

# QUICK REFERENCE GUIDE

Financing the clean  
energy transition for EU  
Islands

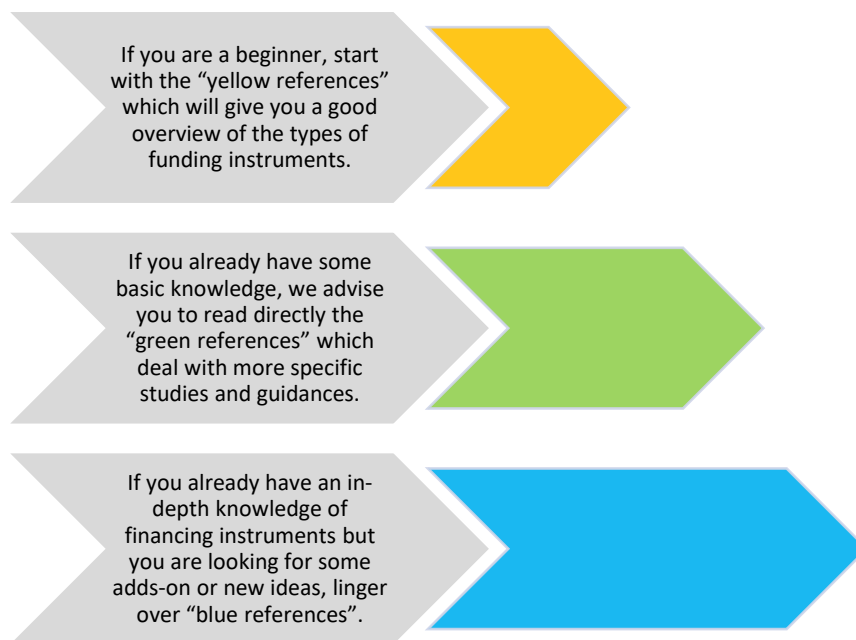
# Quick reference guide on Financing the clean energy transition for EU Islands

In this guide you will receive a short introduction to the general potential barriers and possibilities for the financing of your decarbonisation plans. This guide is intended to be comprehensive and aims to provide additional information on a range of sources of financing available for sustainable energy projects as well as a series of relevant studies on the topic.

First of all, the guide introduces an analysis of how funding mechanisms and schemes are used as guidance for where you may look for financing solutions for your transition actions. Each of the concepts will have links to further reading. This is followed by an outline of some of the main barriers faced when addressing financing the clean energy transition.

The guide does not provide direct solutions for funding actions on islands but is rather a first step to explore the possibilities for financing from local, national and EU sources. It is a first introduction to choose the path to follow towards financing of renewable energy and energy efficiency actions on your island.

**Key/How to read the references:** The order of your readings should be based on your prior knowledge of funding mechanisms and schemes.



## Table of Contents

Quick reference guide on Financing the clean energy transition for EU Islands	2
1. Comprehensive online matrix on financing schemes and funding opportunities - The Covenant of Mayors	3
Alternative financing schemes (Extended introduction to what this is)	3
European Structural and Investment Funds (ESIF).	3
Projects Development Assistance (PDA)	4
European Funding Programmes	4
2. Useful personal contacts for support and further information	6
<b>Funding mechanisms and schemes - Study by European Commission</b>	<b>7</b>
<b>Types of clean energy finance instruments</b>	<b>7</b>
<b>Main barriers identified for financing projects - the PROSPECT project</b>	<b>9</b>
<b>Renewable energy cooperatives - Study and handbook by REScoop.eu</b>	<b>10</b>
<b>Supporting investment concepts - overview and financing facilities by the European Commission</b>	<b>13</b>
<b>Local financing models - a toolkit from the CITYinvest project</b>	<b>14</b>
<b>Technical guidance on cohesion funding - a guide by the European Commission</b>	<b>15</b>
<b>Project life cycle overview - Energy Efficiency Financial Institutions Group</b>	<b>16</b>
<b>Design and development of building renovation and improvement - Investors Confidence Project</b>	<b>16</b>



# 1. Comprehensive online matrix on financing schemes and funding opportunities - The Covenant of Mayors

The Islands Quick Reference Guide to financing and funding draws heavily on work already completed for the [EU Covenant of Mayors](#). The Covenant's interactive funding guide gathers information on the funding initiatives managed by the European Union, the Member States and key financial institutions such as the European Investment Bank. Next to these, the guide includes information about support services and innovative financing schemes.

## Alternative financing schemes (Extended introduction to what this is)

- *Energy Performance Contracting (EPC)* a form of 'creative financing' for capital improvement which allows funding energy upgrades from cost reductions. Under an EPC arrangement an external organisation (i.e. an Energy Service Company – ESCO ) implements a project to deliver energy efficiency, or a renewable energy project, and uses the stream of income from the cost savings, or the renewable energy produced, to repay the costs of the project, including the costs of the investment. Essentially the ESCO will not receive its payment unless the project delivers energy savings as expected. Summarised info [here](#).
- *Involving citizens* for example through *crowdfunding and peer-to-peer (P2P) lending* for larger communities projects. More and more energy-related projects are financed by raising money from a large number of people who each contribute a relatively small amount, typically via the Internet. Since its appearance, renewable energy crowdfunding helped financing more than 300 projects in the world, raising capital for over €165 mln. It proved to be a competitive source of capital, a democratizing force for the energy markets, and eventually an accelerator of the transition towards a greener economy. [CrowdfundRES](#) did a survey unleashing the potential of crowdfunding for financing renewable energy projects that you can consult [here](#). And you can see examples of concrete projects [here](#) and particular info on P2P [here](#). Besides, REScoop.eu have produced a publication on mobilising citizens to invest in sustainable energy which contains some useful reviews and example processes, see [here](#).
- *Soft Loans & Guarantees*. Financial incentives such as grants, guarantees or soft loans for energy renovation could motivate homeowners to make the investment decision more easily for the energy retrofitting of buildings, (more info [here](#)).

## European Structural and Investment Funds (ESIF).

There are six funds jointly managed by the European Commission and EU member states. Their purpose is to invest in job creation and a sustainable and healthy European economy and environment. Some funds can be used to finance energy-related projects. The list below shows names of the funds with links for more information:

- European Regional Development Fund ([ERDF](#))



© European Union

This publication does not involve the European Commission in liability of any kind.

- Cohesion Funds ([CF](#))
- European Social Fund ([ESF](#))
- European Agricultural Fund for Rural Development ([EAFRD](#))
- European Maritime and Fisheries Fund ([EMFF](#))
- Integrated Territorial Investments ([ITI](#)), more info [here](#) and [here](#).

### Projects Development Assistance ([PDA](#))

Facilities are set up by the European Commission to support ambitious public authorities - regions, cities, municipalities or groupings of those - and public bodies in developing bankable sustainable energy projects. It aims to bridge the gap between sustainable energy plans and real investment through supporting all activities necessary to prepare and mobilise investment into sustainable energy projects (more info [here](#)).

- [The Island Facility](#) (for more info see [here](#))
- [The City Facility](#) (for more info see also [here](#))
- [REScoop MECISE](#) (for more info see also [here](#))
- H2020 PDA's (more info [here](#))

### European Funding Programmes

The European Union provides a broad range of projects and programmes primarily targeted to larger projects; some of the most relevant ones are presented below. Each of the programmes has separate calls of applications. Some with specific focus on insular energy systems or islands contexts.

- [LIFE](#) programme is the EU's funding instrument for the environment and climate action created in 1992. The current funding period 2014-2020 has a budget of €3.4 billion.
- The Urban Innovative Actions ([UIA](#)) is an Initiative of the European Union that provides urban areas throughout Europe with resources to test new and unproven solutions to address urban challenges. Based on article 8 of ERDF, the Initiative has a total ERDF budget of EUR 372 million for 2014-2020.
- [CIVITAS activity funds](#) is a programme that supports the take-up of sustainable urban mobility measures in Europe by providing financial assistance for specific activities of the CIVNETS which is a group of city networks that promote the CIVITAS approach at a local level, overcoming language and contextual barriers for local authorities and organisations interested in urban sustainable mobility (more info [here](#)).
- [URBACT](#) is a European exchange and learning programme promoting sustainable urban development. It enables cities to work together to develop solutions to major urban challenges, reaffirming the key role they play in facing increasingly complex societal changes. URBACT III (2014-2020), the total budget eligible budget is 96.3 M€ and one axe is dedicated to networking, expertise, capitalisation and communication activities. The other axe is dedicated to the technical assistance of the programme.



- European Territorial Cooperation ([IC](#)). INTERREG is a general brand name to refer to ETC. INTERREG is funded by the European Regional Development Fund; it therefore finances projects around the 11 cohesion policy thematic objectives (that you can find [here](#)).
- [Horizon 2020](#) is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020). It aims to achieve smart, sustainable and inclusive economic growth. H2020 is organised in thematic sections each dedicated to a specific challenge (that you can find [here](#)). (And the specific calls for Islands).



## 2. Useful personal contacts for support and further information

- The [C-2020](#): is the network of Horizon 2020 National Contact Points, which offers links to technology platforms and EU networks. On their website you can also find a [list](#) of EU funds available beyond 2020 in different fields and for different type of projects.
- The [Managenergy programme](#) is offering a series of masterclasses, expert missions and networking events in the coming years covering a range of investment topics for local and regional energy agencies.
- The Marketplace of the European Innovation Partnership on Smart Cities and Communities ([EIP-SCC](#)) is a platform helping cities to build new projects. It also takes into account the enabling roles of collaborative actions such as [new business models](#), [finance and procurement arrangements](#), new strategies and tools to increase smart [citizen participation and engagement](#), new strategies and tools for [integrated planning and policy and regulations](#).
- [URBIS](#) is a new dedicated urban investment advisory platform within the European Investment Advisory Hub ([EIAH](#)). URBIS is set up to provide advisory support to urban authorities to facilitate, accelerate and unlock urban investment projects, programmes and platforms. URBIS has been developed in partnership by the European Commission (Directorate-General for Regional and Urban Policies) and the European Investment Bank ([EIB](#)) in the context of the [EU One Stop Shop for Cities](#) and in support of the ambitions defined in the [EU Urban Agenda](#).





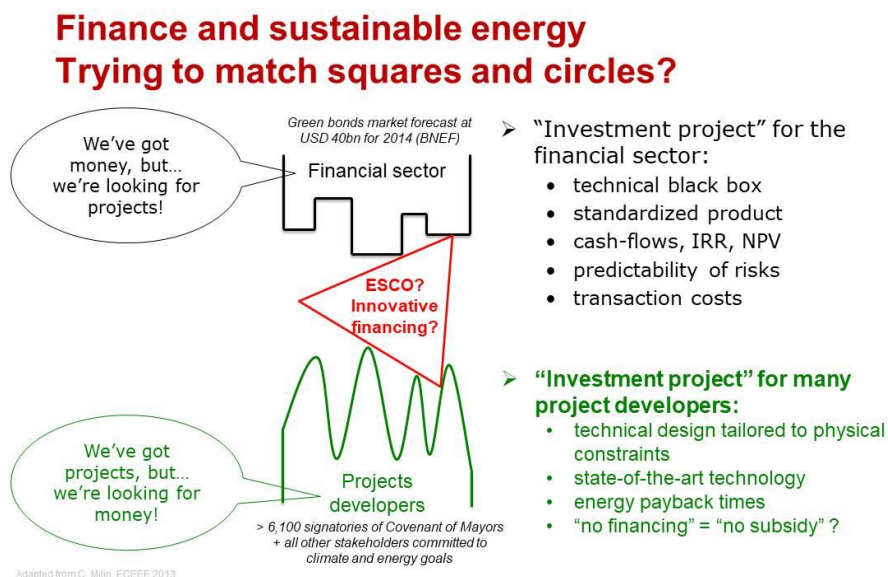
## Funding mechanisms and schemes - Study by European Commission

The nature of the energy efficiency financing topic has been well characterised by the Executive Agency for Small and Medium Enterprises of the European Commission ([EASME](#)).

Their objective is to overcome the gap between the financial sector and sustainable energy project developers. The latter have bespoke technical projects (less understood than their renewable energy counterparts) with long payback times. On the other side, the former are used to dealing with standardised products and consider energy efficiency as a technical black box, they are interested in the cash flow rather than the specific project and they prefer well understood and predictable risks. You have to take that into account before establishing any investment project and applying for a financing.

## Types of clean energy finance instruments

In recent years, there has been an increased interest in the provision of energy services to achieve energy and environmental goals. In particular some new companies providing energy services to final energy users, including the supply and installations of energy efficient equipment, and/or the building refurbishment, have started to operate on the European market. Those companies are defined as **Energy Service Companies (ESCOs)**. Their main characteristics are that they can finance or arrange financing for a project and that their remuneration is directly tied to the energy savings achieved. For EASME, those companies, as innovative financing, could help to match the needs of project developers and the financial sector (see the diagram below).



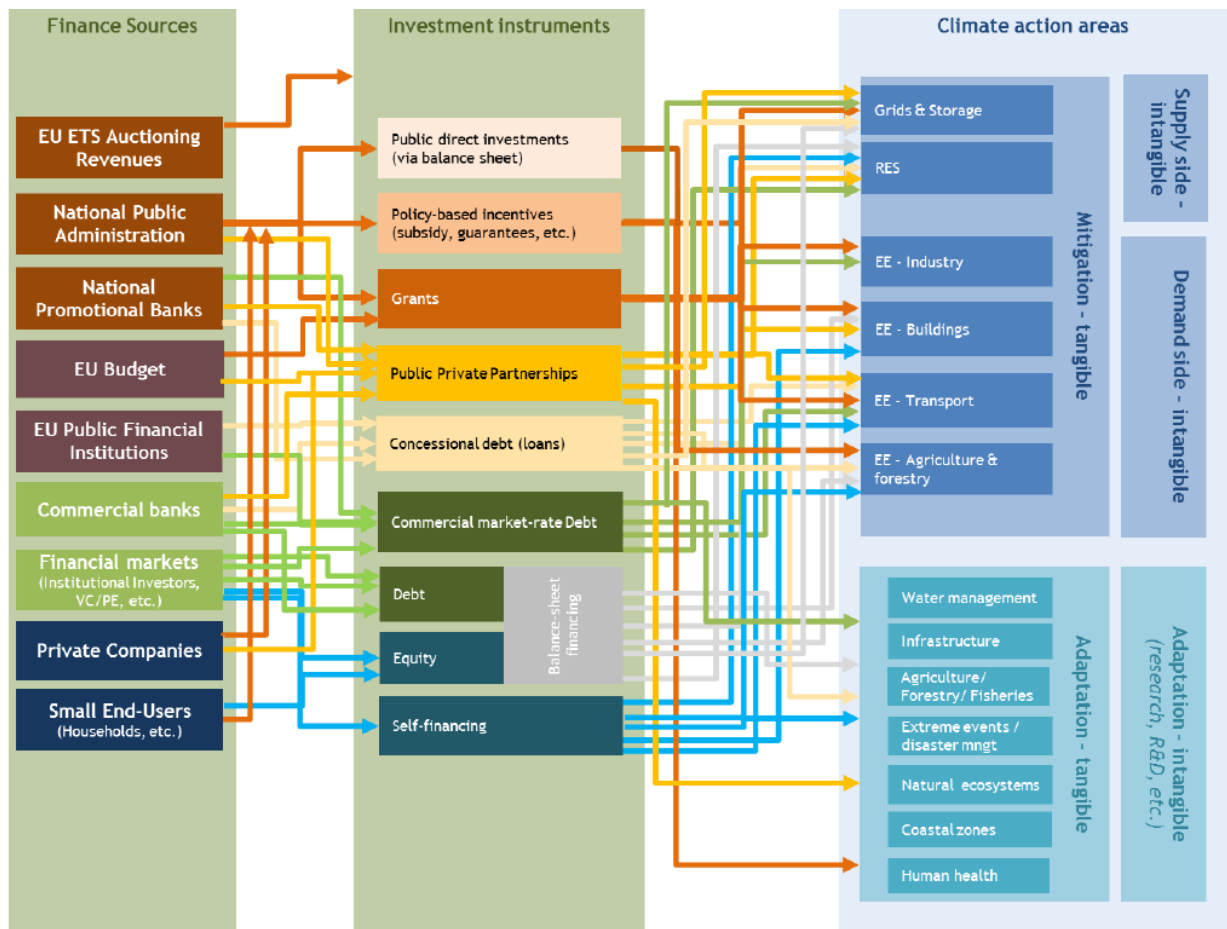
Furthermore, the recent EU legislation, namely the Clean Energy Package, agreed by the EU in 2018, starting with the revised Renewable Energy Directive (REDII) is a game changer for citizens, local authorities (including cities and municipalities) and microenterprises because it gives them the right to generate, store, consume and sell their own energy.





The new Renewable Energy Directive [unleashes the power of community energy](#) by giving citizens and energy communities across the EU a number of guarantees that ensure that they are able to invest in renewables and benefit from the energy transition.

An in-depth analysis for the European Commission has identified the **types of clean energy finance instruments** being used currently across Europe and gathered it in one diagram of flux (see below). You can follow the arrows (in both ways) to see how the different financing sources are currently allocated to climate action in the EU and which one could better fit your project. You will find financing for both mitigation and adaptation actions.



Source: Trinomics (2017)

This overview of available funding and financing sources provides a useful framework for looking at the opportunities available to individual island communities. **Not all will be applicable, and there are features of and benefits and drawbacks to each individual approach.**



© European Union

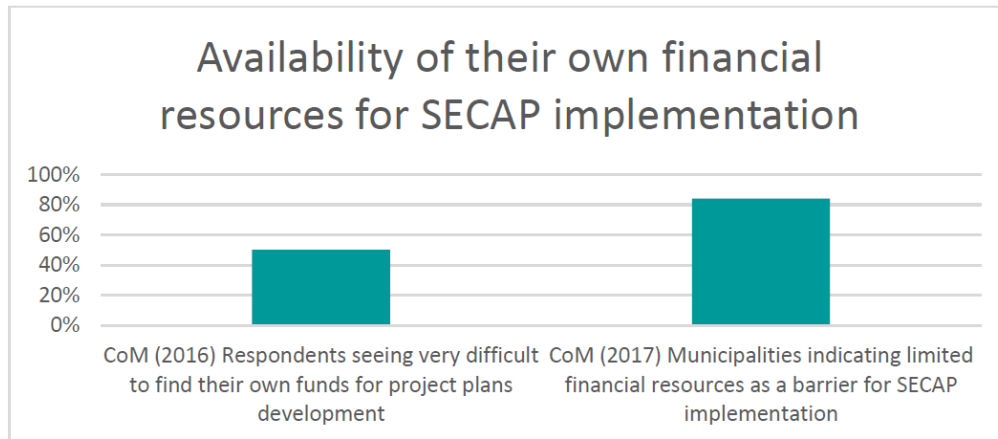
This publication does not involve the European Commission in liability of any kind.



## Main barriers identified for financing projects - the PROSPECT project

It is also useful to understand from the local level, the main barriers that are faced when trying to address financing for sustainable energy projects.

The [PROSPECT project](#) funded by [Horizon 2020](#) -the biggest financial instrument implementing the [Innovation Union](#)- drew on information from the [Covenant of Mayors survey](#), and a project specific survey of municipalities to draw out conclusions on these issues.



**Figure 2: Respondents in the Covenant of Mayors surveys (2016 & 2017) addressing the availability of their own financial resources**

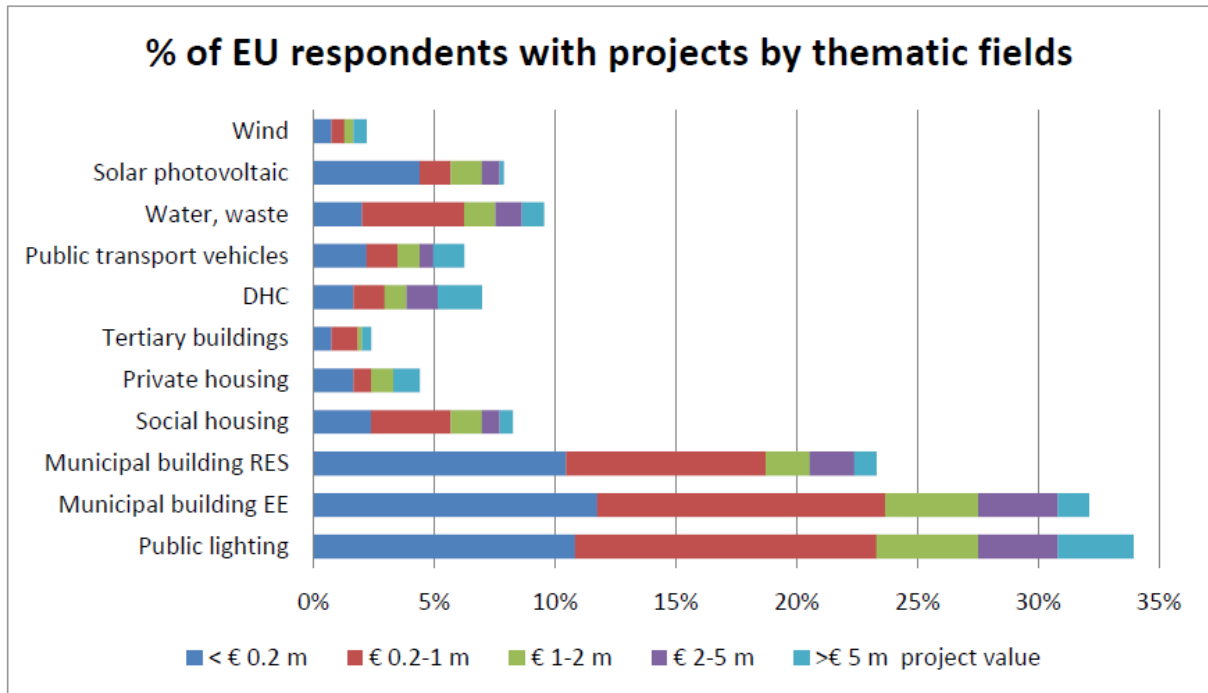
Sources: COM Office (2016): "Sustainable energy investment in European local authorities" & Covenant of Mayors (2017): "Covenant community's needs for SE(C)AP design and implementation"

As this chart shows, the use of own resources by public authorities is seen by the majority as a barrier to implementing Sustainable Energy and Climate Action Plans (SECAPs).

The report makes it clear that "Given the impossibility in many cases of financing their own sustainable energy and climate projects, local authorities tend to base the financing of sustainable energy and climate actions on public grant funding, i.e. European or national funds, which become the primary source of financing. However, the availability of public grant funding is limited both in terms of the volume and persistence over time, and not sufficient to cover the needs of local authorities in meeting their sustainable energy and climate targets. The remaining financing gap must rely on market-based solutions and innovative financing instruments."

From the Covenant of Mayors survey, the following picture of investment by project size and sector emerged.





This shows that **public lighting** and **public building renovation** projects were by far the most prevalent.

### Renewable energy cooperatives - Study and handbook by REScoop.eu

The European federation of Citizens [Energy Cooperatives \(REScoop.eu\)](https://rescoop.eu), has analysed the barriers to financing existing energy transition solutions. Their work concludes that the main barriers are not financial, but can be grouped as follows:

Cultural and political factors	Economic and management factors	Legal and administrative factors
<ul style="list-style-type: none"> <li>• Lack of knowledge concerning the cooperative model</li> <li>• Lack of legitimacy as a real market player and low trust in the cooperative model as an effective economic alternative</li> <li>• Level of political support to RES plays an important part in the development of REScoops + political support to citizen-led initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-planning stage barriers</li> <li>• Lack of guarantees</li> <li>• Size of REScoop projects</li> </ul>	<ul style="list-style-type: none"> <li>• Public offering regulation (access to equity capital)</li> <li>• Administrative barriers: cost and access to the grid</li> <li>• Unstable regulation (especially public support schemes for RES)</li> </ul>

The full analysis can be found [here](#).



© European Union

This publication does not involve the European Commission in liability of any kind.



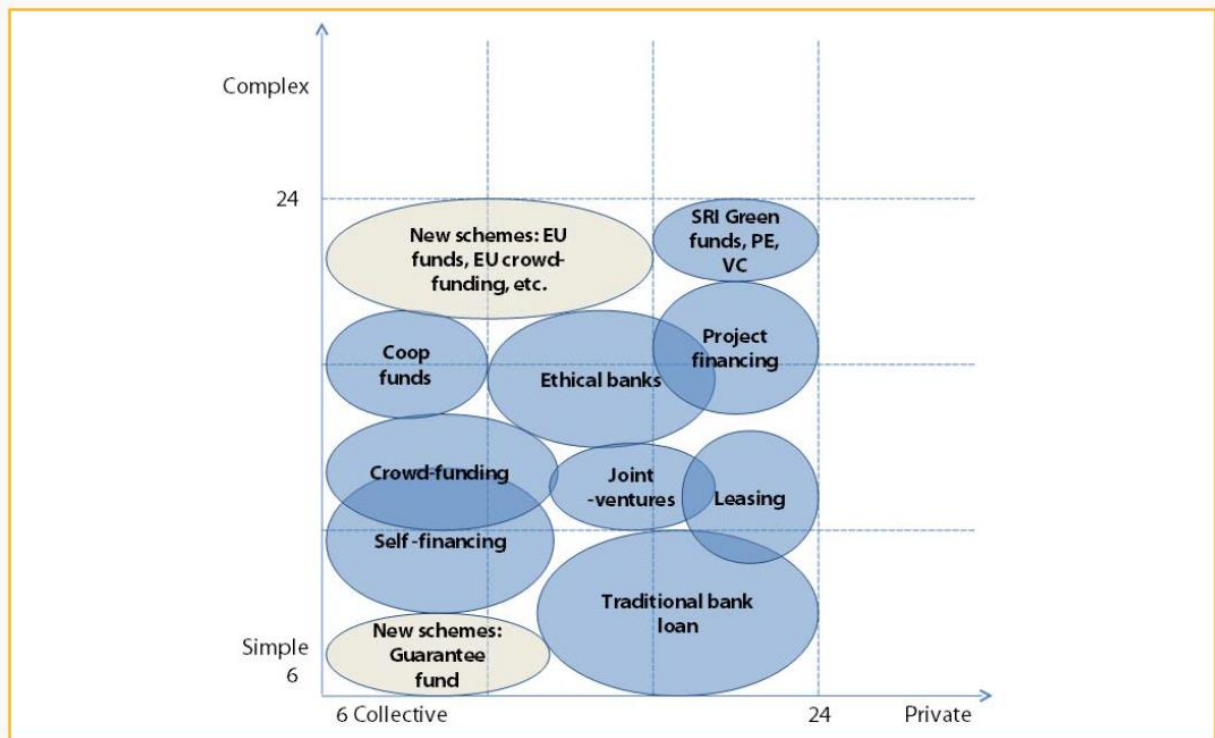
REScoop.eu has also published a [financial handbook](#) for citizens [energy cooperatives](#). This breaks project development down into four phases (shown below) and identifies the type of funding that may be most appropriate for each phase.

Phase	Description	Type of financing	Challenges / level of risk
<b>1. Pre-planning</b>	<ul style="list-style-type: none"> <li>• Project planning</li> <li>• Identification of site/type of RES</li> <li>• Feasibility Study</li> <li>• Draft Business Plan</li> <li>• Legal agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Grants</li> <li>• Soft loans</li> <li>• Self financing</li> <li>• Seed capital</li> </ul>	<ul style="list-style-type: none"> <li>• First phase of the project, most risky part of the project to fund, investors are not often willing to risk investing in the early stages of a project</li> <li>• Financial guarantees needed by financial institutions in case the energy production does not repay the interest costs of the loan</li> <li>• Patrimonial guarantees requested by banks</li> </ul>

<b>2. Development</b>	<ul style="list-style-type: none"> <li>• Business plan</li> <li>• Permitting procedure</li> <li>• Grid access permit</li> <li>• Power Purchase Agreements</li> <li>• Legal agreements</li> <li>• Legal &amp; Financial Due Diligence</li> <li>• Financial closing</li> </ul>	<ul style="list-style-type: none"> <li>• Equity investment</li> <li>• Grants</li> <li>• Loans</li> </ul>	
<b>3. Construction</b>	<ul style="list-style-type: none"> <li>• Construction contracts</li> <li>• Connection to the grid</li> </ul>		<ul style="list-style-type: none"> <li>• Construction risks: financial operators are willing to take on construction risk often subject to their appointment of an independent consultant to undertake due diligence on the contracts, business models, etc (has to be taken in charge by the REScoop).</li> </ul>
<b>4. Operating &amp; Maintenance</b>	<ul style="list-style-type: none"> <li>• Production</li> <li>• Operation &amp; Maintenance Contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Revenues from energy production</li> <li>• Public support schemes for RES</li> </ul>	<ul style="list-style-type: none"> <li>• Revenues</li> <li>• Regulatory risks on public support schemes</li> <li>• Financial viability of the installer and the manufacturer and credibility of their warranty</li> </ul>

Their handbook then provides more details and step by step guidance on when and how to deploy each type of financing according to the following matrix.





[REScoop MECISE](#) was created in 2018 as a financial vehicle that aims to provide time, access, credibility and solidarity to renewable energy and energy efficiency projects in Europe. REScoop MECISE stands for European 'Mutual for Energy Communities Investing in a Sustainable Europe' and acts as a direct support for citizen-led projects. It is a result of a Project Development Assistance (PDA) project which run between December 2015 and February 2019 in the framework of the European Union's Horizon 2020 programme.

This financial tool was found by the co-ops of Courant d'Air (Belgium), Ecopower (Belgium), Enercoop (France), Energy4All (United Kingdom), Som Energia (Spain) and the European federation REScoop.eu, based on principles such as flexibility, sustainability, cooperation and fairness, understood as low profitability and fair distribution of benefits and responsibilities.

The final publication of the H2020 project [Mobilising European Citizens to Invest in Sustainable Energy](#) suggests that REScoop MECISE acts as a direct support for citizen-led projects to accelerate the energy transition by:

- supplying temporary equity to help REScoops finance their projects and thus give them time to raise equity locally, or by acting as a bridge to buy back commercial projects and open them for investment to local communities. Once these projects are up-and-running, REScoop MECISE will support a local energy community to raise funds from local citizens and replace the Mutual. That's how the REScoop MECISE SCE will maintain its revolving character and ensure the projects benefit directly to the local communities.
- aggregating small community projects and assisting them in accessing financing tools reserved for larger projects and by adding credibility to local projects through the provision of guarantees for banks, local authorities or institutional investors.





Upscaling projects to over €25 million would make them eligible to soft loans from the European Investment Bank or other institutional investors.

- combining funds from cooperatives, municipalities and institutional investors, citizens will also get the opportunity to develop large scale projects, which are today often unattainable for communities. Upscaling will automatically lead to economies of scale and gains on purchasing power.

More information about their services and publications can be found on the initiative's website.

### **Supporting investment concepts - overview and financing facilities by the European Commission**

There is no one definition of what is meant by an "investment concept"<sup>1</sup>. Projects in different sectors and at different stages of maturity are likely to have different versions of what is meant by this term.

In their [information day](#) for the recently proposed Horizon 2020 City Finance Facility and Islands Finance Facility, EASME suggested that the following topics should form parts of an investment concept:

- Clear identification of potential project pipeline
- (Local) market/barrier analysis
- Sample energy audits etc.
- Analysis of local stakeholders controlling the project pipeline
- Commitments (by asset owners)
- Engagement strategy etc.
- Legal analysis (regional, national, international)
- Available investment types and framework conditions
- Actual investment approach
- Structuring/timeline of investment steps
- (incl. e.g. public procurement or debt accounting rules) etc.
- (Pre-feasibility) analysis of available financing solutions
- Basic modelling of investment costs, transaction costs, expected (cost) savings, other revenues etc.
- Roadmap: basic process to launch investments
- Work planning
- Resource allocation etc.

The mentioned two financing facilities for clean energy transition measures for islands and cities (expected during 2019) are specifically set up to set out requirements for access to technical assistance funding through these Facilities (see more information and links on page 9). For examples on how this type of approach has worked in much larger scale applications, see Energy Cities review of a number of ELENA projects [here](#).

---

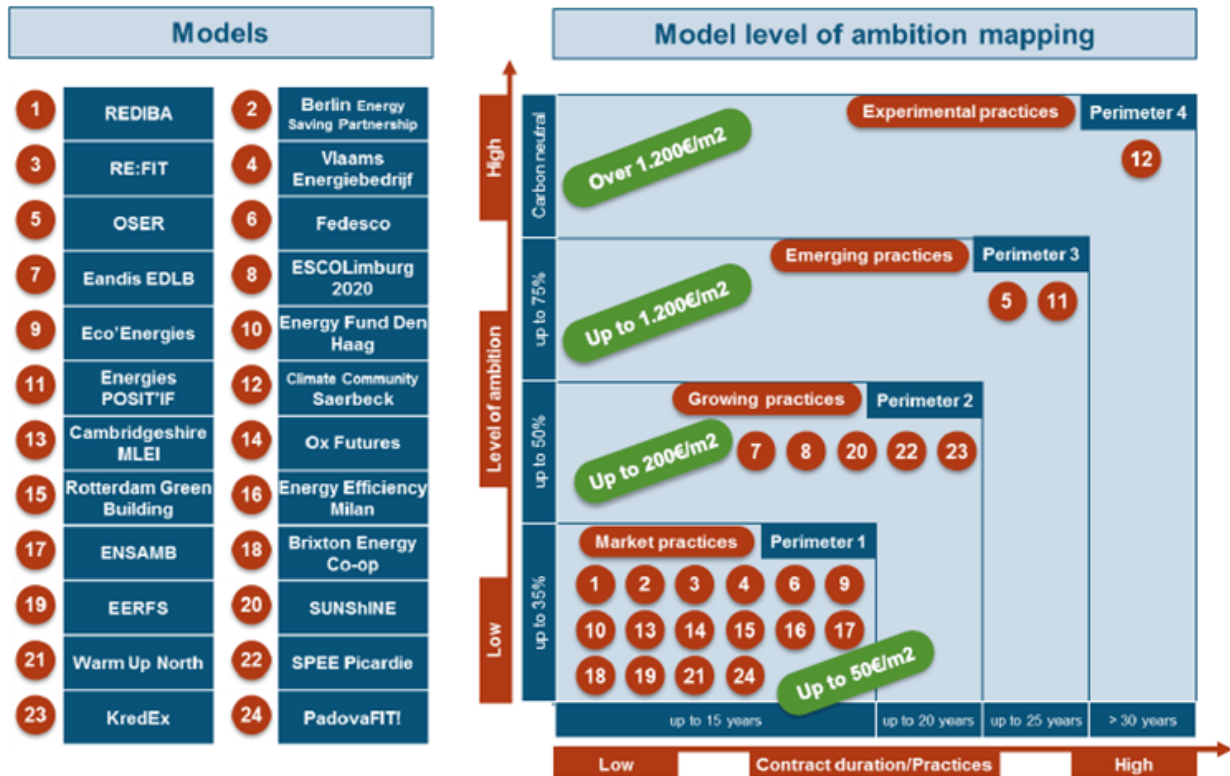
<sup>1</sup> Also referred to as financing concept





## Local financing models - a toolkit from the CITYinvest project

The EU funded Cityinvest project reviewed [more than 20 models](#) of local financing schemes. The analysis compared the length of contract of duration and depth of carbon saving and concluded that the current focus is on shallower carbon saving, shorter payback period projects. The project also produced [a step by step toolkit for other authorities considering developing coordination services to support building renovation](#).



In the figure above a series of tested models are organised in levels of ambitions and the contract durations or practices. To read more about each of the models consult the guide [here](#).

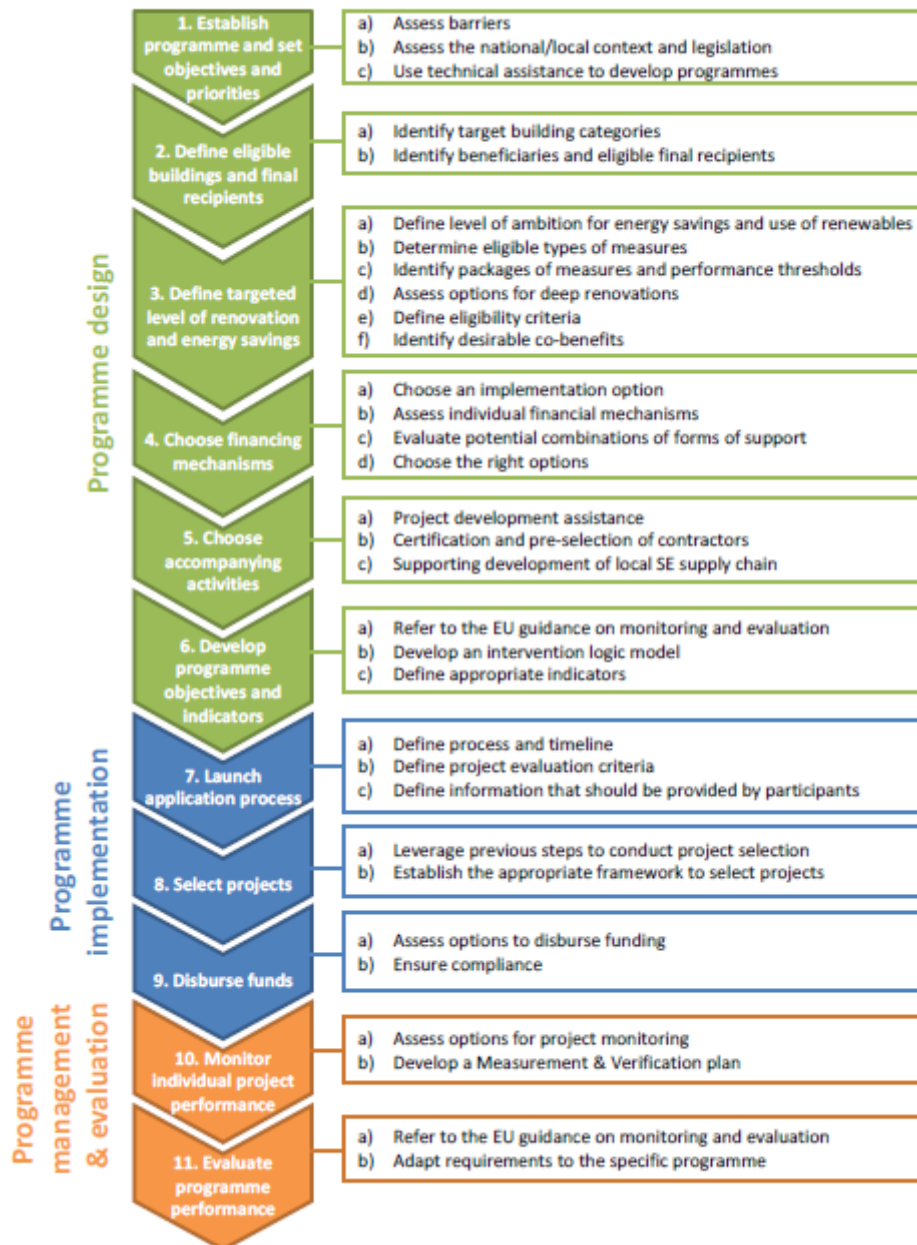




## Technical guidance on cohesion funding - a guide by the European Commission

For projects addressing the energy renovation of buildings, the European Commission has previously produced [technical guidance on funding](#) such project with [EU Cohesion funds](#) (see the roadmap below). More broadly than just buildings, this guidance set out a series of steps when considering this funding route, that would also translate well to other sectors and other sources of funding. The graphic below describes the process for national or regional authorities to set-up financing through cohesion policy funds to benefit local communities.

Figure 1 Roadmap to implement a programme for financing the energy renovation of buildings using Cohesion Policy funding



Detailed advice and guidance and decision support materials are available for each of these steps within [the guide](#).







## Project life cycle overview - Energy Efficiency Financial Institutions Group

In its [Underwriting Toolkit](#), the Energy Efficiency Financial Institutions Group (EFIG) - a public private expert group made to identify barriers and solutions to long-term financing for energy efficiency - has set out a detailed project lifecycle, looking at financial as well as technical and governance aspects of a project (see below).

Figure 3.1: The Project Life Cycle

		PRE-FINANCING				SERVICING / OPERATIONS			
FINANCIAL PROCESS		ORIGINATION	DECISION TO PROCEED	UNDER-WRITING	DECISION TO INVEST / LEND	ADMINISTRATION	DRAW DOWN	SERVICING	
ACTIVITIES		Identification of opportunities, assessment of initial data	Initial Due Diligence on technical and commercial aspects of proposed investment	Full under-writing, modelling value and risk, Due Diligence, leading to recommendation	Investment Committee review and decision	Finalising contracts and investment/loan agreement(s)	Transfer of funds	Monitoring of loan / Investment performance over life-time	
OUTPUT			Viable project/ideal concept Decision to move to under-writing	Recommendation to IC	IC decision	Signed contracts, CPs	Loan or investment completion	Monitoring / repayment of loans / return on equity	
DOCUMENTS		Project outline with initial data	Project details, technical, commercial Term Sheet	Technical details, financial analysis, risks, commercial arrangements, counterparty details	Due diligence reports	Contract documentation, financing agreement	Commissioning reports	Performance reports, O&M reports	
OUTPUT		Approved project concept	Approved basic design	Approved detailed design, commercial proposition			Completed installation, As installed documentation	Correctly operating and commissioned ECMs On-going optimum operation of ECMs & energy savings	
ACTIVITIES	Gathering of energy data, benchmarking, energy audits, identification of potential ECMs, initial economic analysis		Development of ECMs, selection of equipment, detailed economic analysis, outline procurement strategy	Detailed design of ECMs, refined economic analysis, identification of suppliers & contractors, procurement strategy		Detailed design taking into account specific site characteristics not identified to date	Any site specific design needed, Contracting for installation, supply of equipment, installation	Commissioning programme On-going Measurement & Verification reports, on-going Operations & Maintenance activities and reports	
TECHNICAL PROCESS	CONCEPT DESIGN	BASIC DESIGN		DETAILED DESIGN		DETAILED INSTALLATION DESIGN*	INSTALLATION	COMMISSIONING	M&V / O&M
	DEVELOPMENT						IMPLEMENTATION	OPERATIONS	
	ICP PROCESS								

The [Toolkit](#) also includes practical guidance on risk assessment as well as an examination of the types of mechanism and structures that can be used to finance energy efficiency projects.

## Design and development of building renovation and improvement - Investor Confidence Project

For certain types of energy efficiency investments (currently for [multi-family buildings](#) and [commercial buildings](#) the [Investor Confidence Project](#) has developed protocols to help standardise design and development of renovation and improvement of these types of buildings in order to improve opportunities for standardisation and project aggregation.

Published by the  
Clean Energy for EU Islands  
Secretariat



© European Union

This publication does not involve the European Commission in liability of any kind.

