

New Energy Solutions Optimised for Islands



**EUROPEAN ISLANDS FACILITY**

## D1.5: Mapping of Financial Instruments



## WP1, D1.5 Mapping of Financial Instruments

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## Technical references

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## List of Acronyms

EE - Energy Efficiency

EFSI - European Fund for Strategic Investments

EIB - European Investment Bank

ESIF - European Structural Investment Funds

GEFF - Green Economy Financing Facility

HVAC - Heating, ventilation, and air conditioning

IFI - International Financial Institutions

IRR - Internal Rate of Return

JESSICA - Joint European Support for Sustainable Investment in City Areas

JTM - Just Transition Mechanism

MFF - Multiannual Financial Framework

NGEU - Next Generation EU

PF4EE - Private Finance Instrument for Energy Efficiency

RES - Renewable Energy Sources

SRI - Socially Responsible Investing





# 1 Introduction

## 1.1 Background Information about the EU Island Facility NESOI

The EU Islands Facility NESOI (New Energy Solutions Optimised for Islands) is a four-year Horizon 2020 project funded under call topic LC-SC3-ES8-2019 (European Islands Facility -**Unlock financing for energy transitions and supporting islands to develop investment concepts**)<sup>1</sup>. It began on 1 **October 2019** and will finish on 30 **September 2023** and is made up of a multi-disciplinary consortium consisting of **10 partners from 7 EU member states**. It has a total budget of **€10mIn** which approximately **€3mIn** are dedicated to a cascade funding mechanism to provide **direct financial support to EU Islands**. Coupled to consortium capacity building activities, the facility, open to a community of **2400 EU islands**, **aims to fund 60 successful energy transition projects**, mobilizing more than **€ 100 mIn of investment to significantly reduce CO2 and GHG emissions by 2023**.

In short, the European Islands Facility NESOI has three key **objectives**:

1. **Promote and facilitate investments** processes for energy transition in the islands,
2. **Facilitate the decentralization of energy systems**,
3. **Contribute to EU policies and the achievement of 2030 targets**.

## 1.2 Objectives of Task 1.5

The main objectives of Task 1.5 were to:

- **Gathering data** regarding funding sources available in Europe and specifically for the islands
- **Identifying relevant financial models** inspiring for both promoters and financiers of energy solutions in islands
- Creating a map of the most important **financing opportunities** that could be matched by beneficiaries

## 1.3 Islands' needs - Evidence from the Survey

The considerations illustrated in this Report take into account the main evidence resulted from **NESOI Survey** (Task 7.2), carried out to collect islands' needs, that are briefly summarized below.

NESOI survey reached 128 respondents coming from 107 different islands, that provided details for 235 projects. What emerged is:





1. Islands are aware of public funds (local, regional, national, EU funds), but their **confidence towards private funds is low**.
2. Islands' planned projects are in the **RES, energy efficiency** (efficiency improvement to HVAC systems and to diesel generators, transformers and cabling) and **sustainable mobility** sectors, also **energy management** projects represent a considerable percentage of planned projects.
3. Majority of projects are at an **early stage of development**: almost half of them has not started planning activities.
4. The **average size** of the investments of islands' projects is in a range between **500k and 2 million Euros**; about 36% of the projects presented by the respondent islands entail and investment in excess of 10 million Euros.
5. One of the main economic barriers to the realization of projects is the **lack of own funding** to be added to the available funds for the projects: promoters do not have the economic capacity to co - finance projects.

The approach adopted to analyze information collected about available funding is a **critical approach**, that aims at understanding whether funds available match islands' needs or if they do not fit them and should be "adjusted" accordingly, or if new financial instruments should be thought of.

## 1.4 Executive Summary

In order to identify relevant financial models and opportunities that could be matched by beneficiaries, data about financial sources available to fund energy transition projects in the islands were collected both via questionnaire submission and interviews and via desk analysis.

The Report clearly explains the functioning scheme of the different financial models applicable to the energy projects and reports a list of the financial providers mapped.

Targeted financial providers are both public (Managing Authorities, International Financial Institutions, National Development Banks) and private (Investment Funds, Crowdfunding Platforms).

Mapping the financial supply showed that there is a **wide range of financial solutions** available for energy transition. It is also a sector which is steadily growing also due to an increasing offer of SRI (Socially Responsible Investing) finance.

Financial players offer both **equity and debt instruments**.

A good **geographical coverage** is ensured in the European Union: some investors are Country and/or Region - specific, others are pan - European or even global. Southern Europe Countries, on the Mediterranean, are a significant target for investments in renewable energy sources (RES).



As far as target **investment sectors** are concerned, most players' investment strategies include a **broad spectrum of transition energy target projects**. Despite operators' current track records are still concentrated mostly on traditional sectors, such as RES and energy efficiency, their investment policies include also minor sectors, such as energy storage systems.

The present study observed that there are **no island - specific financial instruments**. Only two island - specific cases are known, but they fall under the scope of EU Programme 2007 - 13: the ESIF FI JESSICA Sardinia and JESSICA Sicily, which are still running but which have completed the deployment phase.

The chance to have a technical assistance to outline and clarify open points in phase of structuring is generally felt as positive by investors, since it enables them to reduce structuring and aborting costs.

Products offered by **investment funds** typically face a **scale issue** in the islands: they target large - scale investments (>10mln€), whereas the size of transition energy projects in the islands is usually smaller. Moreover, there may be a potential mismatch also between the **minimum IRR (7%)** required by the investment funds and the value creation capacity of the islands' projects. Such a mismatch signals for the potential need to lower projects' risk profile and costs through the support of public contributions.

**Crowdfunding** may be a solution for small - medium scale initiatives. Crowdfunding platforms are a tool which is increasingly striving to deploy solutions in the energy sector, particularly suitable for **small - scale** and **community - based** projects. The interviews conducted have highlighted a strong interest of these platforms for islands environments and their commitment in the energy sector is growing: they plan investments for 10 million Euros in the coming five years in this sector. Crowdfunding platforms allow for a slightly lower return of investments (5%). In this set - up too it is not unlikely to imagine that blending grant solutions might be needed. The opportunities offered by the crowdfunding platforms will be furtherly explored in Task 2.4.

Another important source of finance is provided by institutional funding, such as **ESIF** and other platforms set up at EU level. These facilities allow to **de - risk** projects and to **lower the cost of capital**. ESIF financial instruments could be viable solutions to accelerate investments in the islands' marketplace due to their native higher risk profile and lower expected return. IFI and development banks can play a key role in developing and launching this kind of instruments. They can manage them directly or, as it's often the case, have them managed by professional financial intermediaries (e.g. asset management companies, commercial banks).



The Report concludes with some matching options between project types and financial models which can act as a first guideline for islands to identify applicable models and, in turn, financial providers.



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## 2 Methodological Note

The general objective of Task 1.5. is to map the most widespread financial models in the energy transition, identify which should be the main features of the project and, based on this evidence, identify the most suitable financial providers.

The methodological approach, general and cross-sectional to the entire Task 1.5, is composed of four integrated components:

- 1) Practitioners experience
- 2) Questionnaire & Interviews
- 3) Desk Analysis & Case Studies
- 4) Results analysis and interpretation

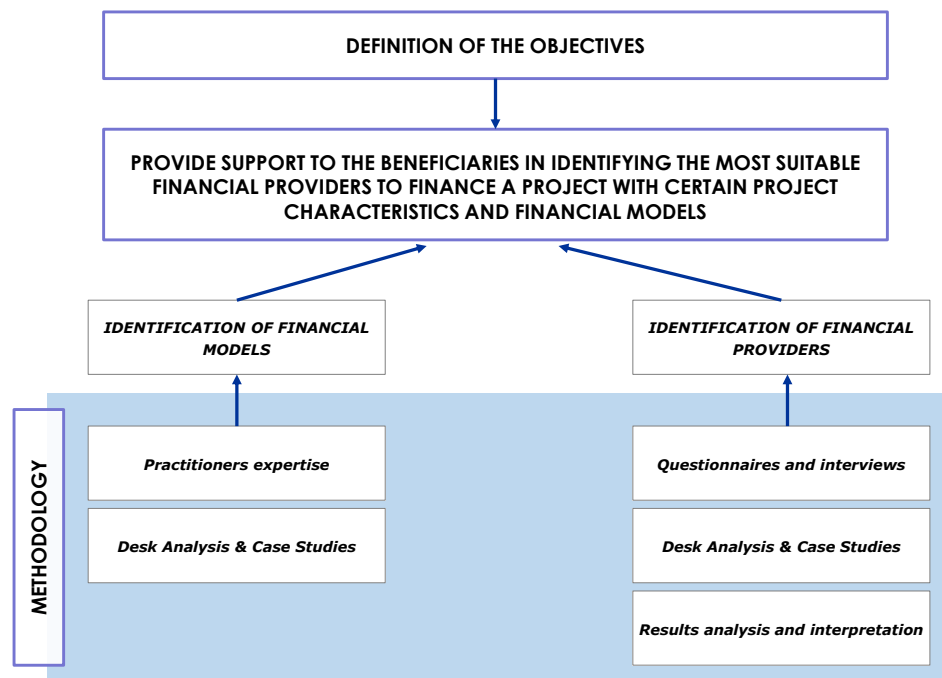
As shown in the following graph, the two sets of activities foreseen by the Task have been carried out integrating the four methodological components.

The **identification of financing models** was mainly carried out through **practitioners' experience** gained during the professional activity and in the development of different projects in the energy and infrastructure field. The internal experience was then strengthened through **desk analysis** aimed at identifying innovative and widespread financing models in the sector. The relevant question that the paragraph on financial models should answer is: what are the most widely used financing schemes in practice for the implementation of energy transition projects?

The **identification and characterization of financial providers** has been achieved through **questionnaires and interviews** (provided to specific entities), **analysis of results** and interpretation through the creation of databases and financial maps and **desk analysis**. The relevant question that the paragraph on financial providers should answer is: who are the entities that offer financial resources for the energy transition sector? What are their characteristics?

The report should therefore be a guideline for a potential project sponsor to identify the best financial provider, given the characteristics of the project itself. Or, on the other hand, what features the project should have in order to match with specific financial providers.





For each building-block, we summarize the methodology adopted and the activities performed to achieve the main Task results.

## 2.1 Practitioners Experience

In carrying out some specific Task activities, the Working Team has used the many years of **experience gained in the field**.

The team has many years of experience working alongside both **public administrations** and **project sponsors** for the structuring of projects in the field of energy transition. Indeed, Sinloc has been working for more than ten years both as a consultant, supporting the structuring and the financial arrangement of energy projects, and as an investor, investing directly in renewable and energy efficiency initiatives. This double perspective, as a consultant and as an investor, together with its long-last experience, allowed the Working Team to represent in this Report a wide range of alternative financing models and to identify, for each one, key aspects, limits, risks and opportunities for different categories of subjects. Overall, we were able to identify the optimal financing model for each energy project by associating specific project's characteristics to each financing model/financial provider.

Even in the financial provider mapping, the Working Team analysed and interpreted the collected data on the basis of its practitioner experience.

The experience has been used in a cross-cutting way to carry out the task, and in particular in all those cases where a **specific knowledge and awareness of the sector was required**.



## 2.2 Questionnaire & Interviews

The data collecting activity is made through a mix of plain questionnaires and direct interviews to selected financial providers (including public authorities). Questionnaire and interviews answer to different needs, allowing to achieve different level of analysis and results. The use of questionnaires and interviews overcomes the disadvantages of each methodology and at the same time leverages their own advantages.

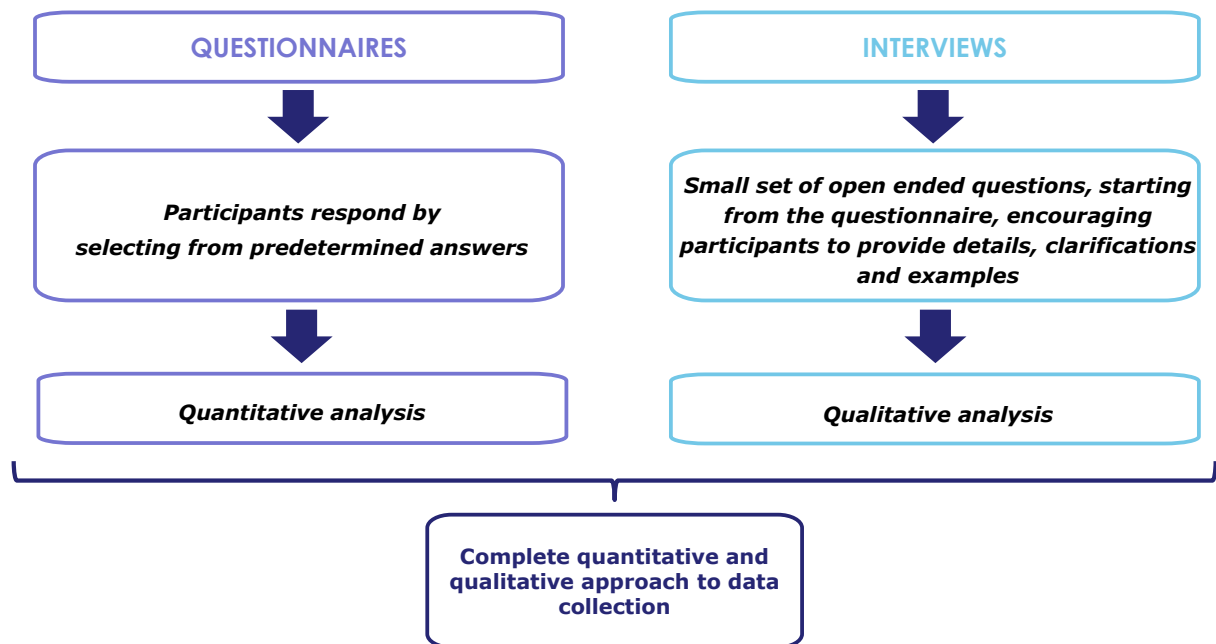
Self-completion questionnaires have the advantage of being cheap and quick to submit, but are more suited for a few questions questionnaire that is relatively clear and simple in its meaning, and the choice of replies can be limited to fixed categories. They are especially useful in surveying targets who are dispersed over a wide geographical area.

Interviews have certain advantages over self-completion questionnaires. In general, interviews are more rewarding by respondents than filling in a form allowing for a higher involvement of the counterparty. However, interviews are more time consuming for the researcher and it may be the case that interviewer bias, where the interviewer influences the replies by revealing opinions and views, can be avoided by self-completion questionnaires. The interview is a more flexible form than the questionnaire and can generally be used to gather information of greater depth and can be more sensitive to contextual variations in meaning. The interviews have been submitted through a video - call toll, used to share NESOI project leaflets and brochures.

The interviews had also the important goal to **sponsor the NESOI facility**, to gain soft information on **market trends**, on NESOI first reaction from financial providers and on **investment appetite**.

The use of a mixed approach to data collection allows to gain quantitative data useful for data analysis (Financial Map) and qualitative information to enhance and enrich the Task's objectives.

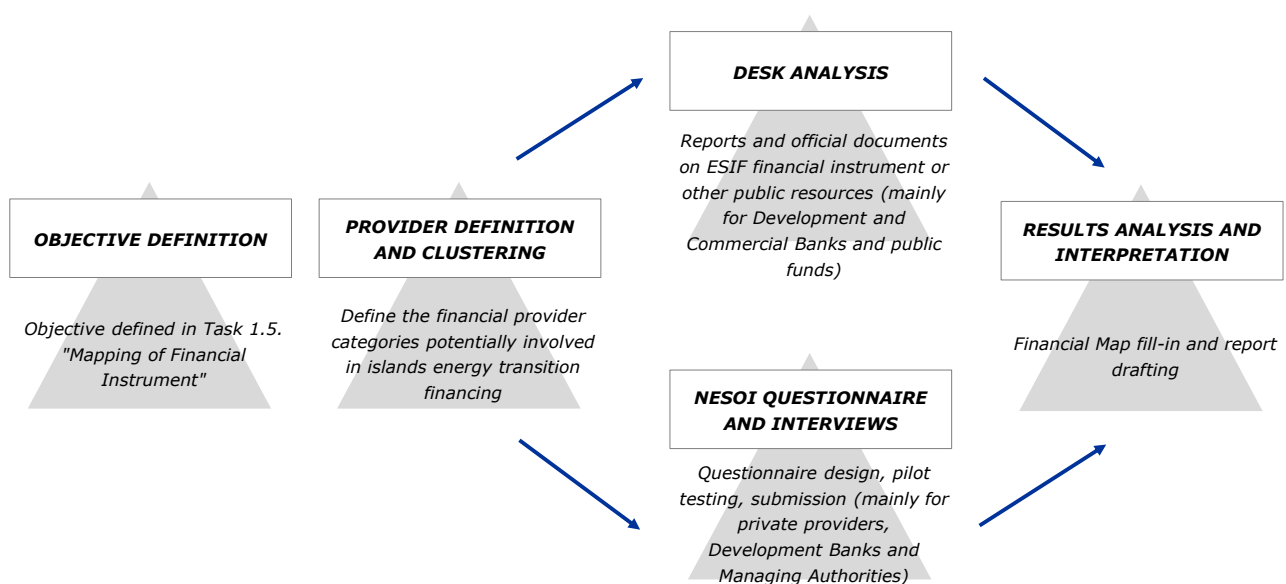




### 2.2.1 Financial provider definition and clustering

The starting point to map the Financial Instrument include **financial provider clustering**, followed by desk analysis and the submission of questionnaires and interviews to specific financial providers, according to the standard methodology for data collection.

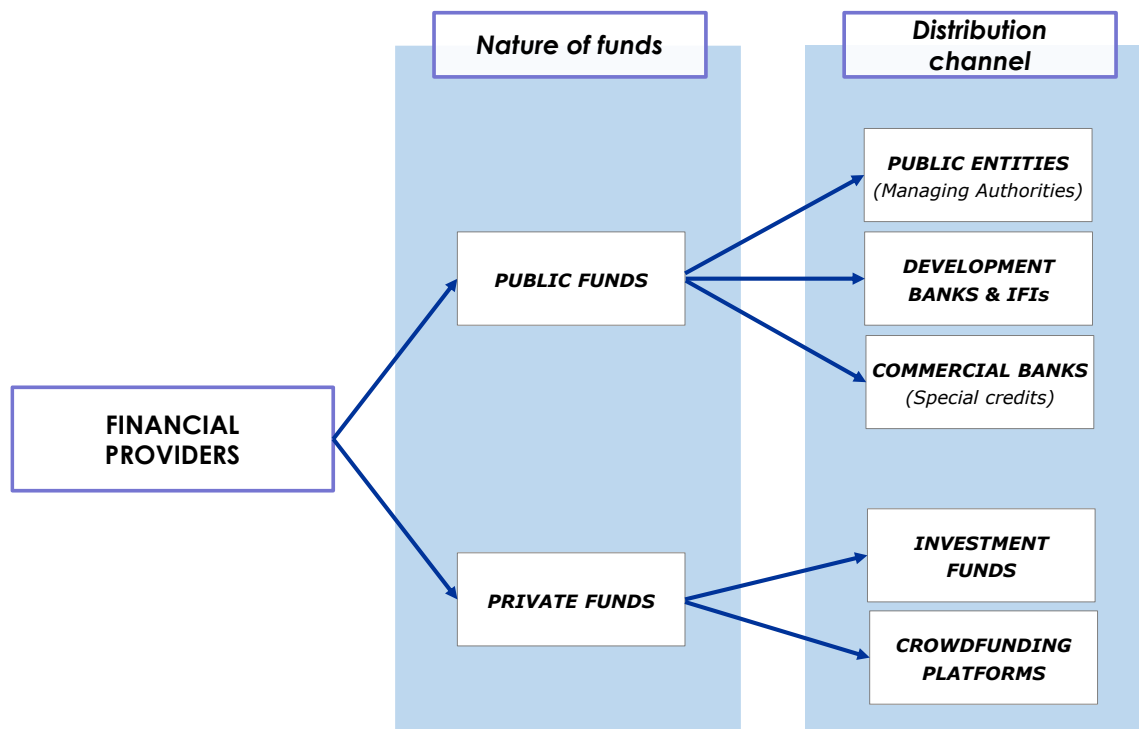
In data collection activities, the tasks that generally should be performed are:





The identification and clustering of financial providers has been carried out according to the **nature of the funds (public or private)** made available by the providers themselves. The identification of the financial providers was carried out according to the logic of distribution of financial resources, identifying the providers through which these financial resources can be intercepted.

The following chart represents the methodology used to identify and cluster financial providers.



The financial provider definition and clustering involve three main steps: provider cluster identification, provider screening and provider selection. The clustering starting point is the identification of the financial provider categories potentially involved in the islands' energy transition financing, according to the chart above.

Regarding public resources, have been identified all the categories that can provide public funds, even in combination with private resources. Starting from **purely public resources**, have been mapped the **management authorities of the structural funds**, which, without specific financial instruments, are in the form of contributions or subsidized loans. **Development banks and commercial banks** can provide public resources if combined with specific financing lines or financial instruments in blending with public resources.

**Investment funds and crowdfunding platforms** in generally provide purely private resources.



The categories identified, which have been given questionnaires, interviews and / or have been the target of desk studies are:

- 1) **Public and local entities**, acting as Managing Authorities for specific financial instruments and providing special resources to islands' needs. The prevailing methodology that was used to map the cluster's financial instruments was questionnaires and interviews, combined with desk analysis;
- 2) **International Financial Institutions and Development Banks**, set up by sovereign states, provide equity, guarantees and loans. The prevailing methodology that was used to map the cluster's financial instruments was questionnaires and interviews. Only for specific programmes, a desk analysis & case studies were carried out;
- 3) **Commercial Banks**, included and analyzed only in relation to financial instruments on ESIF or to special credits (partially set up with public funds), specifically dedicated to the energy efficiency sector. If Commercial Banks manage specific funds for energy transition on behalf of development banks or / and Member States (e.g. the Green Economy Financing Facility), the programmes are mapped within the Development Banks cluster. Other products of Commercial Banks have not been analyzed because they are extremely standardized and not related to certain design features. The methodology used for this cluster is exclusively desk analysis and insights into some illustrative case studies;
- 4) **Investment funds** specifically targeting energy transition projects. The methodology used for this cluster is exclusively questionnaires and interviews;
- 5) **Crowdfunding platforms**, particularly suitable for small-scale islands projects. The methodology used for this cluster is exclusively questionnaires and interviews.

Once defined the cluster categories, the screening activity aims at identifying and including the most relevant financial provider in each category, collecting data from internal database and high standing source of data. The following table summarizes the source data used for collection:

PROVIDER CATEGORY	SOURCE OF DATA AND CONTACTS
Public and local entities	<ul style="list-style-type: none"> <li>• Consortium members' direct contacts</li> <li>• EU official website</li> <li>• EU factsheets, publications, communication</li> </ul>
Development banks	<ul style="list-style-type: none"> <li>• Consortium members direct contacts</li> <li>• European Investment Bank (Financial Intermediaries list)</li> </ul>



Commercial Banks	<ul style="list-style-type: none"> <li>European Commission reports<sup>1</sup></li> </ul>
	<ul style="list-style-type: none"> <li>Fi-Compass platform</li> <li>European Investment Bank (Financial Intermediaries)</li> <li>European Bank for Reconstruction and Development (Financial Intermediaries)</li> </ul>
Investment Funds	<ul style="list-style-type: none"> <li>InfraMation (<a href="https://www.inframationgroup.com/">https://www.inframationgroup.com/</a>)</li> <li>Prequin (<a href="https://www.preqin.com/">https://www.preqin.com/</a>)</li> <li>Consortium members direct contacts</li> </ul>
Crowdfunding platform	<ul style="list-style-type: none"> <li>Crowdfunding and the Energy Sector report</li> <li>Citizenenergy (<a href="https://citizenenergy.eu/">https://citizenenergy.eu/</a>)</li> </ul>

The financial providers have been selected according the three main selection drivers, as:

- **Country of operation:** only EU-based providers with operation within the NESOI Eligible European countries have been selected. The selection criterion was applied to all types of financial providers;
- **Target sector:** energy transition project track record or specific investment target. Provider with an investment strategy focused on the energy sector / energy transition or who have a positive track record in the sector were selected. The selection criterion was applied to investment funds and crowdfunding platform, regarding their investment strategy;
- **Number of islands** in the Country of operation: providers have also been selected according to the number of islands in the reference country. The criterion has been applied to all place-based financial providers that offer products and services for local development. The criterion has not been used for investment funds, since they generally invest beyond the boundaries of their headquarters;
- **Energy transition financial instrument:** management of financial instruments and / or specific programs for the energy transition sector. The criterion was used only to select commercial banks, through an analysis of financial instruments in the energy sector managed.

<sup>1</sup> Directorate-General for internal policies “New Financial Instrument and the role of National Promotional Banks”, 2016

European Commission “The role of National Promotional Banks (NPBs) in supporting Investment Plan for Europe



Selection Drivers				
	<i>Country of operation</i>	<i>Target sector</i>	<i>Number islands in the country</i>	<i>Energy transition financial instrument</i>
Financial Provider clustering	<i>Public and local entities</i>			
	<i>Development banks</i>			
	<i>Commercial Banks</i>			
	<i>Investment Funds</i>			
	<i>Crowdfunding Platform</i>			

The output of the financial provider screening is a providers' database, shared among the consortium partners. The database includes all the contact information (organization, reference person, first contact date, feedback, provider cluster, questionnaire and interviews submission, notes) needed to submit the questionnaire and the interviews and to carry out desk and case study analysis.

The database is a dynamic instrument, allowing contact list status monitoring, follow-up and for new contact inclusion.








Questionnaire and interviews had been submitted to Public and Local Entities, Investment Funds, Crowdfunding Platforms and EU / National Development Banks. Desk Analysis was applied to deepen the understanding of the financial instruments offered by IFIs, development banks and public entities. Desk analysis and Case Studies were also performed to collect information about specific financial instruments managed by commercial banks.

### 2.2.2 Questionnaire design and pilot testing

The questionnaire adopted structure responds to the standard requirements for successful data collection. The structure is therefore simple and easy to understand, the questions are clear and easy to be completed. Two different questionnaires have been developed in order to catch the different nature of the interviewed providers. In fact, a questionnaire has been created for public bodies and another one for all the other providers (Development Banks, Investment Funds and Crowdfunding Platforms).

In the design of the questionnaire the guidelines that have been taken into account are summarized in the following table:



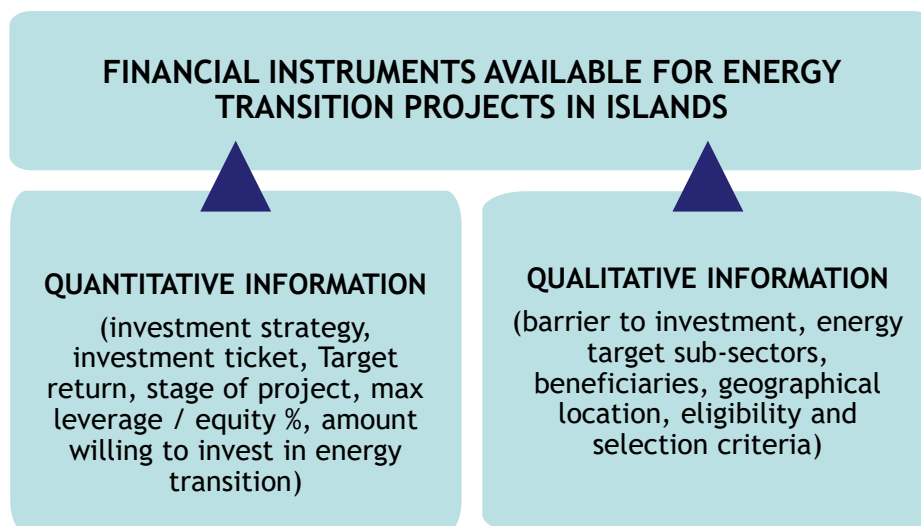
GUIDELINE	ACTION IMPLEMENTED
 <b>KEEP IT SHORT</b>	<ul style="list-style-type: none"> <li>→ Short and simple</li> <li>→ Inclusion only of "must to know" and "useful to know" questions</li> <li>→ "Nice to know" questions asked with interviews</li> <li>→ 15 questions for "must to know"</li> <li>→ Fill-in table for "useful to know"</li> <li>→ 15 - 20 minutes max to complete</li> </ul>
 <b>INTRODUCTION &amp; WELCOME MESSAGE</b>	<ul style="list-style-type: none"> <li>→ Inclusion of a brief "About NESOI" section in the questionnaire</li> <li>→ Clarification of questionnaire objectives</li> <li>→ Description of potential benefits for respondents</li> <li>→ Overview of the questionnaire structure and instruction to fill-in</li> <li>→ Use of the information collected</li> </ul>
 <b>COVER LETTER</b>	<ul style="list-style-type: none"> <li>→ Standard welcome introduction with first contact e-mail</li> <li>→ Consortium introducing, NESOI overview and contact objectives</li> <li>→ NESOI Leaflet attached</li> </ul>
 <b>DECIDING THE ORDER OF QUESTIONS</b>	<ul style="list-style-type: none"> <li>→ Start with the "must to know" questions</li> <li>→ First part of questionnaire general and essential to have an outlook of the financial provider</li> <li>→ First part of the questionnaire include "critical" questions to collect potential eligibility criteria</li> <li>→ Second part include specific and detailed questions on the specific financial instrument ("useful to know")</li> </ul>
 <b>ATTRACTIVE QUESTIONNAIRE LAYOUT</b>	<ul style="list-style-type: none"> <li>→ Easy to read layout</li> <li>→ Linked to NESOI colours</li> <li>→ Light blue color for direct fill-in spaces</li> <li>→ Short questions and answers</li> </ul>
 <b>QUESTION TYPES</b>	<ul style="list-style-type: none"> <li>→ Large use of fixed-choice questions</li> <li>→ Only one open question at the end of the First Part</li> <li>→ Fill-in table for very focused open questions</li> </ul>
 <b>INCLUDE ALL POTENTIAL ANSWER CHOICES</b>	<ul style="list-style-type: none"> <li>→ Answer choice for fixed-choice questions made by experience in dealing with financial provider</li> <li>→ Internal review</li> <li>→ Pilot check</li> <li>→ Inclusion on "Other" at the end of each question</li> </ul>

The questionnaire has been checked and verified with a small number of testing participants, among the consortium partners.

The final testing is useful to reveal unanticipated problems with question wording, misleading questions / answer choice, not clear instructions and question repetition.

During the pilot questionnaire it is important to track time in order to verify the consistency with the maximum time required to complete in the instruction section.

In order to have a clear view of the critical feature of the financial provider, questions had to cover a mix of quantitative and qualitative information, essential to understand the investment strategy and the scope of the available funding resources. The required information has been diversified for public providers.



The final version of the questionnaire is included in Annex II.

### 2.2.3 Questionnaire and interviews submission & administration

The questionnaire was submitted to the financial providers selected and clustered.

The submission of the questionnaire to the selected financial providers was carried out by e-mail contact, using direct personnel contacts of investment managers / fund managers, where available.

Our **target list** was made of more than **180 Financial providers**. The location of the providers covers all the European Countries, as outlined in the map below. Although some financial provider has specific geographical investment targets, the majority has no geographical constraints and can invest in all European countries, including islands.

As described in the methodology, financial providers were mainly selected on the basis of the Country of operations and of the presence of islands in the country. That's why no financial providers located central Europe countries (e.g. Hungary, Czechia, Slovakia) have been included in the survey. Balkan Area inclusion is ensured, if necessary, by the information collected in the interviews to the Developing Banks (European Bank for Reconstruction and Development and the Black Sea Trade and Development Bank).

The results of the surveys and the response rate for each financial provider category are described in the following paragraphs according to the financial provider clusters.







As outlined in the questionnaire design methodology, every e-mail contains an introduction of the Consortium team and a brief overview of the NESOI platform, highlighting the great potential the platform has for islands and potential financial providers. NESOI Leaflet and Questionnaire have always been attached to each e-mail, asking for self-completion and asking the availability for a direct interview.

Direct interviews were proposed to collect and exchange **qualitative views on energy transition market**, to give a support to handle the questionnaire and to receive more details on the functioning of the NESOI platform.

The interviews have been scheduled and arranged in particular by financial providers that were very active in energy transition projects and willing to receive more details on the NESOI platform, considered very interesting for them.





In this way, the NESOI team had the possibility to have an overview of the **most reactive financial providers**, gaining important qualitative information of the potential involvement of the provider.

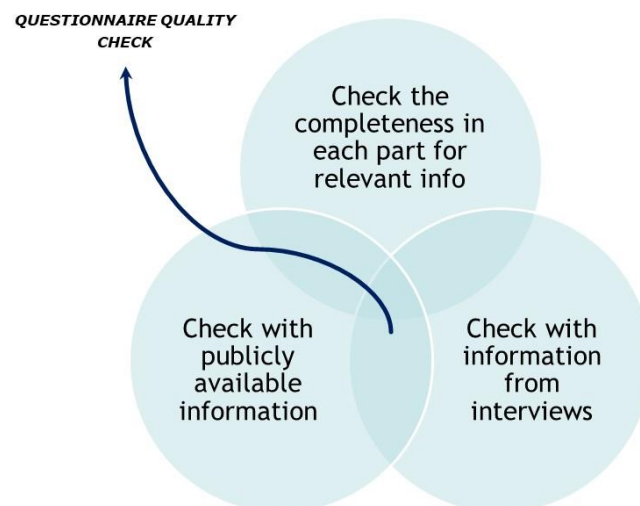
The selected financial providers were 144, of which 50 were investment funds, 11 development banks and 4 commercial banks, 34 crowdfunding platforms and 43 Managing Authorities.

The interviews were mostly organized through video-conference.

The interviews were basically structured in three sections:

- 1) Consortium and NESOI platform presentation: on the basis of NESOI official presentation, detailed overview of the mode of working, potential beneficiaries and type of projects and call expected timelines. Within this section, an outlook of the stage of the project was given, together with the scope of the questionnaire and the interview in the project development flow;
- 2) Q&A section on the platform;
- 3) Interview to financial provider: general overview of its activities and sector of interests, investment target and examples. In conduction the interview, the questionnaire structure was taken into account. It was asked to the respondent to provide examples of projects;

Once having received the complete questionnaire, a quality check is essential to have a standard and reliable final product, in particular to set up further analysis.



The data and the information gathered through questionnaire submission and direct interviews are transferred in the Financial Instrument Map. The Map is aspreadsheet,

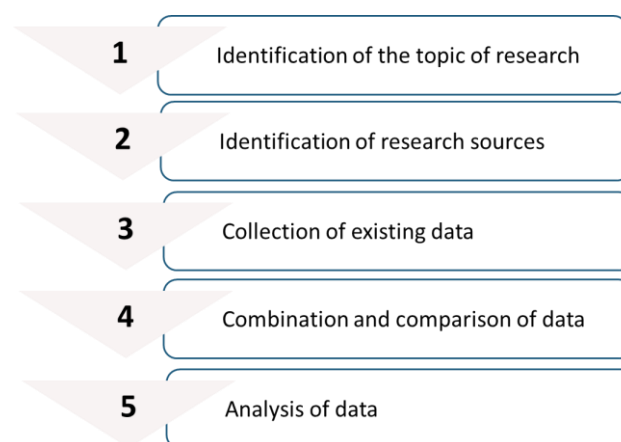


that exactly follows the same contents of the questionnaire, allowing for data filtering and facilitating the results quantitative analysis and interpretation.

## 2.3 Desk Analysis

A desk analysis was conducted to acquire more detailed information about public financial platforms/measures available at the EU level, as well as about the investment policies of International Financial Institutions, development banks and about the EU products managed by national commercial banks. In addition, desk analysis was useful also to collect information about case studies: energy projects financed by the EU financial sources that are mentioned in this Report as best practice of how to financially structure energy projects using EU available instruments.

To perform the desk research the steps described below have been followed.



1. **Identification of the topic of research** - the topic of our research was financial instruments/platforms available at EU level in the energy transition sector that possibly have a specific focus on islands, provided by development banks, public entities or commercial banks
2. **Identification of research sources** - we selected our sources only after making sure they are authentic:
  - a. Internet: institutions' official websites
  - b. Reports produced by EU entities. As to this source of information, we took as a reference the information mainly provided by:
    - i. the Clean Energy for EU Islands Secretariat, an initiative on behalf of the European Commission, whose mission is also capacity building and which collects useful materials we used as a source of information
    - ii. the Covenant of Mayors for Climate and Energy, which gathers useful information about the EU sources of finance for transforming Sustainable Energy and Climate Action Plans (SECAP) into projects



- iii. the European Investment Bank
- iv. Fi - Compass platform

### 3. Collection of existing data

4. **Combination and comparison:** once the data were collected, we combined and compared them to identify the main financial models applicable to energy transition projects
5. **Analysis of data:** we analyzed the data collected and identified the main messages and concepts to be retained for the purpose of our research.

## 2.4 Results analysis and interpretation

All the data collected through the interviews and the questionnaires were systematised in a database. This tool allows to collect all the information in a standardized way and to make the data comparable and analysable in order to obtain general results.

Moreover, the list of the mapped contacts (see Annex I) will be made available on the NESOI platform.

The final aim is to create a community of financial providers, that through the online platform, keep the database constantly updated, and a virtual marketplace where islands' potential recipients can find the financial tool optimal for their projects.



## 3 Financial Models

There exist several financing schemes that can be put in place to realise energy transition projects, each one with peculiar characteristics that make it more suitable for specific categories of initiatives. Each financial model is structured combining two basic tools: direct lending and equity holding. In what follows we presented, first, the functioning of these basic tools and secondly the different mechanisms to combine them that lead to the definition of different financial models.

Sustainable energy projects provide multiple benefits at both collective and individual levels (energy savings, environmental protection, reduced inefficiency, the possibility of creating a new and sustainable business, among others), however the initial investment required may sometimes prevent a project from becoming a reality.

There is little information currently on hand regarding the different financial models that can be adopted by projects' promoters. In order to provide an overall view of existing possibilities and to assist in decision-making with respect to financing sustainable energy projects, the main financial sources and financing models that may be used for sustainable energy projects have been detailed in the following paragraphs.

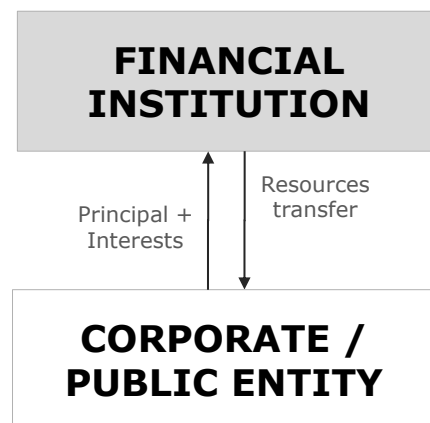
### 3.1 Basic Tools

#### 3.1.1 Direct Loan

Credits and loans are some of the most well - known forms of financing for projects. Both **small-** and **large-scale projects** can benefit from such forms of financing, depending on the balance sheet (capitalization and indebtedness level) of the recipient company. Both private companies and **public promoters** can access banking lending, but public entities may find it difficult to be financed by banks, because they are supposed to respect strict **balance restrictions** in terms of indebtedness. Projects developed by new born companies, even though with a high growth potential, may not obtain banking lending, because **credit history** and **current level of solvency** are parameters that are considered by banks more than future expected cash flows.



Figure 1 - Direct Loan functioning scheme



All things considered, banking lending represents a viable and interesting opportunity particularly for private companies that have a solid credit history and mature business lines.

With specific reference to energy projects, some banks offer specific loans, such as the energy efficiency loan and/or loans for the use of renewable energy sources.

Direct funding can be very effective in all cases where there are high upfront costs, as in deep renovation projects. Direct loans supporting energy renovations provided by commercial banks, which typically are unfamiliar with these investments, are perceived as high-risk investments. Therefore, the conditions applied may not be competitive or projects may credit rationed.

On the other hand, direct loans provided by International Financial Institutions, National Development Banks or Commercial Bank with specific programmes may provide loans with lower interest rate than that of a conventional loan and, in general, the repayment period is approximately equal to the return period calculated on the basis of the expected energy savings.

Banking funding can be used to finance only a portion of the investment project, which could be complemented with grants and/or subsidies.

#### APPLICABILITY & KEY POINTS

- ✓ Quick and easy financial model to implement
- ✓ Suitable for sound and solid companies
- ✓ Suitable for mature business lines



- ✓ No key competences required to implement
- ✓ Availability of **specific credit lines** for energy efficiency investments

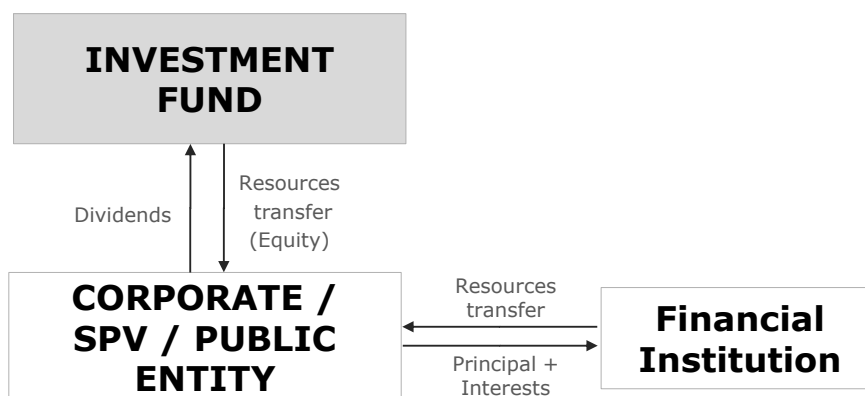
### 3.1.2 Direct Equity Holding

Among the financial shareholders of a company there are investment funds. They carry out an institutional investment activity in the medium-long term risk capital of unlisted companies (also in the form of SPVs) with **high growth and development potential** (high grow companies), with the aim of contributing to the growth of the company in its reference market and to monetize, at the end of the set time period, the investment made.

For infrastructure projects, the investment funds usually invest by increasing capital through the issuance of new shares, or by increasing the nominal value of existing shares.

Usually the investor remains as a partner of the company for a period of at least five years, in order to extract the value necessary to obtain a certain target return, depending on the underlying asset. However, the investment fund activity does not only involve the contribution of financial resources but also concerns a series of activities related and instrumental to the **realization of the business idea**. This is why there are some funds specialized in certain sectors (SMEs, real estate, energy infrastructure, etc.) or in certain moments of a company's life cycle (start-up, distressed, expansion, etc.).

Figure 2 - Equity Financing functioning scheme

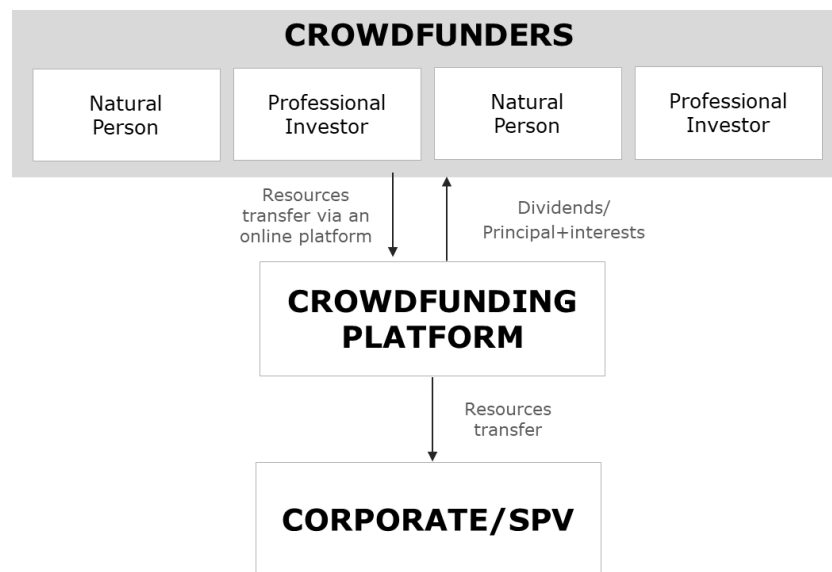


## 3.2 Financial Models

### 3.2.1 Equity and Lending crowdfunding

Crowdfunding is a financing practice that involves collecting money from a large number of private investors, via online platforms, to fund specific projects. There exist different types of crowdfunding, we will focus exclusively on equity and lending crowdfunding

Figure 3 - Crowdfunding functioning scheme



- Both individuals and professional investors can invest
- Crowdfunders may have governance rights or not, depending on the classes of shares that are sold
- Money (low amounts) is transferred through an online platform
- Money is raised against a specific project
- In case of equity crowdfunding, dividends generated are transferred to investors
- In case of lending crowdfunding, lenders receive the repayment of the principal and a fixed interest rate, which is usually higher than the saving rates available to the lenders and lower than a traditional loan available to the borrower

Crowdfunding can play a significant role at the start of a sustainable energy project's life-cycle, particularly in contexts like the islands, where stakeholders are the beneficiaries, or the concerned groups related to environmental protection and sustainability.

Crowdfunding can play a significant role also in the development of **Energy Communities**: groups of citizens, retail businesses and other companies that decide to join forces to equip themselves with systems to produce and share energy from renewable sources.





Energy Communities are a further step that will lead to the development of zero-miles energy” and smart grids.

#### CASE STUDY

Ecopower cvba is a financing co-operative for renewable energy in Belgium. The Eeklo project by Ecopower involves financing of three wind turbines located in Eeklo, Belgium. The total investment was €4,090,000 and was raised by 1825 members of Ecopower in approximately 5 years. Investors are only allowed to buy a maximum of 50 shares and given the right to one vote in the co-operative's General Assembly, irrespective of the amount of the shares which they have. The price of a share in the co-operative is €250 and yields on shareholders' investments are capped at a maximum of 6%. Participants received a dividend on their investment or/and electricity from Ecopower.

#### 3.2.2 PPPs

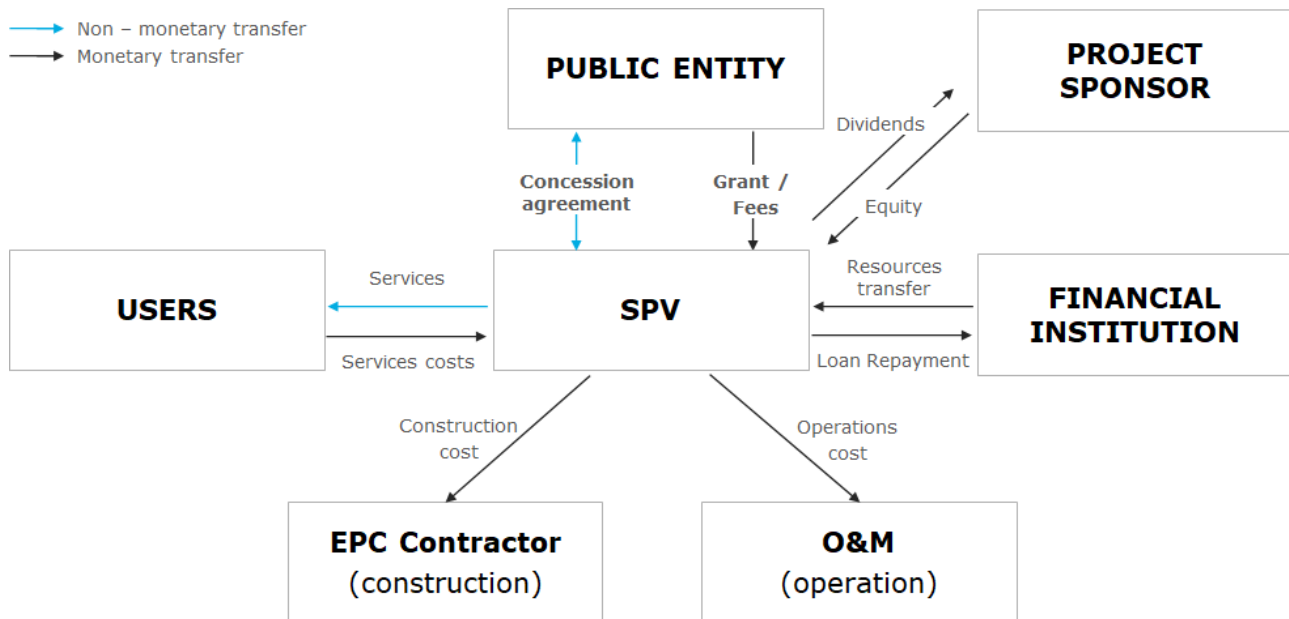
Public Private Partnerships are framework of cooperation between the public and private sectors for the realization and/or management of public works or works of public interest. Public-Private Partnership is realized through the creation of an ad hoc company, Special Purpose Vehicle (SPV), whose shareholder composition could be made by only private or mixed public/private operators.

**Project Financing** is a financial technique that can be used in PPP operations for the realization of works public infrastructure and public utilities, financing specific economic unit through an operation in which the lender considers the cash flow and the project profits as a guarantee for debt repayment and assets economic unit as collateral.

Usually different categories of operators are involved on PPP financing schemes, as shown in the following figure:



Figure 4 - PPPs functioning scheme



The main features of a PPPs are:

- Assignment of construction and management activities to a single entity (SPV)
- Long term contracts, between the parties involved, even up to 20/30 years
- Transfer of part of the risks from the public and private operator

The SPV is entrusted with the construction and/or management of a work by a public body. Depending on the specificity of the work to be carried out, the public body may provide a grant during the construction phase or pay a fee during the management phase. The concession has a medium-long term duration, at the end of which the asset is fully utilized by the public body.

For the construction of the work, SPV is financed through project sponsors' resources, through equity contributions, and through bank funding.

The repayment of the loan and the eventual payment of dividends to the sponsors start with the entry into operation of the project.

Generally, both the construction work and the management activities are contracted out to a builder (EPC contractor) and a manager (O&M contractor) respectively.

The investment in the realization of the work is therefore generally repaid with the flows deriving from the sale of goods and/or services to end users (which may also correspond with the public contracting authority).



### CASE STUDY

In 2010 the agri-food market of Padua (a mixed company with a public majority) launched a procedure for the concession of the roofing surfaces of the buildings of the Padua agrimarket for a period of 21 years, for the installation of a photovoltaic plant with a power of at least 2 MWp. For the realization of the work was not expected any contribution, but the use of the rooftop spaces owned by the agri-food market. The total investment for the realization of the work was about € 18 million.

The sponsors of the project included an industrial operator specialized in the construction and management of photovoltaic plants and a financial partner, specialized in the development of infrastructure projects in PPP. The equity invested in the project amounts to € 3.5 million. The remaining part was financed through a bank loan. The industrial partner played both the role of EPC Contractor and O&M.

For the entire duration of the concession, SPV is responsible for the adaptation of the roofing and for the ordinary and extraordinary maintenance of the plant. The production of electricity is remunerated by the payment by the electricity market authority of the incentive tariff for a period of 20 years. The energy produced is further valued through transfer to the electricity grid. At the end of the concession, the plant can be redeemed free of charge by the contracting authority.

### APPLICABILITY & KEY POINTS

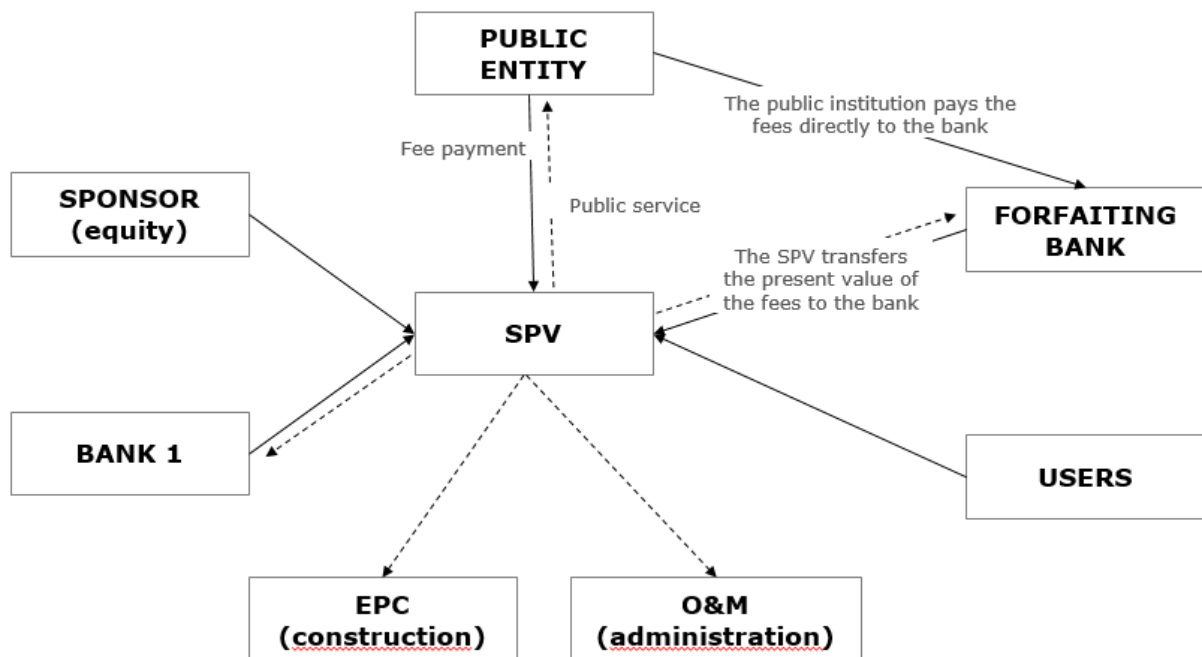
- ✓ Applicable to projects with a **public interest** (direct or indirect)
- ✓ Suitable for projects able to **generate income** through revenues
- ✓ Suitable for projects with **public contribution**
- ✓ Transversal and **technical skills required**
- ✓ Public **procurement procedure** required

### 3.2.3 Forfaiting Model

The Forfaiting Model consists of the sale or transfer of receivables deriving from future fees to a specialized operator (Forfaiting Bank). The Forfaiting Bank advances the value of the receivables to the Special Purpose Vehicle, after discounting an interest rate. Forfaiting operations are mainly applied to PPP structures where the Public Entity foresees contractual and predictable payments.



Figure 5 - Forfaiting functioning scheme



The typical forfaiting process (with project financing), shown in Figure 5, is as follows:

- The Special Purpose Vehicle takes out a traditional financial loan with Bank 1 in order to finance the project construction;
- At the end of the project construction, the O&M administration starts and during this phase, the SPV receives the payment of one fee from the Public Entity in exchange for the services offered;
- The SPV and the Forfaiting Bank, in agreement with the Public Institution, conclude a Forfaiting agreement. The agreement provides for the transfer or sale of the present value of the receivables deriving from future fees (appropriately discounted) to the Forfaiting Bank. With the liquid resources obtained, the SPV can pay back a significant part of the loan opened with Bank 1. The operation is as a debt refinancing, through the transfer of receivables;
- When the receivables have been transferred, the Public Institution pays the fees directly to the Forfaiting Bank (it can pay the SPV also, but in a different bank account);
- The Forfaiting Bank assumes the risk of the Public Institution and it has limited rights of appeal to the SPV.

With reference to energy projects, the forfeiting technique is often used in EPCs in recent years, as it allows the SPV to acquire the necessary financial resources in advance and to minimize its risks towards the public entity.

#### CASE STUDY

A project that can testify to the use of the Forfeiting model refers to the University of Applied Sciences Munich (UoM), in collaboration with Johnson Controls (ESCo) and EEEF (Forfeiting Bank). In this project, the main interventions consisted in an upgrade of the buildings and in greater energy efficiency, through the installation of a combined heating and electricity system, the installation of an efficient lighting system, and finally an optimization of heating and of building management. The volume of the loan is around €600,000 for a duration of 10 years. What is important to underline are the results, in which energy savings of €118,860 were estimated, approximately 41.7% of the expenses previously made, and a reduction in CO<sub>2</sub> emissions of approximately 11.6% compared to the value base. The forfeiting agreement provided for the transfer of 70% of the credits / energy savings generated. This model fully follows EE measures and it can be used for energy efficiency investments in schools, universities, etc.

#### APPLICABILITY & KEY POINTS

- ✓ Applicable only to energy efficiency projects with fee payments from public entities
- ✓ Applicable in PPP projects
- ✓ Possibility of reach higher leverage during the construction phase
- ✓ Interest spreads are related to Municipality creditworthiness
- ✗ The credit standing of the Municipality is fundamental

#### 3.2.4 Transfer of tax incentives

Tax deduction means an amount that can be subtracted from a tax to legally reduce the amount. Some jurisdictions provide for forms of tax deduction for those who implement investments in energy efficiency. Income tax credits or deductions are the most common type of instrument. Tax deductions can have a positive impact on new, innovative technologies. These schemes are generally used to support **energy efficiency interventions** both at **industrial and real estate level**.

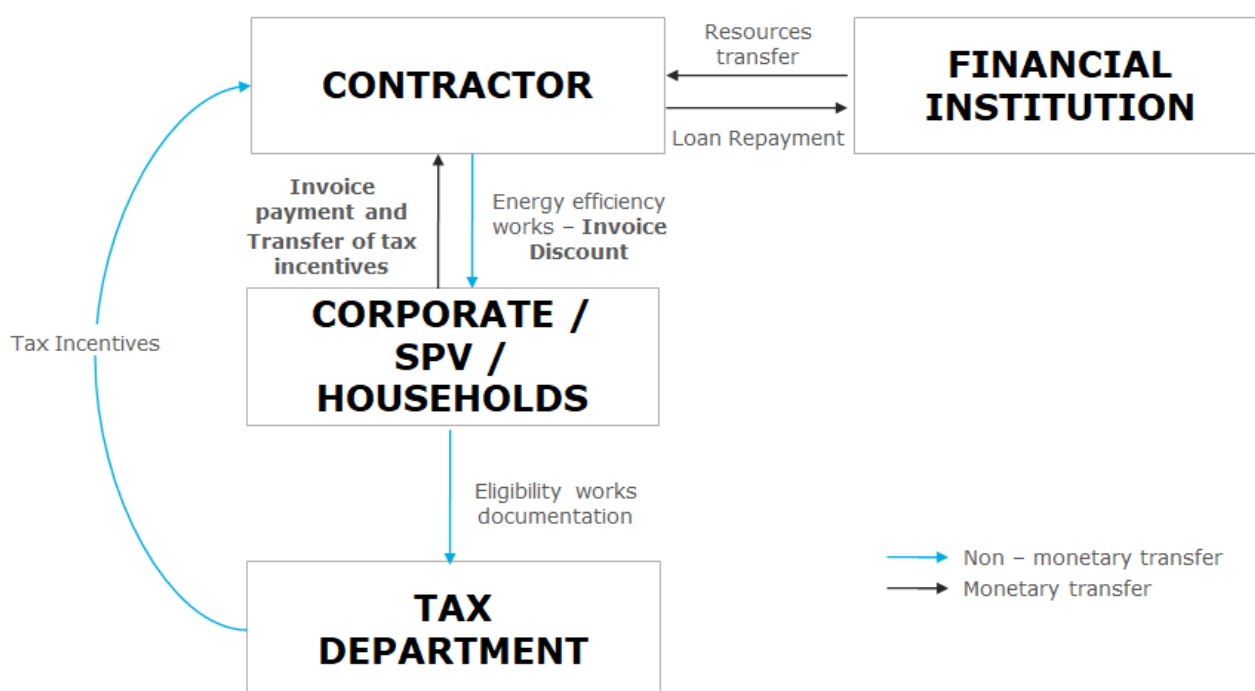
The functioning model is illustrated in **Errore. L'origine riferimento non è stata trovata.**, that can be implemented and that is widely spread, at least in Italy. In the financing model scheme, a discount is applied on the invoice by the Contractor and at



the same time the beneficiary of the works (corporate, SPV, households) transfers the tax incentives (in the form of tax credit) to the contractor who executes the works. Generally, the incentive is collected from the beneficiary in a period of 5 to 10 years. In particular:

- The Contractor carries out the energy efficiency work and finances itself with a traditional bank loan from a financial institution;
- The Contractor applies a discount on the invoice equal to about the tax incentive that applies to the intervention, in fact anticipating / financing the amount of the credit to the beneficiary;
- The beneficiary (corporate, SPV, household) pays the discounted invoice and transfers the tax incentive (in the form of a tax credit) to the Contractor;
- The Contractor receives the payment of the incentive directly from the tax department and reimburses the bank loan.

Figure 6 - Transfer of tax incentives functioning scheme: model 1



#### APPLICABILITY & KEY POINTS



Effective application depending on country specific tax regulation





Suitable for **energy efficiency** projects or intervention with significant tax incentives

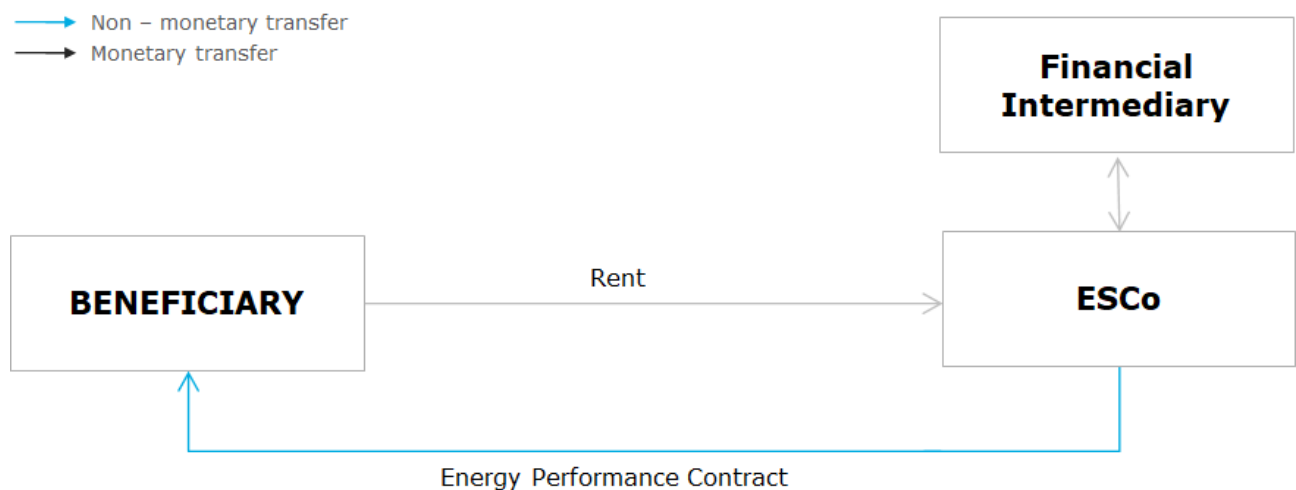


Applicable to **building renovation projects**, in residential and commercial context

### 3.2.5 Energy Performance Contracts

The Energy Performance Contract (EPC) is a contract thanks to which a supplier (namely an Energy Service Company - ESCo) provides a range of services aimed at improving the energy efficiency of real estate assets owned by the Beneficiary.

Figure 7 - EPC functioning scheme



The ESCo is in charge of the following tasks:

- Assessment of the economic and financial feasibility of the project
- Design of interventions
- Performing energy efficiency work
- Operation and maintenance of works and installations
- Obtaining the necessary funding

In exchange, the Beneficiary pays a rent to the supplier, which includes:





- An "energy efficiency" component provided that the minimum guaranteed savings are actually achieved
- A "management and maintenance" component linked to the historical expenditure incurred by the Municipality during the period of survey

According to the cost-sharing mechanism, savings in excess of the minimum guaranteed level may be shared between the parties, while in the event that the minimum guaranteed level is not reached, penalties will be imposed on the ESCO.

- The EPC contract does not include the supply of the carrier, therefore, the ESCo does not margin on the sale of the fuel and does not conflict of interest with the Grantor, which is interested in energy saving
- There are penalties for under-performance and sharing of extra savings compared to the minimum energy savings guaranteed by the ESCo
- The ESCo will take charge of all activities related to the management and maintenance of the plants in order to maintain them in full operation and efficiency throughout the contractual period

An ESCO-based approach proves to be very practical and effective when an ESCO company with deep and advanced technical expertise can suggest the most profitable technologies to the client and, additionally, takes all the implementation and maintenance responsibilities to guarantee achievement of the best results and highest energy savings.

An example of Energy Performance Contract concerns the town of Domène (7,000 inhabitants) in France, where the energy retrofitting of 8 public buildings (town hall, schools, sport facilities) was necessary. The works started in 2012 in the framework of an 8-year Energy Performance Contract involving several companies. In total, € 1.6 million were invested over 4 years. The EPC targeted a decrease in energy consumption of 29%. In 2017 and 2018, this performance target was exceeded as 43% of energy savings were observed. Therefore, the municipality and the contractors have shared the corresponding financial savings. The municipality has used its share of these additional savings to invest in public lighting retrofitting and vehicle fleet renewal.

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<sup>2</sup> <https://www.ademe.fr/sites/default/files/assets/documents/rex-cpe-renovation-batiments-communaux-2019-010858.pdf>



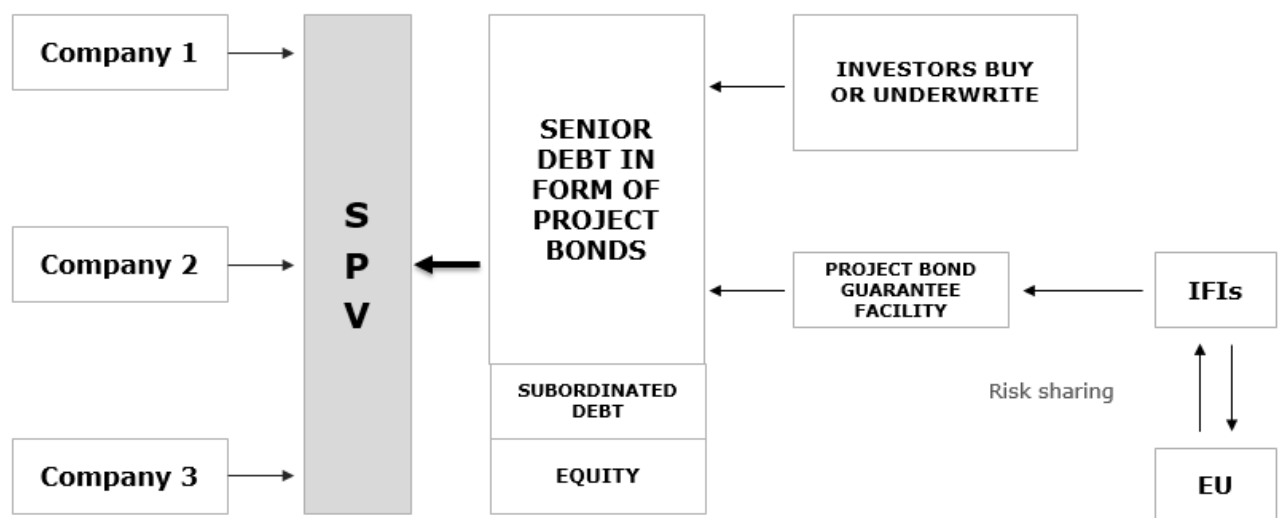
### APPLICABILITY & KEY POINTS

- ✓ Applicable to **energy efficiency projects** with important energy savings
- ✓ Widespread model in **building renovation projects** (large public and commercial buildings)
- ✓ Also applicable within PPP projects

### 3.2.6 Project Bond

The project bond is a financial instrument which consists of bonds issued by companies for the financing of infrastructure projects, which can be divided into new works (greenfield) and works already financed (brownfield). Typically, this financial instrument is addressed to institutional investors and its repayment depends on the financial flows that the project is able to ensure.

Figure 8 - Project Bond functioning scheme



The entities that can issue project bonds are the following:

- Special Purpose Vehicle: entities established thanks to a concession for the construction and management of an infrastructure;
- Companies holding a PPP contract: entities in charge of the construction and / or management of a public infrastructure;



- Companies holding the authorization for the construction of infrastructure related to gas transportation or part of the development plan of the national electricity transmission network

Some advantages in using the project bond consist of:

- It is an additional source of financing and therefore it allows a diversification of sources, and if compared with traditional debts, it implies a lower project funding cost
- It is an optimal financial instrument for refinancing operations of mature projects
- It is possible to better define the covenants related to the project
- This financial instrument can finance new infrastructural projects and new public utility services (i.e. transport, energy, etc.)
- The guarantees in support of project bonds can be distinguished on the type of the infrastructural project:
  - In greenfield projects, guarantees can be issued for a duration corresponding to the construction period of the project, or until the expiry of the project bonds
  - In brownfield projects, guarantees can also be lent in the period following the start of infrastructure management, in line with the provisions of the Economic and Financial Plan

#### CASE STUDY

An example of a project bond concerns the design, construction and management of the entire plant system of the S. Orsola - Malpighi hospital in Bologna, one of the largest Italian hospitals with about 5300 employees and 1800 beds. It is one of the largest energy efficiency interventions in Italy developed through a Public Private Partnership (PPP). The parties involved are Progetto ISOM S.p.A (issuer) and EEEF (subscriber), for a total amount of approximately €32 million divided into six tranches structured based on the original time schedule.

#### APPLICABILITY & KEY POINTS



Applicable to **capital intensive** infrastructure projects



Suitable both for **greenfield and brownfield** projects



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 864266

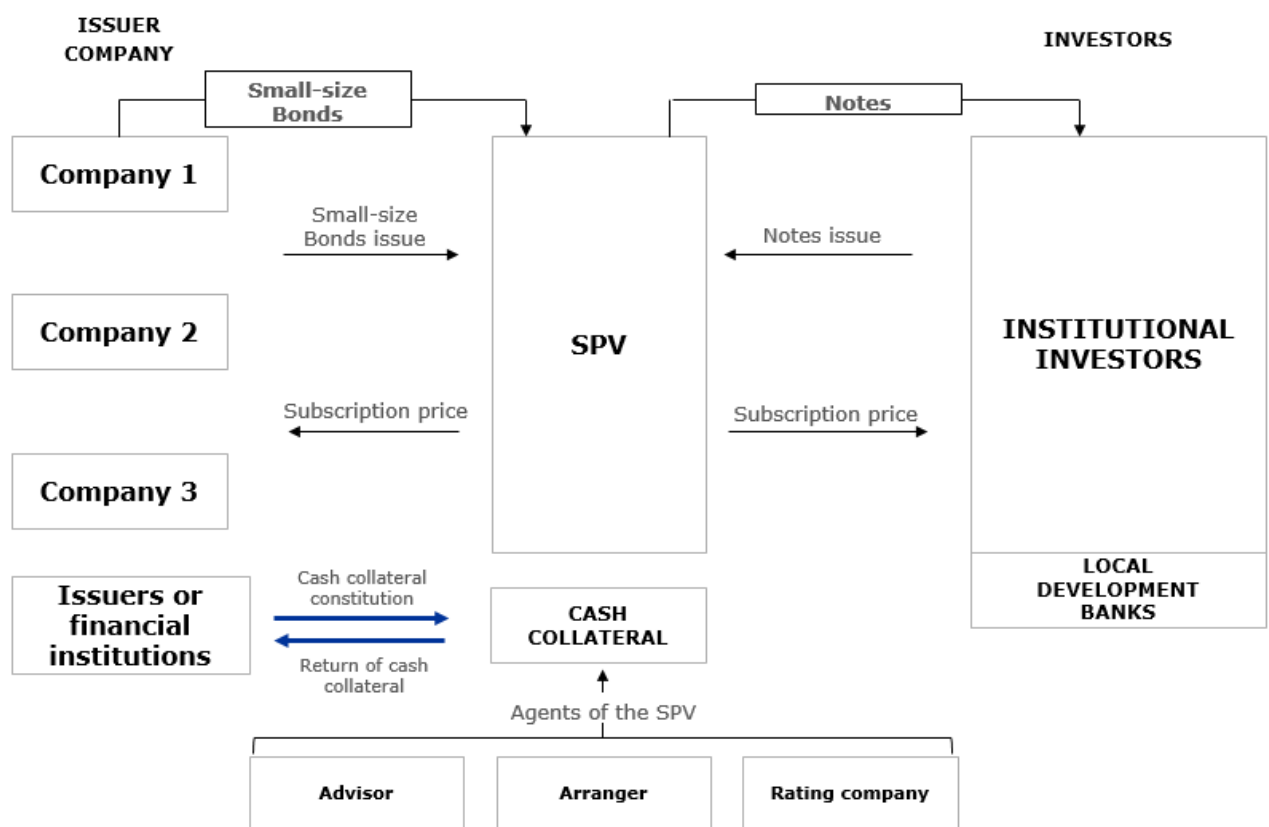


- ✓ Applicable only to **large-scale** investments
- ✓ Useful to reach an **optimized financial structure**
- ✗ Transaction costs may be significant

A specific type of project bonds is small-size bonds, a financing tool for companies not listed on the stock exchange.

They are medium / long-term bonds or debt securities normally intended for development plans, extraordinary investment or refinancing, in order to obtain new loans without resorting to bank credit.

Figure 9 - Small - size bonds' securitization scheme



- Like all bonds, they have a recognized interest rate in the form of a periodic coupon, and an expiration date.
- The issuer must not be listed on the stock exchange, it must be different from banks and micro enterprises and the requirements for the bonds issuing are quite low in terms of turnover.

- The subscription of the small-size bonds is reserved to professional institutional investors and other qualified subjects (i.e. banks, asset management companies, etc.)
- There are different roles during the bonds issuing process:
  - Advisor: it consists of a consultant intended to assist the company in the strategy, analysis of the business plan and definitions of timing and methods of issuance
  - Arranger: deals with the placement of securities on the market, identifying potential investors
  - Rating company: verifies the issuer's solvency
- The costs for the issuing companies are very low, however the company could borrow at lower costs having a rating assigned by specialized companies. It is not mandatory to have the company rated, but it could make the security more attractive.

The securitization technique of a pool of securities can be applied to create critical mass from a series of fragmented investments. If we take an archipelago of islands as an example, they could apply this funding scheme to develop similar projects in the energy transition area.

#### CASE STUDY

The importance of this financial instrument in the energy sector is highlighted by the issue of the so-called "hydrobonds", that is the first securitization of small-size bonds in Italy whose purpose is to finance some entities managing the Integrated Water Service within the Veneto Region. The operation of Viveracqua Hydrobond 1 S.r.l consists of 3 phases:

- 1) **Establishment of the securitization vehicle, in this case Viveracqua Hydrobond 1 S.r.l**
- 2) **Issue of small-size bonds and subscription by the SPV (equal to €227 million)**
- 3) **Issue of securities by the SPV and their subscription by investors: in this phase, the SPV issued asset backed securities (ABS) for an amount equal to the total of the subscribed small-size bonds; with the funding from the issue of the securities, it therefore financed the purchase of the bonds.**

The redemption of the securities will take place through the cash flows deriving from the redemption and remuneration of the bonds by the issuers. The securities issued by the SPV were subscribed by institutional investors, namely the European Investment



Bank (EIB), Veneto Banca, Veneto Solidarity Fund and BCC di Brendola. The reimbursement of these securities is partially guaranteed by a form of cash collateral made available by Veneto Sviluppo (financial company of the Veneto Region alongside the companies to support their development), as well as by a further guarantee provided by the issuer.

#### APPLICABILITY & KEY POINTS

- ✓ Applicable to several **small-scale** investments
- ✓ Suitable both for **greenfield and brownfield projects**
- ✓ The **underlying projects** should be similar and related to the same intervention
- ✓ Need to identify a **coordinating entity**
- ✓ Diversification from traditional bank loan
- ✓ Securitization regulation are **country specific**

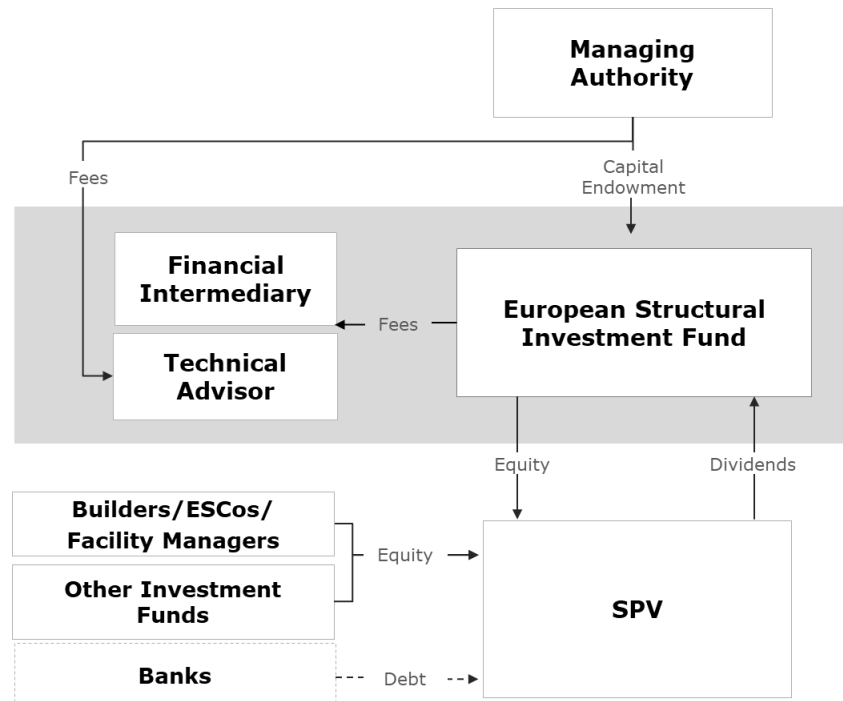
### 3.2.7 ESIF Financial Instruments

ESIF are regulated by Regulation 1303/2013, which specifically rules ESIF financial instruments in art. 37. These prove to be an appropriate scheme in a context of **market failure**: when there is no matching between demand and supply of financial resources, since specific categories of investments, in defined sectors, are considered too risky or too illiquid by traditional financial investors.

ESIF can provide debt, equity or quasi - equity instruments. Whatever the instruments they can provide, their investment strategy entails favourable conditions for the final recipients: “**patient**” **capital** investments and financing - with a longer duration with respect to the market. They do not fund the overall project investment, in order to attract other investors or to be **blended** with public grants.



Figure 10 - ESIF functioning scheme



- European Structural Investment Funds are revolving funds **promoted by a public authority** (Managing Authority), which operates at a **national or a regional level**, under the scope of a public programme
- Managing Authorities decide how to allocate ESIF resources within a specific policy programme
- Managing Authorities, often with the support of the EIB, posts a tender whose aim is to select Financial Intermediaries to manage the financial instrument
- The selected Financial Intermediaries allocate the funds to the Final Recipients in compliance with the investment strategy agreed with the Managing Authority

The ESIF scheme assures efficiency and effectiveness since Financial Intermediaries selected in charge of the financial instruments' management are **professional operators**.

ESIF resources need to be complemented by national resources, which entails a substantial upfront capitalization borne by public authorities. Though, ESIF Financial Instruments ensures benefits both for Financial Intermediaries and for Final Recipients.

Financial Intermediaries support only the operating risk, while **credit risk** is taken by the Managing Authority, given the market failure in which ESIF operate. As to Final Recipients, **blending** is strongly encouraged to attract further capital on ESIF - funded initiatives: Final Recipients can combine ESIF resources with any grants or financial sources.





**CASE STUDY**

The ESI Fund JESSICA (Joint European Support for Sustainable Investment in City Areas) promoted by Sicily Region, in Italy, financed the renewal of the RAP SpA car park through the purchase of natural gas vehicles. JESSICA Sicily provided 3,6 million Euro loan (70% of total investments) for a total investment of about 5,2 million Euros. Interests applied to the loan were determined in accordance with the EU State Aid Regulation. Thanks to this initiative CO<sub>2</sub> emissions were cut of about 23% and nitrogen emissions reduced of more than 50%, corresponding to 100 tep per year.

**PROSPECT**

The European Investment Fund (EIF) put out a CEoI on January 2020 to select eligible financial institutions to become Financial Intermediaries under the Energy Efficiency and Renewable Energy for Malta fund of funds (EERE). The EERE has a total amount of 15 million Euros and is aimed at providing guarantee to both private individuals and corporates for energy efficiency and renewable energy projects. The FI has not been launched yet, but it is expected it will be operating in the next months.

**APPLICABILITY & KEY POINTS**

- ✓ Project eligibility criteria are generally rigorous
- ✓ Applicable to **specific projects and sub-sectors** defined by Managing Authorities
- ✓ **Flexible** financial instrument, acting as loan, equity or guarantee
- ✓ ESIF resources additional to bank loans / grants



## 4 Financial providers

The Financial Providers which were studied for the purposes of the present report were on one side providers of public resources, namely regional and national Managing Authorities, International Financial Institutions (IFIs), Local Promotional Banks and commercial banks (limited to public-related Financial Instruments) and on the other side providers of private resources as investment funds and crowdfunding platforms.

The contacts activated involved the different clusters of providers in the share reported in the Table below: most of the providers contacted are investment funds (35%) followed by Managing Authorities (30%) and crowdfunding platforms (24%). The providers indicated as “Other” in the Table refer to two companies in the energy sector that provide advisory services as well as financing solutions.

Table 1- Financial Providers contacts<sup>3</sup>

FINANCIAL PROVIDERS CONTACTS		
<b>Activated contact</b>	<b>144</b>	<b>100%</b>
<i>Investment Funds</i>	50	35%
<i>Crowdfunding Platforms</i>	34	24%
<i>Development Banks</i>	11	8%
<i>Commercial Banks</i>	4	3%
<i>Managing Authorities*</i>	43	30%
<i>Other</i>	2	1%
<b>Obtained feedback</b>	<b>41</b>	<b>28%</b>
<b>Negative feedback</b>	<b>9</b>	<b>6%</b>
<b>Positive feedback</b>	<b>32</b>	<b>22%</b>
<i>Obtained questionnaire</i>	19	13%

The overall response rate was not high (28%), probably due to the problems raised during the lockdown measures affecting European Countries and to the transition period with reference to EU public funds. Notwithstanding:

- the questionnaire and the interviews gave a complete overview of the financial instruments potentially available for energy transition project in islands

<sup>3</sup> \* Out of 80 targeted contacts, only 43 contacts with Managing Authorities were effectively activated due to difficulties in obtaining the correct address



- the respondents' investment targets cover mainly countries with a significant number of islands (e.g. Croatia, Greece, Italy, United Kingdom, France)

The number of positive feedbacks is higher than the number of questionnaires obtained because some of the respondents proved to be interested in the initiative, but preferred to release an interview rather than to fill the questionnaire in. That's mainly because their offer of financial facilities supporting the energy sector is very wide and articulated and an interview allowed to acquire a more detailed and complete set of information.

The subjects that proved to be interested but did not fill in the questionnaire were mainly development banks. The main motivation is that development banks, currently at the forefront of the energy transition sector, offer extensive and comprehensive services and products for the sector that are difficult to map in a questionnaire. The development banks therefore preferred to conduct interviews to learn about the NESOI platform, but also to provide a complete overview of the facilities and programs dedicated to energy transition.

Each one of the identified clusters is explored in detail in the following paragraphs.

## 4.1 Pure public providers

Public investments in energy transition is key in order to achieve the EU long-term and national targets. Despite being not sufficient (in terms of volumes) to bear all the intervention needed, public finance is necessary to stimulate private investments in the sectors involved.

Too often, private investments are modest if compared with the needs. The reasons behind can be different. Energy-related projects embed considerable level of uncertainty, making them appear very risky to investors' eyes. Uncertainty is mainly linked with difficulties in providing accurate estimations on i.e. the learning curve, existing financial data, feasible investments schemes, new technologies risks, etc. This is even worst when referring to early stage interventions, including research and development stage and pilot phases of the technology innovation chain. In these projects public finance becomes necessary.

In addition, public resources can mobilise further (private) investments, boosting the clean energy sector. Public intervention can attract investors in new sectors, that would have remained uncharted otherwise, since investors usually have little incentives to invest, for example because traditional energy prices are low.

Public funds for energy efficiency are available at different levels: European, National and Regional/Local. In particular, funding can be:

- European funds managed by:
  - The EU directly or co-managed by Member States



- European institutions (EIB)
- National funds managed:
  - Directly
  - Through national promotional banks

For the purposes of this report, all the above-mentioned instruments were taken into consideration.

In the following paragraphs, European funds managed directly or jointly with Member States will be presented. In addition, some case studies of national funds will be described.

For National promotional banks and Eu institutions, please refer to paragraph 4.2.

### European financial resources

The European Union has always had a key role in the energy transition sector. This is confirmed not only by the regulatory framework developed especially in the most recent years (i.e. Clean Energy for all Europeans, European Green Deal), but also by the concrete effort in supporting investments. From the economic point of view, European resources are available in form of grants, loans and funding for technical assistance.

Funds include budget areas under direct management by the European Commission as well as those under shared management with Member States, such as the European Structural and Investment Funds (see also paragraph 3.2.7).

In particular, more than € 645 billion, over half of the EU budget, is channelled through 5 ESI funds:

1. European regional development fund (ERDF)<sup>4</sup>
2. European social fund (ESF)<sup>5</sup>
3. Cohesion fund (CF)<sup>6</sup>
4. European agricultural fund for rural development (EAFRD)<sup>7</sup>
5. European maritime and fisheries fund (EMFF)<sup>8</sup>

During the negotiation for the current 2014-2020 Multiannual Financial Framework between the Commission, the European Parliament and the Council, it was agreed to make **at least 20% of EU expenditure towards climate-related actions in 2014-2020**. This set the overall objective to earmark funds within different budget headings for climate-

<sup>4</sup> [https://ec.europa.eu/regional\\_policy/en/funding/erdf/](https://ec.europa.eu/regional_policy/en/funding/erdf/)

<sup>5</sup> <https://ec.europa.eu/esf/home.jsp?langId=en>

<sup>6</sup> [https://ec.europa.eu/regional\\_policy/en/funding/cohesion-fund/](https://ec.europa.eu/regional_policy/en/funding/cohesion-fund/)

<sup>7</sup> <https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/rural-development>

<sup>8</sup> <https://ec.europa.eu/fisheries/cfp/emff/>



related measure, so that they should represent the 20% of the EU budget, one out of every five euro spent, if taken together.

In absolute terms, this target means € 212 billion of resource, corresponding to three times the amount of the previous Multiannual Financial Framework (MFF) 2007-2013. Under ESI Funds, the European Agricultural Fund for Rural Development (EAFRD) is currently the largest contributor (€ 47.2 billion planned). As a whole, ESIF provide € 114.3 billion, meaning more than half of the target and 11% of the total EU budget<sup>9</sup>.

Investments in the energy transition are also supported by other MFF funds and programs under “Heading 1 - Smart and inclusive growth” and “Heading 2- Sustainable growth: natural resources”, amounting respectively to € 450.8 billion (of which € 325.1 billion for economic, social and territorial cohesion) and to € 373.2 billion.

These include:

- **Horizon2020**, the EU research and innovation programme;
- **Connecting Europe Facility (CEF)**, which provides grants for transnational energy infrastructure projects;
- **ITER contributions**, to support the design and construction of a large-scale nuclear fusion reactor;
- **LIFE program**.

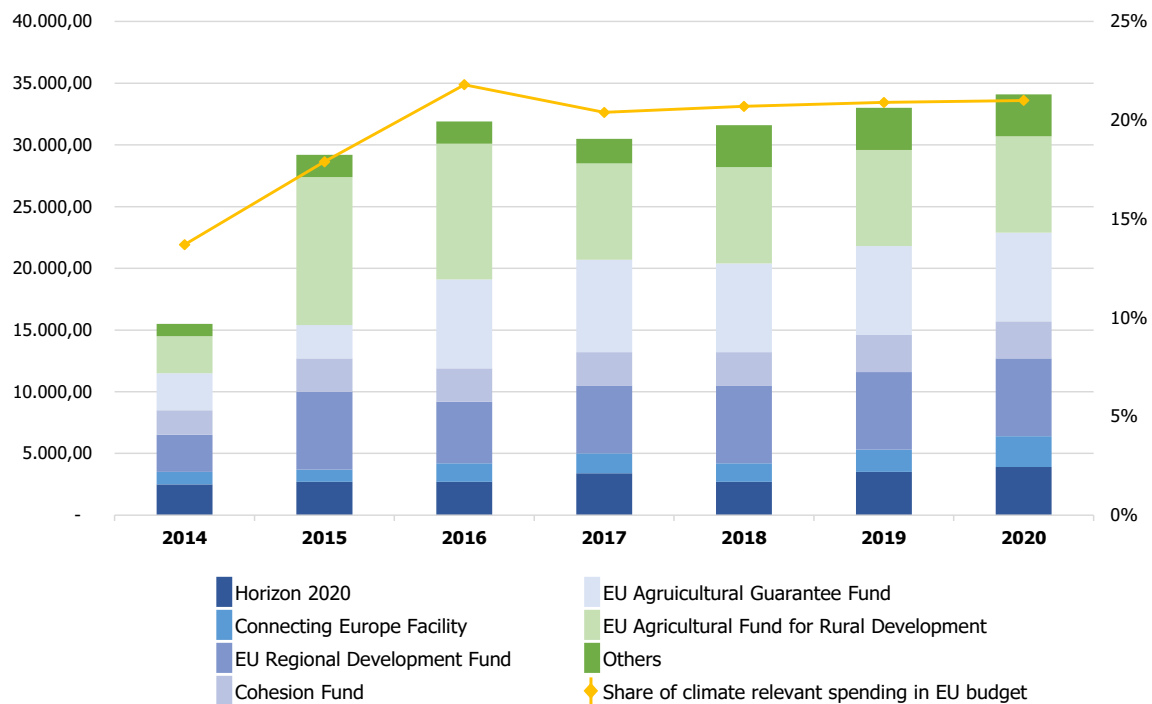
In 2019 the Commission confirmed that, except for the first two years, the targeted climate-related spending under the MFF 2014-2020 was achieved and even exceeded in the following five years (Figure 11).

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<sup>9</sup> M. Runkel, A. Lukacs, N. Nurmanbetova, A. Nikolova, P. ten Brink, R. Joebstl, M. Trilling, E. Yrjö-Koskinen, J. Kresin. Climate Change and the EU Budget 2021-2027 - Synthesis Report. 2019



Figure 11 - Climate-related spending in the EU budget, 2014-2020 (EUR million and percentage of the EU budget)<sup>10</sup>



In addition to this, in the 2014-2020 framework, further resources were allocated to climate change action also outside the MFF through the European Fund for Strategic Investment (EFSI), managed by the European Investment Bank. In 2019, EFSI spending on climate action already amounted to more than € 19 billion, representing more than half of the climate-related funding under the MFF in the same year.

As said in paragraph **Errore. L'origine riferimento non è stata trovata.**, EFSI is a tool launched through the Investment Plan for Europe to support private investments providing SMEs with grants and guarantees in key sectors such as infrastructure, energy efficiency and renewable energy, research and innovation, environment, agriculture, digital technology, education, health and social projects. It also supports small businesses to start up, to grow and to expand by providing risk finance. In other words, EIB Group can finance operations that are riskier than their average investments. The financing is purely demand-driven.

In 2017, the European Parliament and Member States agreed on the "EFSI 2.0" Regulation extending the lifetime of the fund from mid-2018 to end 2020 and increasing the target investments from € 315 billion to € 500 billion. This is relevant since at least 40% of the EFSI budget is allocated to infrastructures and innovation projects contributing to climate

<sup>10</sup> EU Climate Action Progress Report 2019, COM (2019) 559 final, 31 October 2019

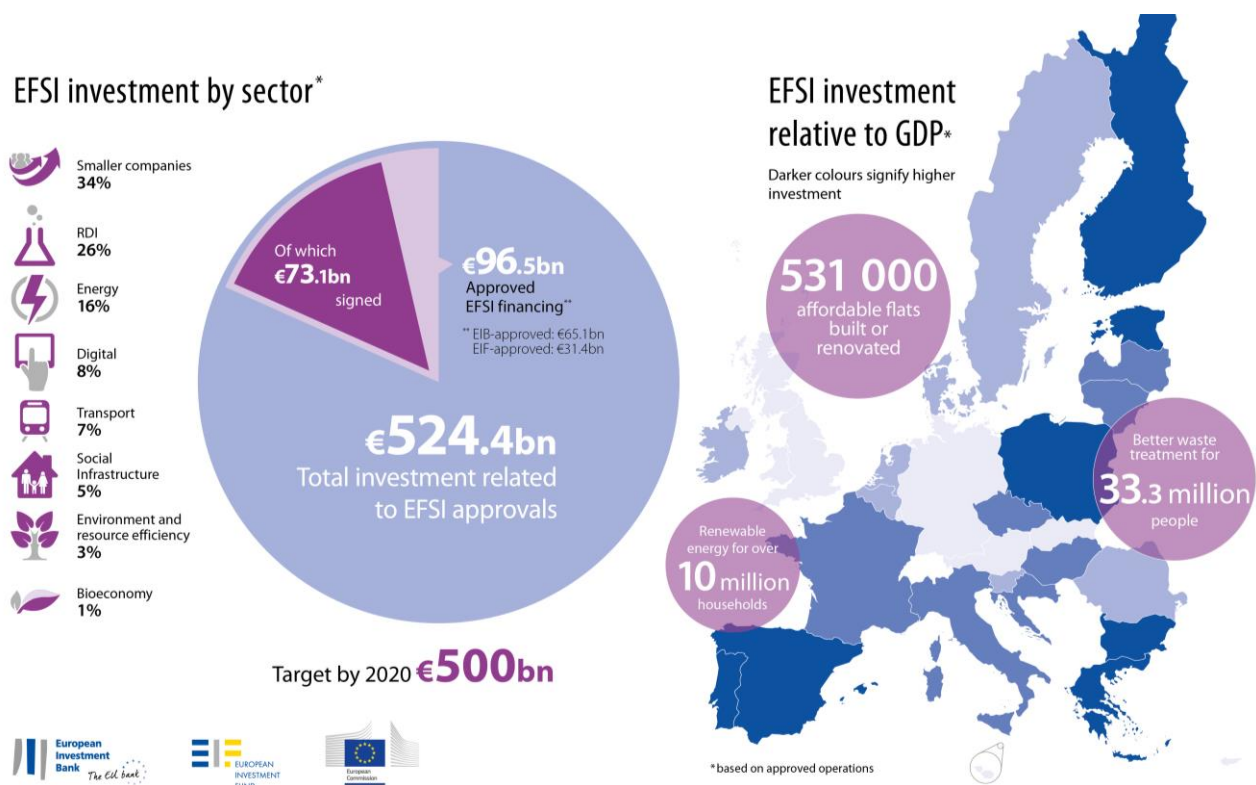


action, in line with the Paris Agreement. In addition, EFSI 2.0 also explicitly addresses new sectors, such as sustainable agriculture, forestry, fisheries and aquaculture.

EFSI 2.0 offers also technical support at local level, enhancing the existing European Investment Advisory Hub working to support small business in the rump up. To do so, the Hub will provide more tailor-made assistance on site, involving also national promotional banks.

As reported in the picture below (Figure 12), total investments already exceed the target of € 500 billion. In particular, the investments related to energy and climate actions amount to more than 25% of the overall investment.

Figure 12 - EIB Group figures as of 15/07/2020



The relevance given to supporting climate-related investments has also been confirmed in the new Multiannual Financial Framework 2021-2027 after the appointment of Ursula von der Leyen as the new President of the European Commission. In particular, the main political documents of 2019, namely the political guidelines for the mandate of the incoming Commission and the strategic orientations adopted by the European Council, included the mitigation of climate change and building a climate-neutral EU among the top priorities for the 2019-2024 period.





Furthermore, building on the success achieved in the current programming period (20% of expenditures on climate actions), on 2<sup>nd</sup> May 2018 the Commission set a more ambitious **target of 25% of expenditure contributing to climate objectives under the next MFF 2021-2027.**

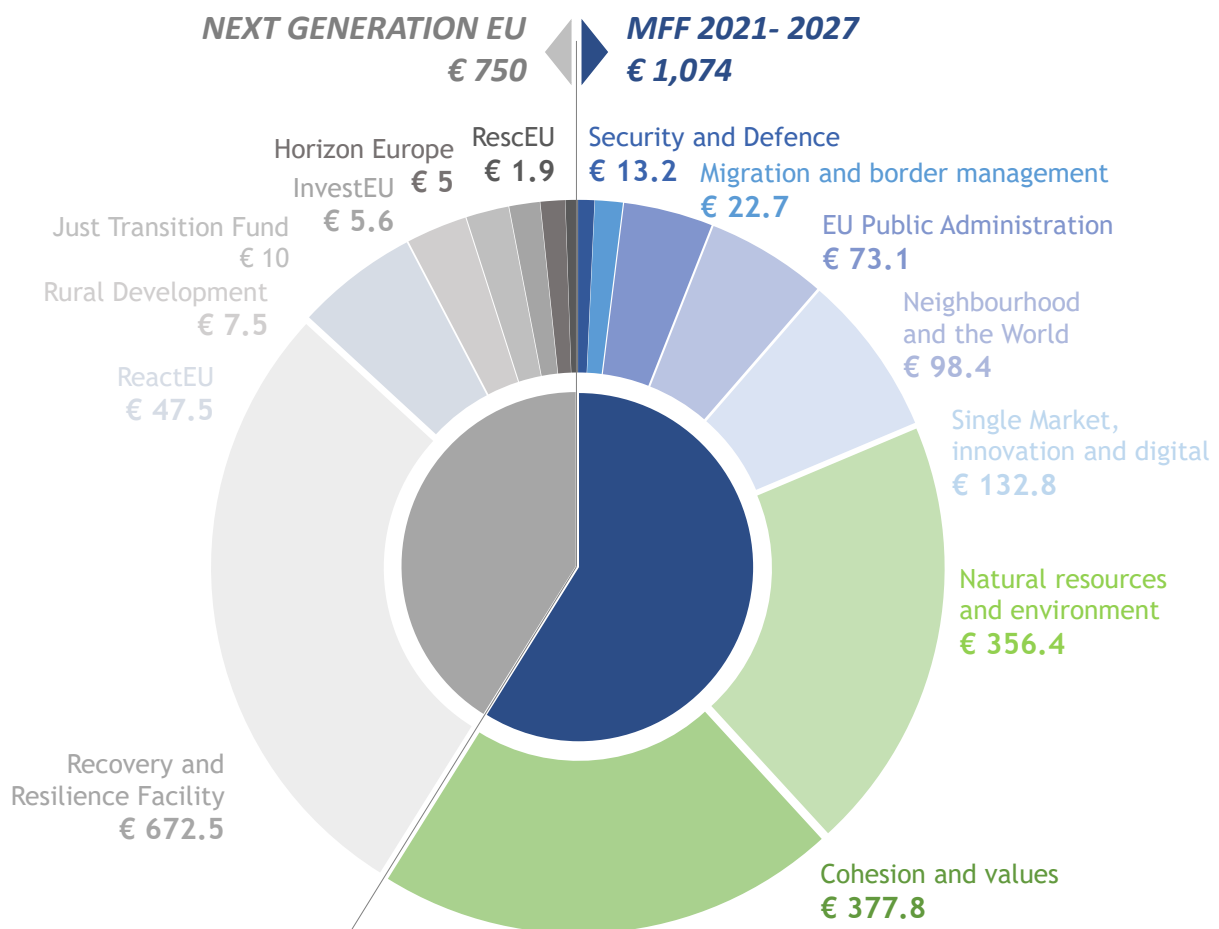
In this respect, the **European Green Deal** is the key initiative combining regulatory and budgetary measures to make the European Union the first climate-neutral continent by 2050. Achieving this target requires actions in all sectors of our economy, including environmentally-friendly technologies and industries, cleaner private and public transport, decarbonising the energy sector and building energy efficiency.

After the Covid-19 pandemic, the EU agreed on allocating financial support to the reconstruction of the economy in Member States, setting up a dedicated recovery fund. The recovery plan was presented in May, and on 21 July 2020 the EU leaders reached the agreement on the next long-term budget. This set out the MFF 2021-2027, with commitment appropriations slightly decreased to €1,100 billion at 2018 prices compared to the first proposal. In addition to the EU's own resources, the budget envisages a € 750 billion recovery fund to be repaid over 30 years. The funds may be used for loans up to € 360 billion and grants up to € 390 billion.





Figure 13 - European budget under MFF 21-27 and Recovery Fund



As a whole, the new EU financial framework aims to mobilise of private and public investments for € 1 trillion by 2030. More than € 500 billion, representing more than half of the total funding for investments under the European Green Deal, will be allocated directly from the EU budget, mainly as **grants**. The financing model for the remaining share of the budget will largely build on the EFSI blueprint. In particular, it will envisage **guarantees** under the ‘InvestEU’ initiative, to attract national public and private investments exceeding € 280 billion. These EU resources would be re-payable and take the form of **loans, guarantees and equity** investments managed by the EIB along with national and international financial institutions. Finally, the Just Transition Mechanism will provide targeted financial support to Member States to reduce the carbon-intensity of their economies.

The Recovery fund, also known as *Next Generation EU* (NGEU), combines three pillars. For the purposes of this report, it’s worth focusing on the first one, devoted to support Member States in their recovery from the pandemic crisis.

More in details, under the first pillar, the following programmes are identified:



- a. European Recovery and Resilience Facility
- b. REACT-EU - Recovery assistance for cohesion and the territories of Europe
- c. Rural Development
- d. Just Transition Fund

The European Recovery and Resilience Facility is the key tool to help MSs to recover. The EU's recovery strategy includes:

- A massive **renovation wave** of buildings and infrastructures, encouraging a more circular economy and creating new jobs locally;
- **Rolling out renewable energy projects**, focusing mainly on wind, solar and hydrogen;
- **Cleaner transport and logistics measures**, to boost rail travel and clean mobility, including the installation of one million charging points for electric vehicles;
- The **Just Transition Fund** to support re-skilling, help businesses and create new economic opportunities.

The European [Recovery and Resilience Facility](#) will provide more than € 670 billion in grants and loans, occurring mainly in the first years of the recovery. To access the Facility, each MS needs to develop a recovery and resilience plan which should (i) be compliant with EU policy; (ii) address the economic policy challenges set out in the country-specific recommendations; (iii) enable Member States to enhance their economic growth potential, job creation and economic and social resilience, and to meet the green and digital transitions. Plans must be submitted by 30<sup>th</sup> April 2021. According to the current expectation, the Facility should turn operational on 1<sup>st</sup> January 2021.

Additional resources to boost energy-related investment will be available through the Just Transition Mechanism (JTM), which will provide financial support and technical assistance to those territories that are the most affected by the move towards the green economy. This mechanism is expected to mobilise at least €100 billion over the period 2021-2027 in the targeted regions.

The JTM consists of the following main sources of financing:

- **Just Transition Fund** | amount to € 7.5 billion of EU funds. Additionally, MSs have to commit to match each euro from the Just Transition Fund with money from the European Regional Development Fund and the European Social Fund Plus and provide additional own resources. Taken together, the scheme is supposed to provide between €30 and €50 billion of funding, mobilising even higher investments. The Fund will primarily provide grants to regions supporting the job market and creating new economic opportunities as well as investments in the clean energy transition.



- **A dedicated just transition scheme under InvestEU** | Its aim is to mobilise more than of € 45 billion of investments, attracting private resource in sustainable energy and transport sectors.
- **The Public Sector Loan Facility** | The facility will be jointly managed by the EC and the EIB. It will consist of a grant amounting to € 1.5 billion from the EU budget and loans up to € 10 billion from EIB's own resources to be issued for the public sector (i.e. investments in district heating networks and renovation of buildings). The Facility will support only projects that would not be finance on commercial terms without a grant, being unable to generate suitable streams of revenues.

All investments under the Just Transition Mechanism, including the Public Sector Loan Facility, need to be implemented according to the territorial just transition plans developed by the Member States. The plans must rely on the Commission's analysis in the 2020 European Semester to design the transition path until 2030, in accordance with the National Energy and Climate Plans. In its plan, each MS will point out the most affected territories as well as the priority policy areas for each region.

Furthermore, relying on a Just Transition Platform, the Commission will be providing technical assistance to Member States and investors.

#### European financial resources jointly managed

As previously mentioned, some of the European funds are jointly managed by the EC and Member States. In detail, the Multiannual Financial Framework 2014-2020 allows the Member States to receive resources in order to implement projects that focus on different areas; in particular, for the purposes of this report, it's important to analyses the budget under ESIF and the “low-carbon economy” theme.

The financed amount planned by the European Union for this area is around € 22 billion. By the end of 2019, only 27% of the resources was spent by all the Member States, amounting to around € 6 billion<sup>11</sup>.

The aim of this paragraph is to provide an overview of existing opportunities under the current programming period, in particular in terms of priority axis and investment priorities linked with energy transition in Member States.

To do so, the methodological approach defined to gather information consists in questionnaires and direct interviews addressed to the Managing Authorities<sup>12</sup>. More than 80 Managing Authorities have been mapped and targeted to answer the questionnaire. However, the response rate was not sufficient to create a significant database. In fact,

<sup>11</sup> <https://cohesiondata.ec.europa.eu/funds/erdf>

<sup>12</sup> [https://ec.europa.eu/regional\\_policy/en/atlas/managing-authorities/](https://ec.europa.eu/regional_policy/en/atlas/managing-authorities/)



only three questionnaires were obtained, also through direct interviews. This is most likely due to the transition from the current programming period and the future MFF.

For this reason, desk analysis was needed to complement the dataset.

The main sources of information are represented by the cohesion data and the Operational Programmes (ERDF, Priority 4), where information about the amount financed to every Managing Authority of the Member States can be retrieved.

Figure 14 - ERDF resources (PA 4) 2014-2020

[€ mln]	Planned Total Amount	EU amount planned	Total Eligible Costs Decided	EU Eligible Costs Decided	Public Eligible Costs	Total spend	EU spend share
Denmark	19.96 €	10.33 €	13.88 €	7.24 €	13.01 €	4.49 €	2.33 €
Spain	3,141.59 €	2,135.58 €	824.33 €	508.63 €	341.88 €	479.55 €	280.97 €
France	849.39 €	409.38 €	630.83 €	322.89 €	527.26 €	241.75 €	112.27 €
Greece	929.51 €	735.45 €	956.47 €	759.39 €	956.47 €	304.52 €	241.06 €
Croatia	470.59 €	400.00 €	641.98 €	545.68 €	544.08 €	224.79 €	191.07 €
Italy	3,134.17 €	2,153.4 €	2,834.94 €	1,945.08 €	2,834.94 €	694.88 €	484.49 €
Malta	42.65 €	34.12 €	36.11 €	28.89 €	35.9 €	15.83 €	12.66 €
Netherlands	28.27 €	14.13 €	11.76 €	5.88 €	6.87 €	4.89 €	2.45 €
Portugal	288.37 €	243.01 €	252.29 €	213.67 €	250.81 €	46.47 €	39.47 €
Sweden	132.88 €	66.44 €	106.2 €	53.1 €	102.79 €	45.00 €	22.5 €
UK	2,225.84 €	1,281.23 €	1,721.76 €	1,045.77 €	1,556.37 €	415.84 €	250.62 €
<b>Total</b>	<b>11,263.22 €</b>	<b>7,483.13 €</b>	<b>8,030.55 €</b>	<b>5,436.23 €</b>	<b>7,170.38 €</b>	<b>2,478.01 €</b>	<b>1,639.88 €</b>

Hereafter the analysed case studies are listed in order to have a more detailed view of available investment priorities.

In particular, the analysis was focused on the current MFF and on the Managing Authorities actively involved, namely Malta, Azores and Sweden. Additional information could be gathered through partners' own knowledge referring to Italy.

The financed amount decided in 2014 for Malta is € 46 million; by the end of 2019 the amount spent on projects regarding the Priority Axis 4 was € 15 million (around 30% of the total initial funds).



Managing Authority **MALTA**

Priority Axis	4 - Shifting towards a low-carbon economy		
Fund	ERDF		
Financed Amount	€ 46.1 bln of which: € 34.1 bln non-repayable grant and € 12 bln loan or equivalent		
Type of Financing	Grant/Loans or equivalent		
Application deadline	Calls are opened and closed as required to commit all the funds		
Application Type	Window		
Disbursement period	31st December 2023		
Eligible expenses	Investment costs related to setting up of PV Panels, energy efficient technology and upgrades		
Duration of Evaluation process	3-6 months depending also on the technical nature and quality of the submissions		
Total spent (by the end of 2019)	€ 15.1 bln		
% spent	33%		

	PA4 - SO1	PA4 - SO2	PA4 - SO3
Title of the investment priority	4a - Promoting the production and distribution of energy derived from renewable sources	4b - Promoting energy efficiency and renewable energy use in enterprises	4c - Supporting energy efficiency, smart energy management and renewable energy use in public
Title of the Specific Object	Promoting the use of RES through financial incentives in the domestic sector and undertakings not carrying out an	Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial	The use of RES and EE within public property as well as EE in housing through financial incentives
Target Groups	Households, NGOs	Large Enterprises, SMEs, Industrial and commercial sector	Public administrations, Housing sector and developers of housing stock within the Private sector
List of potential interventions	Financial incentives for RES systems	Financial instruments to invest in RES and financial incentives to support enterprises in energy efficiency interventions	Incentives to install energy-efficient and RES systems in public buildings and housing
Territories	Malta and Gozo	Malta and Gozo	Malta and Gozo



Sardinia is one of the Italian Managing Authorities; here, € 79 million of the MFF funds have been allocated. The total amount spent (by the end of 2019) was around 30% (€ 23 million).

Managing Authority **SARDINIA (IT)**

Priority Axis	4 - Sustainable energy and quality of life		
Fund	ERDF		
Financed Amount	€ 79 bln of which: € 68 bln non-repayable grant and € 11 bln loan		
Type of Financing	Grant/Loans or equivalent		
Application deadline	-		
Application Type	-		
Disbursement period	31st December 2023		
Eligible expenses	-		
Duration of Evaluation process	-		
Total spent (by the end of 2019)	€ 22.8 bln		
% spent	29%		

	PA4 - SO1	PA4-SO2	PA4-SO3
Title of the investment priority	4c - Sustain the energy efficiency and the ,amagement of energy and use of renewable energy in public infrastructure	4d - Development and realization of ntelligent distribution systems	4e - Promotion of low carbon emission strategies especially for urban areas
Title of the Specific Object	Reeduction of consumptions in public buildings, residential and non-residential buildings	Increase of the amount of energy needs covered by the development and the realization of intelligent distribution	Increase of the sustainable urban mobility
Target Groups	Households, public areas users	Public users (schools, hospitals, public administrations, households)	Households and utilizers of the local and public transport
List of potential interventions	-	-	-
Territories	All regional territory	All regional territory	All regional territory



Sicily is another Italian Managing Authority; the total funds allocated in this island for the low-carbon economy purposes in 2014 are € 749 million of which (by the end of 2019) 25% has been allocated and spent.

Managing Authority	SICILY (IT)				
Priority Axis	4 - Sustainable energy and quality of life				
Fund	ERDF				
Financed Amount	€ 794 Mln				
Type of Financing	-				
Application deadline	-				
Application Type	-				
Disbursement period	31st December 2023				
Eligible expenses	-				
Duration of Evaluation process	-				
Total spent (by the end of 2019)	€ 194 Mln				
% spent	24%				

	PA4- SO1	PA4- SO2	PA4-SO3	PA4-SO4	PA4-SO5
Title of the investment priority	4a - Increase of the sustainable bioenergies	4b - Increase of the energetic efficiency and use of renewable energy for enterprises	4c - Sustain energy efficiency, intelligent management of energy for public buildings	4d - Develop intelligent energy distributions nets	4e - Increase sustainable urban mobility
Title of the Specific Object	Realization of logistic platforms for biomass	Reduction of the energetic consumption for the enterprises	Increase the efficiency and reduction of consumptions (smartbuildings)	Realization of smart nets	Realization of infrastructure for transportation purposes
Target Groups	All the utiliziers	All the utiliziers	All utiliziers	All utiliziers	Infrastructure utiliziers (workers, students, etc)
List of potential interventions	-	-	-	-	-
Territories	All regional territory	All regional territory	All regional territory	All regional territory	Regional areas with higher



South-Sweden received funds for a total amount of € 9 million to be spent for low-carbon economy projects; the total projects implemented required an expenditure of € 3 million (32% of the total amount financed).

Managing Authority **SWEDEN**

Priority Axis	3 - Sustainable growth - low carbon economy	
Fund	ERDF	
Financed Amount	€ 9.2	
Type of Financing	Grant	
Application deadline	-	
Application Type	-	
Disbursement period	31st December 2023	
Eligible expenses	Investment costs related to setting up of PV Panels, energy efficient technology and upgrades	
Duration of Evaluation process	-	
Total spent (by the end of 2019)	€ 2.9 bln	
% spent	32%	

	PA3 - SO1	PA3 - SO2
Title of the investment priority	4b - Promoting energy efficiency and renewable energy use in enterprises	4c - Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
Title of the Specific Object	Reduced climate impact by enterprises increasing their use of renewable energy	Reduced climate impact by enterprises increasing their use of renewable energy, at the same time as their energy use becomes more efficient
Target Groups	Private enterprises and organizations, innovation infrastructure, regional and local sector organizations, government agencies	Regional and municipal operators, government agencies, regional and local sector organizations, municipal property companies and waste management companies, development
List of potential interventions	-	-
Territories	South Sweden	South Sweden





The autonomous region of Azores received from the MFF 14-20 € 9 million for the Priority Axis 4 of which € 0.75 million have been spent.

Managing Authority **AZORES**

Priority Axis	4 - Low-carbon economy			
Fund	ERDF			
Financed Amount	€ 9 bln			
Type of Financing	Grant			
Application deadline	31st October 2020			
Application Type	Window			
Disbursement period	31st December 2023			
Eligible expenses	Industrial processes; promotion of renewable energy for self-consumption; energy audits			
Duration of Evaluation process	45 days after the submission			
Total spent (by the end of 2019)	€ 0.75 bln			
% spent	8%			

	PA4	PA4	PA4	PA4
Title of the investment priority	4b - Promotion of the energy efficiency and renewable energy use in enterprises	4c - Support Energy efficiency and smart management of energy in public infrastructures	4d - Promotion of low-carbon strategies for the urban areas, including promotion of	4e - Promotion of low-carbon strategies for all types of territories
Title of the Specific Object	Increase of the energy efficiency in enterprises	Increase the energy efficiency in public infrastructures increasing energy	Promotion of urban mobility	Promotion of urban mobility
Target Groups	Enterprises	Public administrations, regional companies, public institutes	Regional and Local public administrations	Public passenger transport companies
List of potential interventions	Energy efficiency, electric mobility, industrial processes, RES for self consumption, Autonomous region of the Azores	Energy efficiency in buildings and in public illumination	Soft mode transport, bicycle paths and bicycle sharing	Purchase of heavy passenger electric vehicle, charging points, ticketing schemes
Territories	Autonomous region of the Azores	Autonomous region of the Azores	Autonomous region of the Azores	Autonomous region of the Azores

The percentages of the amount spent by the single Managing Authorities is in line with the European average (around 30%).

Despite relying on the current priorities and not on the future ones, this analysis can be interesting if we consider the new funds available at EU level to overcome the crisis caused by COVID-19. Within the Next Generation EU programme, REACT-EU is the tool devoted to create a bridge between the current and the future MFF, allowing Member States to implement more projects under the current priorities. It includes € 47.5 billion of additional funding that will implement the ongoing 2014-2020 cohesion policy programmes; this will guarantee the Member States to easily have access to the funds. The Member States can autonomously decide how to specifically allocate the resources which will be divided on the basis of the overall situation of the State and of the effects



of the crisis on them. If additional amounts of financing are needed from the Member States, they can be financed entirely from the EU budget.

### National resources

Financing energy transition is also among the first priorities of single Member States. Although national public resources are not sufficient to bear the investments required to achieve EU and national targets, in most European countries national public administrations represent a significant amount of the total financial flows to clean energy investments. They directly invest in projects, greening traditional interventions of the public sector (i.e. EE in the transport and buildings sectors, support the development of EE in industry, R&D for non-established, innovative RES and EE technologies)<sup>13</sup>, and/or can attract additional source of finance.

This paragraph aims to map available resources at national level. By definition, national public administrations include national, local, regional governments as well as public agencies. The main instruments typically used are public direct investment, grants, and public-private partnerships. In addition to this, policy-based incentives, such as subsidies and tax incentives, are a way of fostering private finance towards specific sectors, such as clean energy.

In order to provide a preliminary framework of available funding opportunities, the analysis was focused on those Member States represented by the partner in NESOI consortium. As said, the following tables are only some of the potential financing schemes available to support project realization on islands within NESOI timeframe: in-depth analysis will be conducted with specific reference to selected project awarded with the Facility support, taking into account relevant detail such as: country, intervention and/or technology involved, project promoter, potential stream of revenues, etc.

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<sup>13</sup> European Commission, Assessing the European clean energy finance landscape, with implications for improved macro-energy modelling - Deliverable D3 Study on the Macroeconomics of Energy and Climate Policies, 2017



Country GREECE		Grant
Programme/Fund	<b>Antonis Tritsis Programme</b>	
Beneficiary	Municipalities and Local Authorities	
Overall Budget	€ 2,5 bilion	
Timing	2020 - 2023	
Eligible Projects/ Sectors	Infrastructures and transportation	
	Urban regeneration	
	Digital transformation	
	Green growth	
Programme/Fund	<b>Infrastructure Fund of Funds</b>	
Beneficiary	Private and Public entities	
Overall Budget	€ 450 million	
Timing	2020 - 2023	
Eligible Projects/ Sectors	Energy efficiency of public or private spaces	
	Renewable energy	
	Urban infrastructures, industrial waste management / treatment infrastructure	
	Infrastructure for socio-economic development of urban and island areas, and exploitation of the public assets	
Programme/Fund	<b>Energy savings in Local Self-Governments</b>	
Beneficiary	General Public, Local Authorities, Public Estates	
Overall Budget	€ 83.4 million	
Timing	-	
Eligible Projects/ Sectors	Building envelope	
	Heating and cooling systems	
	Natural/artificial lighting system	
	Energy management system	
	Bioclimatic interventions to improve microclimate and energy efficiency in urban areas	



Country		CROATIA	Incentive
Programme/Fund	Environmental Protection and EE Fund		
Beneficiary	Public and private entities, NGOs and individuals		
Overall Budget	-		
Timing	-		
Eligible Projects/ Sectors	Support of energy efficiency Smart energy management  Renewables Energy Sources in infrastructures, including in public and residential buildings		
Country		SPAIN	Grant
Programme/Fund	PREE Program. Energy Rehabilitation of buildings		
Beneficiary	Building owners, ESCOs or energy service providers, Public Administrations, Renewable Energy Communities and the Citizen Energy Communities		
Overall Budget	€ 300 million		
Timing	31st July 2012		
Eligible Projects/ Sectors	Thermal envelope Energy efficiency of thermal installation Lighting installations		
Country		ITALY	Grant / Loan
Programme/Fund	Energy Efficiency National Fund		
Beneficiary	Enterprises, ESCOs, Public Administrations		
Overall Budget	€ 310 million		
Timing	-		
Eligible Projects/ Sectors	Energy savings in industrial processes Creation and expansion of district heating systems Energy efficiency in buildings  Public services and infrastructures efficiency (public lighting included)		



Country GERMANY		Loan
Programme/Fund	<b>CO2 Building Renovation Programme</b>	
Beneficiary	Municipalities, Public and Private enterprises, Building owner	
Overall Budget	€ 2 billion	
Timing	-	
Eligible Projects/	Building envelope; technical building equipment	Grant
Programme/Fund	<b>Energy Consulting Programme</b>	
Beneficiary	Households, companies, municipalities and NGOs	
Overall Budget	€ 45 million	
Timing	2020 - 2023	
Eligible Projects/	Energy efficiency	
Country FRANCE		
Programme/Fund	<b>France Investissement Energie Environnement</b>	
Beneficiary	Small and medium size enterprises	
Overall Budget	€ 100 million	
Timing	Since 2017	
Eligible Projects/	Renewable energies	
Sectors	Energy efficiency	
	Circular economy	
	Any transversal solution (for instance: digital) contributing to energy transition	
Programme/Fund	<b>Fonds Chaleur</b>	
Beneficiary	Multi-family buildings, local authorities, enterprises	
Overall Budget	€ 350 million in 2020	
Timing	Since 2009	
Eligible Projects/	Renewable heat production	
Programme/Fund	<b>Fonds Eiffel Gaz Vert</b>	
Beneficiary	Greengas projects - in particular in agriculture sector	
Overall Budget	€ 115 million	
Timing	Since 2020	
Eligible Projects/	Renewable gas production and distribution	
Sectors	(methanisation, hydrogen, power-to-gas, waste-to-energy...)	



## 4.2 International Financial Institutions, National and Local Promotional Banks

Promotional and national development banks pursue their mission to contribute to sustainable economic development in line with EU and national policy objectives. As described before, we have studied how promotional banks operate through both a **desk analysis** and direct **interviews** to some banks located in EU Member States whose territories include some islands. Thanks to this double approach we were able to identify an intervention pattern common to all these entities and to outline specific lines and operational schemes for the development banks we have interviewed:

1. European Investment Bank (EIB)
2. European Bank for Reconstruction and Development (EBRD)
3. Black Sea Trade and Development Bank (BSTDB)
4. Croatian Bank for Reconstruction and Development (HBOR)
5. Malta Development Bank (MDB)
6. Banque des Territoires (BdT)

All these institutions operate with the common mission to **enhance the sustainable development** of Countries and address their services and financial instruments both to private and public entities. They operate directly only in **big scale projects** (>5 million Euros), but can finance also smaller projects thanks to the **support of national commercial banks**. All promotional and development banks provide **generic financial facilities** - loans, equity, guarantees - to fund initiatives in any sector related to sustainable growth and development of Countries. Beside traditional financial facilities, development banks often **cooperate with International Financial Institutions** (IFI), such as the European Investment Bank (EIB), in many different ways, for instance, they can create specific investment platforms or play the role of Fund Manager for ESI Funds.

In what follows it will be illustrated the specific modes of intervention of the four promotional banks that we have interviewed. In particular, the following tables will describe (i) the specific characteristics of target projects (also in the energy sector) that can be financed with the banks' ordinary facilities, (ii) any specific programmes dedicated to energy projects, (iii) any case study about projects realised thanks to promotional banks' funding.

### European Investment Bank

The European Investment Bank (EIB) is a publicly owned international financial institution whose shareholders are the EU Member States and it has been investing in the energy sector since its establishment in 1957. Over the last five years, the Bank's energy lending



represented on average approximately 12 to 14 billion Euros per year. The Bank's activities focus on four separate themes:

1. unlocking energy efficiency
2. decarbonising energy supply
3. supporting innovative technologies and new types of energy infrastructure
4. securing the enabling infrastructure

EIB has been very active on energy efficiency for a number of years and, in cooperation with the European Commission, it will establish a new **European Initiative for Building Renovation** (EIB-R) to support new ways to attract finance for building rehabilitation. Furthermore, as an exception to its general rules, the EIB will consider financing up to 7% of eligible capital expenditures under this initiative.

EIB provides generic lending products and energy sector - specific financing products. As to generic products addressed to the public sector, it covers up to 50% of the programme's costs, which usually start from 100 million Euros. If the programme also benefits from EU Funds, EIB and EU finance generally cannot exceed 70% of the total project investment costs.

As far as specific products for the energy sector are concerned, some of the instruments that are implemented by the EIB:

- 1) EFSI (European Fund for Strategic Investment) lending
- 2) PF4EE (Private Finance Instrument for Energy Efficiency) - see also 4.3.1
- 3) Marguerite Fund
- 4) NER 300

The 2020 **European Fund for Energy, Climate Change and Infrastructure**, known as the **Marguerite Fund**, is a pan-European equity fund that invests in renewables, energy and transport. It is an independent fund investing in European infrastructure, more precisely:

- Greenfield: new projects and facilities, with typical development risks largely mitigated (minimum of 65% of the Fund)
- Brownfield: replacement, modernisation and capacity enhancement of existing assets (maximum of 35% of the Fund)

It can be distinguished in Marguerite I and Marguerite II: the first one is now fully invested and has accomplished its initial targets, having committed over EUR 700m equity and quasi-equity capital to 20 investments in 13 member states, across all target sectors, acting as a catalyst for projects with an aggregate size of over EUR 10 billion. The successor fund, Marguerite II, continues the important work of Marguerite I as a catalyst for greenfield and brownfield infrastructure investments in renewables, energy, transport



and digital infrastructure, implementing key EU policies in the areas of climate change, energy security, digital agenda and trans-European networks.

The European Investment Bank has committed EUR 200 million, of which EUR 100 million are guaranteed by the European Fund for Strategic Investments (EFSI), alongside EUR 100 million each from five National Promotional Banks.

**NER 300** is the world's largest funding programme for carbon capture and storage demonstration projects and innovative renewable energy technologies, jointly managed by the European Commission, the European Investment Bank and Member States. It is based on the agreement of the European Union on the reduction of greenhouse gas emissions through the obligation to purchase emission rights by companies that use fossil fuels and reserves the proceeds from the sale of 300 million EU allowances (each corresponding to 1ton of CO<sub>2</sub>), equal to about 2.4 billion Euros, to support the installation of innovative technologies for renewable energy and carbon capture and sequestration (CCS). The EIB acts as an agent in the implementation of the NER 300 initiative. A Cooperation Agreement details the role of the EIB:

- Monetisation of the 300 million EU allowances set aside in the New Entrants Reserve of the EU Emissions Trading System for the initiative
- Appraisal of projects submitted by Member States for funding

Currently, there are no other calls for proposals under the NER 300 programme. The Commission is currently focusing on projects already selected for funding and on the preparation of the first call for proposals under the new Innovation Fund.

#### CASE STUDY

The EIB helped finance a EUR 175 million Euros project to install solar photovoltaic plants, energy storage systems, more efficient diesel-engine generators and upgraded distribution networks on 160 islands in the Maldives.

**To be adapted to potential climate-change impacts in the Maldives, with the entire territory less than 5 m above sea level, the solar systems will use modules mounted on structures 3-4 m high so as not to be affected by sea level rises, and to be able to withstand hurricane-force winds.**

Were it not for government subsidies, electricity in the Maldives would cost the consumer 20-25 times more than in Europe, because getting oil to the distant islands is expensive. Oil imports add up to close to 35% of the Maldives' GDP, making the island nation one of the most oil-dependent countries in the world.





## European Bank for Reconstruction and Development

The European Bank for Reconstruction and Development (EBRD) is owned by 69 Countries, as well as by the European Union and the European Investment Bank. Among its 69 Countries, the EU Countries that are both an EBRD and a NESOI target are six of them: Albania, Cyprus, Greece, Croatia, Estonia and Poland.

For the EBRD Energy is a key sector of intervention: it works for improving energy efficiency, enhancing the transition towards a low-carbon energy sector, rethinking energy systems to empower consumers and open up new business models for both efficient energy supply and consumption. EBRD's strategy to help Countries to build low carbon economies is the **Green Economy Transition (GET)** approach. EBRD provides green investment, concessional financing and innovative financial instruments: working in cooperation with bilateral and multilateral donors it provides finance at market rates and under sound banking principles.

To date, it has funded 373 projects and has invested 16,7 million Euros. None of these projects was realised on islands, mainly due to the small size of the projects to be realised on islands. Indeed, EBRD directly intervenes on big scale initiatives, ranging from 3 to 250 million Euros; smaller projects can be realised with EBRD contributions, but thanks to the support of commercial local banks with which EBRD cooperates. EBRD does not provide specific financial facilities for energy, though it provides different financial instruments that can be used to fund energy projects. Such facilities are briefly described in the Table below.



Figure 15 - EBRD Financial Facilities

<b>Target NESOI Countries</b>	Albania Cyprus Greece Croatia Estonia Poland
<b>LOANS</b>	
<b>Loan amount</b>	3 - 250 million Euros
<b>Grace period</b>	Project - specific grace periods may be incorporated
<b>Repayment period</b>	up to 15 years, normally in semi-annual instalments
<b>Interest rate</b>	Fixed or floating, market rates: a margin is added on to the base rate (LIBOR) depending on Country risk and project-specific risk
<b>Fees</b>	Front-end commission, paid up-front  Commitment fee, payable on the committed but undisbursed loan amount  Prepayment, cancellation and late payment fees are also charged if necessary
<b>Security</b>	The EBRD usually requires the companies it finances to secure the loan with project assets
<b>EQUITY</b>	
<b>Target undertakings</b>	Listed/unlisted, private/public, private equity funds
<b>Ticket size</b>	2 - 100 million Euros
<b>Return</b>	Market return
<b>Type of shares</b>	Ordinary/preference/redeemable preference shares
<b>Share on total equity</b>	No controlling interests, nor management obligation
<b>Duration</b>	No long-term equity investment

**CASE STUDY**

The EBRD provided an 80 million Euro loan to the Natural Gas Infrastructure Company of Cyprus (ETYFA) for the acquisition of a floating storage and regasification unit (FSRU) and the development of related infrastructure. The FSRU will be permanently anchored about 1.3 km off the coast of Limassol in Vasilikos Bay and will connect directly to the adjacent Vasilikos power station, the largest power



**plant in Cyprus. Thanks to this intervention the population of Cyprus will benefit from cleaner air and reduced energy costs.**

In addition, the EBRD manages the Green Economy Financing Facility (GEFF) and the Sustainable Energy Financing Facilities (SEFFs) through the support of local banks, which will be presented in detail in the following paragraphs.

### Black Sea Trade and Development Bank

The Black Sea Trade and Development Bank (BSTDB) is headquartered in Greece and has been supporting economic development and regional cooperation in the Black Sea Region (Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Turkey, and Ukraine) since 1999.

BSTDB provides many traditional financial facilities - loans, equity and guarantees. These facilities are not devoted to specific sectors, but can finance energy also projects in the energy transition sector. Indeed, BSTDB promotes environmental and social sustainability in its Member States, for example by addressing climate change, promoting the sustainable use of natural resources. To date, BSTDB has financed several projects in the renewable energy sector (PV, biogas and wind).

Being an international financial institution, BSTDB collaborates with EU institutional subjects: it structured a programme devoted to SMEs in collaboration with the EIB and co-financed some initiatives together with the European Bank of Reconstruction and Development.

The Table below illustrates the terms of lending applied by the BSTDB, which may be of interest for Greek islands, BSTDB Member State and NESOI target. As reported, the Bank provides both loans and equity facilities, but it primarily grants loans.



Table 2 - Black Sea Trade and Development Bank Financial Facilities

CHARACTERISTICS OF TARGET PROJECTS	
Target NESOI Countries	Greece
Ticket size (range)	10-80 mln€
Project status	Both greenfield and brownfield
Subsidised	No
LOANS	
<ul style="list-style-type: none"> <li>- Prior source of funding</li> <li>- Senior debt</li> <li>- Long term: duration up to 15 years</li> <li>- Cover up to 35% of each project</li> </ul>	
EQUITY	
<ul style="list-style-type: none"> <li>- Minority position, between 5% and 25% of the entity's share capital</li> <li>- Average time for maintaining an equity investment: 5 years</li> <li>- Rate of return reflecting the risk profile of the investment</li> <li>- No active role in the day to day management of the company required</li> <li>- Subscription of both common and preferred shares equity</li> </ul>	

### Croatian Bank for Reconstruction and Development

Croatian Bank for Reconstruction and Development (HBOR) was established in 1992 with the aim to support development and exports of the Croatian economy.

HBOR provides traditional financial facilities, such as loans, equity and guarantees, takes part to EU programmes (e.g. Natural Capital Financing Facility, part of the LIFE programme) and acts as fund manager of ESI Funds. Traditional facilities are not sector-specific, though HBOR is also providing facilities specifically dedicated to the energy sector, which are described in detail in what follows. HBOR facilities address both private entities, with a specific focus on SMEs, and public entities, despite lately public entities, such as municipalities, have difficulties in accessing debt given to their high indebtedness levels.

HBOR helps implement the **Natural Capital Financing Facility (NCFF)**, a financial instrument that combines EIB's financing and the Commission's funding under the LIFE Programme-Programme for the Environment and Climate Action.



Table 3 - HBOR - Natural Capital Financing Facility

<b>NATURAL CAPITAL FINANCING FACILITY (NCFF)</b>
<b>Ticket size (range):</b> 40k - 12,5mln€ <b>Target NESOI Countries:</b> Croatia <b>Maximum coverage:</b> 100% of total investment for private entities 90% for public entities
<b>LOANS</b>
<b>Interest rates</b>  Projects with a high contribution to conservation and sustainable use of resources: interest rate charged under the loan programme minus 1.00 p.p.  Projects with a medium impact on the conservation and sustainable use of natural capital, and/or adaptation to climate change by using natural-based solutions: interest rate charged under the loan programme minus 0.50 p.p.  Projects with a low impact on the conservation and sustainable use of natural capital, and/or adaptation to climate change by using natural-based solutions: interest rate charged under the loan programme minus 0.25 p.p.  <b>Repayment period</b>  Public sector entities: minimum 5 years, grace period included  Private sector entities that employ fewer than 3000 employees: minimum 2 years, grace period included  Private sector entities that employ at least 3000 employees: minimum 4 years, grace period included

In managing the NCFF, as well as in managing ESIF platforms, HBOR lends directly to borrowers. HBOR manages four ESI Funds, two of which focus on energy efficiency. These instruments, ESIF Energy Efficiency in Public Sector Building and ESIF Loans for Public Lighting are described in the Tables below. In order to apply for accessing these resources, final recipients can address directly HBOR.



Table 4 - HBOR - ESIF Energy Efficiency in Public Sector Buildings

ESIF ENERGY EFFICIENCY IN PUBLIC SECTOR BUILDINGS	
<b>Purpose of the loans</b>	The proceeds of loans are intended for the completion of funding plans for projects implemented by grant beneficiaries who have obtained a Decision on Financing under the Invitation to Submit Project Proposals for the Specific Goal 4c1 "Reduction of Energy Consumption in Public Sector Buildings"
<b>Borrowers</b>	<p>Units of local or regional government (hereinafter: ULRG);</p> <p>Public institutions or institutions engaged in social activities;</p> <p>Government bodies, ministries, central government offices, state administrative organisations and state administration offices in counties;</p> <p>Religious communities engaged in social activities;</p> <p>Associations engaged in social activities with public powers regulated by special laws.</p>
<b>Manner of Implementation</b>	HBOR implements the loan programme directly
<b>LOANS</b>	
<b>Loan amount</b>	HRK 100.000 minimum - HRK 60.000.000 maximum
<b>Disbursement period</b>	up to 36 months
<b>Grace period</b>	up to 12 months
<b>Repayment period</b>	up to 14 months, grace period included, in monthly, three-monthly or six-monthly instalments
<b>Interest rate</b>	Interest rate is determined in accordance with the degree of development of the area of investment
<b>Fees</b>	Borrowers are exempt from paying all fees that are usually charged on loans committed
<b>Security</b>	Securities are required



Table 5 - HBOR - ESIF Loans for Public Lighting

ESIF LOANS FOR PUBLIC LIGHTING	
<b>Purpose of the loans</b>	Energy renovation activities: <ul style="list-style-type: none"> <li>• dismantling and disposal of lamps and equipment to be replaced;</li> <li>• installation of lighting and regulation equipment;</li> <li>• relocation from transformer stations and/or new installation of public lighting control boxes with control, metering and protective equipment;</li> <li>• installation of new billing and control metering devices for electric energy;</li> <li>• installation of supplemental lighting posts, correction of geometry and/or cable infrastructure of existing public lighting installations;</li> <li>• preparation of studies and installation of temporary traffic regulation for the purpose of performing lighting-technical measurements and implementation of public lighting energy renovation activities;</li> <li>• expert supervision, etc.</li> </ul>
<b>Borrowers</b>	Units of local government
<b>Manner of Implementation</b>	HBOR implements the loan programme directly
<b>LOANS</b>	
<b>Loan amount</b>	HRK 500.000 minimum - HRK 15.000.000 maximum
<b>Disbursement period</b>	up to 12 months
<b>Grace period</b>	up to 6 months
<b>Repayment period</b>	up to 10 months, grace period included, in monthly, three-monthly or six-monthly instalments
<b>Interest rate</b>	Interest rate is determined in accordance with the degree of development of the area of investment
<b>Fees</b>	Borrowers are exempt from paying all fees that are usually charged on loans committed
<b>Security</b>	Bills of exchange and debentures issued by the final recipient

A further interesting initiative was started by HBOR in cooperation with the EIB: Smart Cities and Islands. At the end of 2018 the EIB and the Croatian Ministry of Regional Development and EU Funds signed an Advisory Service agreement to support the design of an investment platform for smart cities and islands. Due to changes in the Croatian political arena this initiative has not been realised yet.

### Malta Development Bank

The Malta Development Bank (MDB) was established in 2017 with the aim to contribute towards sustainable economic development of Malta.



It offers different financial facilities, addressed in particular to SMEs, none of which is specifically devoted to energy transition, but energy is a relevant sector for MDB policy. Indeed, the green economy is one of the priority areas set by the MDB in its mandate to complement commercial banks to bridge financial gaps in bankable investments and to enhance investors' access to bank financing. One of the facilities offered by the MDB is the Tailored Facility for SMEs, through which the MDB has financed electric car sharing services in Malta.

Table 6 - MDB - Tailored Facility for SMEs

TAILORED FACILITY FOR SMEs	
<b>Purpose of the loans</b>	Assist small and medium-sized enterprises (SMEs), including start-ups, by enhancing their access to finance
<b>Borrowers</b>	Maltese SMEs and start-ups that are not in financial difficulty
<b>Manner of Implementation</b>	The Facility is available through commercial banks
<b>LOANS</b>	
<b>Loan amount</b>	750,000 - 5 million Euros
<b>Repayment period</b>	from 24 months; the maximum term depends on the life-time of the asset being financed
<b>Guarantee</b>	The commercial bank shall pass on the benefit from MDB's guarantee, if applicable, to the SME

CASE STUDY
Thanks to the Tailored Facility for SMEs, the MDB funded an electric fleet for a national car sharing programme which should contribute towards a lower carbonisation of the mobility system and the installation of 225 electric pillars across Malta and Gozo. The MDB has provided a co - financing loan facility, jointly with a local commercial bank, on a <i>pari passu</i> basis to Car Sharing Services Malta Ltd. The co-financing facility is complemented by an MDB guarantee partially covering the commercial bank's share of the loan facilities.

### Banque des Territoires

The *Banque des Territoires* is a division of *Caisse des Dépôts et Consignations* created in May 2018, that brings together the offer of *Caisse des Dépôts* and its subsidiaries (SCET, CDC Habitat) specific for the territories.





The Banque des Territoires is active in the energy sector, which is part of its roadmap, and offers different financial instruments depending on the specific project.

As a development bank, BdT initiates projects to divest when they are de-risked and appealing also for market investors. Target projects usually are higher than 1 million Euros, even though there is no specific rule determining a minimum size.

BdT products are addressed both to private and public entities and it usually funds energy projects directly, through its subsidiaries spread on the French territory.

Table 7 - Banque des Territoires' products for energy projects

SPECIFIC SECTOR	PRODUCTS OFFERED
Renewable energy sources	<ul style="list-style-type: none"> <li>BdT intervenes with its own funds to support other investors (co - investment)</li> <li>Addressed both to private and public bodies</li> </ul>
Energy storage	<ul style="list-style-type: none"> <li>Sector of interest, but no current investment yet</li> </ul>
Sustainable mobility	<ul style="list-style-type: none"> <li>BdT intervenes with its own funds as a minor shareholder (&lt;49%)</li> <li>Regulated loans for local authorities: single rate whatever the amount, duration and counterpart, long - term (20 - 40 yrs)</li> </ul>
Energy renovation	<ul style="list-style-type: none"> <li>Addressed only to public bodies</li> </ul>

To access to the different financial instruments the steps to be followed are the following:

1. project promoters have to contact regional directorate of BdT
2. the project is assessed to check whether it is compatible with BdT's roadmap and with BdT's risk criteria

The documents that are requested to project promoters are in line with the documents analysed by private investors: feasibility studies, documents that prove financial sustainability, business plan, project presentation, technical studies.

The different BdT subsidiaries in the French territory all offer the same products. We interviewed the directorate of BdT of the Normandie region, which includes a few islands. On the island of Chausay, in Normandie, the Syndicat d'énergie de la Manche (SDEM) has conducted a feasibility study concerning the realisation of PV plants and a storage system based on hydrogen. On this island the main issue concerns land availability, given that areas where PV plans could be installed are private land.



## 4.3 Commercial Banks

Commercial banks usually do not offer product specifically tailored for energy efficiency investments, Though, they are in charge of managing some public platforms on behalf of national or regional Managing Authorities. In this paragraph we considered commercial banks only as manager of EU financial instruments or programs.

The management of public funds by private specialized professional entities ensures a high degree of spread of the EU financial measures.

In the energy sector, the most relevant financial instruments that are available and managed by commercial banks are:

1. PF4EE - Private Finance for Energy Efficiency
2. GEFF - Green Energy Financing Facility

### 4.3.1 Private Finance for Energy Efficiency

The **Private Finance for Energy Efficiency (PF4EE)** Instrument was agreed by the European Commission and the European Investment Bank. The PF4EE Instrument is funded by the Programme for the Environment and Climate Action (“LIFE Programme”) under the auspices of the Directorate General for Climate Action (“DG Clima”).

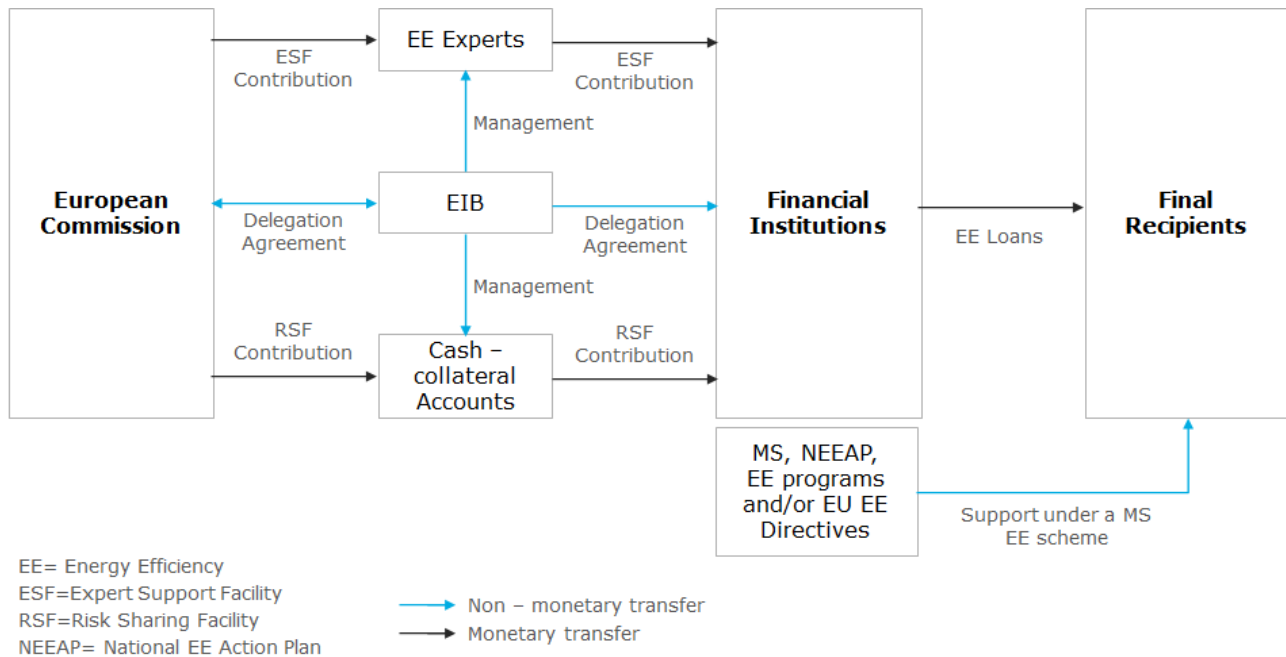
It operates through private sector partner banks, which use the instrument to offer preferential energy efficiency financing in their national markets to sustain the implementation of National Energy Efficiency Action Plans.

The two main objectives of the PF4EE Instrument are:

- 1) making energy efficiency lending a more sustainable activity within European financial institutions, incentivizing them to address the energy efficiency sector as a distinct market segment
- 2) increasing the availability of debt financing to energy efficiency investments



Figure 16 - PF4EE Scheme



The PF4EE Instrument combines a portfolio-based credit risk protection provided by means of cash-collateral (the “Risk Sharing Facility”) together with long-term financing from the EIB (the “EIB Loan for Energy Efficiency”). In order to support the implementation of the PF4EE Instrument, expert support services for the Financial Intermediaries (the “Expert Support Facility”) can also be made available. The LIFE Programme has committed 80 million Euros to fund the credit risk protection and expert support services. The EIB has committed to leveraging this amount thereby making a minimum of 480 million Euros available in long term financing.

This instrument can finance energy efficiency projects with a very different size: both initiatives entailing an investment of 10 thousand Euros to initiatives requiring million Euro investments.

Under this program, the EIB developed a new tool, the Energy Efficiency Quick Estimator (**EEQuest**), which estimates the savings potential for about 20 typical energy efficiency projects, such as replacing a boiler or adding LED lights and solar panels. This tool help banks appraise a project’s design and energy savings, which usually takes a lot of work and expense for a lending bank.

Commercial banks that offer the PF4EE instrument are reported in the Table below.



Table 8 - Commercial banks offering PF4EE Instrument

Country	Commercial Bank
Belgium	Belfius
Croatia	Zagerbačka Banks
France	Crédit Coopératif
Greece	Piraeus Bank
Italy	BPER
Spain	Banco Santander
Portugal	Banco BPI

**CASE STUDY**

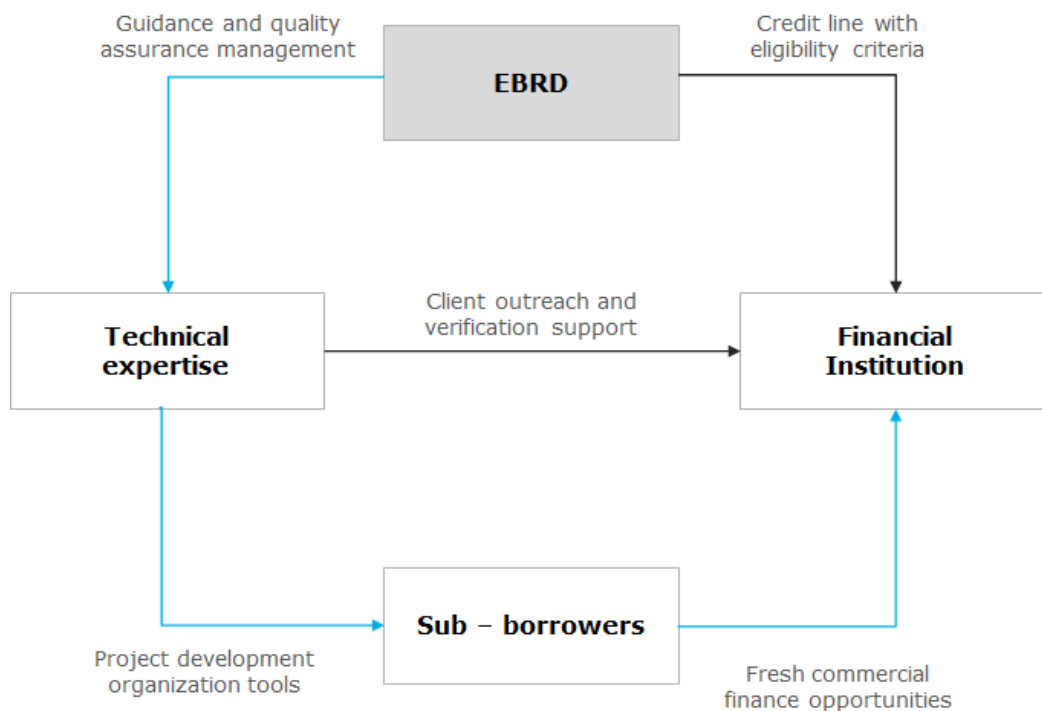
Banco Santander, thanks to PF4EE Instrument, financed an investment of about 43 thousand Euros in Gran Canaria to install a new chiller with a heat recovery system at IFA Continental Hotel. Heat recovered thanks to this new system is used for pool heating and domestic hot water generation. The intervention allowed annual energy savings in excess of 114.400 kWh, corresponding to annual cost savings of about 7 thousand Euros. The investment payback period is 6.2 years.

**4.3.2 Green Economy Financing Facility**

Another program supporting also the energy sector is the **Green Economy Financing Facility (GEFF)**, which supports businesses and homeowners wishing to invest in green technologies. The Facility is managed by the European Bank for Rural Development (EBRD) and operates through a network of 140 financial institutions across 26 Countries. Local financial institutions on-lend the funds which they have received from the EBRD to their clients, including small and medium-sized businesses, corporate and residential borrowers, and renewable energy project developers. Local implementation teams enable greater outreach to clients that need green technology solutions; at the same time project development support helps identify eligible technologies and quantify their benefits (climate mitigation, adaptation or other environmental benefits).



Figure 17 - GEFF Scheme



Among the 26 Countries addressed by the GEFF the ones that are also a NESOI target are Albania, Croatia and Poland. Each Country is dedicated a specific facility, as depicted in the tables below. The GEFF is included among the **Sustainable Energy Financing Facilities (SEFFs)** managed by the EBRD.

Table 9 - GEFF in Albania

Residential	Participating Financial Institutions
GEFF in Albania helps households invest in high-performing technologies by providing financing	Union Bank Optbank fondiBESA



Table 10 - GEFF in Croatia

Residential	SME and Municipal
<b>Croatia Residential Energy Efficiency Financing Facility (REENOVA+)</b> is a credit line facility of up to €11 million to participating financial institutions in Croatia for on-lending to residential borrowers investing in energy efficiency and renewable energy project	<b>Western Balkans Sustainable Financing Facility (WeBSEFF)</b> is a credit line facility of up to €117 million to participating financial institutions in the Western Balkans to on-lend to businesses and municipalities investing in energy efficiency and renewable energy projects.

Table 11 - GEFF in Poland

Residential	Commercial SME	Commercial SME II
<b>Polish Residential Energy Efficiency Financing Facility (PolREFF)</b> is a credit line facility of up to €200 million to participating financial institutions in Poland for on-lending to residential sector borrowers investing in energy efficiency and renewable energy projects.	<b>Polish Sustainable Energy Financing Facility (PolSEFF)</b> is a credit line facility of up to €180 million to Polish participating financial institutions for energy efficiency and renewable energy investments in the SME sector.	<b>Polish Sustainable Energy Financing Facility II (PolSEFF II)</b> is a credit line facility of up to €200 million to participating financial institutions in Poland for on-lending to companies investing in energy efficiency and renewable energy measures in the SME sector.

### CASE STUDY

The Serbian company Frigomotors produces, installs and maintains HVAC equipment on a turn-key ESCO basis. With 25 employees, Frigomotors has references from over 450 HVAC projects in buildings and ships.

For a Babin Kuk hotel near Dubrownik, Frigomotors offered to install a water-water heat pump, which would utilise the waste heat from the existing compressor to heat up sanitary water up to 60 degrees and replace the oil fuel consumption.

The company addressed WebSEFF for financing of this project.

The 317,648 Euros investment allowed the company to decrease its energy costs by €105,442 per year. This means the investment will repay itself out of energy savings in just three years, turning the future cash-flows into an income for the company. The savings arise from the elimination of the fuel consumption from the production process. This renewable energy - based technology also reduces the CO<sub>2</sub> emissions by 334 tonnes per year, making a valuable contribution to the mitigation of the negative effects of human activity on the climate.



## 4.4 Investment Funds

Investment funds differ in the function of time and expectations of investors:

- **Private Equity Funds:** with a short to medium investment time horizon, they usually invest in opportunities in the high end of the risk/return profile, looking for a quick way-out;
- **Real Estate Funds:** with medium-long investment time horizon;
- **Infrastructure Funds:** yield stability and long-term time horizon.

In the field of energy transition, the most widespread funds are infrastructure funds, with an investment horizon consistent with the life of the infrastructure itself.

Infrastructural investment Funds provide commercial investment wide range of different project types with different risk-return profiles. These investment opportunities are generally capital-intensive and may be done under long-term concessions with public sector entities through public private partnerships (PPPs). Infrastructural funds are highly diversified according to project type, development stage and geography.

The investment funds mapping and clustering have been pursued according to their features.

Unlike banks, investors providing capital target companies with a **high growth potential**. Due to the specific characteristics of energy projects, private, public and public - private investment funds are appearing at a European level. These funds, which are included among the respondents of our questionnaire, typically look at **large - scale projects** (> € 10 million) and mostly invest in **brownfield initiatives**. Thinking of the islands' context projects requiring such an amount of resources can be designed, for instance, by putting together multiple investments to be realised in the islands of an archipelago. Also, as far as investment sectors are concerned, some sectors are more less targeted, such as sustainable mobility and energy storage.

All things considered, increasing capital thanks to the support of investment funds can be an interesting funding solution for private promoters that develop projects with high growth potential and need to attract high volumes (about more than € 10 million) of financial resources.

The investments Funds that have been contacted were about 50 and are highly specialized in financing energy transition projects, with a positive track record in the sector. The investment strategy of the selected and contacted funds is therefore mainly dedicated to local infrastructure, also **focusing on the energy sector**.

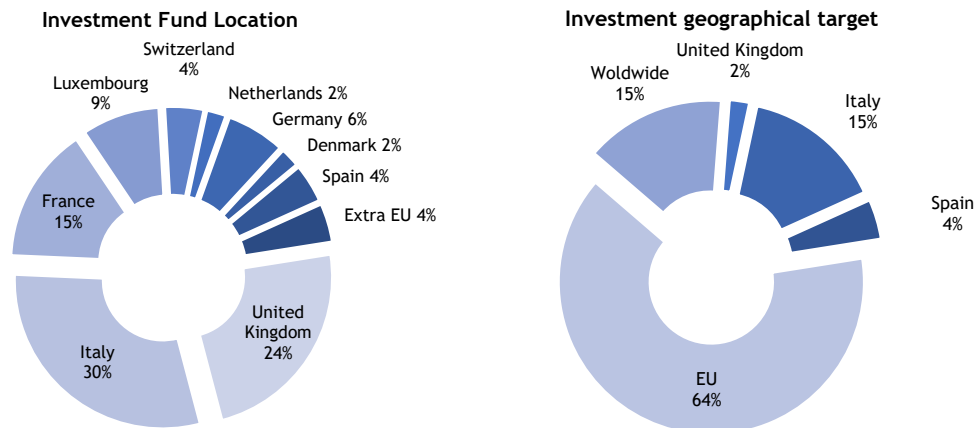
As shown in Figure 18, the investment fund location is widespread across the main European countries.

70% of the investment funds is located in UK, Italy and France. Despite the headquarter location, the larger part of the funds invests in all European countries.



In particular 64% of the contacted funds have a wider investment strategy, not specifically related to a single country.

Figure 18 - Investment Fund Location and Investment Geographic target



The **minimum investment ticket** size of the contacted funds is about **€ 500 thousand** (generally **impact investing funds**). For the **other funds** (therefore, excluding impact investing) the minimum investment ticket is **€ 1 million**. The **average ticket size** off the all interviewed funds is around to **€ 40 million**. According to practitioner experience, the average investment ticket of the selected funds is perfectly consistent with the average size of the energy transition projects.

The response rate was about 25% (12 respondent), both questionnaire and interviews were submitted to the respondents. The respondents were generally mid-sized investment funds with **average ticket € 40 million**, aligned with the whole contacted funds. Among the interviewed investment funds were two impact investing funds, characterized by investment tickets significantly lower than the average of the interviewed cluster.

The table below (Figure 19 - Questionnaires and interviews results) shows the outcomes of the questionnaires and interviews, highlighting some distinguishing features of the funds' most common investment strategy.





Figure 19 - Questionnaires and interviews results: investment strategy and target

FINANCIAL INSTRUMENT PROVIDED							TARGET BENEFICIARIES						STATE OF THE PROJECT				
Equity	Debt	Guarantee	Grant	Subsidized Loan	Subsidized Equity	Other	Large Private corporations	SMEs	Start-ups	Public Institutions	Single Projects or Portfolios	Other	Greenfield design	Greenfield tendering	Greenfield construction	Early brownfield	Brownfield
12	3	0	0	0	0	3	4	6	3	1	12	2	4	4	10	8	8

All funds surveyed use equity instruments in their strategies, only three have “standard” debt instruments.

“Other” financial instrument provided include different debt instruments as shareholder loans, private equity fund shares and loans within the Forfeiting Model.

No funds have island specific investment products, but all can invest in projects located in islands if they meet the fund's investment strategy and are solid projects.

Within equity instrument, most funds invest in **majority stakes**, some even reach 100%.

For all funds surveyed, the **minimum target return on investment**, i. e. IRR, is **7%**.

Regarding target beneficiaries, all the funds interviewed finance single projects or portfolios of projects, also in the form of special purpose vehicles. The funds that invest solely in projects are 5, while the remaining 7 also finance companies, especially small and medium enterprises.

Only one fund, which also has debt instruments, also finances public institutions.

Regarding the state of the project's development, it emerges that most of the respondents' finance mainly starting from the construction phase, included.

The funds that invest in the secondary (Early brownfield and brownfield) are however very widespread. The main feature that emerges from the interviews is the macro-division of the funds approached in Green Field and Brownfield.

The strategy of funds with Greenfield target covers projects in the design, tendering and construction phase.

The Brownfield fund strategy generally includes projects in the construction phase.

The figure below provides a graphical representation, showing the number of funds for each project phase.





From the interviewed sample emerges a **possible lack of financial resources at the project inception**, especially in the design and tender phases. In the construction phase there is the greatest availability of resources, made available by both greenfield and brownfield funds.

Specifically analyzing the investment sector, about 60% of the funds aim to invest more than € 10 million over the next 5 years in energy transition projects. The 30% has the objective to invest between 1 and 10 million €.

The **Errore. L'origine riferimento non è stata trovata.** Figure 20 below shows a list of the main energy sub-sectors, highlighting, for each specific sub-sector, both the number of funds that have already made investments and the number of funds that would like to invest in the coming years.

The table shows that the track record matured by the funds is mainly concentrated in the **sector of energy production from renewable funds, energy generation and distribution, public lighting and cogeneration plants.**

However, the investment interests in the coming years are more diversified. There is significant interest in investing in **storage systems** applied to renewables. The energy generation and distribution sector, together with sustainable mobility, is also attracting interest.



Figure 20 - Questionnaires and interviews results: strategy and target sector

SECTOR OF INVESTMENT	FUNDS WITH RELEVANT TRACK RECORD	FUNDS WILLING TO INVEST
Retrofitting of existing buildings' envelope	3	2
HVAC systems	5	1
<b>Lighting</b>	<b>6</b>	<b>2</b>
Industrial heat production	3	1
Electrical equipment	3	0
<b>Electricity generation and distribution</b>	<b>7</b>	<b>3</b>
<b>Electricity production from RES</b>	<b>11</b>	<b>1</b>
Thermal energy production from RES	4	4
Co-generation plants	6	2
Low carbon vehicles acquisition	2	1
<b>Deployment of charging Infrastructure for electric vehicles</b>	<b>4</b>	<b>3</b>
<b>Urban sustainable mobility measures</b>	<b>4</b>	<b>3</b>
Facility monitoring and energy management	4	2
<b>Energy storage</b>	<b>4</b>	<b>6</b>

The table below summarizes the main investment barriers reported by the interviewed funds. The question was asked as a multiple choice between several pre-identified options. During the interviews, this question was specifically explored in order to capture a better level of detail and have a straightforward comparison with investors' perceptions.

About 70% of funds see the risk/return profile and lack of opportunities as the main barrier to investment. Although the two aspects are closely related, the lack of opportunities depicts a situation where there is a lack of sound, financially sustainable and bankable projects, especially in sectors not yet fully matured (as storage or sustainable urban mobility or electric vehicles).

This barrier to investment can be significantly reduced through technical assistance services to project developers.

Other barriers to investment reported by respondents are:

- lack of information, identified as lack of documentation and data needed to properly assess an investment
- lack of technical experience from the funds, for the evaluation of specific projects

Only two funds have identified island related risks/issues as a barrier to investment in energy transition projects in the islands. The main critical issues that were identified were related to the small-scale of the project and difficulties in project aggregation.



Table 12 - Questionnaires and interviews results: Barrier to investment (Ranking)

BARRIERS TO INVESTMENT (RANKING)	
1	Risk/return profile
2	Lack of opportunities
3	Lack of information
4	Lack of technical expertise
5	Legal/Statutory constraints
6	Island related risks/issues

In the interviews further specific eligibility and evaluation criteria for the evaluation of projects have emerged. The main additional evaluation criteria are:

- compliance with sustainability criteria, in particular ESG and SDG;
- environmental impact is positive and measurable;
- intervention is of public interest, with public benefits affecting the community;
- the project includes technologies already tested (no pilot projects);
- effective cutting of greenhouse gas emissions.

Table 13 - Questionnaires and interviews results: summing up table

INVESTMENT STRATEGY	MAJORITY RESPONDENTS
Min. Investment Ticket	€ 500 thousand / € 1 million
Average Investment Ticket	€ 40 million
Financial Instrument provided	Equity
Island specific products	No
Beneficiaries	Single project / Project portfolio
Stage of the Project	> Greenfield Construction
Min. Target IRR	> 7%
Equity stake	Majority
Sub-Sector track record (top 3)	Energy production from RES, energy generation and distribution, lighting
Sub-Sector willing to invest (top 3)	Energy storage, thermal energy production from RES. sustainable urban mobility and electric vehicles
Barriers to investment (top 3)	Risk return profile, lack of opportunity and lack of information



## 4.5 Crowdfunding Platforms

Financing through crowdfunding is usually processed through internet platforms that offer this type of financial service (fintech). The aim of crowdfunding is to **develop community projects** through **capital provided by the citizens** that will directly benefit not only from the financial return of the initiative, but also from its **positive externalities**.

Unlike investment funds, due to their fund-raising logic, crowdfunding platforms **raise money for single specific projects**, thus being able to communicate more clearly and directly to citizens the objective of their investment.

Due to their local nature, projects financed through crowdfunding are **small-scale projects**: initiatives are usually smaller than € 1 million.

In brief, crowdfunding is an **interesting funding opportunity for the islands** for two main reasons. Firstly, **island communities** may be interested in being **involved in financing projects** that have a direct impact on their lives. Secondly, **investment scale**, particularly the smallest islands, is likely to be small, **in line with the capacity of crowdfunding platforms** to raise capital.

For the interviews only **crowdfunding platforms** with an interest in financing and supporting **energy projects** were selected. In fact, energy crowdfunding, understood as a form of bottom-up financing in the field of green and renewable energies for the realization of sustainable projects and energy transition, is becoming widespread.

The direct participation of citizens as user-consumers, but also as investors is becoming increasingly common in the context of energy transition and disinvestment from fossil fuels. This is demonstrated by the growth in Europe of energy cooperatives and participatory models for the development of renewable energy investments.

The use of crowdfunding in the energy sector shares and puts into practice similar principles: as in the context of energy cooperatives, crowdfunding platforms involve citizens and stakeholders allowing them to participate, invest and benefit economically from investments in the energy sector.

Crowdfunding in energy typically offers investments in renewable energy projects: solar, wind and biomass. Among these, solar photovoltaic is the most frequent type of project and represents 70% of the total financed. In the countries where it is more widespread, however, energy crowdfunding shows an increasing differentiation in terms of technologies: projects in the field of energy efficiency and bioenergy are also growing.

More than 90% of the active platforms are crowdfinancing in equity and lending mode (aimed at investing and raising capital), the remaining platforms propose projects based on rewards in donation or reward mode. The financial platforms offer projects defined by the firm in equity, lending or community shares.



There are two key factors in the use of crowdfunding:

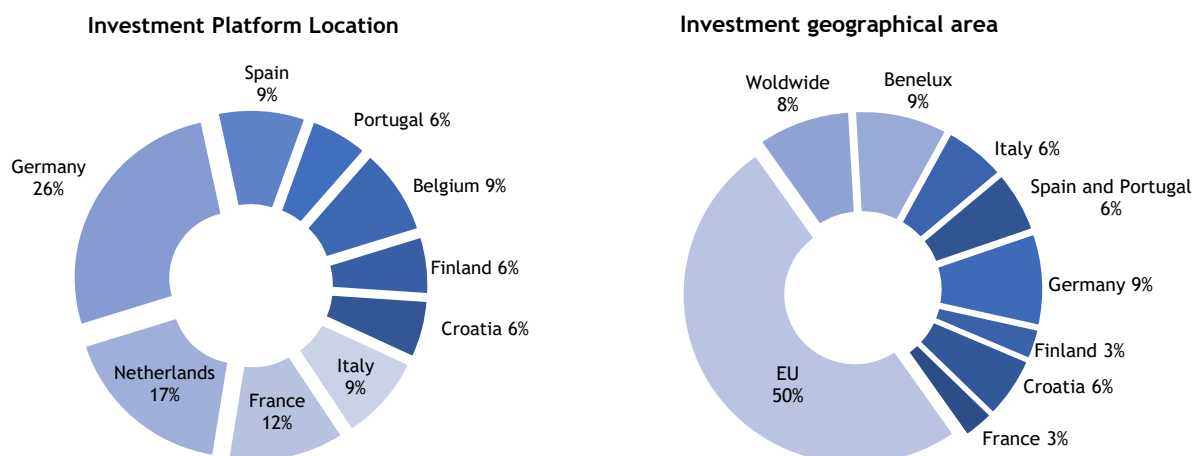
- Access to capital, being an innovative and alternative form to institutional finance for the financing of energy projects: in this sense the first studies on the subject also seem to show that access to capital is faster and easier than other alternative forms of financing;
- The possibility of involving local citizens and stakeholders: this allows on the one hand to expand the pool of potential investors and on the other to increase the visibility of projects and, potentially, to overcome any local opposition thanks to the implicit redistribution of resources on the territories through the recognition of economic returns to local investors.

The Crowdfunding platforms that have been contacted were about 35 and are specialized in financing energy transition projects or local small infrastructure, with also a positive track record in the sector.

As shown the Figure 21, the investment platform location is widespread across main European countries.

The 55% of the crowdfunding platform is located in Germany, Netherlands and France. 50% of the platforms contacted can support projects located in Europe, the remaining part aims to maintain an alignment in the location of the community and the projects to be funded. An important difference with investment funds is precisely the maintenance of the local geographical link between the project and the financing community.

Figure 21 - Investment Platform Location and Investment Geographic target



The response rate was about 15% (5 respondents), both questionnaire and interviews were submitted to the respondents.

The figure below shows the outcomes of the questionnaires and interviews, highlighting some distinguishing features of the crowdfunding platform.

Figure 22 - Questionnaires and interviews results: platform characteristics

FINANCIAL INSTRUMENT PROVIDED							TARGET BENEFICIARIES						STATE OF THE PROJECT				
Equity	Debt	Guarantee	Grant	Subsidized Loan	Subsidized Equity	Other	Large Private corporations	SMEs	Start-ups	Public Institutions	Single Projects or Portfolios	Other	Greenfield design	Greenfield tendering	Greenfield construction	Early brownfield	Brownfield
3	3	0	0	0	1	1	1	5	3	2	5	1	1	2	4	5	5

Crowdfunding platforms have a larger variety of financing instruments than investment funds. Among the platforms surveyed, two are equity platforms (equity crowdfunding) and two debt platforms (crowdlending).

In addition to traditional instruments, the two types of platforms also have other alternative instruments, subsidized equity and subordinated loans (in to the “other” category) respectively.

No platforms have island specific investment products, but all can invest in projects located in islands if they meet the general criteria for crowdfunded projects and are solid and sustainable.

The share of equity that can cover an equity crowdfunding is variable, ranging from 30% to a maximum of 100%, depending on the case. In general, in fact, platform financing is very flexible and is tailored to the needs of the individual project and its sponsors.

Similarly, a crowdlending platform can offer bridge financing up to 100% and then maintain a level of around 30% of the overall project that can be financed.

For **equity crowdfunding** platforms equity **IRR yields** fall in this range 5% - 10%. If the platform invests in particularly **innovative projects** it can reach a target return of **up to 15%**. The **minimum investment tickets** are quite low, starting from about **€ 50 thousand**. The **average investment** is generally **lower than € 500 thousand**, the **maximum investment** is in all cases **lower than € 10 million**.

In **crowdlending** platforms, the **interest rates** applied are more aligned with each other and equal to **ranges from 4% to 7%**. The minimum funding is **€ 100 thousand**, the average is about **€ 500 thousand**. Regarding the maximum amount of funding, one platform in the sample can provide **up to € 8 million**.



The **average loan maturity is about 8 years**, with platforms that provide short-term financing (i.e. 1 - 2 years) and other that are able to provide longer maturity (up to 15 years). Generally, the **collateral required** is rather **lean**, may provide guarantees from a possible holding company, pledge on assets, subordination only after senior financing and suretyship.

Regarding target beneficiaries, all the funds interviewed finance single projects or portfolios of projects, also in the form of special purpose vehicles, and SMEs.

However, since these platforms have a bottom-up approach starting from the single project to be implemented, potential beneficiaries are very diverse, ranging from public institutions, start-ups and NGOs. For reasons mainly related to project size and ability to find financial resources, large corporations are generally not funded.

The Figure 22 shows that all crowdfunding platforms, both equity and lending, finance **brownfield projects**. Greenfield projects under construction are financed by 3 platforms.

Within the sample, only one platform finances a project in all phases. This platform is also the only one to finance projects other than purely energy projects.

This sample may also **confirm the evidence of lack of financial resources for greenfield projects**, especially in the design and tender phases.

Almost all the crowdfunding platform **aim to invest more than € 10 million over the next 5 years** in energy transition projects.

Just one has the objective to invest between 1 and 10 million € because is actually financing projects also in other sectors.

The **Errore. L'origine riferimento non è stata trovata.**table below shows a list of the main energy sub-sectors, highlighting, for each specific sub-sector, both the number of platforms that have already made investments and the number of platforms that would like to invest in the coming years.

The table shows that the track record matured by the platforms is mainly concentrated in the **sector of energy production from renewable funds and public lighting**.

The same pattern that emerged from the analysis of the investment fund sample is also confirmed for crowdfunding platforms. The strong presence of RES energy production projects is explained on the one hand by the small size of the investments (which can be aligned with the small ticket size of the platforms) and on the other hand by the presence of a project model that fits well with the financing model of the crowdfunding platforms.

It results also confirmed the interest of the platforms for storage systems.





It is important to underline the mismatch between platform track record and willing to invest in cogeneration plants: although they are generally capital intensive (implying high investments), the platforms carefully evaluate possible opportunities.

Other significant misalignments are in energy storage, where there is a strong interest but a lack of investment opportunities, and in RES production, a mature sector with no further interest.

Table 14 - Questionnaires and interviews results: strategy and target sector

SECTOR OF INVESTMENT	FUNDS WITH RELEVANT TRACK RECORD	FUNDS WILLING TO INVEST
Retrofitting of existing buildings' envelope	2	3
<b>HVAC systems</b>	<b>1</b>	<b>4</b>
<b>Lighting</b>	<b>3</b>	<b>1</b>
Industrial heat production	2	3
Electrical equipment	1	3
Electricity generation and distribution	2	2
<b>Electricity production from RES</b>	<b>5</b>	<b>0</b>
Thermal energy production from RES	2	3
<b>Co-generation plants</b>	<b>0</b>	<b>4</b>
Low carbon vehicles acquisition	1	2
Deployment of charging Infrastructure for electric vehicles	2	2
Urban sustainable mobility measures	2	2
Facility monitoring and energy management	1	2
<b>Energy storage</b>	<b>0</b>	<b>5</b>

With regard to investment barriers, the interviews with the sample of crowdfunding platforms also confirm what is reported in the section on investment funds. Also, in this case it is confirmed that the main barriers to entry are the lack of opportunities and risk/return profile.

In the interviews further specific eligibility and evaluation criteria for the evaluation of projects have emerged. The main additional evaluation criteria are:

- compliance with sustainability criteria, in particular ESG and SDG;
- effective cutting of greenhouse gas emissions.

Table 15- Questionnaires and interviews results: summing up table

INVESTMENT STRATEGY	MAJORITY RESPONDENTS
---------------------	----------------------



Min. Investment Ticket	€ 50 thousands (€ 100 thousands for lending)
Average Investment Ticket	< € 500 thousands
Financial Instrument provided	Equity and Debt
Island specific products	No
Beneficiaries	Single project / Project portfolio, SMEs
Stage of the Project	> Greenfield Construction
Min. Target IRR	> 5%
Interest rates on loans	4% - 7%
Average loan maturity	8 years
Equity stake	N/A
Sub-Sector track record (top 2)	Energy production from RES, lighting
Sub-Sector willing to invest (top 3)	Energy storage, co-generation, HVAC systems
Barriers to investment (top 2)	Risk return profile, lack of opportunity



## 5 Template to Match Projects to Optimal Financial Models

Based on the evidence and of the experience of the consortia, some easy - to - use tools have been developed to help islands in a self - check evaluation to match projects to applicable financial models and, in turn, to financial providers.

The objective is to provide potential beneficiaries with a guideline that indicates which financial models could be chosen to finance a given project and, in turn, which financial providers can implement the selected model. A brief description of the logic used to make the combinations is given at the end of the chapter.






The table below shows the suitable financial model that can be applied for each type of project.

Table 16 - Applicable financial models to finance transition energy projects

		APPLICABLE FINANCIAL MODELS							
TYPES OF PROJECT		Crowdfunding	PPPs	Project Financing	Forfeiting Model	Tax incentives	EPC	Project Bond	ESIF FIs
	District heating								
	Public lightning								
	Public buildings retrofitting								
	Private buildings retrofitting								
	Industrial heat production								
	Renewable energy electricity production								
	Renewable energy thermal production								
	Electric/Hybrid public vehicles purchase								
	Deployment of charging Infrastructure for electric vehicles								
	New public transport infrastructures								
	Vehicle Sharing Platforms (carpooling, carsharing)								
	Park and ride facilities								
	Energy storage								



**Key**

	suitable
	only for small scale projects
	subject to specific eligibility criteria
	large scale projects
	depending on legal framework

**Crowdfunding** is a suitable financial model that can be applied to projects in all the energy sectors characterized by small cuts and which have a strong local connotation.

**PPPs** can be an excellent financing model for projects with an important public benefit or where the beneficiary is directly a public entity. Co-generation plants, for example, can be funded in PPPs only if they are built in public facilities, such as hospitals, school facilities, public buildings, district heating plants for local communities, etc.

The PPP represents a flexible financing model for infrastructure investments that can be built around the project.

**Project Finance** is used to finance large, high cost, long - duration infrastructure and energy assets, particularly large - scale renewable energy projects, and is often driven by the “debt - overhang” of non - utility sponsors such as independent project developers.

**EPC** is used for energy efficiency projects and enables the project developer to transfer the risk related to future energy savings to a third party (i.e. ESCO).

**Project bonds** are suitable to finance capital intensive infrastructure projects, large - scale investments both for greenfield and brownfield initiatives; project promoters must be aware that this financing opportunity may entail significant transaction costs.

**ESIF** financial instruments are suitable for all the projects which cannot find accessible financial opportunities on private markets, for instance innovative projects which financial markets are not able to assess or which are perceived as too risky. They are suitable to finance small and medium - scale energy projects that need long - term debt repayment schemes or patient equity investors

Table 17- Financial provider involved in each Financial Model

		APPLICABLE FINANCIAL MODELS													
FINANCIAL PROVIDER		Direct Loan	Equity Financing	Crowdfunding	PPPs	Project Financing	Forfeiting Model	Tax Incentives	EPC	Project Bond	Securitization	ESIF Fis	PF4EE	GEFF	Grants
	Public Entity / Managing Authority														
	IFIs and Development Banks														
	Commercial Banks														
	Investment Funds														
	Crowdfunding Platforms														



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- Financing the Island Clean Energy Transition. Clean Energy for EU Islands. November 2019
- Climate Change and the EU Budget 2021-2027 - Synthesis Report. M. Runkel, A. Lukacs, N. Nurmanbetova, a. Nikolova, P. ten Brink, R. Joebstl, M. Trilling, E. Yrjö-Koskinen, j. Kresin. 2019
- EU Climate Action Progress Report 2019, COM (2019) 559 final. 31 October 2019



# Annex I

## Investment Funds Mapped

#	Organisation
1	3i Group
2	Allianz Global Investors (AllianzGI)
3	Alternative Capital Partners
4	Amber Infrastructure Group
5	Ambienta sgr
6	Ancala Infrastructure Partners
7	Antin Infrastructure Partners
8	Ardian
9	Banco di Sardegna
10	Arpinge
11	Basalt Infrastructure Partners (Basalt)
12	BBGI
13	Credit Suisse Energy Infrastructure Partners (CSEIP)
14	Cube Infrastructure Managers
15	Dalmore Capital
16	DIF Capital Partners
17	EOS Investment Management
18	Equitix
19	European Energy Efficiency Fund
20	FIEE
21	First Reserve Corp
22	Fondi Italiani per le infrastrutture (F2i)
23	Foresight Group
24	Glennmont Partners
25	Goodyields Capital
26	Green Arrow Capital SGR
27	HAT SGR
28	Impax Asset Management
29	Infracapital
30	Infrared cap partner



31	InfraVia Capital Partners
32	Italian Energy Efficiency Fund (FIEE)
33	KGAL Investment Management
34	Marguerite
35	Mirova Asset Management
36	Nordic Solar Energy AS
37	NovEnergia
38	Noy Fund
39	Omnes Capital
40	Polis Fondi SGR (Polis)
41	Quercus Assets Selection
42	Sefea
43	Sonnedix
44	SUSI Partners
45	Sustainable dev capital
46	Tages Capital
47	Impactage
48	CSI Partners Spain, S.L.U.
49	Suma Capital
50	EDF Invest



## Crowdfunding Platforms Mapped

#	Organisation
1	Bettervest
2	Coopernico
3	Crowdfundres
4	Duurzaam Investeren
5	Ecco Nova
6	Ecomill
7	European Crowdfunding Network
8	Fairzinsung
9	Fedarene
10	Fundera
11	GoParity
12	Green Crowding
13	Greenvesting
14	Invesdor
15	Joukon Voima
16	Oneplanetcrowd
17	Som Energia
18	WeDoGood
19	Zelena energetska zadruga
20	Croenergy
21	De Windvogel
22	Econeers
23	Green X Money
24	GreenCrowd
25	LeihDeinerUmweltGeld
26	Lendahand
27	Pajo Power
28	WeAreStarting.it
29	Ecoligo.Investments
30	Trine
31	E-Crowd
32	Lumo
33	Énergie Partagée
34	Enerfip





## Development Banks Mapped

#	Organisation
1	Bank Gospodarstwa Krajowego (BGK) of Poland
2	Banque publique d'investissement, Bpifrance
3	Black Sea Trade and Development Bank
4	Caisse des Dépôts et Consignations
5	Cassa Depositi e Prestiti
6	Croatian Bank for Reconstruction and Development
7	Development
8	Hellenic Industrial Development Bank
9	KfW - Kreditanstalt für Wiederaufbau
10	Malta Development Bank
11	IAPMEI

## Managing Authorities Mapped

#	Organisation	Country
1	Autorità di gestione, FESR – Programma regionale operativo per la	IT
2	Dipartimento Politiche e Cooperazione Internazionali	IT
3	Directorate-General for Economic Development	IT
4	Dirigente del Settore Programmazione e Politiche Comunitarie	IT
5	ERDF - Regional Operational Programme for Sardegna	IT
6	Presidenza Regione Siciliana	IT
7	Presidenza della Giunta Regionale - Area di Coordinamento delle	IT
8	Regione Campania	IT
9	Regione Siciliana	IT
10	Servizio Attività Internazionali	IT
11	Ufficio Infrastrutture, impianti e Cooperazione Transfrontaliera	IT
12	Autoridad de Gestión del PO de Cooperación Transnacional MAC 2007-	SP
13	Communauté de Travail des Pyrénées	SP
14	Dirección General de Economía, Gobierno de Cantabria	SP
15	Managing authority Unidad Administradora del Fondo Social Europeo	SP
16	Ministerio de Economía y Hacienda - Madrid, España	SP
17	Ministerio de Hacienda y Administraciones Públicas - Madrid, España	SP



18	Crete	GR
19	North Aegean	GR
20	Ionio	GR
21	South Aegean	GR
22	Attica	GR
23	Thessalia	GR
24	East Macedonia-Thraki	GR
25	Stereia Ellada	GR
26	Peloponnisos	GR
27	AGILE (Agence de Gestion des Initiatives Locales en matière	FR
28	Conseil Régional Provence-Alpes Côte d'Azur	FR
29	Conseil Régional de La Réunion	FR
30	Conseil Régional de la Guyane	FR
31	Conseil régional de Haute Normandie	FR
32	Conseil régional de la Guadeloupe	FR
33	Conseil régional du Franche-Comté	FR
34	Direction Europe, Conseil Régional Nord-Pas de Calais	FR
35	Managing Authority Région Franche-Comté	FR
36	Managing Authority URBACT Secretariat	FR
37	Ministère de la Ville	FR
38	Mission Europe du secrétaire général pour les affaires régionales	FR
39	Préfecture de Région Basse-Normandie	FR
40	Préfecture de la région Bretagne	FR
41	Préfecture de la région Corse	FR
42	Préfecture de la région Guadeloupe	FR
43	Préfecture de la région Martinique	FR
44	Préfecture de la région Pays de la Loire	FR
45	Préfecture de la région Provence-Alpes-Côte-d'Azur	FR
46	Préfecture de la région de La Réunion	FR
47	Préfecture de région Guyane	FR
48	Préfet de la Région Bretagne	FR
49	Programa Operacional dos Açores para a Convergência	PG
50	Programa Operacional Regional do Algarve (ALGARVE 21)	PG
51	Programa Operacional Regional da Madeira (INTERVIR +)	PG
52	Instituto Financeiro para o Desenvolvimento Regional (IFDR, IP)	PG
53	Inspecção-Geral de Finanças (IGF)	PG
54	Planning and Priorities Coordination Division	MA
55	Bundesministerium für Verkehr, Bau und Stadtentwicklung	GE
56	Bundesministerium für Wirtschaft und Technologie	GE
57	Der Senator für Wirtschaft, Arbeit und Häfen der Freien Hansestadt	GE



58	Landes Schleswig-Holstein	GE
59	Ministerium für Wirtschaft, Bau und Tourismus Mecklenburg-	GE
60	Ministarstvo prometa, pomorstva i infrastrukture	CR
61	Ministarstvo regionalnoga razvoja i fondova EU	CR
62	Ministarstvo zaštite okoliša i prirode	CR
63	Ministry of Regional Development and EU Funds	CR
64	Directorate General for European Programmes, Coordination and	CY
65	Northern Periphery Programme	DA
66	Sjælland Region	DA
67	Ministry of Finance of the Republic of Estonia	EST
68	Government of Åland	FI
69	Ministry of Employment and the Economy	FI
70	Border, Midland and Western Regional Assembly	IRE
71	samenwerkingsverband Noord-Nederland (SNN)	NET
72	College van B&W Gemeente Rotterdam	NET
73	Council of the Pomorskie voivodship	PO
74	Ministry of Regional Development	PO
75	Ministry of Regional Development	PO
76	Ministry of Regional Development	PO
77	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	SW
78	Tillväxtverket (Swedish Agency for Economic and Regional Growth)	SW
79	Tillväxtverket (Swedish Agency for Economic and Regional Growth)	SW
80	Tillväxtverket (Swedish Agency for Economic and Regional Growth)	SW



## Annex II



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 864266



# Questionnaire

## SECTION 1: PROVIDER LEVEL

1. Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

2. **Who are you?** Select one of the following options:

- |  |  |
|--|--|
| a. <input type="checkbox"/> Private Bank           | g. <input type="checkbox"/> National Development Bank      |
| b. <input type="checkbox"/> Investment fund        | h. <input type="checkbox"/> International Development Bank |
| c. <input type="checkbox"/> No-profit organization | i. <input type="checkbox"/> International Institution      |
| d. <input type="checkbox"/> Association            | j. <input type="checkbox"/> Other: _____                   |
| e. <input type="checkbox"/> Crowdfunding platform  |  |
| f. <input type="checkbox"/> Managing Authority     |  |

3. **What are your target beneficiaries?** Select one or more of the following options:

- |  |   |
|--|---|
| a. <input type="checkbox"/> Large Private Corporations | d. <input type="checkbox"/> Public Institutions           |
| b. <input type="checkbox"/> SMEs                       | e. <input type="checkbox"/> Single Projects or Portfolios |
| c. <input type="checkbox"/> Start-ups                  | f. <input type="checkbox"/> Other: _____                  |

4. **What type of financial instruments do you provide?** Select one or more of the following options:

- |                                       |   |
|---------------------------------------|---|
| a. <input type="checkbox"/> Equity    | e. <input type="checkbox"/> Subsidized Loan   |
| b. <input type="checkbox"/> Debt      | f. <input type="checkbox"/> Subsidized Equity |
| c. <input type="checkbox"/> Guarantee | g. <input type="checkbox"/> Other: _____      |
| d. <input type="checkbox"/> Grant     |   |

5. **With specific reference to energy transition projects/companies, what type of products do you provide? How long have you been offering those products? Do your products address islands? Please, fill the following table:**

Energy Transition Product Type	Do you provide this type of product (Yes/No)	How long (in years)?	Including Islands? (tick the box for yes)
Equity			<input type="checkbox"/>
Debt			<input type="checkbox"/>
Guarantee			<input type="checkbox"/>
Grant			<input type="checkbox"/>
Subsidized Loan			<input type="checkbox"/>
Subsidized Equity			<input type="checkbox"/>
Other: _____			<input type="checkbox"/>



6. Do you have any products or available funds allocation, targeting specifically energy transition in islands? Which is its geographical reach?

a. ☐ Yes    Geographical reach \_\_\_\_\_

b. ☐ No

7. Do you invest/finance in any of the following sectors of energy transition? Select one or more of the following options and flag if they include specific investments in islands.

Sector	Do you invest in this sector? (tick the box for yes)	Including Islands? (tick the box for yes)
a. Retrofitting of existing buildings' envelope	<input type="checkbox"/>	<input type="checkbox"/>
b. HVAC systems (Heating, Ventilating and Air Conditioning)	<input type="checkbox"/>	<input type="checkbox"/>
c. Lighting	<input type="checkbox"/>	<input type="checkbox"/>
d. Industrial heat production	<input type="checkbox"/>	<input type="checkbox"/>
e. Electrical equipment	<input type="checkbox"/>	<input type="checkbox"/>
f. Electricity generation and distribution	<input type="checkbox"/>	<input type="checkbox"/>
g. Electricity production from RES	<input type="checkbox"/>	<input type="checkbox"/>
h. Thermal energy production from RES	<input type="checkbox"/>	<input type="checkbox"/>
i. Co-generation plants	<input type="checkbox"/>	<input type="checkbox"/>
j. Low carbon vehicles acquisition	<input type="checkbox"/>	<input type="checkbox"/>
k. Deployment of charging Infrastructure for electric vehicles	<input type="checkbox"/>	<input type="checkbox"/>
l. Urban sustainable mobility measures	<input type="checkbox"/>	<input type="checkbox"/>
m. Facility monitoring, consumption accounting and energy management	<input type="checkbox"/>	<input type="checkbox"/>
n. Energy storage	<input type="checkbox"/>	<input type="checkbox"/>
o. Other energy transition projects Please specify: _____	<input type="checkbox"/>	<input type="checkbox"/>

8. In which of the following sectors of energy transition you have already matured a positive track record? Rank 1 to as many you deem necessary.

Sector	Rank (1 to as many you deem necessary)
a. Retrofitting of existing buildings' envelope	<input type="checkbox"/>
b. HVAC systems (Heating, Ventilating and Air Conditioning)	<input type="checkbox"/>
c. Lighting	<input type="checkbox"/>
d. Industrial heat production	<input type="checkbox"/>



e. Electrical equipment	[ ]
f. Electricity generation and distribution	[ ]
g. Electricity production from RES	[ ]
h. Thermal energy production from RES	[ ]
i. Co-generation plants	[ ]
j. Low carbon vehicles acquisition	[ ]
k. Deployment of charging Infrastructure for electric vehicles	[ ]
l. Urban sustainable mobility measures	[ ]
m. Facility monitoring, consumption accounting and energy management	[ ]
n. Energy storage	[ ]
o. Other energy transition projects Please specify: _____	[ ]

9. In which of the following sectors of energy transition you are investing to develop new service lines or are planning to invest more in the future? Rank 1 to as many you deem necessary.

Sector	Rank (1 to as many you deem necessary)
a. Retrofitting of existing buildings' envelope	[ ]
b. HVAC systems (Heating, Ventilating and Air Conditioning)	[ ]
c. Lighting	[ ]
d. Industrial heat production	[ ]
e. Electrical equipment	[ ]
f. Electricity generation and distribution	[ ]
g. Electricity production from RES	[ ]
h. Thermal energy production from RES	[ ]
i. Co-generation plants	[ ]
j. Low carbon vehicles acquisition	[ ]
k. Deployment of charging Infrastructure for electric vehicles	[ ]
l. Urban sustainable mobility measures	[ ]
m. Facility monitoring, consumption accounting and energy management	[ ]
n. Energy storage	[ ]
o. Other energy transition projects Please specify: _____	[ ]

10. How much do you plan to invest/finance in energy transition in the coming five years?

- a. ☐ less than 1 mln euros
- b. ☐ between 1 mln euro and 10 mln euros



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c. ☐ more than 10 mln euros

11. What is your average ticket size of investment/financing?

- a. ☐ less than 1 mln euros
- b. ☐ between 1 mln euro and 10 mln euros
- c. ☐ more than 10 mln euros

12. What are your target geographical areas? Please specify your target countries and whether you are already operating in that area.

Target Country	Already operating? (tick the box for yes)	Including Islands? (tick the box for yes)
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

13. At what stage of the project do you generally invest? Do you invest/finance Greenfield and/or Brownfield projects? Select one or more of the following options.

- a. ☐ Greenfield projects
  - ☐ Design
  - ☐ Tendering
  - ☐ Construction
- b. ☐ Early brownfield projects (Operation Ramp-up)
- c. ☐ Brownfield projects (Operation, after 2 years)

14. Based on your experience, do you consider the following barriers to investing/financing energy transition in the islands relevant? Select one or more of the following options:

- a. ☐ Lack of information
- b. ☐ Lack of technical expertise
- c. ☐ Island related risks/issues
- d. ☐ Technology related risks/issues
- e. ☐ Energy related risks/issues
- f. ☐ Legal/Statutory constraints
- g. ☐ Risk/return profile
- h. ☐ No interest
- i. ☐ Other: \_\_\_\_\_

15. If you are not investing/financing in any transition projects/companies in the islands, would you consider doing it in the next future? Under which conditions?





**SECTION 2: FINANCIAL INSTRUMENT LEVEL**

You can complete this part of the questionnaire

- (i) by filling in the tables below. For each instrument dedicated to energy transition financing please complete the relevant table (in case of multiple instruments, please copy and paste the table indicating a progressive ID Number), based on the instrument type: equity, loan, guarantee), or, alternatively
- (ii) by attaching a product sheet for each relevant instrument or group of instruments and providing a reference contact (Name, telephone number, email address) which will be contacted if further details are needed.

**Table 1: Equity Instrument**

Field	Description	
Instrument ID Number	Incremental Number of the financial instrument	1
Instrument Name	Name of the product, the fund, the program, etc.	
Issuer	Sponsor Name	
Project/no recourse or Corporate	P (Project) - in case of a specific project financing - no recourse financing / C (Corporate) - in case of Corporate financing (funds can potentially serve multiple projects)	
Minimum ticket size	Minimum invested/financed amount (in EUR)	
Average ticket size	Average invested/financed amount (in EUR)	
Maximum ticket size	Maximum invested/financed amount (in EUR)	
Target IRR	If any, the expected investment return (IRR) required, in percentage	
Share Type	Class of Shares	
Max % On Total Equity	Maximum percentage of financing on total equity, if any	
Maximum coverage	In case previous answer is P: maximum % of the overall project that can be financed by the financial instrument	
Capex/Opex	Capex (Capital Expenditure) / Opex (Operating Expense)	
Is subsidized	Yes (if subsidized equity) / No (if not)	
State Aid Limitation Exempt	Exempt (if exempt from state aid limitation) / Not exempt (if not)	
Eligibility criteria		
Target Geographic Area	Target Countries or Regions (if different from question 6)	
Timeframe	Deadline to realise the investments that can benefit from the funds	
Target Beneficiaries	Specify the target beneficiaries (e.g. SME, Start up, public entities, etc.)	
Target Project Stage (Greenfield/Brownfield)	Please specify: Greenfield (design, tendering, construction) / Early Brownfield / Brownfield / All	
Greenfield Type	If Greenfield project type has been selected above, please specify: Innovation/ Design / Tendering / Construction / All	



Target Technology Type	Describe the type of Target Project (see sectors list in question 7 above or specify other energy transition sectors if needed)	
Island Specific	Yes (if island specific) / No (in case of general product covering also islands)	
Other specific Eligibility Criteria	Eligibility Criteria Details (e.g. Legal requirements, Project requirements, Minimum Energy Savings) / External Reference (please provide additional documentation listing the Eligibility Criteria)	
Evaluation Criteria Description	Evaluation Criteria Details (e.g. reduction of greenhouse gas emissions, energy savings, fossil fuel energy replaced for renewable energy) / External Reference (please provide additional documentation listing the Evaluation Criteria)	
Issuance process		
Administrative costs	Final Recipient (the final recipient is charged with the administrative/legal costs)/ Investor (those costs are born by the investor)	
Duration of the evaluation process	Number of months needed, on average, to approve the investment	
Reporting	Reporting needed (if the Final Recipient is supposed to report all the expenses made thanks to the equity investment)/ No reporting needed	



Table 2: Loan Instrument

Field	Description	
Instrument ID Number	Incremental Number	1
Instrument Name	Name of the product, the fund, the program, etc.	
Issuer	Sponsor Name	
Project/no recourse or Corporate	P (Project) - in case of a specific project financing - no recourse financing / C (Corporate) - in case of Corporate financing (funds can potentially serve multiple projects)	
Maximum coverage	In case previous answer is P: maximum % of the overall project that can be financed by the financial instrument	
Minimum ticket size	Minimum invested/financed amount (in EUR)	
Average ticket size	Average invested/financed amount (in EUR)	
Maximum ticket size	Maximum invested/financed amount (in EUR)	
Average Interest Rate	Range of interest rate applied on total financed amount	
Type of guarantee	Type of guarantee commonly requested (e.g. suretyship, bank guarantee, collateral)/Not required	
Guarantor	Provider of the guarantee, if requested (e.g. Final Recipients, etc.)	
Average Leverage	Average Leverage Factor	
Mode of repayment	Monthly/biannual instalments/ at maturity, etc.	
Maturity	Range of duration of the repayment period	
Grace period	If a grace period is granted indicate a range of its duration in terms of months/No grace period	
Capex/Opex	Capex (Capital Expenditure) / Opex (Operating Expense)	
Is subsidized	Yes (if subsidized equity) / No (if not)	
Subsidized Conditions	Subsidized lending conditions (e.g. Interest rate, ...)	
State Aid Limitation Exempt	Exempt (if exempt from state aid limitation) / Not exempt (if not)	
Eligibility criteria		
Target Geographic Area	Target Countries or Regions (if different from question 6)	
Time frame	Deadline to realise the investments that can benefit from the funds	
Target Beneficiaries	Specify the target beneficiaries (e.g. SME, Start up, public entities, etc.)	
Target Project Stage (Greenfield/Brownfield)	Please specify: Greenfield (design, tendering, construction) / Early Brownfield / Brownfield / All	
Greenfield Type	If Greenfield project type has been selected above, please specify: Innovation/ Design / Tendering / Construction / All	
Target Technology Type	Describe the type of Target Project (see sectors list in question 7 above or specify other energy transition sectors if needed)	
Island Specific Y/N	Yes (if island specific) / No (in case of general product covering also islands)	
Other specific Eligibility Criteria	Eligibility Criteria Details (e.g. Legal requirements, Project requirements, Minimum Energy Savings) / External Reference	



	(please provide additional documentation listing the Eligibility Criteria)	
Evaluation Criteria Description	Evaluation Criteria Details (e.g. reduction of greenhouse gas emissions, energy savings, fossil fuel energy replaced for renewable energy) / External Reference (please provide additional documentation listing the Evaluation Criteria)	
Disbursement process		
Administrative costs	Final Recipient (the final recipient is charged with any costs)/ Investor (those costs are born by the investor)	
Duration of the evaluation process	Number of months needed, on average, to approve the financing	
Mode of disbursement	Upfront/ Tranches, etc.	
Reporting	Reporting needed (if the Final Recipient is supposed to report all the expenses made thanks to the equity investment)/ No reporting needed	



Table 3: Guarantee Instrument

Field	Description	
Instrument ID Number	Incremental Number	1
Instrument Name	Name of the product, the fund, the program, etc.	
Guarantor	Issuer of the guarantee	
Project/no recourse or Corporate	P (Project) - in case of a specific project financing - no recourse financing / C (Corporate) - in case of Corporate financing (funds can potentially serve multiple projects)	
Is Unlimited	Unlimited (in case of guarantee covering the losses and the total credit amount) / Limited	
Min Guaranteed Amount	In case of limited guarantee, minimum guaranteed amount (in EUR)	
Max Guaranteed Amount	In case of limited guarantee, maximum guaranteed amount (in EUR)	
Max Coverage	In case of limited guarantee, maximum % or amount of guarantee on total Loss Amount	
Max Exposure to single loan	In case of limited guarantee on a portfolio of loans, maximum % or amount of the guarantee for each single loan	
Risk Sharing Rule	Mechanism of risk sharing	
Repayment Time	Time (in days) to repay the creditor in case of default of guaranteed loan	
Nominal Interest Rate	Interest rate applied on total guaranteed amount	
Other costs	Additional fixed costs	
Counter - guarantee	If any, the name of the entity providing the counter - guarantee	
Is Collateralized	Yes (if there is a collateral) / No (if not)	
Is subsidized	Yes (if subsidized guarantee) / No (if not)	
Subsidized Conditions	Subsidized guarantee conditions (e.g. Interest rate, ...)	
State Aid Limitation Exempt	Exempt (if exempt from state aid limitation) / Not exempt (if not)	
Eligibility criteria		
Target Geographic Area	Target Countries or Regions (if different from question 6)	
Timeframe	Investment/financing period	
Target Beneficiaries	Specify the target beneficiaries (e.g. SME, Start up, public entities, etc.)	
Target Project Stage (Greenfield/Brownfield)	Please specify: Greenfield (design, tendering, construction) / Early Brownfield / Brownfield / All	
Greenfield Type	If Greenfield project type has been selected above, please specify: Innovation/ Design / Tendering / Construction / All	
Target Technology Type	Describe the type of Target Project (see sectors list in question 7 above or specify other energy transition sectors if needed)	
Island Specific Y/N	Yes (if island specific) / No (in case of general product covering also islands)	
Other specific Eligibility Criteria	Eligibility Criteria Details (e.g. Legal requirements, Project requirements, Minimum Energy Savings) / External Reference (please provide additional documentation listing the Eligibility Criteria)	



Evaluation Criteria Description	Evaluation Criteria Details (e.g. reduction of greenhouse gas emissions, energy savings, fossil fuel energy replaced for renewable energy) / External Reference (please provide additional documentation listing the Evaluation Criteria)	
Evaluation process		
Administrative costs	Final Recipient (the final recipient is charged with any costs)/ Investor (those costs are born by the investor)	
Duration of the evaluation process	Number of months needed, on average, to approve the investment	



# Questionnaire

## SECTION 1: AUTHORITY LEVEL

1. Authority Name: \_\_\_\_\_

Address: \_\_\_\_\_

2. **Who are you?** Select one of the following options:

- a. ☐ Regional Authority
- b. ☐ National Authority
- c. ☐ Interregional Entity
- d. ☐ Other entity: \_\_\_\_\_

3. **Do you have any financing priority or available funds allocation, targeting specifically energy transition/sustainable energy projects?**

- a. ☐ Yes
- b. ☐ No

4. **At what stage of the project should the applicant present his/her application?**  
Select one or more of the following options.

- a. ☐ Greenfield projects
  - ☐ Design
  - ☐ Tendering
  - ☐ Construction
- b. ☐ Early brownfield projects (Operation Ramp-up)
- c. ☐ Brownfield projects (Operation, after 2 years)



## SECTION 2: PRIORITY LEVEL

You can complete this part of the questionnaire

- (i) by filling in the tables below. For each priority dedicated to energy transition financing please complete the table below (in case of multiple line, please copy and paste the table indicating a progressive ID Number), or, alternatively
- (ii) by attaching relevant documentation for each relevant instrument or group of instruments and providing a reference contact (Name, telephone number, email address) which will be contacted if further details are needed.

Field	Description	
Instrument ID Number	Incremental Number of the financial instrument	1
Department	Name of the Department, Assessorship, Councillorship, etc.	
Programme Scope	Regional / National / European	
Programme Name	Name or Code of the Programme	
Programme Type	Guarantee / Grant / Soft Loan / Other	
Funding key Thematic Objective (TO)	Reference Code or Name of the main Investment Priority, also known as Thematic Objective (TO) covered by the Programme (e.g. "Asse" for Italian Regions). TOs are the key objectives as per the EC Cohesion policy (e.g. Smart Europe, Green Europe, Connected Europe, Social Europe, Citizens' Europe)	
Action	Reference Code or Name of the type of intervention (e.g. "Azione" for Italian Regions)	
Total Funds	Total funds available	
Funds already allocated	Funds already granted	
Application Deadline (Date)	Deadline for application	
Granting Deadline	Deadline to obtain the financing (date)	
Application Type	Call (First come, first served basis), Window (application time frame)	
Max Amount	Maximum financed amount (in EUR)	
Min Amount	Minimum financed amount (in EUR)	
Costs Coverage (Percentage)	Percentage of project costs that can be funded	
Other characteristics (if relevant)	I.e. for loans indicate the rate of interest, etc.	
Eligibility criteria		
Target Geographic Area	Target Countries or Regions	
Disbursement Period	Deadline by which all resources of the programme must be deployed	
Target Beneficiary	Specify the target beneficiaries (e.g. SME, Start up, public entities, etc.)	
Target Beneficiary Size	Revenue range, number of employees, etc.	



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Target Intervention	Describe the type of Target Projects financed by the Programme	
Exclusions	Specific exclusions	
Target Project Stage (Greenfield/Brownfield)	Please specify: Greenfield (design, tendering, construction) / Early Brownfield / Brownfield / All	
Greenfield Type	If Greenfield project type has been selected above, please specify: Innovation/ Design / Tendering / Construction / All	
Target Technology Type	Describe the type of Target Project	
Eligible expenses	Describe the costs eligible to the financing	
Other specific Eligibility Criteria	Eligibility Criteria Details (e.g. Legal requirements, Project requirements, Minimum Energy Savings) / External Reference (please provide additional documentation listing the Eligibility Criteria)	
Evaluation Criteria Description	Evaluation Criteria Details (e.g. reduction of greenhouse gas emissions, energy savings, fossil fuel energy replaced for renewable energy) / External Reference (please provide additional documentation listing the Evaluation Criteria)	
Island Specific	Yes (if island specific) / No (in case of general product covering also islands)	
Evaluation process		
Duration of the evaluation process	Number of months needed, on average, to approve the financing	
Reporting	Reporting needed (if the Final Recipient is supposed to report all the expenses made thanks to the equity investment)/ No reporting needed	



## Guarantee Instrument (if applicable)

Field	Description	
Instrument ID Number	Incremental Number of the financial instrument	1
Instrument Name	Name of the product, the fund, the program, etc.	
Issuer	Sponsor Name	
Project/no recourse or Corporate	P (Project) - in case of a specific project financing - no recourse financing / C (Corporate) - in case of Corporate financing (funds can potentially serve multiple projects)	
Min ticket size	Minimum invested/financed amount (in EUR)	
Avg ticket size	Average invested/financed amount (in EUR)	
Max ticket size	Maximum invested/financed amount (in EUR)	
Average Cost	Interest rate applied on total guaranteed amount	
Max % Guaranteed	Maximum % of guarantee on total Project Amount	
Capex/Opex	Capex (Capital Expenditure) / Opex (Operating Expense)	
Is subsidized	Yes (if subsidized guarantee) / No (if not)	
Subsidized Conditions	Subsidized guarantee conditions (e.g. Interest rate, ...)	
State Aid Limitation Exempt	Exempt (if exempt from state aid limitation) / Not exempt (if not)	
Eligibility criteria		
Target Geographic Area	Target Countries or Regions	
Timeframe	Investment/financing period	
Target Beneficiaries	Specify the target beneficiaries (e.g. SME, Start up, public entities, etc.)	
Target Project Stage (Greenfield/Brownfield)	Please specify: Greenfield (design, tendering, construction) / Early Brownfield / Brownfield / All	
Greenfield Type	If Greenfield project type has been selected above, please specify: Innovation/ Design / Tendering / Construction / All	
Target Technology Type	Describe the type of Target Project	
Island Specific	Yes (if island specific) / No (in case of general product covering also islands)	
Other specific Eligibility Criteria	Eligibility Criteria Details (e.g. Legal requirements, Project requirements, Minimum Energy Savings) / External Reference (please provide additional documentation listing the Eligibility Criteria)	
Evaluation Criteria Description	Evaluation Criteria Details (e.g. reduction of greenhouse gas emissions, energy savings, fossil fuel energy replaced for renewable energy) / External Reference (please provide additional documentation listing the Evaluation Criteria)	





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