by associated partners).

1.6. Energy service companies (ESCO) and Public-private partnership

1.6.1. National policies, laws and regulating bodies

1.6.1.1. ESCOs

The Ministerial Decree Productive Activities 20/07/2004 introduced the role of the ESCO, defining them as "companies, artisan enterprises and their consortia that (...) have as social object, even not exclusively, the offer of integrated services for the realisation and possible management of interventions for the reduction of energy consumption".

Legislative Decree no. 115/2008 specifies that an ESCO is "a natural or legal person that provides energy services or other measures to improve energy efficiency in the installation or premises of the consumer, assuming a certain financial risk. Payment for the services provided shall be based, in whole or in part, on the energy efficiency improvement achieved and on the achievement of other performance criteria established".

Up to now, ESCOs in Italy has mainly specialised in the sectors of energy efficiency and energy production systems, with the possibility of obtaining the White Certificates due to interventions related to air-conditioning with heat recovery in buildings previously air-conditioned with non-renewable energy; biomass plants for heat production, solar panels, low enthalpy geothermal heat, combined heat and power plants; public lighting, commercial and industrial indoor lighting, etc.

ESCOs operating in the Italian market come from very different backgrounds. In some cases, they are associated with an electricity or gas distribution company, in others they originate from companies that supply HVAC systems to the property sector. In other cases, they are companies that provide energy management services or advice on organisational processes and energy management. Or they may be subsectors of companies that build large turnkey systems.

Most ESCOs on the market are private companies, but there are also ESCOs with public-private status that are organised to facilitate interventions in public institutions. In fact, they are allowed to take advantage of the administrative simplification that allows them to directly contract



interventions, bypassing public procurement obligations (Legislative Decree No. 267 of 18 August 2000 and the 2002 Finance Act).

The Legislative Decree n. 73/2020 confirms that only Energy Management Experts (EGE), certified according to UNI EN 11339, or ESCOs, certified according to UNI EN 11352, can carry out the energy diagnosis for the obligated subjects.

According to ACCREDIA (Italian Institute for Validation), there are currently 1025 ESCOs certified to UNI CEI 11352 in Italy.

1.6.1.2. Public Private Partnership (PPP) and Energy Performance Contracts (EPCs)

The PPP is a form of cooperation between public and private parties with the aim of financing, building and operating infrastructure or providing services in the public interest. It is a form of cooperation between public authorities and the private sector aimed at ensuring the financing, construction and operation or maintenance of an infrastructure or the provision of a service and has the following characteristics:

- the long-term nature of the public-private partnership (the partnership must also extend to the project profiles of the activity to be carried out),
- essentially private financing arrangements (limited public participation is tolerated) public participation is tolerated),
- a strategic and relevant role for the private party at each stage of the project (the public partner concentrates on defining the objectives to be achieved in terms of public interest, quality of services offered, pricing policy and ensuring the monitoring of compliance with these objectives),
- sharing the risk of the activity between the public and private parties.

In the Italian legal system, there was no specific legislation for the PPP and a number of special legal institutions were used from time to time: concessions for public works and services, project financing, financial leasing and joint ventures (with or without profit motive).

The PPP was regulated by Legislative Decree No. 50 of 18 April 2016 (New Contracts Code) in Part IV, Title I at Art. 180 et seq. In summary, Article 188 states that the private party must:

- construct the work,
- make the work available to the public authority,
- manage the work.

For its part, the P.A. is obliged to remunerate the private party by paying:

- an availability fee proportional to the use of the work,
- a possible contribution during the construction of the work, never exceeding half of the construction costs,
- a possible transfer price, if it decides to purchase the work.

Over the past year, energy efficiency performance contracts (EPCs) have also been added to the list of public-private partnership contracts. In EPCs, the public administration contracts a private



operator to design and implement energy efficiency measures. The private partner must guarantee that the energy efficiency measures will result in operating cost savings (such as reduced energy consumption or maintenance costs) for the owner of the facility (the public authority). These savings can be used to pay the private partner that carried out the efficiency measures.

1.6.2. Market maturity, trends and volume in the past 3-5 years

1.6.2.1. ESCOs

The ENERGY EFFICIENCY REPORT 2023 - ENERGY & STRATEGY, developed by Politecnico di Milano Dipartimento di Ingegneria Gestionale, confirms that ESCOs are reorienting their own commercial offer towards solutions able to integrate renewable and efficiency technologies in a 360° sustainable perspective.

The report presents the results of a survey carried out among more than 60 ESCOs operating in Italy. The report highlights the need to offer industrial and civil clients solutions that can minimise operational and financial risks. To achieve this result, contract typologies different from the standard turnkey are offered, such as EPC, based on the possibility of reimbursing the intervention as a result of an effective energy saving obtained.

In addition, the idea of concentrating mainly on service provision, such as design and consultancy, alongside a more traditional implementation activity, emerged.

EPC is also growing at around 8%, along with project finance, albeit at a lower rate (5%).

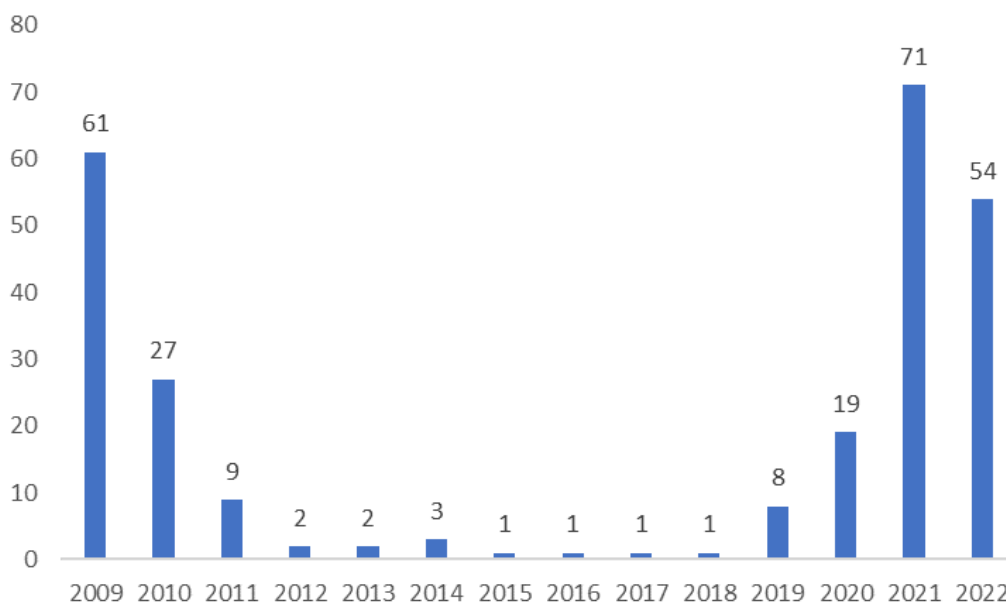
As regards the types of services offered, it appears that the implementation activity, which is currently widespread among ESCOs, especially in the civil sector, will have to give way to other types of services in the medium term.

Indeed, the activity expected to grow the most seems to be design, with a change of around 10% in both the industrial and civil sectors. Other activities that show a growth trend, albeit slight, are energy auditing and consultancy, the latter especially in the civil sector more than in the industrial sector, where it seems to settle around 17-18% of the breakdown.

1.6.2.2. PPPs and EPCs

The contracting authorities are required to notify the Technical Unit for Project Financing (now DIPE) of the Presidency of the Council of Ministers, in accordance with the procedures and conditions set out in a special circular to be issued in agreement with the National Statistics Institute (ISTAT). Data presented in this document are updated to August 2022.

Contracting authorities awarding public-private partnership contracts are required to enter the relevant information on a dedicated web portal (<https://ppp.rgs.mef.gov.it/ppp>).



Number of notifications on PPP transactions contracted in the period 2009-2022

Source: DIPE

There are 70 PPP contracts monitored by ISTAT between 2010 and 2022, broken down by sector as follows 35 in health construction, 6 in transport, of which 5 in urban transport, 6 in energy, 1 in institutional construction, 1 in urban restructuring, 8 in urban construction, 4 in school construction, 5 in social housing, 2 in university construction and, finally, 2 in port construction.

From 2020 ISTAT also classifies EPC contracts. The total value of contracts still seems rather low. The number of contracts classified by Istat is 56 and the total value of the contracts (total investment) is around EUR 320 million. It is important to note that almost 50% (around 30 contracts) were analysed in the last twelve months (between January 2022 and January 2023).

1.6.3. Availability of dedicated financial instruments for ESCOs, PPPs and EPCs

ESCOs can benefit from the following forms of funding:

- Funds from European financial institutions: the European Energy Efficiency Fund. The Fund finances projects promoted by public authorities, municipalities, public-private partnerships and ESCOs. The intervention includes equity, debt and a small grant component.
- Mission 2 of the Recovery Plan will finance projects in the fields of energy efficiency, green mobility and energy transition. 39 billion is available for investment projects submitted by public authorities and companies. In particular, public-private partnership initiatives will be supported, where ESCOs will play a key role.
- Investments by private funds operating at national and international level. An increasing number of investment funds are focusing on sustainable projects, assessing the initiatives to be financed based on environmental, but also social and governance criteria. These are the so-called ESG funds, which consider compliance with the selected criteria as a guarantee of return on investment.



1.6.4. Availability of support mechanisms for preparation of projects with this instrument (information/consultation service, capacity building, technical assistance)

DIPE provides assistance to public administrations on PPPs but is not involved in the technical-administrative approval processes. In order to activate assistance, a formal request must be submitted, signed by a top management body, the Mayor or the competent Councillor (in the case of entities, the Director General), stating the reason for the request. The request must be accompanied by all the documents deemed useful for the examination/assistance requested and for the formulation of the opinion. In particular, the following "minimum documents" must be submitted:

- Draft agreement/contract and related annexes (such as, in particular, specifications and documents relating to the specification of the design, construction, testing and management characteristics)
- Economic and financial plan (PEF) covering the investments and related management (including PEF in editable Excel format and with "open formulas"), with related illustrative report; illustrative project report; risk matrix.

1.7. Citizen-led initiatives

1.7.1. Crowdfunding

1.7.1.1. National policies, laws and regulating bodies

Italy was the first country in Europe to recognise the role of crowdfunding as a separate financial mechanism and to encompass its specificities and needs in a separate regulation on equity crowdfunding (Law Decree No. 179/2012, converted into Law No. 221 of 13 December 2012 as further amended).

The opportunity to raise funds through an equity crowdfunding campaign was initially restricted to Italian innovative startups and SMEs, which would in turn enable investors to benefit from fiscal incentives up to 30% of the amount invested in each specific deal. Later amendments and evolutions in the Italian equity crowdfunding regulation (Law Decree 3/2015, Law 232/2016), informed by market trends based on transaction volumes and positive impacts on access to finance for startups and SMEs, have led the Italian regulator CONSOB to open up the possibility of raising funds through a crowdfunding campaign also to those start-ups and SMEs that would not qualify as innovative as per the existing definition in Italy, actually to all SMEs.

To reduce uncertainties linked to the illiquidity of equity crowdfunding, the Budget Law for 2019 (Law 145/2018) has included the possibilities, for equity crowdfunding platforms, to provide their investors with a separate section of the website in which they can trade debt securities acquired through crowdfunding campaigns. This evolution must be read as an effort to further promote the uptake of this alternative financing tool by offering investors the opportunity of trading their shares at any given moment, in a sort of secondary market for equity crowdfunding.

As for lending crowdfunding, on the other hand, it has not been granted a dedicated regulation by Italian authorities, but it has instead been regulated by extending the applicability of existing



regulations as to additionally encompass Peer-to-Peer and Peer-to-Business lending activities. (Bank of Italy defines lending crowdfunding as social lending activity P2P and P2B as per Decree 584/2016). The reason behind this choice is to be found in the structure of lending crowdfunding, which can be more easily redirected to the general scheme of loans operations.

The first lending crowdfunding operators in Italy were initially authorised to operate by the Bank of Italy as financial intermediaries under Art. 106 of the Consolidated Banking Law, but in some cases, it did not take long for disputes to emerge with respect to their operational activity. Subsequently, the entry into force of Law Decree 11/2010, implementing the European Directive 2007/64/EC (Payment Service Directive), allowed the Bank of Italy to better define the regulatory context by placing lending crowdfunding platforms under the 'umbrella' of Payment Institutions (ex art. 114 septies of the Consolidated Banking Law, TUB), encouraging the creation of a new category of operators, also from non-financial sectors, active in the execution of payment orders.

In November 2016, again the Bank of Italy - after a year-long consultation - published a new provision (Resolution 584/2016, 'Provision containing provisions for the collection of savings by entities other than banks') containing provisions for the collection of savings by entities other than banks, with the aim of providing an initial regulatory framework for forms of financing alternative to the traditional banking channel. The resolution explicitly identifies the 'social lending' or lending-based crowdfunding, financed by a plurality of private lenders (small savers or institutional investors).

On 20 October 2020, Regulation (EU) 2020/1503 on European Crowdfunding Service Providers (ECSPs) was published, which introduced important new elements in terms of both the authorisation regime for platforms and the rules of conduct, as well as allowing the cross-border operation of platforms in other European countries, under a 'passporting' regime.

The Regulation came into force in November 2021 (except for the transitional regime for platforms already operating) and introduces a common framework valid for both equity crowdfunding and peer-to-peer lending. The lending to natural persons for personal purposes (i.e. consumer lending) is not affected by the new regulations.

The regulation was transposed at the Italian level in spring 2023 by the D.L. 30/2023 and the Consob Regulation No. 22720/2023, which abrogated the Consob regulation n. 18592/2013.

Regulating and Supervisory Bodies: Consob (Commissione nazionale per le società e la borsa) and Banca d'Italia

The transposition at national level of the European regulation 2020/1503 redefined the regulatory and supervisory activities, which were previously delegated to the CONSOB (the Italian authority for the supervision of financial markets) with regard to equity crowdfunding platforms and to the Bank of Italy with regard to lending crowdfunding platforms.

The Legislative Decree No. 30 of 10 March 2023 established that the Consob and the Bank of Italy are the competent national authorities for the elaboration of technical standards and the implementation of Regulation (EU) 2020/1503.

The Consob, after consultation with the Banca d'Italia, is responsible for authorising crowdfunding service providers and for the withdrawing of the authorisation. The Consob is also the competent authority to ensure compliance with the obligations imposed by Regulation (EU) 2020/1503 on transparency and fairness in the provision of crowdfunding services and to identify the national



provisions applicable to marketing communications disseminated on the national territory, as well as to carry out the relevant monitoring activities.

The Bank of Italy, having consulted the Consob, is responsible for the authorisation as crowdfunding service providers of banks, payment institutions, electronic money institutions and financial intermediaries and of its withdrawal, after consultation with the Consob. The Bank of Italy is further the competent authority to ensure compliance with the requirements on: capital adequacy, risk containment and holdings, disclosure to the public on the same matters; corporate governance and general organisational requirements; administrative and accounting organisation, internal controls, remuneration and incentive systems, risk management, internal audit where applicable, and outsourcing of operational functions; requirements for participants in the capital of the crowdfunding service provider holding at least 20 per cent of the capital or voting rights; checks on project owners; requirements on the corporate officers of the crowdfunding service provider.

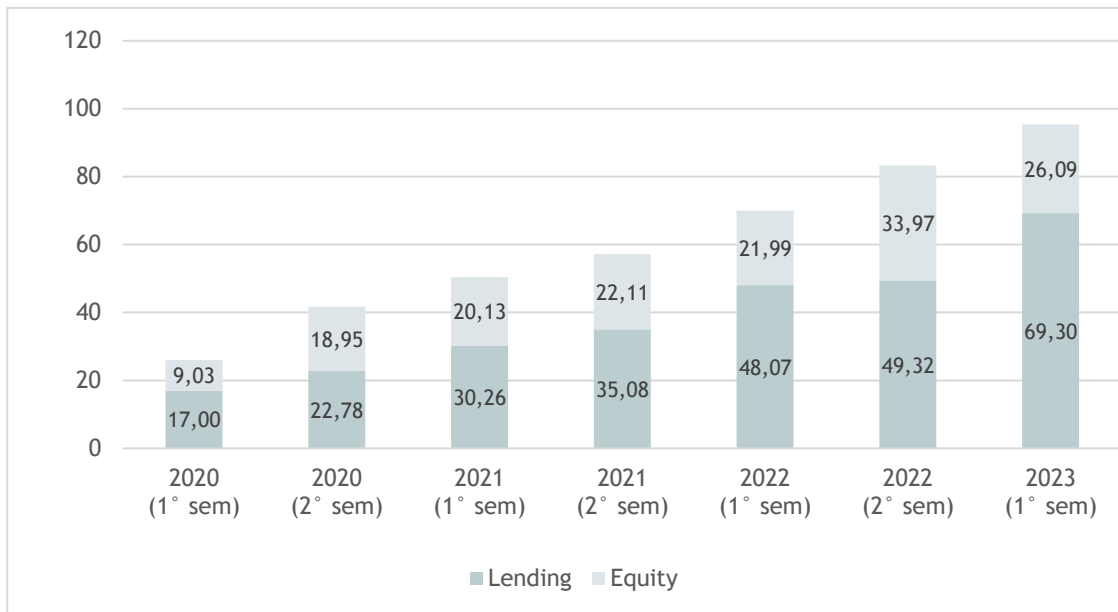
The Bank of Italy and the Consob, in the exercise of the competences and powers assigned to them, operate in a coordinated manner, also with a view to minimising the burdens on crowdfunding service providers. To this end, they conclude memoranda of understanding or amend existing ones and inform each other of measures taken and irregularities detected in the exercise of their supervisory activity.

1.7.1.2. Market maturity/volume, trends, current compliance of CF platforms with the EU crowdfunding directive

In 2023, for the first time in the crowdfunding trend, the total number of authorised crowdfunding platforms decreased because of the withdrawal of some operators and of aggregation processes, which will most likely continue in the coming months, since not all platforms operating today will have the capacity and the financial resources to cope with the EU directive requirements. The crowdfunding platforms are in fact working hardly to obtain the necessary authorisations according to the new European regulation by the deadline of 10 November 2023. At the date of 30 June 2023, we have in Italy 48 equity crowdfunding portals authorised by Consob (of which only 24 has launched an equity campaign in the last 12 months), 4 consumer lending portals and 27 business lending portals (17 of which operate in the real estate market).

The last twelve months also show a slight contraction of the market in terms of volumes of money collected (-1%). The value of the resources total collected in the last twelve months is respectively EUR 143.06 million for equity crowdfunding, EUR 20.82 million for minibonds placed on the portals, EUR 180.71 million for lending portals.

Real estate crowdfunding over the past 12 months has collected an amount of EUR 178.67 million with an increase of 40% compared to the previous period. In the first half of 2023 the average annual yield offered increased to 13.72% for equity offers and decreased slightly for lending offers (9.69%). For the real estate sector crowdfunding plays an important role as a boost in initial financing due to the speed of collection and the absence of collateral securities. Typically, the financed projects are short- to medium-term interventions that aim at the refurbishment (or new building) of real estate for later sale.

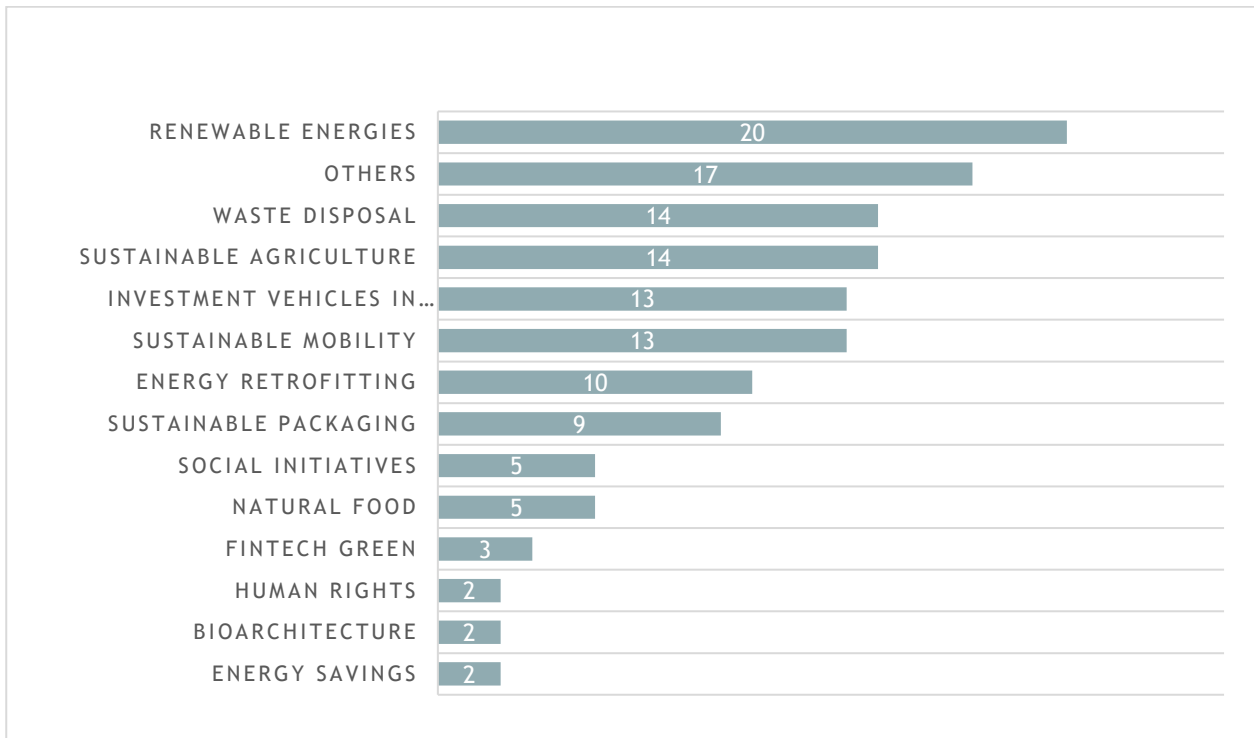


Funds raised by crowdfunding platforms operating in Italy, referring to real estate projects (in EUR million).

Source: 8° Report italiano sul CrowdInvesting, Politecnico di Milano - Dipartimento di Ingegneria Gestionale, Luglio 2023

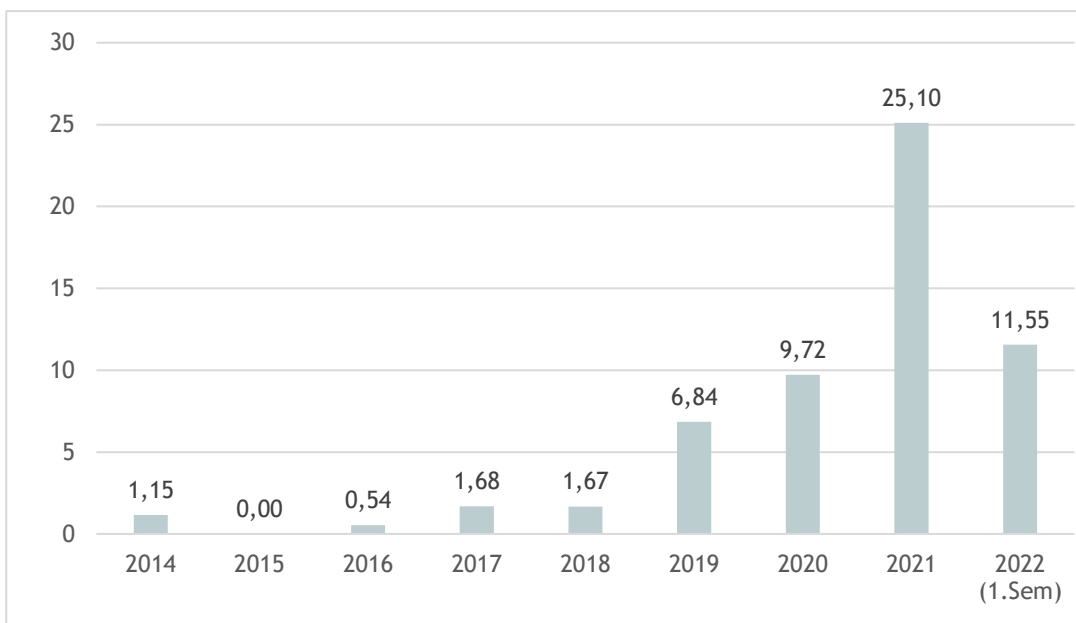
Since 2019 there was a great increase of investments in projects with a strong focus on sustainability, with a number of campaigns (21) essentially doubled compared to the previous year (10). The strong positive trend was confirmed in the immediately following years, with a total of 27 projects proposed in 2020 and as many as 34 in 2021 (the current record number of projects in a single year). The first half of 2022 shows the presence of 20 campaigns.

The same positive trend can also be seen when looking at the amount collected in each year: in 2021 EUR 25.01 million were collected, more than double if compared to the previous year (EUR 9.72 million). Of the 125 'sustainable' campaigns identified, those successfully closed are 103 (the success rate is therefore 82.4%, in line with the other campaigns). For the value collected, if we compare the value for the first half of 2022 with the same figure for 2021, a slightly lower value is found. The value of the resources total collected is EUR 58.26 million.



Types of projects for sustainable crowdfunding campaigns (per number of campaigns)

Source: 7° Report italiano sul CrowdInvesting, Politecnico di Milano - Dipartimento di Ingegneria Gestionale, Luglio 2022



Annual fundraising flow for sustainable equity crowdfunding campaigns (in EUR million).

Source: 7° Report italiano sul CrowdInvesting, Politecnico di Milano - Dipartimento di Ingegneria Gestionale, Luglio 2022



Ener2Crowd, a crowdinvesting platform specialised in green projects and sustainable investments (renewable energy production, industrial and residential energy efficiency, sustainable mobility and projects with a social impact) collected EUR 9.027 million from 1/7/2022 to 30/6/2023. The company financed more than 90 projects with a total funding of EUR 18.384 million and a green impact amounting to over 16,000 tonnes of CO₂ equivalent avoided. Several real estate lending platforms launched campaign for the energy efficient refurbishment of existing buildings stocks also linked to the Superbonus incentives (i.e. ITS Lending, The Builder)

A growing attention from the market and the need for institutional investors to provide transparency regarding the management of sustainability risks and how ESG objectives are taken into account in investment choices (based on the European SFDR standards) are also pushing issuers in the equity crowdfunding market to define sustainability metrics and targets.

Out of the 710 campaigns conducted between 2019 and 2022, 358 campaigns (50.4%) provided data useful for calculating and processing the metrics in modules 300 (Environmental) and 400 (Social). Despite this, data disclosure is still limited and focused on specific themes.

1.7.1.3. Project evaluation methods (use of economic assessments tools) by CF platforms and post-monitoring/reporting of impacts by CF project developers

To assure more transparency to the market and to protect investors, the Regulation (EU) 2020/1503 has introduced as mandatory requirement the Key investment information sheet. This document shall be made available by the crowdfunding service providers to investors after verifying the completeness, accuracy and clarity of the information provided by the project owner. In this way customers will be provided with clear information on the risks and financial burdens they may incur, including insolvency risks and on the project selection criteria.

Some platforms have already introduced project evaluation methods and tools for the selection and publication of their campaigns. This is for example the case of the Ener2Crowd platform, promoting projects in the field of energy efficiency and sustainability, that uses the Enerscore rating to assess the projects worth to be published. Projects can be rated from C to A+ and assigned different yield rates based on a multicriteria evaluation which considers:

- a credit analysis (which accounts for 60% of the possible points): the financial strength of the loan's applicant is assessed (creditworthiness check by an external advisor)
- a technical-economic analysis (which accounts for 30% of the possible points): the environmental, energy and economic performance data provided by the applicants are checked to verify the sustainability of the debt incurred with respect to the impact of the project
- company's history and management (which accounts for 10%).

The crowdinvesting platform Ecomill promotes energy transition and sustainable projects in different activity sectors. In the selection of the initiatives, Ecomill follows a strict procedure that includes the following steps:

- pre-selection process: based on the preliminary information delivered by the applicant, the Ecomill's team of analysts assesses whether the project is sufficiently in line with Ecomill's value proposition.



- evaluation process: if the project has been pre-selected, Ecomill's due diligence activities start. The Ecomill's team of experts will examine documents and information necessary to prove the goodness and truthfulness of the applicant's statements in the pre-section phase.
- follow-up: at the end of the fund-raising campaign, Ecomill will provide free periodic economic-financial information relating to the use of the funds raised on its platform; in particular, for 2 years following the successful outcome of the fund-raising campaign, it will send investors a half-yearly report on the progress of the financed initiative.

Ecomill's also provides a free of charge ESG evaluation of the selected project for a stronger validation of the initiative. The evaluation is entrusted to Banca Etica which is one of Ecomill's main partner.

1.7.1.4. Availability of support mechanisms for preparation of projects with this instrument (information/consultation service, capacity building, technical assistance)

Specific consultancy on project development, i.e. drafting of the business plan but also setting up of the necessary multi-channel marketing activities, is generally provided by the crowdfunding platforms themselves or by consultancy firms identified by the project proposer. Among these there are some specifically active in crowdfunding (e.g. CrowdAdvisors and Turbo Crowd). Where it is appropriate to provide funders with a specific valuation of patents, trademarks or in the case of real estate assets, technical experts or auditing firms may also be involved.

Consultancy to companies and crowdfunding information services are also provided by regional and local public authorities (through regional holding companies and dedicated helpdesks), business associations, Confidi and the Chamber of Commerce network (with the consortium company Innexta).

Several information portals on crowdfunding are also available in Italy: e.g. Crowdfundingbuzz.it, BeBeez.it, Equitycrowdfunding.news, Italiancrowdfunding.it, Breakingcrowd.it, il blog di Startupwallet.com/news.

In South Tyrol, Lvh-apa (Confartigianato imprese) has launched an assistance service for companies that want to finance themselves through crowdfunding. It has also promoted the Crowdfunding Südtirol - Alto Adige portal for reward-based crowdfunding projects <https://crowdfunding-suedtirol.it/>.

The Chamber of Commerce, Industry, Crafts and Agriculture of Bozen/Bolzano, on the other hand, has organised several courses and events for entrepreneurs in recent years on the financing of SMEs through alternative finance instruments and on crowdfunding platforms.



1.7.2. Energy cooperatives

1.7.2.1. National policies, laws and regulating bodies

The so-called historical cooperatives with their own network were born in Italy between the XIX and XX century, mainly in the peripheral areas of the Alps. These energy cooperatives, born thanks to the initiative of farmers, artisans, merchants and businessmen who decided to join together in cooperative structures, provided electricity produced by themselves using the water resources available locally. The energy produced by these systems was, and still is, available, first of all, to the members of the cooperative, according to the commercial conditions defined in the respective statutes.

Born in areas characterised by a low density of consumers (often exposed, due to their geological form, to relevant risks by natural disasters), the historical cooperatives have realized in time their own electric network to connect the production sites and the use sites, assuming, in absence of other electric networks, the service of distribution of electricity (as well as the sale of electricity) to final consumers, members and not.

Later on, these networks were connected to the national grid, guaranteeing the supply of final customers even in the absence of production due to the non-programmability of renewable sources (such as flowing water).

Some cooperatives were exempted from the nationalisation introduced by Law 1643/62 and later recognised and regulated by Legislative Decree 79/99.

In general, they are made up of a significant number of households as final customers, which can be classified as "members" or "non-members". The electricity grids built and developed by the energy cooperatives are the only ones present in their own reference areas, and they in exclusive supply entire areas that would otherwise be isolated. Considering all these particularities, it was decided, by means of Legislative Decree 79/99, to protect the specific nature of these cooperatives, establishing that:

- They are qualified as autoproducers with regard to the electricity they produce for their own use or for the use of their members;
- They may carry out the electrical distribution service also for the final customers who are not members of their own network and are not connected to it;
- They may continue to provide electrical distribution service based on the licences issued by the Ministry of Industry, Trade and Craft on 31 March 2001 and that will expire on 31 December 2030 but that may be renewed.

Compared to other models, the historical co-operative model has many advantages, as it is less constrained. Historical co-operatives can offer cheaper energy than private companies, also thanks to the possibility of combining production and distribution in the same entity and operating according to the no profit principle.

In order to define itself as "historical" and thus be able to maintain its independence from the national administration, the cooperative had to exist at the time of the adoption of Decree-Law 79/99.



The Autonomous Provinces of Trento and Bolzano make an exception: in those territories it is possible to find entities classified as existing historical cooperatives even if not necessarily historical, but simply existing on 5 August 2010 and able to connect final customers who are not members.

Historical cooperatives may be themselves concessionaires for the distribution of electric energy, they may delegate to a third distribution company that has obtained its licence for the distribution of electric energy, or they may or may not own a network for the distribution of electric energy to their members.

The Legislative Decree 79/99 divided the self-production systems (SAP) into the following categories:

- historical trader cooperatives with their own grid and historical non-trader cooperatives with their own grid;
- established consortia with their own grid (consortia or consortia companies established for the production of electricity from renewable energy sources, including for industrial use, and which have a grid for the transport and supply of electricity to their members);
- other self-generation systems (ASAPs).

1.7.2.2. Market maturity/volume, trends

ARERA (Regulatory Authority for Energy Networks and the Environment) carried out a national census in 2020 with the aim of registering the existing historical cooperatives, subdividing them into: historical dealer cooperatives with their own network, historical nondealer cooperatives with their own network, existing historical cooperatives with their own network and historical consortia with their own network.

The aforementioned census recognised:

- 1 "historical consortium with its own network"
- 38 companies declared as electricity cooperatives with their own network, among which are:
 - 8 electricity cooperatives that fulfil the requirements required to be defined as a "historical dealer cooperative with its own network";
 - 5 electricity cooperatives that fulfil the requirements required to be defined as a "historical no dealer cooperative with its own network";
 - 15 electricity cooperatives that fulfil the requirements required to be defined as a "existing historical cooperative waiting for the licence and with its own grid". Among these 12 are located in the Province of Bolzano and 3 in the Province of Trento;
 - 10 companies that are under further investigation to verify whether or not they meet the requirements for inclusion in the register of historical cooperatives or existing non-historical cooperatives with their own network, or to exclude them from the possibility of inclusion in the aforementioned registers.

Beyond the 10 companies on the previous list still waiting for a final decision, national legislation does not allow the formation of further energy cooperatives.



The above-mentioned census did not include historical or existing cooperatives and consortia that did not have their own network or had requested to be classified as efficient user systems (SEU).

1.7.2.3. Availability of support mechanisms

Support mechanisms do not exist because, as mentioned above, it is no longer possible to create new energy cooperatives.

1.7.2.4. National policies, laws and regulating bodies

Renewable energy plays an important role in the national energy policy. It is planned to reach a rate of 40% of the total energy consumption by 2030 in order to contribute to the achievement of the EU objectives.

Systems of medium dimension are promoted through different lines of action, such as the development of energy communities and self-consumption, individual or collective, specific fiscal measures correlated to the installation of small systems or dedicated to specific contexts that deserve special attention (for example, small islands interconnected).

Law Decree 162/19 (Article 42bis) and its implementing decrees, such as ARERA Resolution 318/2020/R/eel and Decree 16/09/2020 of the Ministry of Economic Development, have defined the mode and conditions for the activation of self-consumption by renewable sources and the development of energy communities. The transitional framework incentivised the possibility of association for sharing the electric energy produced locally by production systems up to 200 kW and shared by consumers connected to the same secondary electrical substation.

With Law Decrees 199 and 210 of 8 November 2021, the Italian State adopted, respectively, Directives (EU) 2001/2018 RED II, on the production of energy from renewable sources, and 944/2019 IEM, on common rules for the internal energy market.

Laws 199 and 210 were issued after an experimental period and partial adoption of the REDII and IEM directives, which lasted about 2 years. The figure of the energy producer/consumer has been introduced and renewable energy communities and autoconsumption collective groups have been regulated. At present, the implementing decrees are not yet available, which means that even if the final decrees have been issued, the limits introduced during the experimental period are still binding.

To realise an Energy Community, there must be at least two renewable energy production systems and at least two consumers located in different buildings. Both the generation systems and the consumers must be connected to the same transformer room. Currently, the transformer room must be a secondary substation, but the Implementing Decree of Law Decree 199/2021 will change this limit to a primary substation, allowing Energy Communities to include more than one municipality.

Energy communities can be formed by citizens, SMEs, regional and local authorities who come together to share the energy produced by the systems owned by the energy community itself or by some of its members. Members may be final consumers or producers. They are legal entities with no profit-making activity, and if companies are also members of the energy community, the production and sale of energy cannot be the main objective of their business.



The duration of the Energy Community must be longer than 20 years. The main objective of an Energy Community is not to make profits, but to provide environmental, economic and social benefits at local level to its members, shareholders or the territories where it operates.

If final consumers and/or producers are located in the same building, they are referred to as autoconsumer groups. The system that produces renewable energy can be located in a different building from the one that consumes the energy produced, but its control and use must be exclusive and referred to the co-owners.

Both the Energy Communities and the Autoconsumer Groups can build systems fed with RES with a power of 200 kW (this value will be increased to 1 MW by means of the implementing decrees of the Law Decree 199/2021) and receive the incentives managed by the GSE (Energy Services Operator).

At the beginning of March 2023, the Ministry of the Environment sent the European Commission a draft decree (Energy Communities Decree) aimed at providing concrete support for the creation of new Energy Communities and Autoconsumption Groups. The decree proposes two measures to encourage the creation and dissemination of energy communities and self-consumption groups through a 40% non-refundable contribution and a tariff incentive. Both measures are intended for new systems or the expansion of existing ones. The non-refundable contribution should only apply to municipalities with less than 5000 inhabitants, while the tariff incentives will be available regardless of the size of the municipality.

The authority in charge of verifying compliance with the requisites needed to form an Energy Community or an Autoconsumption Group is the GSE, a joint stock company founded in 1999 and wholly owned by the Ministry of Economy and Finance, to which the duty of promoting and developing the use of renewable energy sources and energy efficiency is attributed.

In order to avoid inefficiencies in the development of the grid, self-consumption configurations will be promoted, mainly using the existing electricity grid. They will be a tool to support the economy of small communities and provide the opportunity to produce and consume renewable energy even where self-consumption is technically difficult.

The PNRR investment M2C2 1.1 indicated specific resources (EUR 2.2 billion) to finance renewable energy production systems coupled with storage systems inserted in self-consumption groups or energy communities, especially municipalities with less than 5000 inhabitants and for a total power equal to at least 2 GW.

1.7.2.5. Market maturity/volume, trends

According to the report, entitled "Energy Communities against the crisis", at the end of 2021 there were 35 energy communities operating in Italy, 41 in project and 24 taking the first steps towards constitution. The figures are lower than those of other European countries. In some cases, they refer to experimental projects whose aim was to identify the best practices useful for the definition of the rules contained in the Legislative Decree 199/2021. The installations are mainly related to PV systems and have, in principle, a dimension that remains between 20 and 50 kWp.

The reasons for such a limited diffusion, compared to the rest of Europe, are probably related to the uncertainty caused by the lack of a defined legal framework, which is in fact still missing, at least until the implementing decrees of the Decree Law 199/2021 come into force.



In any case, the above-mentioned report underlines that Energy Communities are a growing trend in Italy, both in terms of the level of knowledge about them and the quantity of investments and projects. According to the report, three out of four companies (75%) and one out of six people (15%) come to know about Energy Communities, but only 13% of citizens and 32% of companies well know what it really means to be an Energy Community.

1.7.2.6. Availability of support mechanisms and standardized documentation

The GSE has created an ad hoc section on its institutional website dedicated to Energy Communities and Self-Consumption Groups ([link](#)) in order to describe what Self-Consumption Groups and Energy Communities are, specifying the access requirements and the contributions available, specifying how to submit the request and the following procedures, the reasons for excluding entities from configurations or rejecting requests, and the timelines for both accepting the request and paying the contributions. A section is dedicated to the collection of useful documentation, including various templates, reference legislation, rules and procedures.

There are currently several projects in the country focused on the dissemination of Energy Communities and Auto-Consumption Groups.

The LIGHTNESS project ([link](#)) started in 2020 and will end this year, involving 6 countries and 8 case studies. The Italian case study is an apartment building in Cagliari, Italy, consisting of a total of 8 apartments on 4 floors. The building is equipped with a photovoltaic system with a total power of 20 kWp. Two scenarios have been analysed: the first focuses on collective self-consumption realised at the level of a single building, while the second focuses on the study of an energy community made up of two neighbouring buildings of the same type. Specifically for this project, Ener2Crowd, one of the major Italian crowdfunding platforms, developed an innovative system of alternative financing to share the environmental and financial benefits, rewarding the community and the reference area and allowing collective participation. A fundraising campaign open to all was set up, providing an alternative source of financing to the traditional banking and financial circuits.

The GECCO - Green Energy Community project ([link](#)), financed by the EIT Climate-KIC fund and promoted by the Agency for Energy and Sustainable Development of Modena (AESS), ENEA and the University of Bologna is aimed to promote the generation and self-consumption of renewable energy in the Pilastro and Roveri neighbourhoods of Bologna through the creation of a local energy community, with the involvement of local residents, businesses and enterprises.

ENEA (National Agency for New Technologies, Energy and Sustainable Economic Development) developed the Recon - Renewable Energy Community ecONomic simulator application ([link](#)), aimed at supporting preliminary energy, economic and financial assessments for the creation of renewable energy communities.

ENEA's Department of Energy Efficiency Unit (DUEE) developed also S.A.P.I.EN.T.E. - Sistema di Accumulo e Produzione Integrata di ENergia Termica ed Elettrica, an experimental hybrid system realised with the aim of testing full-scale new micro-community energy systems applied to condominiums whose configuration maximises self-consumption and energy self-sufficiency with respect to the electricity grid.



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