

# Analytical report for market and stakeholder analysis

Output 4.1.7 - Italy

Based on expert interviews with financial stakeholders

**ENEA** 





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# 1. Organisations covered by the interviews

The expert interviews aimed at providing an overview on the different financial tools regarding eco-innovation in Italy.

We contacted experts from both the public and the private sector. From the public sector, we interviewed experts from some Regions, which are the main public bodies that promote policies for eco-innovation development, and from regional Financial Agencies, which are the financial operators of the Regions. Regarding the private sector, experts were from banks, banking foundations and venture capitalist firms. With these actors it was possible to cover a wide variety of information on the different financial tools for eco-innovation for SMEs.

The interviews focused on financial tools by analysing both sides of the eco-innovation process: on the one side, the policies for SME's energy efficiency and, on the other side, incentives for firms, especially for start-ups, which produce green technologies.

The following tables provide a brief overview on the approached organizations.

#### 1.1. Interviewees

Organisation	Туре	Interviewee	Role	Field of activity
Unicredit SpA	Private	Dr. Ludovica Lardone	Group Sustanibility Manager	Commercial Bank
Intesa San Paolo SpA	Private	Dr. Demetrio Cofone	Corporate Affairs Direction	Commercial Bank
Fondazione Cariplo	Private	Dr. Carlo Mango	Research Area Manager	Banking Foundation
Banca Popolare di Sondrio SpA	Private	Dr. Antonio Noiosi	Special Loans Dept.	Commercial Bank
360 Capital	Private	Dr. Diana Saraceni	General Partner	Venture Capital firm
Ambienta SGR SpA	Private	Ing. Fabio Ranghino	Origination Manager	Private Equity Operator
Regione Lombardia	Public	Dr. Armando De Crinito	Director of Innovation Dept.	Public Administration
Provincia Autonoma di Bolzano	Public	Dr. Maurizio Bergamini Riccobon	Director of Innovation	Public Administration









ASTER	Private	Dr. Paolo Bonaretti	General Director	Regional Innovation Agency of Emilia Romagna
FILAS	Public	Dr. Edoardo Lampis	Development Dept. Director	Regional Development Agency of Lazio
Veneto Sviluppo	Public	Dr. Albano Menin	Organization and Development Dept. Manager	Regional Development Agency of Veneto
Finpiemonte	Public	Dr. Dario Moncalvo	General Secretary	Regional Development Agency of Piemonte
Finpiemonte	Public	Dr. Stefano Grandi	Subsidized Finance Dept.	Regional Development Agency of Piemonte

## 1.2. Requested Interviews

A.R.T.I. Puglia	Public	Dr. Evelina Milella	President	Regional Innovation Agency of Puglia
A.M.E. Ventures Srl	Private	Dr. Michele Appendino	President	Venture Capital

# 2. Key findings

Energy efficiency is considered by all respondents as opportunity for all firms that want to rationalize the impact of energy costs on their balance sheet, by making it a leverage to increase competitiveness. The success of an enterprise, especially SME, is not only given by the financial results, but also by many other factors, including energy efficiency.

Most of the respondents believe that environmentally correct choices are also winning economic choices enabling companies to create long-term value. A good management of energy consumption not only brings benefits in terms of cost reduction, but also can be an instrument of control to improve internal organization and production autonomy.

The issue of reducing energy cost should be very important for the entrepreneurs, who see the reducing of costs as an opportunity to increase competitiveness. Nevertheless, many companies show a lack of awareness of the benefits resulting from a careful analysis of consumption and a more appropriate use of the available tools.

All respondents agree that most reasons that limit the development of eco-innovation are based on cultural, educational or communicational aspects as well as on lack of information. But there are also critical financial aspects. While subsidies and financial tools are frequently available, companies complain about bureaucratic and administrative procedures and about excessive fragmentation. Mostly, there are significant administrative burdens within the application procedures, which are not always necessary and appropriate for SMEs.









We would need more streamlined and centralized actions, such as the creation of a dedicated fund to provide subsidized credits or a guarantee fund placed at the disposal of enterprises from the "Cassa Depositi e Prestiti" (national public investment bank).

Furthermore, what emerges from the interviews is the lack of a long-term national road map for ecoinnovation and the need for a greater cooperation between public interventions and financial operators.

### 2.1. Market in general

The Italian industry in eco-innovation consists mostly of small and medium-sized businesses. They, as well as some spin-offs, have interesting features because they are able to incorporate innovative content that underlies the new competitive landscape.

The market of Italian eco-innovation is especially focused on some niches represented by:

- energy recovery from industrial processes;
- environmental technologies for energy recovery from waste;
- technologies for distributed generation;
- technologies to connect/integrate renewable energy sources to the electricity networks
- (smart grids).

Energy consumption in industry has grown steadily at a rate of 1.2% per year between 1990 and 2007, but in 2008/2009 the global economic crisis has led to a drastic reduction in energy consumption. The weight of the power consumption in industry has grown significantly up to 35% of the total consumption.

The use of energy in industry is far from being efficient. Thus there are great opportunities for improvement. For this reason, energy efficiency is no longer considered an optional choice, but an essential pre-requisite for long-term financial growth and improved competitiveness, especially in energy-intensive sectors.

Despite this, only 26% of the companies have plans to adopt an energy management system. For example, today it appears that only 135 factories adopt the Iso 50001 certification.

Over the years, a system of strong incentives for renewable energy sources has been put in place. At the same time, energy efficiency of enterprises has been less supported. Companies should make more use of loans of banks in support of efficiency investments and should refer to ESCO, which are companies that are specialized in such interventions, especially in the construction sector.

The market for "renovation" and "reconstruction" of buildings in Italy has a great potential.

55.4% of Italian buildings have more than 40 years and in 10 years will be 68.6%. It therefore seems appropriate to encourage investments, especially in a first phase in large cities.









### 2.2. Financing options

After the 2007 plan with guidelines for achieving the objective of improving energy services, the Ministry for Economic Development issued in June 2011 a new "Italian Action Plan for Energy Efficiency". The new Plan (PAEE2011) lays down the foundation for strategic planning of energy efficiency measures.

Despite this, the information gathered from the interviews shows an important fragmentation of initiatives and financial instruments and a lack of overall coordination.

Very important, but under-used by SMEs, are the funding opportunities of the European Commission, as for example the Seventh Framework Programme or in addition:

- the LIFE + program, aimed at supporting SMEs in environmental compliance projects;
- the JEREMIE program to support SMEs with financial instruments dedicated to the Regions;
- the Eco-innovation initiative under the EU's Entrepreneurship and Innovation Programme (EIP) set up to support innovation among SMEs and to improve their competitiveness.

49 Italian projects on eco-innovation were funded in the following fields: Materials recycling, Sustainable building products, Water, Greening business.

#### 2.2.1. Public national financial measures

There are many national tools for supporting and promoting eco-innovation, such as incentives for the production of electricity from renewable sources, the Energy Efficiency Certificates, the Thermal Energy Bill, the tax deductions.

The mechanism of White Certificates, or more properly Energy Efficiency Certificates (TEE), entered into force in 2005 and is particularly innovative. It consists of the creation of a market for energy efficiency stocks, to monetize effects of energy savings as a result of interventions. From 2013, the Thermal Energy Bill is in force that funds projects to improve Public Administration energy efficiency as well as the production of thermal energy from renewable sources for private entities.

Italian Government also intervenes with tax deductions, which reduce the impact of investments in eco-innovation. There are two ranges of tax deductions for energy saving: 55-65% and 36-50%. The deduction of 55% (scheduled in 2007) has been increased to 65% until

31 December 2013 and it applies to: energy improvements of existing buildings, works on building envelopes, installations of solar panels and replacement of air-conditioning systems. Also thanks to these incentives, it became easier to be funded by the ESCO (Energy Service COmpanies), which charge all the costs and risks related to work and recovers the investment through a mortgage on the value of achieved energy savings.

Another important national measure regards electric motors. The 74% of the electricity consumed by the industrial sectors is in fact due to motor systems. Since 2007, the Government has provided an incentive for the purchase and installation of high-efficiency electric motors, consisting of a tax deduction of 20% of the cost.







#### 2.2.2. Measures for Research & Innovation

Many of the respondents pointed out that one of the critical aspects of eco-innovation is the lack of a strong research activity on this issue.

The Italian government favours eco-innovation also through incentives for Research & Innovation. The main research themes in this area developed in Italy are: Energy efficiency, Renewable Energy (bioenergy, solar, hydro, geothermal, wind), Emission reduction, Energy storage, Smart Grid, Power System Flexibility.

Industria 2015 program, launched in 2006, sets out the strategic priorities for the development and competitiveness of the Italian industrial system. In the period of 2008-2009 three calls were launched with a total budget of almost 800 €/mln; one of them was dedicated to Energy efficiency and renewable energy with a budget of 200 €/mln. The program, however, has registered some problems of delayed payments, caused by excessive bureaucracy, by non- adequate management structure and by difficulties in evaluating and organizing the projects. These delays, especially in a sector heavily reliant upon technology innovation, may waste good projects and discourage the participation of SMEs.

In this field there is another program called Research System (RdS), which funds R&D aimed at technical innovation for electrical systems. It has a budget proportional to the level of power consumption.

Other national innovation programs that concern the field of eco-innovation are:

- Kyoto Fund, a revolving fund, with a total budget of 600 €/mln, to finance, at a subsidized rate, measures to reduce pollutant emissions, aimed at implementing Kyoto Protocol;
- Contracts of technological innovation (FIT), with 60 projects evaluated positively; Development programs, with a budget of around 400 €/mln to finance large innovation projects in industry;
- National Innovation Fund (FNI), with a budget of 75 €/mln, to finance innovative SMEs;
- Start-up Call (FIT), closed in 2010, with availability of 55 €/mln.

Finally, two programs, co-funded by EU Structural Funds, are dedicated to the regions in Convergence Objective:

- the interregional program "Renewable Energy and Energy Efficiency" (POI-Energy 2007-2013), which funds projects specifically for the local development of energy efficiency and renewable energy;
- PON Research and Competitiveness 2007-2013, that finances initiatives raising the level of
  innovation and competitiveness, with a specific goal for the encouragement of renewable
  energy and sustainable development. Despite the large availability of funds from these
  programs, progress appears to be unsatisfactory. There has been a good participation and
  interest from local players, but a significant delay in payments.

#### 2.2.3. Regional Financial measures

National Government operates mainly through tax incentives and funding related to Research & Innovation. Direct incentives are primarily provided by the Regions and often they are managed by the Regional Financial Agencies, which are the operational and financial structures of the Regions.







There are many and fragmented interventions, locally managed, but very interesting for SMEs in their territories.

Piedmont Region, through its financial agency Finpiemonte SpA, has activated two complementary measures. The first one¹, with a budget of about 120 €/mln since 2008, promotes business investment in sites to generate energy using renewable sources and to improve the energy efficiency of production processes. The second one² aims at promoting investments in the start-up of new production lines for the use of renewable energy sources and energy efficiency through the creation of new machinery, renovation or conversion of existing manufacturing plants. These measures, dedicated to projects in minimum amounts of 50.000 €, combine a grant (75% of eligible costs) with a loan at a subsidized rate (25% of eligible costs).

Moreover, most of the various incentives for innovation in Piedmont companies provide a bonus in the case of programs aiming at the reduction of emissions into the atmosphere and water bodies, improvement of the waste cycle, safety and energy efficiency, or rationalization of water consumption.

Finpiemonte also supports a number of innovation projects in the field of eco-innovation, such as Innovation Hubs "Sustainable Architecture and Hydrogen", "Renewable energy and biofuels", "New Materials", "Sustainable Chemistry" or as the "Green Engine for Air Traffic", a project which aims at creating a permanent structure for aeronautics R&D.

In Lombardy is located about 50% of firms producing power plants and energy equipment, with a total turnover of about 9 mln/€. The measures adopted by the Lombardy Region are primarily aimed at promoting eco-innovation in small and micro enterprises. The biggest obstacles are often the cultural deficits about the real opportunities that the rational use of resources can offer in terms of process optimization and business costs.

In particular, the Lombardy Region, with the support of the financial agency Finlombarda SpA, has adopted a structured action under the Regional Competitiveness Operational Programme 2007-2013: the TREND project<sup>3</sup>. This experience was considered as best practice within the Concerted Action of the European Commission for the better implementation of the Energy Efficiency Directive.

The project TREND was aimed at promoting awareness, competences and tools for energy efficiency in SME's. It was carried out in three steps:

- · Analysis and Scouting;
- Energy Audit: call for experts in energy management and notice for financing 75% of total costs (with a maximum of 5.000 €) to carry out energy audit in up to 500 enterprises;
- Measures for improving energy performances: notice reserved to the enterprises subjected to previous audit, and aimed at identifying and to financing (50% of total costs with a maximum of 50.000 €) the best projects for improving energy performances in terms of innovation, energy saving, environmental benefits and competitiveness.

175 enterprises presented a project in the notice financing measures for improving energy performances, after a formal evaluation 169 of these were admitted to technical assessment. The technical assessment has allowed evaluating 88 best projects for improving energy performances that was financed. The total cost of the 88 project financed was about 8.5 mln/€.

<sup>&</sup>lt;sup>3</sup> http://www.trend.regione.lombardia.it/





 $<sup>^1\,</sup>http://www.finpiemonte.it/Libraries/Documenti\_agevolazioni/por\_energia\_scheda\_informativa\_misura1.sflb.as~hx$ 

<sup>&</sup>lt;sup>2</sup> http://www.finpiemonte.it/Libraries/Documenti\_agevolazioni/scheda\_misura2\_maggio.sflb.ashx



The Lazio Region in 2013 allocated 50 mln/ $\[ \]$  for SMEs investing in energy efficiency and renewable energy sources. This measure supports, as a low-interest loan, investments to save energy, the construction of machinery and the production of renewable energy. The eligible costs consist of the costs of tangible investments and advisory services, studies and projects. The facility is granted in the form of a subsidized loan and can cover up to 100% of eligible costs. The total amount of a project cannot be less than 100.000  $\[ \]$  and may not exceed 5 mln/ $\[ \]$ . The loan is divided into two parts: a low-interest loan (75% of the total) and an ordinary loan (equal to the remaining 25%).

A particularly innovative measure adopted by the Lazio Region through the regional financial agency FILAS SpA provides venture capital for innovative start-up companies<sup>5</sup>. The measure allows FILAS to double the financial contribution of venture capitalists, with incentive mechanisms for investments by the private sector. To date, about 30 operations were made, attracting private resources of about 20 €/mln, of which about a quarter within the eco-innovation sector.

A mixed technique, which integrates a non-repayable grant with a facilitated loan, was adopted by the Veneto Region, through its financial agency Veneto Sviluppo SpA. The Energy Fund<sup>6</sup> is a revolving fund launched in 2013 for investments made by local SMEs for the reduction of energy consumption. The available budget is 23.8 mln/ $\in$ , partly as a subsidized loan at zero interest (15 mln/ $\in$ ) and partly as a contribution to capital (8.8 mln/ $\in$ ).

Projects are funded from a minimum of 25.000 € to a maximum of 2 mln/€. More than this fund there is another one for discounted rate bank loans, bringing the overall budget to almost 40 mln/€.

Other example of regional incentives is the Energy Fund<sup>7</sup> of the Emilia Romagna Region, with an overall budget of 24 mln/€. It is a revolving fund to support the sustainable development and the environmental and energetic requalification through the improvement of the energy efficiency, the spreading of the renewable energy and the use of clean technologies also promoting the creation of new companies in the field of the green economy. The fund sums 23.7 mln/€ and proposes easy credit terms for a maximum amount of 300.000 €. It is financed for the 40% using public resources and for the remaining 60% by resources of lending institutes. The maximum term for the restitution of the credit is 4 years and the rate is corresponding to the Euribor interest rate increase of 3 percentage points. Eligible projects are: energy efficiency increasing, renewable energy plants, smart grid, products and services allowing the reduction of the fossil fuel consumption, innovative technologies for a cleaner production.

Another fund is the Liguria Region one<sup>8</sup>, managed by its regional financial agency FILSE SpA, which aims at encouraging and supporting business investments in the purchase and modernization of plant and machinery in order to improve the production cycle and to promote the rational use of energy.

An Italian best-practice is provided by the Autonomous Province of Bolzano Alto-Adige that made the issue of eco-innovation and energy efficiency one of its main strategies. The Province facilitates businesses through targeted calls for proposals on issues of sustainable mobility, renewable energies, Alpine technologies and new building materials. The Province also provides an aid of 30%

<sup>&</sup>lt;sup>8</sup>http://www.regione.liguria.it/argomenti/affari-e-fondi-europei/por-fesr-2007-2013/bandi/asse-2-azione-22/azione-22-produzione-di-energia-da-fonti-rinnovabili-e-efficienza-energetica-imprese-bando-2013.html





<sup>4</sup> http://www.sviluppo.lazio.it/leggi.asp?lcat=71

<sup>&</sup>lt;sup>5</sup> http://www.filas.it/Page.aspx?IDPage=114

<sup>&</sup>lt;sup>6</sup>http://www.venetosviluppo.it/portal/portal/vs/Attivita/Agevolata/ProdottiWindow?action=2&categoria=Finanziamenti&prodotto=%2FFinanziamenti%2FPOR Fesr0713 A213

<sup>&</sup>lt;sup>7</sup> http://fesr.regione.emilia-romagna.it/finanziamenti/fondi/energia



on energy extra-costs and, through the agency Casa Clima<sup>9</sup>, promotes ecological certification of buildings and industrial sites.

#### 2.2.4. The role of credit institutions

According to most respondents, private financiers do not really make a difference whether a project is on eco-innovation or not. They usually use the conventional set of financial criteria (indicators, strategic documents, business plans etc.) in order to decide if and how to finance a business project.

Private financial institutions, such as banks, are very cautious in this area, because it is a highly innovative business and therefore highly risky. The risks arise both from the market but especially from a high variability of the legislation framework.

There are different bank loans available for SMEs that want to invest in eco-innovation, but a number of barriers still exist and need to be addressed. Often SMEs find some hang-ups to pass the evaluation criteria of commercial banks, especially nowadays because of the lack of capital in the financial system. Banks are reluctant to make exceptions to standard procedures. Regarding the bankability assessment, energy efficiency solutions, and more in general the overall cleantech sector, still suffer a scarce predictability in future cash flows, except for some. Financiers are more available to support projects, where risk management is transparent and more reliable.

For small or medium size projects, transaction costs to assess technical reliability and performance (such as costs associated to due diligence, legal and engineering advisory, feasibility studies) are often very high, at least in relative terms. Resource efficiency technologies and solutions are very much diversified and many of them are not yet standardized. Therefore, investors intending to assess their technical viability and reliability need an ad-hoc evaluation, which entails additional costs and technical skills not internally available.

Moreover, according to the interviewees, when companies apply for bank loans, they usually concentrate themselves on projects related to their main activity rather than eco-innovations. Finally, the possibility of achieving returns in the field of energy efficiency is somehow still dependent on the presence of public incentives. If these public incentives are not enough stable and long term oriented, private investments are discouraged.

Despite all, according to a study presented by ABI's Renewable Energy Observatory, the sector that made the largest investments in Italy during the crisis was the Green Economy. Most of the banks do not have special financial products for eco-innovations, but there are also some banks that offer "ad hoc" instruments with subsidized rates for those who aim eco-sustainability. The green loans granted by banks may concern: energy efficiency improvements, construction of buildings according to criteria of sustainability and the purchase of residential properties at high-energy class.

Some financial institution believes that environmental protection and responsible use natural resources are huge opportunities to better serve their customers. In fact, from 2007 to 2011 the banking system financed projects for around 20 billion €.

Intesa Sanpaolo Group contributed approximately with 7.5 billion euro, providing a wide range of financing and advisory services to support investments in the sectors of energy from renewable sources, resource efficiency, and the environment. With reference to the small business, also

<sup>9</sup>http://www.agenziacasaclima.it/







thanks to the new "Finanziamento Energie Rinnovabili" loan in support of renewable energy sources other than photovoltaic energy, loans were disbursed in 2012 for a total of around 443 mln/€. For larger businesses, 2012 saw disbursements of medium and long term loans for approximately 850 mln/€ in support of projects involving the use of photovoltaic panels, biomass and hydroelectric plants.

A significant number of loans were also granted for plants for the production of energy from renewable sources and for resource efficiency through Leasint<sup>11</sup>, the Intesa Sanpaolo Group's company dedicated to lease transactions.

It's worth mentioning the bank Agriventure<sup>12</sup>, a company dedicated to the food farming, agroindustrial and agro-energy sector which provides advisory services to businesses in the field along the entire chain. Agriventure finances operations often integrate EU funds aimed at the development of rural areas and resource efficiency. In 2012, almost 1% of total funds allocated concerned the renewable energy, agriculture and environmental protection sectors.

The amount comes to approximately 3 billion euro.

To best support entrepreneurs in this sector, Unicredit Group, in partnership with WWF and Solon SpA launched the project Officinae Verdi<sup>13</sup> that provides technical and financial advisory services to companies for an efficient energy management and for the production of energy from renewable sources. The project provides support both during the evaluation phase of the project specifications and during the construction of the financial structure, also identifying technical and/or industrial partners if necessary. Furthermore, the advisory support is aimed at describing to entrepreneurs the procedures for accessing the credit facilities available from time to time.

Particular attention to eco-innovation has been paid by some local banks, such as Banca Popolare di Sondrio. In these cases, no specific financial tools were adopted, but with a greater flexibility ad hoc loans to support companies involved in energy efficiency projects or ecological restructuring were designed.

Other banks that offer green mortgages are: Banca Sella, with its Financing Clean Energy<sup>14</sup>, that offers financial solutions to companies for the construction of plants using renewable sources (photovoltaic, biomass, biogas, wind, hydro, etc.), with flexible and diversified solutions related to the analysis and evaluation of projects in both technical and financial aspects; BNL, with its Energy XL<sup>15</sup>, finance up to 100% of the costs incurred for the purchase and installation of photovoltaic systems; Banca Credem offers Energy Mutual<sup>16</sup>16, dedicated to privates who want to invest in clean energy production through the purchase and installation of photovoltaic solar panels (the mortgage covers up to 100% of the cost with a repayment period that can reach up to 180 months).

<sup>16</sup> http://www.credem.it/Privati/Mutui/Pagine/mutuo energia.aspx





 $<sup>^{10}\</sup> http://www.intesasanpaolo.com/finanziamenti-energia/finanziamento-energie-rinnovabili.jsp$ 

 $<sup>^{11}\,</sup>http://leasing.mediocreditoitaliano.com/leasenergy/leaseenergy-20-200.html$ 

<sup>12</sup> http://www.agriventure.it/

<sup>13</sup> http://www.officinaeverdi.it/

<sup>&</sup>lt;sup>14</sup> https://www.sella.it/ita/aziende/finanziamenti/index.jsp

http://www.bnl.it/wps/portal/professionisti/FINANZIA-LA-TUA-CRESCITA/Finanziamenti-a-medio-lungo-termine/Prestito-BNL-Energia



### 2.2.5. Venture Capital

Venture Capital in Italy is still an underdeveloped industry and pays little attention to SMEs' ecoinnovation, even for start-ups.

Since 2000, in Italy the start-ups in the energy and environment sector represented approximately 17.4% of the total. The average number of employees in these firms is 7.2, with an average turnover of 394,000 €. There are very few start-ups in the energy and environment sector with a high turnover: only 6.1% of the total have a turnover of more than 1 €/mln.

This is one of the reasons why venture capitalists are not very interested of investing in the sector. In addition, respondents indicate a serious problem in the exit strategy of a venture capital operator, as there are a few big buyers in this field worldwide.

## 3. SWOT Analysis

### 3.1. Strengths

- Energy efficiency is considered by firms as an opportunity for competitiveness.
- The Italian industry in eco-innovation has interesting features as many companies are able to incorporate innovative content that underlies the new competitive landscape.
- The market of Italian eco-innovation is especially focused on some innovative niches.
- Public sector provides a wide variety of measures and different financial tools for ecoinnovation for SMEs.
- There are many opportunities and incentives for Research & Innovation.
- There are very interesting regional interventions, locally managed by the regional Financial Agencies, which are the financial operators of the Regions.
- A system of strong incentives for renewable energy sources has been put in place.
- The Ministry for Economic Development issued in 2011 a new "Italian Action Plan for Energy Efficiency" that lays down the foundation for strategic planning of energy efficiency measures.
- Some banks offer ad hoc instruments with subsidized rates for those whose aim is ecosustainability.
- There are some Italian best-practices, for example the one provided by the Autonomous Province of Bolzano Alto-Adige.

#### 3.2. Weaknesses

- Many companies are little aware of the benefits resulting from eco-innovation.
- The use of energy in industry is far from being efficient.
- The complexity of the legislation on environment and the fragmentation of interventions make eco-innovation difficult to understand for SMEs.





# PRES URCE

- There is a lack of a strong and coordinated research activity on eco-innovation.
- Available public financial instruments are fragmented and require administrative and bureaucratic procedures, which are too costly for SMEs.
- Private financial institutions, such as the banking system, are cautious in this area and not inclined to long-term commitments.
- The funding opportunities of the European Commission are under-used by SMEs.
- The average size of Italian firms is very small and there are still few aggregation experiences such as industrial networks and clusters.
- The payment procedures of the Public Administration are complex and have many delays. This discourages SMEs to participate in tenders.
- Venture Capital in Italy is still an underdeveloped industry.
- The high fragmentation and complexity of the energy and building value chain, which
  involves multiple stakeholders, such as local authorities, capital providers, developers,
  agents, materials and equipment suppliers, contractors, engineers, designer, owners and
  users.

## 3.3. Opportunities

- There is a widespread interest on eco-innovation from firms and local players.
- Growing awareness in many entrepreneurs about the importance of sustainable development.
- Eco-innovations would become a more competitive-based sector, with a clearer regulatory environment.
- The market for "renovation" and "reconstruction" of building in Italy has a great potential.
- More streamlined and centralized actions for eco-innovation are needed.
- It is desirable to create a dedicated fund to provide subsidized loans or a guarantee fund placed at the disposal of enterprises from the national public investment bank "Cassa Depositi e Prestiti".
- Companies should make more use of loans of banks in support of efficiency investments.
- A stronger cooperation between public interventions and financial operators is needed.
- The mechanism of White Certificates, for the creation of a market for energy efficiency stocks, is particularly innovative.
- Many Italian cities are working for designing a Smart-City strategy.
- It would be useful to develop effective mechanisms for Public Procurement of Ecoinnovation.





# PRES URCE

#### 3.4. Threats

- The current economic downturn is definitely an important element weakening demand in resource efficiency investment, compared to the potential.
- Most factors that limit the development of eco-innovation derive from cultural, educational or communicational features as well as on lack of information: Energy efficiency is in many cases perceived as a vague concept by SMEs.
- Eco-innovation is made of many different solutions for features, size, innovativeness and performance, which makes it difficult to explain and to understand and, therefore, it is difficult to be promoted and financed in the short term.
- The payback period of the investments is relatively long and, therefore, it is difficult to be made by companies in absence of appropriate supportive incentives.
- There is a lack of a long-term view and strategy for eco-innovation.
- The regulatory framework is too unstable, which makes investment too risky.
- The too bureaucratic procedures of Public Administration frustrate some incentives available at the national and local level.
- The rules on State aids complicate the procedures to have access to public support, in particular for SMEs.
- There isn't a real valorisation of spin-offs and start-ups.



