



MARKET CHARACTERIZATION: SEGMENTS AND BOUNDARIES ANALYSIS

WP2 - Set-up and running of Citizen Investment Platforms

T2.4 - CFs4EE Financing Scheme pilot projects evaluation

D2.11 - Report on Market characterization: segments and boundaries analysis

Energinvest

CitizEE

*Scaling up Public Energy Efficiency Investments via Standardising
Citizen Financing Schemes*

www.citizee.eu



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TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
LIST OF TABLES	3
LIST OF FIGURES.....	4
TECHNICAL REFERENCES	5
ACKNOWLEDGEMENTS	6
DISCLAIMER	6
1. EXECUTIVE SUMMARY.....	7
1.1. DESCRIPTION OF THE DELIVERABLE CONTENT AND PURPOSE	7
2. CFS4EE MARKET CHARACTERIZATION METHODOLOGY	8
2.1. INTRODUCTION.....	8
2.2. DEFINITIONS	8
2.2.1. Cooperative Funding model	8
2.2.2. Crowdfunding model	10
2.2.3. Taxonomy of agents on the CF4EE Market	10
2.2.4. CFS4EE Financing scheme pilot countries/regions scope and targeted beneficiaries	11
2.3. THE MARKET CHARACTERIZATION ANALYSIS TEMPLATES	12
2.3.1. Step 1 - Citizen Funding current industry analysis - < Pilot Region >	12
2.3.2. Step 2 - Citizen Funding services providers analysis - < Pilot Region >	16
2.3.3. Step 3 – Demand analysis - < Pilot Region >	18
2.3.4. Step 4 – Barriers & enablers analysis - < Pilot Region >	20
2.3.5. Step 5 – Analysis & Conclusions.....	22
3. THE MARKET CHARACTERIZATION ANALYSIS - VEB (BELGIUM)	24
3.1. CITIZEN FUNDING CURRENT INDUSTRY ANALYSIS	24
3.1.1. Crowdfunding Model.....	24
3.1.2. Cooperative Funding Model.....	27
3.2. CITIZEN FUNDING SERVICES PROVIDERS ANALYSIS.....	33
3.3. DEMAND ANALYSIS.....	36
3.3.1. Current Beneficiaries analysis	36
3.3.2. CFS4EE Financing Scheme Targeted Beneficiaries	37
3.4. BARRIERS & ENABLERS ANALYSIS	39
3.5. ANALYSIS & CONCLUSIONS.....	41
3.5.1. CFS4EE SWOT and comparative analysis	41
3.5.2. Conclusion on the analysis	43
4. MARKET CHARACTERIZATION ANALYSIS – GOPARITY (PORTUGAL)	44
4.1. CITIZEN FUNDING CURRENT INDUSTRY ANALYSIS	44
4.1.1. Crowdfunding Model.....	44
4.1.2. Cooperative Funding Model.....	51
4.2. CITIZEN FUNDING SERVICES PROVIDERS ANALYSIS.....	56
4.3. DEMAND ANALYSIS.....	60
4.3.1. Current Beneficiaries analysis	60
4.3.2. CFS4EE Financing Scheme Targeted Beneficiaries	60
4.4. BARRIERS & ENABLERS ANALYSIS	67
4.5. ANALYSIS & CONCLUSIONS.....	69
4.5.1. CFS4EE SWOT and comparative analysis	69
4.5.2. Conclusion on the analysis	70
5. MARKET CHARACTERIZATION ANALYSIS – VIPA (LITHUANIA)	72
5.1. CITIZEN FUNDING CURRENT INDUSTRY ANALYSIS	72
5.1.1. Crowdfunding Model.....	72
5.1.2. Cooperative Funding Model.....	75
5.2. CITIZEN FUNDING SERVICES PROVIDERS ANALYSIS.....	75



5.3.	DEMAND ANALYSIS.....	77
5.3.1.	Current Beneficiaries analysis	77
5.3.2.	CFs4EE Financing Scheme Targeted Beneficiaries	78
5.4.	BARRIERS & ENABLERS ANALYSIS	79
5.5.	ANALYSIS & CONCLUSIONS.....	82
5.5.1.	CFs4EE SWOT and comparative analysis	82
5.5.2.	Conclusion on the analysis	83
6.	MARKET CHARACTERIZATION ANALYSIS – REGEA (CROATIA)	85
6.1.	CITIZEN FUNDING CURRENT INDUSTRY ANALYSIS	85
6.1.1.	Crowdfunding Model.....	85
6.1.2.	Cooperative Funding Model.....	89
6.2.	CITIZEN FUNDING SERVICES PROVIDERS ANALYSIS.....	89
6.3.	DEMAND ANALYSIS.....	91
6.3.1.	Current Beneficiaries analysis	91
6.3.2.	CFs4EE Financing Scheme Targeted Beneficiaries	92
6.4.	BARRIERS & ENABLERS ANALYSIS	93
6.5.	ANALYSIS & CONCLUSIONS.....	95
6.5.1.	CFs4EE SWOT and comparative analysis	95
6.5.2.	Conclusion on the analysis	96

LIST OF TABLES

Table 2.1 - Taxonomy of agents on the CF4EE Market	10
Table 2.2 - Scope of the CFs4EE Financing Scheme by CitizEE's pilots demonstrators	11
Table 2.3 - Structured template used for the crowdfunding market analysis	12
Table 2.4 - Structured template used for the cooperative funding market analysis.....	14
Table 2.5 - Citizen Funding services providers analysis grid	16
Table 2.6 - Structured template used for the analysis of the global segments of current beneficiaries	18
Table 2.7 - Structured template used for the analysis of CFs4EE Financing Scheme Targeted Beneficiaries	19
Table 2.8 - Structured template used for barriers & enablers analysis.....	20
Table 2.9 - Structured template for SWOT & Comparative analysis	22
Table 2.10 - Conclusion on the CFs4EE market characterization analysis template	23
Table 3.1 - Crowdfunding Market Characterization in Belgium.....	24
Table 3.2 - Cooperative Funding Market Characterization in Belgium.....	27
Table 3.3 - Belgian Citizen funding service provider - Ecopower.....	33
Table 3.4 - Belgian Citizen funding service provider - Beauvent	34
Table 3.5 - Belgian Citizen funding service provider - Energent	35
Table 3.6 - Current beneficiaries analysis addressed by the Citizen Funding market (BELGIUM - VEB)	36
Table 3.7 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (VEB)	37
Table 3.8 - Barriers & enablers analysis for Targeted Beneficiaries (VEB)	39
Table 3.9 - SWOT and comparative analysis (VEB)	41
Table 3.10 - Conclusion on the CFs4EE market characterization analysis (VEB)	43
Table 4.1 - Crowdfunding Market Characterization in Portugal	44
Table 4.2 - Cooperative Funding Market Characterization in Portugal	51
Table 4.3 - Portuguese Citizen funding service provider - GoParity	56
Table 4.4 - Portuguese Citizen funding service provider - Coopernico	57



Table 4.5 - Other Portuguese Citizen funding service provider	59
Table 4.6 - Current beneficiaries analysis addressed by the Citizen Funding market (PORTUGAL - GOPARITY)	60
Table 4.7 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (GOPARITY)	60
Table 4.8 - Barriers & enablers analysis for Targeted Beneficiaries (GOPARITY)	67
Table 4.9 - SWOT and comparative analysis (GOPARITY)	69
Table 4.10 - Conclusion on the CFs4EE market characterization analysis (GOPARITY)	70
Table 5.1 - Crowdfunding Market Characterization in Lithuania	72
Table 5.2 - Lithuanian Citizen funding service provider - SAVY	75
Table 5.3 - Lithuanian Citizen funding service provider - FinBee	76
Table 5.4 - Current beneficiaries analysis addressed by the Citizen Funding market (LITHUANIA - VIPA)	77
Table 5.5 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (VIPA)	78
Table 5.6 - Barriers & enablers analysis for Targeted Beneficiaries (VIPA)	79
Table 5.7 - SWOT and comparative analysis (VIPA)	82
Table 5.8 - Conclusion on the CFs4EE market characterization analysis (VIPA)	83
Table 6.1 - Crowdfunding Market Characterization in Croatia	85
Table 6.2 - Croatian Citizen funding service provider - ZEZ Invest	89
Table 6.3 - Croatian Citizen funding service provider - Funderbeam SEE	90
Table 6.4 - Current beneficiaries analysis addressed by the Citizen Funding market (CROATIA - REGEA)	91
Table 6.5 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (REGEA)	92
Table 6.6 - Barriers & enablers analysis for Targeted Beneficiaries (REGEA)	93
Table 6.7 - SWOT and comparative analysis (REGEA)	95
Table 6.8 - Conclusion on the CFs4EE market characterization analysis (REGEA)	96

LIST OF FIGURES

Figure 2.1 - Overview of the methodology	8
Figure 3.1 - Map of Belgian energy cooperatives	29
Figure 4.1 - Online Alternative Finance Volume by Country 2017 (€millions)	45
Figure 4.2 - Wallets with some specific asset (%)	46
Figure 4.3 - Consumption of energy on public buildings (GWh, 2005 data)	62
Figure 4.4 - Registered ESCOs as of 31/12/2017	65



TECHNICAL REFERENCES

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1. EXECUTIVE SUMMARY

1.1. Description of the deliverable content and purpose

The market characterization analysis focus on the current local Citizen Funding market related to the CFs4EE¹ Financing Scheme² scope and targeted beneficiaries defined in the grant agreement for each of the pilot country/region. The objective of the Market Characterization analysis is to identify the key decisional elements that will serve the evaluation of the CFs4EE Financing Scheme to be developed by the project and the Public Financing Instrument that will support the scheme.

¹ CFs4EE: Citizen Finance Schemes for Energy Efficiency

² CFs4EE Finance Scheme: Scheme to be develop by the CitizEE project that integrates CFs4EE and Public Financing Instruments



2. CFs4EE MARKET CHARACTERIZATION METHODOLOGY

2.1. Introduction

The market characterization analysis focus on the current local Citizen Funding market related to the CFs4EE Financing Scheme scope and targeted beneficiaries defined in the grant agreement for each of the pilot country/region (see section 2.2.4). The proposed methodology (5-step) used for the market characterization analysis is described in the following figure:

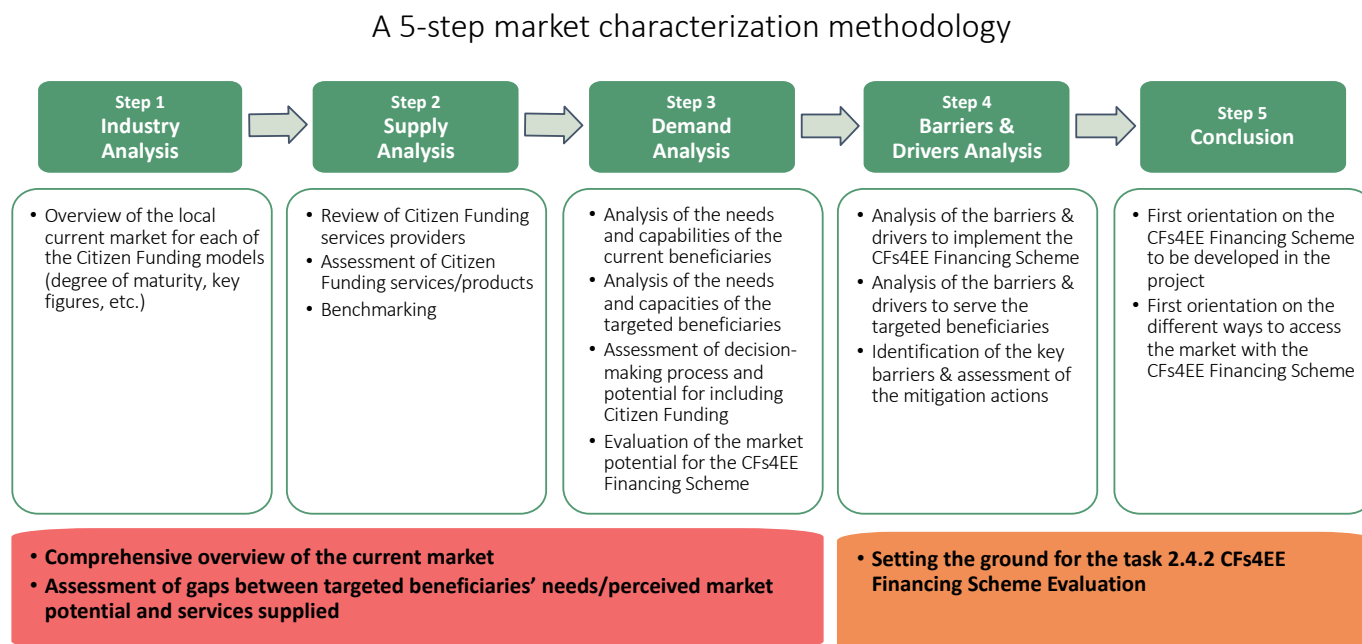


Figure 2.1 - Overview of the methodology

The methodology has been developed in a general template that allows project partners to assess, on a country-per-country basis the market characterization of existing and emerging Citizen Funding solutions and schemes for the energy sector (RES & EE³). This covers both funding through « crowdfunding platforms » as through « cooperative funding models ». The difference is covered in the definitions section. The objective of the Market Characterization analysis is to identify the key decisional elements that will serve the evaluation of the CFs4EE Financing Scheme to be developed and the Public Financing Instrument that will support the scheme. The template (see section 2.3) is based on a number of topics that need to be described and a number of questions that need to be answered.

2.2. Definitions

2.2.1. Cooperative Funding model

The cooperative funding model is a model by which the citizen takes a stake in the capital of a company holding assets through the purchase of cooperating shares. We distinguish two main models in the energy and/or energy efficiency sector:

- Energy cooperatives or REScoops
- Financing cooperatives or FINcoops

Both models call for Citizen Funding, but their approach differs significantly.

³ RES: Renewable Energy Systems; EE: Energy Efficiency

2.2.1.1. Energy cooperatives or REScoops

Energy cooperatives, also called REScoops (Renewable Energy Sources Cooperatives), are characterized by their cooperative business model, meaning that citizens are involved in both the decision making and financial & economical participation. Thereby, Energy Cooperatives do not necessarily have the legal statute of a cooperative, but rather distinguish themselves by the way they do business. They are cooperatives in the sense of the ICA (International Cooperative Alliance) definition, i.e. “autonomous associations of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise”. In practice, the organizational structures of Energy Cooperatives vary, and include different legal forms such as partnerships (including public-private partnerships (PPPs) with local authorities), cooperatives, community trusts and foundations, limited liability companies, non-profit customer-owned enterprises, housing associations and municipal ownership. Energy cooperatives typically develop all or part of the following activities: the generation, consumption, distribution, storage, supply, aggregation of energy from renewable sources, as well as the provision of other support services to members (for instance energy efficiency/demand side management services) and to other organizations.

Energy cooperatives can have a different business model, and this defines their way of working. A study conducted by REScoops Europe, mapping different cooperatives in Europe, categorized Energy Cooperatives into 6 clusters according to their business model (Rescoop, 2012):

1. **Business Model 1 - A group of local citizens:** The cooperative is small and mainly runs on volunteers. It is a bottom-up approach as an answer to their identified needs. They develop small local projects. The funding of the cooperative mainly comes from the members.
2. **Business Model 2 - Regional-National REScoop:** This model can arise when a local group of citizens scales-up and take on bigger projects. Or when an external actor gets different actors together. The focus here is to meet local needs as well as seizing an opportunity. Both volunteers and employees work on the projects. As the projects get bigger, they rely more on partnerships for financing the investments.
3. **Business Model 3 - Fully integrated REScoop:** These REScoops integrate multiple services: generation, supply, distribution, and other services. Often these cooperatives are already operating for a long time and are able to function independently on the different dimensions of the energy sector.
4. **Business Model 4 - Network of REScoops:** A REScoop can have the business model of incubating new local REScoops, by giving access to capital and expertise. By replicating their best practices, they scale up the REScoop model. This approach takes advantage of the economies of scale.
5. **Business Model 5 - Multi-Stakeholder governance model:** A governance structure that gathers all the relevant stakeholders in provision and consumption of renewable energy. It does not develop projects itself but gathers project developers, cooperatives, consumers and at the same time interacts with policy makers and authorities.
6. **Business Model 6 - Non energy-focused organization:** Typically, this form arises when local actors are not mainly concerned about the energy production. For example, a farmer's cooperative who put on a wind turbine on their land, or an educational institution who has a community energy program as a side project."

2.2.1.2. Financing cooperatives or FINcoops

The FINcoops, also called financing cooperatives, are positioned in the middle between the REScoops and the commercial developers. They do offer financial participation to citizens, but this participation is limited. There is no democratic participation nor is there ownership of the citizens or any services to members. FINcoops are often cooperatives founded by commercial developers as a financing vehicle associated with another company that owns the energy assets. The citizen participation is purely financial and often takes place via a subordinated loan. FINcoops generally issue several classes of shares, with a certain class of shares reserved for representatives of the parent company that owns the energy assets. Citizens can then join freely, but to a limited extent, by buying shares of another category and are only entitled to a limited dividend. To date, FINcoops are mainly used by developers to finance renewable energy projects but we can think that the model will also be used in the future to finance energy

efficiency projects, especially by large ESCOs. In the CitizEE project, we focus on both models: REScoops and FINcoops.

2.2.2. Crowdfunding model

Crowdfunding is the process of raising through open calls small amounts of money from a large number of individuals to fund a specific initiative, project or business. These open calls (campaigns) usually state the funding needs and the purposes of the project, defining a limited funding period. The projects usually have relatively small funding targets – although there are some exceptions. Typically, on the two sides of a crowdfunding transaction there is a project developer who sets up a crowdfunding campaign on one side (campaigner), and many people who give money to realize the project on the other side (contributors). The campaigner can collect funds directly, but often a web-based intermediary (so-called ‘crowdfunding platform’) will assist in publishing campaigns, reaching contributors and collecting funds. These platforms usually perform certain screening and monitoring functions as well, and they typically charge a fee for these services. Broadly, crowdfunding platforms can be broken down into four categories: debt, equity, donation, and reward.

1. **Debt platforms:** With debt-based crowdfunding (also known as crowdlending), funders lend money to a company and look for interest payments as well as the full repayment of the principal.
1. **Equity platforms:** With equity-based crowdfunding, funders invest in the capital of a company with a view to earning a portion of the profits made by the company funded through the crowdfunding campaign.
2. **Donation platforms:** They raise funds from contributors who do not expect a monetary or non-monetary award in return. Their motivation is philanthropic and could include contributions to local community projects or global causes.
3. **Reward platforms:** They offer the crowd non-monetary rewards in exchange for their contribution. Rewards are often used by businesses aiming to bring an innovative product to market.
4. **Hybrid platforms:** Platforms offering various campaign types, and that must also be considered. The most common combinations are debt-equity and donation-reward platforms.

In the CitizEE project, we focus on the debt-equity platforms acting on the energy market (RES & EE) AND/OR with the capacity to enter this market.

2.2.3. Taxonomy of agents on the CF4EE Market

The table below defines the structure of agents active on the Citizen Financing for Energy Efficiency (CF4EE) Market that will be used in the Market Characterization Analysis.

Table 2.1 - Taxonomy of agents on the CF4EE Market

Type of agents	What they do?	Who are they?
Project holders = Project Beneficiaries (beneficiaries of the funding activities and investments)	Hold the project to be financed through citizen funding (RES or EE Project)	<ul style="list-style-type: none"> • Citizens & communities (residential sector) • Public entities (municipalities, regions, other) • Large corporations & SME's • Commercial companies (energy companies) • Energy Services Companies (ESCOs)
Project developers/operators	Develop & operate the project on behalf of the project holder	<ul style="list-style-type: none"> • Citizens & communities (on their own effort) • Energy Cooperatives/REScoops & FINcoops • Commercial project developers • Public project developers • Energy Services Companies (ESCOs) • Public entities (on their own effort)

Type of agents	What they do?	Who are they?
		<ul style="list-style-type: none"> Large corporations & SME's (on their own effort) Others
Project funders/investors intermediary	Raise the citizen funding of the project on behalf of the project developer/operator	<ul style="list-style-type: none"> Energy Cooperatives/REScoops & FINcoops Crowdfunding Platforms
Project end-users	Benefit of the outputs of the project (renewable energy & energy savings)	<ul style="list-style-type: none"> Citizens & communities Public entities Large corporations & SME's

Note: In the assessment of the CFs4EE Financing Scheme, we identify the project holder as the “Beneficiary” of the project funding.

2.2.4. CFs4EE Financing scheme pilot countries/regions scope and targeted beneficiaries

The table below defines the scope of the CFs4EE Financing Scheme and targeted beneficiaries for the pilot regions/countries. By targeted beneficiaries, we mean the project beneficiaries the pilots intend to address with their CFs4EE Financing Scheme.

Table 2.2 - Scope of the CFs4EE Financing Scheme by CitizEE's pilots demonstrators

Pilot Project holder	Project holder profile	CFs4EE Pilot Scope	CFs4EE Pilot Citizen Funding model	CFs4EE Pilot Targeted Beneficiaries	CFs4EE Pilot Type of projects
Belgium (VEB)	Regional Energy Efficiency Public company	Regional CFs4EE Financing Scheme to co-finance a large-scale public investment program on school's energy efficiency upgrades through EPC contracting	Cooperative Funding and/or Crowdfunding (based on market capacity and/or development)	Public Entities (schools)	RES Buildings Energy Retrofits (through EPC Contracting)
Croatia (REGEA)	Regional Public-Private Energy Agency	Regional CFs4EE Financing Scheme to co-finance or finance EPC contracts and/or EPC portfolios	Crowdfunding (based on existing platform Croenergy to enlarge)	ESCOs Public Entities (public buildings owners)	Solar PV Buildings Energy Retrofits (through EPC contracting)
Lithuania (VIPA)	National Promotional Bank (NBP)	National CFs4EE scheme to co-finance or finance Energy Efficiency projects (in condominiums) and Renewable Energy projects (solar PV program)	Crowdfunding (based on market capacity and/or development)	Citizens & Communities (residential owners & condominiums)	Solar PV Condominiums Energy Retrofits
Portugal (GoParity)	Private regional crowdfunding platform	CFs4EE Financing Scheme implementation to foster the investment in community used infrastructure	Crowdfunding (based on existing platform GoParity to be enlarged)	Public entities (community used infrastructure)	Solar PV Led-Lighting Equipment replacement Heat recovery systems

2.3. The market characterization analysis templates

2.3.1. Step 1 - Citizen Funding current industry analysis - < Pilot Region >

Through the industry analysis performed for each CitizEE's pilot, it is intended to give answers to the following questions:

- Who are the main actors (leading businesses) and what is the industry structure for each of the models on your territory? For the structure, we refer to the concentration degree (number of agents participating in the market).
- What is the estimated size of the industry and the trends in sales over recent years for each of the models?
- What are the current operational/management trends within the industry for each of the models?
- What are the factors that can affect a Citizen Funding service within the energy sector?

The usefulness of an industry analysis is to provide a general picture of the current Citizen Funding services providers and the operating framework of the industry.

2.3.1.1. Crowdfunding Model

Table 2.3 - Structured template used for the crowdfunding market analysis

Local Crowdfunding market structure
Identify the main actors of the Crowdfunding sector, give a brief history of its development and describe the structure of the industry.

Local Crowdfunding market context
Shortly describe the overall context in which citizens are motivated or not to engage in Crowdfunding activities. What motivates or demotivates them? Are there country-specific Crowdfunding investor profiles (age, socio-professional category, gender...)? Are there specific Crowdfunding investment domains? How does Crowdfunding score in comparison to other existing investment or savings alternatives? Are there specific public (grants, tax, etc.) or private incentives to engage in Crowdfunding? What is the overall growth potential for Crowdfunding activities in the coming 5 years?

Estimated size of the local Crowdfunding market	Equity	Debt
# of platforms		
# of platforms addressing the energy sector (RES, EE)		
Amount raised to date		
Amount raised to date in the energy sector (RES, EE)		
# Campaigns		
# of Funded Campaigns (if known)		
Average raised per campaign		
Average raised per investor		
Average yearly growth in the recent years		

Estimated size of the local Crowdfunding market	Equity	Debt
Estimated growing potential for the next 5 years		
Complete with your own key figures if available		

Operational/management trends within the local Crowdfunding market
Shortly describe the current local operational and management trends within the Crowdfunding market.
<ul style="list-style-type: none"> Trend 1: Trend 2:

Political factors that could affect the local Crowdfunding market		
Shortly describe the country political structure and corresponding law-making organizations (e.g. federal vs. regions, national vs. regional parliaments...). Describe the overall political context that applies to Crowdfunding.		
Identify and shortly describe the key political issue that could affect the model.		
Shortly describe the impact of this issue in terms of opportunities and threats.		
<table border="1"> <tbody> <tr> <td> <ul style="list-style-type: none"> Opportunity 1: Opportunity 2: </td> <td> <ul style="list-style-type: none"> Threat 1: Threat 2: </td> </tr> </tbody> </table>	<ul style="list-style-type: none"> Opportunity 1: Opportunity 2: 	<ul style="list-style-type: none"> Threat 1: Threat 2:
<ul style="list-style-type: none"> Opportunity 1: Opportunity 2: 	<ul style="list-style-type: none"> Threat 1: Threat 2: 	

Governmental & regulatory factors that could affect the local Crowdfunding market		
Shortly describe the regulators or agencies that create regulations or rules in the area of Crowdfunding. Describe the overall regulatory context that applies to Crowdfunding. Summarize key regulations and rules that apply to the technical or financial aspects of Crowdfunding of renewable energy or energy efficiency in buildings projects and programs. Also, when relevant, distinguish between laws applicable to renewable energy and that applicable to energy efficiency. Specify which legislation only applies to specific regions. If known, describe regulations that are under development or likely to come into effect in the coming months or years.		
Identify and describe the key governmental & regulatory issue that could affect the model.		
Describe the impact of this issue in terms of opportunities and threats.		
<table border="1"> <tbody> <tr> <td> <ul style="list-style-type: none"> Opportunity 1: Opportunity 2: </td> <td> <ul style="list-style-type: none"> Threat 1: Threat 2: </td> </tr> </tbody> </table>	<ul style="list-style-type: none"> Opportunity 1: Opportunity 2: 	<ul style="list-style-type: none"> Threat 1: Threat 2:
<ul style="list-style-type: none"> Opportunity 1: Opportunity 2: 	<ul style="list-style-type: none"> Threat 1: Threat 2: 	

Economic factors that could affect the local Crowdfunding market
Shortly describe the local economic situation and trends in which Crowdfunding is developing, especially focusing on the citizens' savings and investment context. What are the prevalent economic factors?

Economic factors that could affect the local Crowdfunding market	
Identify and describe the main economic issue that could affect the model.	
Describe the impact of this issue in terms of opportunities and threats.	
<ul style="list-style-type: none"> • Opportunity 1: • Opportunity 2: 	<ul style="list-style-type: none"> • Threat 1: • Threat 2:

Other factors that could affect the local Crowdfunding market (technological, social, environmental)	
If appropriate, lead the same analysis for other factors that could affect the Cooperative Funding sector, such as technological, social or environmental factors.	
Identify and describe the main economic issue that could affect the model	
Describe the impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: • Opportunity 2: 	<ul style="list-style-type: none"> • Threat 1: • Threat 2:

2.3.1.2. Cooperative Funding Model

Table 2.4 - Structured template used for the cooperative funding market analysis

Local Cooperative Funding market structure
Identify the main actors of the Cooperative Funding sector, give a brief history of its development and describe the structure of the industry.

Local Cooperative Funding market context
Describe the overall context in which citizens are motivated or not to engage in Cooperative Funding activities. What motivates or demotivates them? Are there country-specific Cooperative Funding investor profiles (age, socio-professional category, gender...)? Are there specific Cooperative Funding investment domains? How does Cooperative Funding score in comparison to other existing investment or savings alternatives? Are there specific public (grants, tax, etc.) or private incentives to engage in Cooperative Funding? What is the overall growth potential for Crowdfunding activities in the coming 5 years?

Estimated size of the local Cooperative Funding market (including FINCoops)	
# of cooperatives (addressing exclusively RES & EE)	
# funded projects	
Amount invested at date (including loans)	
Amount raised in shareholding	

Estimated size of the local Cooperative Funding market (including FINCoops)	
Average raised per investor/shareholder	
Average yearly growth in the recent years	
Estimated growing potential for the next 5 years	
Complete with your own key figures if available	

Operational/management trends within the local Cooperative Funding market
Shortly describe the current operational and management trends within the Cooperative Funding market.
<ul style="list-style-type: none"> Trend 1: Trend 2:

Political factors that could affect the local Cooperative Funding market	
Shortly describe the country political structure and corresponding law-making organizations (e.g. federal vs. regions, national vs. regional parliaments...). Describe the overall political context that applies to Cooperative Funding.	
Identify and shortly describe the key political issue that could affect the model.	
Shortly describe the impact of this issue in terms of opportunities and threats.	
<ul style="list-style-type: none">• Opportunity 1:• Opportunity 2:	<ul style="list-style-type: none">• Threat 1:• Threat 2:

Governmental & regulatory factors that could affect the local Cooperative Funding market	
Shortly describe the regulators or agencies that create regulations or rules in the area of Cooperative Funding. Describe the overall regulatory context that applies to Cooperative Funding. Summarize key regulations and rules that apply to the technical or financial aspects of Cooperative Funding of renewable energy or energy efficiency in buildings projects and programs. Also, when relevant, distinguish between laws applicable to renewable energy and that applicable to energy efficiency. Specify which legislation only applies to specific regions. If known, describe regulations that are under development or likely to come into effect in the coming months or years.	
Identify and describe the main governmental & regulatory issue that could affect the model.	
Describe the impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none">• Opportunity 1:• Opportunity 2:	<ul style="list-style-type: none">• Threat 1:• Threat 2:

Economic factors that could affect the local Cooperative Funding market
Shortly describe the local economic situation and trends in which Cooperative Funding is developing, especially focusing on the citizens' savings and investment context. Describe the overall context in which citizens are

Economic factors that could affect the local Cooperative Funding market	
economically motivated or not to engage in Cooperative Funding. How does Cooperative Funding of renewable energy or energy efficiency score in comparison to other existing investment or savings alternatives? Are there specific public or private incentives to engage in Cooperative Funding? Are there specific tax or other fiscal incentives?	
Identify and describe the main economic issue that could affect the model	
Describe the impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> Opportunity 1: Opportunity 2: 	<ul style="list-style-type: none"> Threat 1: Threat 2:

2.3.2. Step 2 - Citizen Funding services providers analysis - < Pilot Region >

Through the supply analysis performed for each CitizEE's pilot, it is intended to give answers to the following questions:

- Who provide Citizen Funding services?
- What are the characteristics of Citizen Funding services delivered? (type of funding, sector of investment, etc.)

The usefulness of supply analysis is to gather information about existing actors and the services they offer. It provides a mapping of providers of Citizen financing services and products and allows to detect gaps on the Citizen Funding market.

2.3.2.1. Citizen Funding services providers analysis

Table 2.5 - Citizen Funding services providers analysis grid

Citizen Funding services providers analysis grid	
For each of the Citizen Funding model (Cooperative Funding & Crowdfunding), identify the relevant (5 to 10) actors and describe the key elements and features of their model as to the relevant analysis criteria. Rely on your SWG for contribution to the analysis.	
Funding mechanism	Indicate the type of funding mechanism that is used, Crowdfunding and/or cooperative funding.
Legal structure	Indicate the legal structure of the organization in charge of managing the funding activities/platform (e.g. limited liability, cooperation, non-profit...).
Date of creation	Indicate the date of creation.
Organizational structure and governance	Describe the governance body and governing principles of the organization as well as the organizational structure.
Financial products	What are the financial products that are offered to citizens? Debt or Loans (lending), Participation (Equity), Other?
Investment domain	Indicate the Investment domain(s) or sector(s) that the organization is focusing on, typically renewable energy (wind/solar/Biomass/other) and/or energy efficiency. In case of renewable energy, what is the scope of investment (wind, solar, biomass, other). In case of EE, what is the scope of investment (Energy

Citizen Funding services providers analysis grid	
	Management Services/ Cogeneration/HVAC/Lighting/Building insulation, other). Try to be as specific as possible.
Beneficiaries	List the main beneficiaries of the funding activities and investments (project holders) into the define categories (Citizen & Communities, Public entities, Large Corporations & SMEs, Commercial Companies, Energy Services Companies). If available, provide bar or pie charts of distribution between beneficiaries volume.
Number of Investors/shareholders	Indicate how many citizens are actively involved (either having actively participated in Crowdfunding actions or acting as legal cooperatives in the organization).
Type of investors/shareholders	If pertinent, indicate the type of investors or shareholders: individuals, Institutional investors, others.
Investors/shareholders benefits	Indicate how is the investors/shareholders rewarded for its investment (% of the revenue or profit generated by the assets financed, returns from the sales generated by the assets financed, interest/rate returns, financial benefits proportional to the share owned, etc.).
Number of projects/campaigns to date	Indicate the number of projects and/or campaigns financed to date. If available, provide bar or pie charts of distribution between financial products volume.
Amount raised to date	If known, indicate the amount of funds that have been raised from citizens, to date. If available, provide bar or pie charts of distribution between financial products volume. If available, provide bar or pie charts of distribution between beneficiaries' volume.
Investment volume to date	If known, indicate the volume of investments that have been made to date (including traditional financing sources). If available, provide bar or pie charts of distribution between investment domains volume. If available, provide bar or pie charts of distribution between beneficiaries' volume.
Average projects payback time	Indicate how long the average payback time is of the projects (month/years).
Business model & fees	Describe the key characteristics of the business model. How is the organization generating sustainable revenues to cover operating costs?
Commercial process	How are citizens being engaged and brought on board? How is the citizen acquisition/fund raising campaign management process working? How are (external) beneficiaries being engaged and brought on board?
Financing arrangements	Indicate how the financing arrangements between the parties work in detail?
Project delivery process	Indicate who is in charge of the project delivery process (i.e. auditing, project design, engineering, implementation, operations, maintenance). Is there a separate/independent legal entity that acts as Project or Program Delivery Unit (PDU)? Is this always the same (program delivery) or does it change on a project-per-project basis? How many resources are dedicated to this process?
Key (pilot) projects	Describe any key (pilot) projects that have been set-up.
Key success factors	What are the main factors that make that the organization or platform has been successful in raising citizen funding and generate investments?

2.3.3. Step 3 – Demand analysis - < Pilot Region >

Through the demand analysis performed for each CitizEE's pilot, it is intended to give answers to the following questions:

- Who are the current beneficiaries (project holders) of Citizen Funding services and their potential of growth?
- Who are your targeted beneficiaries? What are their needs and their potential of growth?
- What are the opportunities and gaps with the targeted beneficiaries?

The usefulness of demand analysis is to provide a general picture of the current Citizen Funding services providers and the operating framework of the industry.

2.3.3.1. Current Beneficiaries analysis

In this section, it is intended to evaluate the current market for Citizen Funding from a beneficiary perspective. The global segments of beneficiaries are defined in the following table.

Table 2.6 - Structured template used for the analysis of the global segments of current beneficiaries

Current beneficiaries addressed by the Citizen Funding market				
For each of the following pre-identified segments of beneficiaries, indicate whether the Citizen Funding Model applies to it and what their characteristics are. If needed, add specific segments that are not mentioned.				
Cooperative Funding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage (low, moderate, high)	Growth potential (low, moderate, high)
Citizens & communities				
Public entities				
Large corporations & SME's				
Commercial Companies				
Energy Services Companies				
Other (detail)				
Crowdfunding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage (low, moderate, high)	Growth potential (low, moderate, high)
Citizens & communities				
Public entities				
Large corporations & SME's				
Commercial Companies				
Energy Services Companies				
Other (detail)				

2.3.3.2. CFs4EE Financing Scheme Targeted Beneficiaries

In this section, it is intended to evaluate the potential market for Citizen Funding in the CFs4EE Financing Scheme targeted beneficiaries' perspective.

Table 2.7 - Structured template used for the analysis of CFs4EE Financing Scheme Targeted Beneficiaries

CFs4EE Financing Scheme Targeted Beneficiaries analysis	
For each of the following pre-identified criteria, provide input as to the relevant analysis criteria. If needed, add specific criteria that are not mentioned.	
< Targeted Beneficiary 1 >	
Beneficiaries Provide more detail on who the beneficiaries of your CFs4EE Financing Scheme are, which types of projects they hold, which authority they depend on (in case of public beneficiaries) and what their key characteristics are in terms of role and governance.	
Size Provide more detail on what the addressable size of the segment is at the national/regional level (number of organizations or persons/number and average size of buildings/typical energy consumption per m2/...)	
Technical & operational needs Provide more detail on which technical needs these beneficiaries have, in terms of renewable and/or energy efficiency: project development (scope, level of ambition), project delivery process, project operation & maintenance.	
Financing needs Provide more detail on which financing needs these beneficiaries have (typical volumes per project/average % of citizen funding as part of global funding per project)	
Growth Potential Provide more detail on the growth potential of this segment for the next 5 years (investment volumes, citizen funding volumes, kWh/CO2 savings), both in terms of cumulative volumes as in average annual growth rate.	
Applicable Citizen funding mechanisms Provide more detail on the type of Citizen funding mechanism (Crowdfunding or Cooperative funding or both) that is or will typically be used to address this segment and the reasons why this is so.	

2.3.4. Step 4 – Barriers & enablers analysis - < Pilot Region >

Through the barriers & enablers analysis performed for each CitizEE's pilot, it is intended to give answers to the following questions:

- What are their barriers & drivers to Citizen Funding?
- What are the key barriers to address within the CFs4EE Financing Scheme development?
- What are the suggested measures to overcome those barriers?

Note that the Legal and regulatory barriers have been analyzed by the project in the Legal & regulatory investment framework analysis report⁴ from project task 2.3 *Legal and Regulatory Framework Analysis* and won't be addressed in this analysis.

Table 2.8 - Structured template used for barriers & enablers analysis

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
For each of the following pre-identified barriers, indicate whether it applies to your country, evaluate the level of impact and criticality it has and describe the enablers and/or suggested measures to overcome the barrier. Complete the list with your own identified barriers. This may include both barriers at the citizen's side and at the platform or cooperation side that are hindering the adoption or development of the use of citizen financing.				
Barriers to Citizen Funding (in general)	Applies? (Yes/No)	Impact (High/Medium/Low)	Criticality (High/Medium/Low)	Enablers (suggested measures)
Level of political support to citizen funding and/or citizen-led initiatives				
Lack of awareness and/or legitimacy in the Citizen Funding market as a real market player				
Lack of trust & confidence in the Citizen Funding market as an effective investment alternative				
Unknown Crowd or difficulty to access the Crowd				
Size of the projects (projects too small or too large) and related funding level requirements				
Payback time of the projects (too long)				
Yield/return on investment of the projects (insufficient)				
Uncertainty/risks over project's technical and financial performance				
Funding Operating costs (high level of costs due to the costs of complying with regulation)				

⁴ D2.10 Legal & regulatory investment framework analysis report <https://www.citizEE.eu/results/>

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Disclosure requirements (more stringent requirements for projects to disclose detailed information on specific investment opportunities and the overall investing proposition)				
Due diligence requirements including deal timetable (too long, too complicated)				
No complementary competitive funding available from banks/ESCOs/...				
Lack of guarantee for the investors & financing institutions				
Competition from Highly Subsidized Energy Efficiency Funding				
Interest rates on the savings market				
Energy prices fluctuations				
Complete the list with your own identified barriers				
Barriers to uptake the CFs4EE Financing Scheme	Applies? (Yes/No)	Impact (High/Medium/Low)	Criticality (High/Medium/Low)	Enablers (suggested measures)
Timetable to set-up the scheme and get cooperation with the stakeholders				
Structuration of the project delivery organization (to support the scheme)				
Mobilisation/engagement of the targeted Beneficiaries				
Complete the list with your own identified barriers				
Barriers to serve the targeted Beneficiaries	Applies? (Yes/No)	Impact (High/Medium/Low)	Criticality (High/Medium/Low)	Enablers (suggested measures)
Lack of interesting or viable projects within the beneficiary's portfolio				
Lack of internal capacity of beneficiaries to develop projects				
Lack of efficiency in the Project Delivery Process (too long or too complicated)				
Complete the list with your own identified barriers				

2.3.5. Step 5 – Analysis & Conclusions

2.3.5.1. CFs4EE SWOT and comparative analysis

In this section, it is intended to evaluate and synthesize the potential characteristics of the chosen model (Cooperative Funding and/or Crowdfunding) in the CFs4EE Financing Scheme perspective, based on the above analysis results.

Table 2.9 - Structured template for SWOT & Comparative analysis

SWOT & Comparative analysis		
Comparative analysis	Cooperative Model	Crowdfunding Model
Level of development Provide details on what is the level of development of the model in your country (new model, few examples, well developed).		
Development Maturity Provide details on the what is the development maturity of the model in your country (Start-up, Growth, Mature)		
Scalability Provide details on what is the scalability of the model in your country (Low, Moderate, High)		
Citizen Funding leverage capacity Provide details on what is the citizen funding leverage capacity of the model (Low, Moderate, High)		
Crowd access & mobilization capabilities Provide details on what are the capabilities of the model to access the unknown Crowd and to engage it into the scheme		
Project Delivery capabilities & requirements Provide details on what is the project delivery capability of the model		
Quality control mechanisms and related reputational Risk capabilities and requirements Provide details on what are the quality control mechanisms of the model and how they manage the reputational risk		
Funding & Financing Challenges Provide details on what are the funding & financial challenges encountered by the model		
Operational Challenges Provide details on what are the operational challenges encountered by the model		
Risks Provide details on what are the risks encountered by the model		
Complete the list with your own identified comparable items		

SWOT & Comparative analysis		
SWOT analysis	Cooperative Model	Crowdfunding Model
Strengths	<ul style="list-style-type: none"> • Strength 1 • Strength 2 	<ul style="list-style-type: none"> • Strength 1 • Strength 2
Opportunities	<ul style="list-style-type: none"> • Opportunity 1 • Opportunity 2 	<ul style="list-style-type: none"> • Opportunity 1 • Opportunity 2
Weaknesses	<ul style="list-style-type: none"> • Weakness 1 • Weakness 2 	<ul style="list-style-type: none"> • Weakness 1 • Weakness 2
Threats	<ul style="list-style-type: none"> • Threat 1 • Threat 2 	<ul style="list-style-type: none"> • Threat 1 • Threat 2

2.3.5.2. Conclusion on the analysis

Table 2.10 - Conclusion on the CFs4EE market characterization analysis template

Conclusion on the CFs4EE market characterization analysis
Provide a 10 to 15-line qualitative and quantitative conclusion of your market analysis and make a first attempt to describe the CFs4EE Financing Scheme you intend to develop, the key issues and challenges you intend to answer with your scheme as well as a first go-to-market strategy.

3. THE MARKET CHARACTERIZATION ANALYSIS- VEB (BELGIUM)

3.1. Citizen Funding current industry analysis

3.1.1. Crowdfunding Model

Table 3.1 - Crowdfunding Market Characterization in Belgium

Local Crowdfunding market structure
<p>The Law of 18 December 2016 introduced a crowdfunding regime for platforms in Belgium. This regime applies only to crowdfunding entailing a financial return for investors. This specific form of crowdfunding can itself be broken down into two types: debt-based and equity-based crowdfunding. Other forms like donation-based and reward-based crowdfunding are seldomly used for crowdfunding campaigns within the energy sector.</p> <p>Currently, 9 platforms had been recognized⁸ by the FSMA (either by receiving a licence or by notification): Lita.co, Bee Bonds, Ecco Nova, Look&Fin, Participate, Spreds, Bolero Crowdfunding, Lendahand and Raizers.</p> <p>The emergence of two recent platforms, Ecco Nova and Lita.co (first campaigns launched respectively in 2016 and 2017), is evidence that the crowdfunding business model in Belgium is still evolving. Both players are active in niche markets, Ecco Nova in renewable energies and energy efficiency and Lita.co in the social economy but also works on renewable energy in France.</p>
Local Crowdfunding market context
<p>Crowdfunding investor profiles⁵</p> <p>With regard to gender, about 80% of the crowdfunding investors are men, although the proportion of women varies significantly from platform to platform (from 8% to 86%).</p> <p>As for age, on the majority of platforms, the 55+ category is the most highly represented among the investors. The FSMA analysis suggests that about a third of the investors are older than 55. The data further shows that about half of the investors are 46 or older. Only about 5% of the investors are under 25. This finding suggests that, although crowdfunding is an online phenomenon, the key driver of participation tends to be the financial capacity of the investors rather than their digital savviness.</p> <p>Crowdfunding investment domains</p> <p>As to renewable energy and energy efficiency, Ecco Nova is the only platform in this domain. However, Lita.co has started some energy projects in its France division.</p> <p>The other platforms are general in scope (Look&Fin, Bolero crowdfunding, Spreds and Raizers) or active in a specific sector: real estate (bee bonds), social sector (Lita.co) or investments in upcoming countries (Lendahand). Participate is a white label platform which can be used by cities or certain projects.</p> <p>Public incentives to engage in Crowdfunding</p> <p>There are currently three tax incentive schemes to encourage crowdfunding:</p> <ul style="list-style-type: none"> • <i>Tax Shelter for start-ups</i> encourages individuals with a tax benefit to invest in the capital of start-ups. This can be done directly, but also via a crowdfunding platform. • <i>Tax Shelter for scale ups</i> (growth companies) encourages individuals with a tax advantage to invest in the capital of existing companies. This can be done directly, but also via a crowdfunding platform. • Exemption from withholding tax on interest on loans (credit crowdfunding) encourages individuals with a tax advantage to take out a loan to finance a crowdfunding project of a start-up company.

⁵ Information based on FSMA study, "Equity and debt-based crowdfunding in Belgium: Developments over the 2012-2017 period", see https://www.fsma.be/sites/default/files/public/content/crowdfunding/2018-12-19_crowdfundingstudy.pdf

Estimated size of the local Crowdfunding market ⁶	Equity	Debt
# of platforms	3	7
# of platforms addressing the energy sector (RES, EE)	0	1
Amount raised to date	€8.475.516	€31.549.484
Amount raised to date in the energy sector (RES, EE)	/	/
# Campaigns	84	148
# of Funded Campaigns (if known)	232	
Average raised per campaign	€100.899	€213.172
Average raised per investor	€2.388	€4.136
Average yearly growth in the recent years	2014-2015: increase of 182% 2015-2016: increase of 93% 2016-2017: increase of 69%	
Estimated growing potential for the next 5 years	No accumulated figures were found for the period 2018-2019. Estimated is that the amounts raised increased further due to the changed legislation on the prospectus.	

Operational/management trends within the local Crowdfunding market

- Trend 1: Crowdfunding for non-profits (like the British Investmyschool.com).
- Trend 2: Niche crowdfunding platforms: The rivalry in the market is becoming more severe because of the increase in the number of players. Crowdfunding platforms are transforming the model of their platform from general into highly specialised.

Political factors that could affect the local Crowdfunding market

Overall political context

In general, the Belgium has a rather elaborated legal framework for crowdfunding. Crowdfunding is falls within the competence of the federal government whereas renewable energy and energy efficiency policy falls within the competence of the regional states.

Key political issue that could affect the model

- By 2025, certificate support for new or renewed solar and photovoltaic systems shall be phased out and replace by investment support which will be tendered. This can affect the business case of the OEPC model.
- The Minister of Education wants to investigate alternative funding for school infrastructure. In order to mobilise the available savings, to offer socially responsible investment alternatives and to stimulate the involvement of citizens in turn, he will examine the extent to which private savers can be called upon to finance new DBFM projects and climate investments.
- In addition, he intends to continue and expand the development of pilot projects for energy performance contracts in school buildings.

⁶ Information based on FSMA study, "Equity and debt-based crowdfunding in Belgium: Developments over the 2012-2017 period", see https://www.fsma.be/sites/default/files/public/content/crowdfunding/2018-12-19_crowdfundingstudy.pdf

Political factors that could affect the local Crowdfunding market	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: promoting crowdfunding for the non-profit sector like schools with tax incentives • Opportunity 2: political eagerness to use private funding as a leverage 	<ul style="list-style-type: none"> • Threat 1: subsidy system: decreasing subsidies, conversion to tendering without supporting cooperation's • Threat 2: lacking binding energy targets

Governmental & regulatory factors that could affect the local Crowdfunding market	
Overall regulatory context	
<p>Crowdfunding platforms are regulated by the Financial Services and Market Authority (FSMA). Before granting a license, the FSMA screens the 'fit and proper' nature of the candidate shareholders and management of the company. It also examines whether the company has taken out compulsory civil liability insurance and whether it is suitably organized, paying particular attention to IT organization.</p> <p>Crowdfunding platforms must comply with a number of rules. Among other things, they must verify that investors have sufficient knowledge and experience to invest in the investment instruments on offer. If this is not the case, they must warn them.</p> <p>The FSMA monitors compliance with these rules. Among other things, it may conduct inspections and request any useful information. It can impose remedial measures and administrative sanctions on companies that do not comply with the legislation. Non-compliance with certain rules is also a criminal offence.</p>	
Key governmental & regulatory issue that could affect the model	
<p>In her fact sheet on Belgium the European Crowdfunding Network advises to foster the professional and transparent development of the local market via the establishment of a Code of Conduct by a national crowdfunding association, with which platforms should be obliged to comply.⁷</p>	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: code of conduct • Opportunity 2: fiscal incentives for crowdfunding in schools 	<ul style="list-style-type: none"> • Threat 1: strong regulation on finance and energy

Economic factors that could affect the local Crowdfunding market	
Economic situation, trends & economic factors	
<ul style="list-style-type: none"> • Currently citizens only get very low interest rate on their saving accounts. • However, at the same time is very easy to lend money for cheap prizes, third party financing of energy projects is often a little bit (not known exactly) more expensive than 100% bank loan, taken by the building owner. 	
Main economic issue that could affect the model	
<ul style="list-style-type: none"> • Supporting viable business cases. • Creating a leverage between public support schemes and citizen schemes to overcome market barriers for in-depth renovations. 	

⁷ Belgium Crowdfunding Factsheet https://eurocrowd.org/wp-content/blogs.dir/sites/85/2018/06/CF_FactSheet_Belgium_June2018.pdf

Economic factors that could affect the local Crowdfunding market	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: low interest rate on saving accounts • Opportunity 2: leverage 	<ul style="list-style-type: none"> • Threat 1: easy to obtain loan with low interest rate • Threat 2: competition

3.1.2. Cooperative Funding Model

Table 3.2 - Cooperative Funding Market Characterization in Belgium

Local Cooperative Funding market structure
<p>The largest energy cooperative in Belgium is the cooperative company Ecopower, founded in 1991. Their statutory objective is to raise funds for alternative, sustainable and renewable energy production. In recent years, many (17) new cooperatives have been set up. Among the largest cooperatives in Flanders are Ecopower, Beauvent, Energent, Denderstroom, Pajopower, Bronsgroen and Zuidtrant.</p> <p>Ecopower had a bumpy start. It was the international climate agreements that ensured that the objectives and government funding of green electricity changed and that made the opportunities for energy cooperatives rise.</p> <p>Ecopower has been very active since 1999, with a wind turbine project in Eeklo as its first achievement. This was followed (in 2003) by a hydropower plant in Overijse and (in 2004) by the purchase of three hydropower plants in Flemish Brabant, in Rotselaar, Leuven and Hoegaarden. In 2005, the wind farm around the Kluizendok came into the port of Ghent (Ecopower has 20% of this wind farm), in 2006 a cogeneration project on plant oil in Eeklo and afterwards various solar cell installations, partly in cooperation with WWF. Ecopower cooperates with the West Flemish energy cooperative BeauVent, for example around a wind turbine in Gistel. After 2010, investments were made in two additional wind turbines in Eeklo and three wind farms in Wallonia.</p> <p>In 2010, on the initiative of Ecopower, the federation of energy cooperatives in Flanders REScoop Flanders was set up. This federation supports the start of new energy cooperatives. In recent years, the cooperatives have also been active in the construction of heat networks (such as Beauvent in Ostend).</p> <p>In addition, more and more cooperatives are investigating the possibilities of working on energy efficiency (ESCO-OP models), shared electric mobility etc...</p>

Local Cooperative Funding market context
<p>In Flanders, there are between 50.000 and 60.000 shareholders, which means a small 1% of the population. There are more cooperatives with active, engaged volunteers in the more rural regions than the bigger cities (Antwerp and Brussels). Ghent is of course, with Energent, the exception and the first bigger city. There are two types of engaged citizens. First, there are the early shareholders of the cooperative, which are the founding members, these are often – but not exclusively – engaged in the board and actions on a volunteer basis. They are attracted to the cooperative because the mission-oriented operations and want the energy transition to happen on a democratic basis. Secondly, there is the next wave of shareholders. There can be citizens which are very interested in the content of the projects, joining the Annual Assembly and co-deciding on the course of the cooperative, but the majority of them is driven by the goods and services that the cooperative provided to its members (such as renewable and locally produced electricity, advice or guidance on EE...). A minority has invested in one or more share (intentionally limited to 20 shares or 5000€ “ceiling” per person) from the cooperative because it is economically interesting and the current savings on the bank account are not. They have sympathy for the ideals of the cooperative but do not actively invest time in the organizational aspects. In the startup phase, some financially driven shareholders are probably also attracted to new cooperatives that can issue shares under Tax shelter. This is a fiscal treatment where up to 48% of the invested capital can be deducted from the personal taxes. But due to the local embeddedness and the ceiling, the speculative nature is limited, enabling a broad base of citizens to participate. The majority of Ecopower shareholders hold one share, indicating that the mission driven goods and services are the main driver for becoming a shareholder.</p>

Local Cooperative Funding market context

The profiles of the citizen shareholders are relatively diverse, although the majority (mean numbers from a 2015 research based on n= 4000 respondents from Ecopower and Beauvent) is middle-income class (between 2-4000€ household income), enjoyed a higher non university education, 20% is inactive (student or retired) and 80% of shareholder / respondents is a man, but member of a mean household of 3 persons. Citizen cooperatives are concerned about shareholder diversity or barriers and thus continuously strive to become a true reflection of the current society. This by providing inclusive goods and services, working with partnerships that have a social mission, financial facilitation for target groups to acquire a share.

The main domains of investment are always starting in renewable energy because of the safe business case and stable investment opportunities. The bigger cooperatives (Ecopower, Beauvent, Zuidtrant) are now starting with heat networks. Some experiments have been initiated to work on community virtual power plants (Zuidtrant, Energent) and streetlight efficiency (Pajopower). Ecopower and Energent are enrolled in several European projects, which enables them to innovate and diversify their investment and service portfolio.

Ecopower has also conducted a study on the energy savings habits of their shareholders. Via data analysis (cooperation with EnergieID), they could analyse and validate that their shareholders became more conscious on their own energy consumption and use less energy every year that they are shareholder, up to 48% reduction in 10 years. This gives a great perspective and proof that a big advantage of the cooperatives is the effort they put in awareness building information and activation campaigns. The objective is that shareholders become more aware of the concept of energy, which will enable the transition towards other steps (demand side control, storage, district solutions ...) as well.

There are few specific, but no significant policy measures for cooperatives to contribute to a more diverse energy market landscape. The new established ones can however issue shares under tax shelter, which is an important incentive for any startup company (for profit and Cooperatives).

There is a legal obligation to comply with certain norms for new buildings and in-depth renovations (called 'EPB normen'). It is e.g. obligatory that certain % of your energy demand is procured via local renewables. E.g. If a PV roof installation is not considered, It is possible to buy shares from a local cooperative for the same amount of capacity to still comply with this obligation. This is not yet very known "in the field" but could become an important growth potential for cooperatives.

It is difficult to estimate the growth potential of cooperatives in the coming 5 years. Some voices say that the market is almost "saturated", which means that there are enough cooperatives to supply their services to the entire region. When there are too many cooperatives, there is a risk for existential competition, which would be contradictory to ICA principle 6 on cooperation between cooperatives. They do not compete but collaborate for the greater good. However, cooperatives need sufficient investment projects to succeed in their mission, provide a dividend to the shareholders, start new activities etc. The current map of the +30 Belgian cooperatives is shown in the following figure.

Local Cooperative Funding market context



Figure 3.1 - Map of Belgian energy cooperatives

Estimated size of the local Cooperative Funding market (including FINCoops)

of cooperatives (addressing exclusively RES & EE)

According to VEA there are currently 25 cooperatives active in Flanders, of which 15 are REScoops and 10 are fincoops.

FINCOOP

Aspiravi Samen
Energiris
Energie voor meer Natuur
Electrabel CoGreen
Eoly Coöperatie
GreenPulse Finance (crowdfunding)
Limburg Wind
Storm
Wase Wind
WindTogether

RESCOOP

Beauvent cvba
Bronsgroen cvba-so
Campina Energie cvba
Coopstroom cvba so
Denderstroom cvba
EcoOB cvba
Ecopower cvba
EnerGent cvba
Klimaan CV
Pajopower cvba-so
Stroomvloed cvba
Vlaskracht cvba

Estimated size of the local Cooperative Funding market (including FINCoops)	
	Volterra cvba Zonnewind cvba Zuidrant cvba Noordlicht (being founded) Druifkracht (being founded)
# funded projects	REScoop model: +100
Amount invested at date (including loans)	Approximately 70 million (including heating networks and wind, which are investment intensive. However, these are the minority of projects. The majority are plenty of small and medium sized PV installations)
Amount raised in shareholding	Approximately 65 million
Average raised per investor/shareholder	Average value of share= € 250 Average amount of shares per shareholder: 1,5. (will vary per REScoop). But the relatively low number of shares per person / households indicates there is no primarily financial motivation but rather a mission & service driven motivation.
Average yearly growth in the recent years	Uncertainty on definition of growth. Market growth is estimates at 2-3%. Since 2010, more than 12 new REScoops were founded, 6 are even less than 3 years active. Number of shareholders grew from approx. 30.000 shareholders in 2010 to more than 65.000 at the end of 2019.
Estimated growing potential for the next 5 years	Considering the 2030 targets on renewable energy and energy efficiency and assuming a growing market share for REScoops, the number of shareholders will surpass 100.000 shareholders in Flanders.

Operational/management trends within the local Cooperative Funding market
<ul style="list-style-type: none"> Trend 1: Creation of many local cooperatives in the previous years, heavily supported by the existing Cooperatives as collaboration between cooperatives is one of the ICA principles (ICA-6). Trend 2: Further diversification of investment from RES to EE, Citizen Energy Communities (CEC), Renewable Energy Cooperatives, (REC). Trend 3: societal and political awareness for the need of a “just transition”, whereby i) on the demand side no one is left behind and ii) on the supply side there is a need for more “actor diversity”.

Political factors that could affect the local Cooperative Funding market
Overall political context
<p>The main political theme's which affect energy cooperatives are the renewable energy policy, economic policy and financial policy.</p> <ul style="list-style-type: none"> For all market actors in the energy market, funds are mostly approved by the Minister of Energy, The Minister of Climate or the Minister of Innovation. The Flemish Energy Agency approves the standard green electricity certificates. For all market actors funding for projects to achieve the climate targets are approved by the responsible Minister.

Political factors that could affect the local Cooperative Funding market	
<ul style="list-style-type: none"> Cooperative market actors with a participatory model and/or compliance with the (Federal) Nation Cooperative Council have some additional measures that benefit cooperative shareholders or the incentives for the cooperative development of e.g. Solar. 	
Key political issue that could affect the model	
<ul style="list-style-type: none"> By 2025, certificate support for new or renewed solar and photovoltaic systems shall be phased out and replace by investment support which will be tendered. This can affect the business case of the OEPC model. The Minister of Education wants to investigate alternative funding for school infrastructure. In order to mobilise the available savings, to offer socially responsible investment alternatives and to stimulate the involvement of citizens in turn, he will examine the extent to which private savers can be called upon to finance new RE & EE renovation projects and climate investments. In addition, he intends to continue and expand the development of pilot projects for cooperative energy performance contracts in school buildings. Seen the crucial role of any school in the heart of the commune and community, tapping into the societal fabric and strengthening the key stakeholders will be key to create a strong support base for other Climate measures and ambitious policy. Deep renovation should not be limited to a technical -financial transaction with the school community, it should create co-benefits and generate (shared) value. 	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> Opportunity 1: political eagerness to use public and private funding as a leverage Opportunity 2: willingness to develop pilot projects for EPC, Cooperatively developed EPC's and societal benefits. 	<ul style="list-style-type: none"> Threat 1: subsidy system: decreasing subsidies, conversion to tendering without considering strategic support for more actor diversity in a very thin market (less than 10 actors in OEPC) Threat 2: lacking binding energy targets

Governmental & regulatory factors that could affect the local Cooperative Funding market
Overall regulatory context
<ul style="list-style-type: none"> Main law applicable to cooperative funding: <ul style="list-style-type: none"> Decree of 8 May 2009 containing general provisions on energy policy Code of 23 March 2019 on Companies and Associations Law of 16 June 2006 on the public offer of investment instruments and the admission of investment instruments to trading on a regulated market The preparation and implementation of this policy is done by the Flemish Energy Agency and the Department of Environment. The core tasks are strengthening the policy instruments for improving energy performance of existing and new buildings and strengthening a favorable investment climate for renewable energy production, CHP and heat networks. Cooperatives are approved by the (federal) Minister for the Economy and can thus become members of the General Assembly of the National Council for Cooperatives, Social Entrepreneurship and Agricultural Enterprises. The recognition guarantees that the companies concerned operate in accordance with the cooperative values and principles. Cooperatives recognized by the council have some legal advantages such as a tax exemption of part of the dividends distributed to partners who are natural persons and an extended application of the reduced tax rate for companies. The corporate structure of cooperatives is in general a cooperative company (cv) with limited liability. Recently a new Companies and Associations Code has been in force. One of the 4 types of companies that have been given a complete code is the cooperative society. In addition, the new law establishes the cooperative values (the so-called ICA principles) in a solid way.

Main governmental & regulatory issue that could affect the model	
<ul style="list-style-type: none"> • Main law applicable to cooperative funding: <ul style="list-style-type: none"> ◦ Decree of 8 May 2009 containing general provisions on energy policy. ◦ Code of 23 March 2019 on Companies and Associations. ◦ Law of 16 June 2006 on the public offer of investment instruments and the admission of investment instruments to trading on a regulated market. 	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: Need for budget neutrality • Opportunity 2: EU policy, Clean energy for all Europeans, putting citizens at the core of the energy transition (see REDII – EMD, with new energy entities Citizens Energy Community and Renewable Energy Community) 	<ul style="list-style-type: none"> • Threat 1: austerity budgeting, based on cash flow instead of considering societal return on investments

Economic factors that could affect the local Cooperative Funding market	
Overall economic situation and trends	
<ul style="list-style-type: none"> • Currently citizens only get very low interest rate on their saving accounts. • However, at the same time is very easy to lend money for cheap prizes, third party financing of energy projects is often a little bit (not known exactly) more expensive than 100% bank loan, taken by the building owner. • Tax shelter is a fiscal incentive for buying shares in starting cooperatives: start-up's younger than 4 years and up to first 250.000 € equity. • More research could be done on the impact of citizen ownership and investments on "People, planet, prosperity and community benefits". 	
Main economic issue that could affect the model	
<ul style="list-style-type: none"> • Access to launching customers, support schemes to grow (new REScoops) via viable business cases and project opportunities. Such as schools. • Creating a leverage between public support schemes and citizen schemes to overcome market barriers for in-depth renovations. 	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: low interest rate on saving accounts • Opportunity 2: leverage 	<ul style="list-style-type: none"> • Threat 1: easy to obtain loan with low interest rate • Threat 2: citizen washing -> the trend where entities claim citizen participation just to get access to future subsidy schemes

3.2. Citizen Funding services providers analysis

Table 3.3 - Belgian Citizen funding service provider - Ecopower

Ecopower	
Funding mechanism	<i>Cooperative funding</i>
Legal structure	<i>Cooperative company</i>
Date of creation	<i>18 October 1991</i>
Organizational structure and governance	<i>The cooperative company follows the ICA principles. https://www.ica.coop/en/cooperatives/cooperative-identity These principles are guidelines by which cooperatives which define their organizational structure. The highest decision-making process lies with the shareholders. The supplier provides advice and support. The shareholders can play an active role at the supplier.</i>
Financial products	<i>Equity</i>
Investment domain	<i>renewable energy</i> <ul style="list-style-type: none"> • <i>Wind</i> • <i>solar</i> • <i>Biomass (pellets)</i> • <i>Heating grid</i> • <i>water</i>
Beneficiaries	<i>Mostly citizen & communities, Public entities.</i> <i>To a much lesser extent: large Corporations & SMEs</i>
Number of Investors/shareholders	<i>56.533 shareholders (end of 2018)</i>
Type of investors/shareholders	<i>shareholders</i>
Investors/shareholders benefits	<i>2017: on average 2% to 4% profit distribution.</i> <i>Possibility to consume electricity of Ecopower.</i>
Number of projects/campaigns to date	<i>No further information received.</i>
Amount raised to date	<i>No further information received.</i>
Investment volume to date	<i>Around 46.000.000 EUR</i>
Average projects payback time	<i>No further information received.</i>
Business model	<i>Since its foundation in 1991, Ecopower has been growing year after year. Ordinary citizens can invest in cooperative energy production and then consume the green electricity of those installations at home at a fair price. An energy supplier that offers ecological and social benefits.</i>
Commercial process	<i>Call on citizens to invest in projects via website, flyers, newsletter,...</i>
Financing arrangements	<i>Equity, shares can be resold via the cooperation for the acquisition value.</i>
Project delivery process	<i>No further information received.</i>

Ecopower	
Key (pilot) projects	<ul style="list-style-type: none"> • Wind landscape in Eeklo, building of several windmills in the town of Eeklo • Licht Leuven (Creation of ten local energy communities (LICHT groups) of citizens and SMEs. These LICHT groups will receive support in selecting and learning about investment opportunities in their municipality.
Key success factors	No information received.

Table 3.4 - Belgian Citizen funding service provider - Beauvent

Beauvent	
Funding mechanism	Cooperative funding
Legal structure	Cooperative company
Date of creation	21 June 2000
Organizational structure and governance	The cooperative company follows the ICA principles. www.ica.coop/en/cooperatives/cooperative-identity These principles are guidelines by which cooperatives which define their organizational structure. The highest decision-making process lies with the shareholders. The supplier provides advice and support. The shareholders can play an active role at the supplier.
Financial products	Equity
Investment domain	<p>renewable energy</p> <ul style="list-style-type: none"> • Wind (10k investments in 2018) • Solar (420k investments in 2018) • Heating grid (nearly 3,5 million investments) <p>Energy efficiency</p> <p>Cogeneration (nearly 3 million in 2018)</p>
Beneficiaries	<p>Mostly citizen & communities, Public entities.</p> <p>To a much lesser extent: large Corporations & SMEs</p>
Number of Investors/shareholders	4.326
Type of investors/shareholders	Mostly citizens
Investors/shareholders benefits	Profit distribution mostly around 6%
Number of projects/campaigns to date	Around 23 projects
Amount raised to date	€ 7.458.250
Investment volume to date	Around 15 million
Average projects payback time	No information received.
Business model	Via Beauvent, ordinary citizens can invest in cooperative energy production
Commercial process	Call on citizens to invest in projects via website, flyers, newsletter,

Beauvent	
Financing arrangements	<i>Equity, shares (at 250 EUR) can be resold via the cooperation for the acquisition value (after 5 years).</i>
Project delivery process	<i>No information received.</i>
Key (pilot) projects	<p><i>Heat grid Oostende</i></p> <p><i>Local value creation by buying residual heat locally. The first phase (ended in spring 2019) of the Ostend heat grid ensures that 15,000 MWh of fossil fuels are avoided every year. The CO emissions in Ostend decrease by 4000 tons per year.</i></p> <p><i>Do you bring sun to Kuurne?</i></p> <p><i>At around 16 public roofs in Kuurne, Beauvent placed around 17000 solar panels, invested by the local citizens.</i></p>
Key success factors	<i>No information received.</i>

Table 3.5 - Belgian Citizen funding service provider - Energent

Energent	
Funding mechanism	<i>Cooperative funding</i>
Legal structure	<i>Cooperative company</i>
Date of creation	<i>24 April 2013</i>
Organizational structure and governance	<i>The cooperative company follows the ICA principles. These principles are guidelines by which cooperatives which define their organizational structure. The highest decision-making process lies with the shareholders. The supplier provides advice and support. The shareholders can play an active role at the supplier.</i>
Financial products	<i>Equity</i>
Investment domain	<p><i>renewable energy</i></p> <ul style="list-style-type: none"> <i>Wind</i> <i>Solar</i> <i>Energy Efficiency services</i>
Beneficiaries	<p><i>Mostly citizen & communities, Public entities.</i></p> <p><i>To a much lesser extent: large Corporations & SMEs</i></p>
Number of Investors/shareholders	<i>No information received.</i>
Type of investors/shareholders	<i>Mostly citizens</i>
Investors/shareholders benefits	<i>0-2%</i>
Number of projects/campaigns to date	<p><i>5 wind projects</i></p> <p><i>Several solar projects, of which the 'Gent Zonnestad' (see below) is the biggest, renovation campaign "Wijkwerf"</i></p>
Amount raised to date	<i>No information received.</i>
Investment volume to date	<i>No information received.</i>

Energent	
Average projects payback time	<i>No information received.</i>
Business model	<i>Via Energent, ordinary citizens can invest in cooperative energy production</i>
Commercial process	<i>Call on citizens to invest in projects via website, flyers, newsletter...</i>
Financing arrangements	<i>Equity, shares (at 100 EUR) can be resold via the cooperation for the acquisition value (after 5 years)</i>
Project delivery process	<i>EnerGent consists of a team of paid employees and volunteers. The work team is the beating heart and meets once a month to discuss current affairs. In addition, there is a Board of Directors and an Advisory Committee.</i>
Key (pilot) projects	<p><i>Ghent Solar City: Zonnestad offers homeowners, tenants and companies independent advice. According to the principle of a group purchase, socially and ecologically responsible panels are purchased at competitive, pre-determined prices.</i></p> <p><i>Buurzame stroom wants to get solar panels on every roof. This means solar panels for everyone, including tenants and people with fewer resources. Buurzame Stroom developed a model in which the solar potential in the Sint-Amandsberg Dampoort district is exploited to the maximum, with a fair distribution of costs and revenues.</i></p>
Key success factors	<i>See above</i>

3.3. Demand analysis

3.3.1. Current Beneficiaries analysis

Table 3.6 - Current beneficiaries analysis addressed by the Citizen Funding market (BELGIUM - VEB)

Current beneficiaries addressed by the Citizen Funding market				
Cooperative Funding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage (low, moderate, high)	Growth potential (low, moderate, high)
Citizens & communities	Yes	Yes, mostly as an energy supplier or as education on energy efficiency.	Low	Low
Public entities	Yes	Yes, mostly in renewable energy and CHP, but starting in EE.	Moderate	Moderate
Large corporations & SME's	Yes	Yes, but mostly only bigger rescops as Ecopower and Beauvent.	Low	Low
Commercial Companies	Same as above.			
Energy Services Companies	The Interreg project Rhedcoop actively supports the creation of ESCOOPs.		Low	High

Current beneficiaries addressed by the Citizen Funding market				
Crowdfunding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage (low, moderate, high)	Growth potential (low, moderate, high)
Citizens & communities	Yes	RES	Low	Low
Public entities	Yes	RES	Low	High
Large corporations & SME's	Yes	RES/ Real estate	Low	High
Commercial Companies	Yes	RES	Low	Moderate
Energy Services Companies	No	RES	Low	High

3.3.2. CFs4EE Financing Scheme Targeted Beneficiaries

Table 3.7 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (VEB)

CFs4EE Financing Scheme Targeted Beneficiaries analysis	
Schools	
Beneficiaries	<p>Our pilot case focuses on the education sector, which counts for 20.000 school buildings in Flanders. More than half of the patrimony was built before 1970 and 25% before 1950. Thus, the majority of buildings were built before any energy efficiency legislation was in place.</p> <p>The decision-making power is fragmented in Flanders within 2 different umbrella organisations:</p> <ul style="list-style-type: none"> Community education – Gemeenschapsonderwijs. This is the 100% subsidized education. The decision-making structure is threefold: <ul style="list-style-type: none"> The Macro level: central organization (GO central) divides the budget and provides support to the school 'groups' in terms of personnel, real estate planning, facility management etc. The Meso Level: There are 26 school groups⁸. Most decision-making powers are on this level. They decide what will be done with the investment budget for buildings. The board of directors consist of the directors of the individual schools. The micro level are the individual school directories. AGION – Non 100% subsidized education sector. This is a government agency clustering the interests of the infrastructure needs for schools, which can be divided within following main groups: <ul style="list-style-type: none"> Catholic education, with 750.000 pupils, by far the largest group under AGION. Municipal and provincial schools

⁸ <https://pro.g-o.be/over-go/organisatiestructuur/scholengroepen-en-gemeenschappen/alle-scholengroepen>

CFs4EE Financing Scheme Targeted Beneficiaries analysis																																																							
	<ul style="list-style-type: none">○ The smaller types of education ('Overleg Kleine Onderwijsverstrekkers'):<ul style="list-style-type: none">▪ Federatie van Onafhankelijke Pluralistische Emancipatorische Methodescholen (FOPEM)▪ Federatie Steinerscholen▪ Raad van Inrichtende Machten van het Protestants-Christelijk Onderwijs (IPCO)▪ Vlaams Onderwijs OverlegPlatform (VOOP)																																																						
Size	20.000 schools By average 2.500 m² per school = 50.000.000 m². Typical energy consumption= 180kWhprimary/m².																																																						
Technical & operational needs	Our CFs4EE vehicle will target those school buildings in need for in-depth renovation, where the conventional financing means are not sufficient. We estimate an average cost per square meter for renovation: 200 €/M². this includes the following typical mixture of energy savings measures: <ul style="list-style-type: none">• Re-lighting• HVAC renovation• PV installation and other RES• Building Envelope measures and joinery																																																						
Financing needs	<p>GO! Centraal estimates they need 7-times their present annual budget to be on track with climate and energy objectives.</p> <p>The schools that are partly subsidized via AGION have a mixture of resources, but to request financial support for energy renovations there are two options via AGION:</p> <ul style="list-style-type: none">• A small dossier every two year for a budget up to 125.000 €.• A big dossier, which will go in 'the waiting list' which currently adds up to +12 years. <p>Agion entities can also obtain a soft loan (energielening) which was previously only available for PV installations, but the scope is now elaborated to other measures such as CHP, heat pumps, solar panels for sanitary warm water etc. Currently a law is being discussed to enable 0% loans.</p> <p>There is only a sporadic experience with citizen financing for the school projects. A procuring agency within the catholic umbrella (previously IRO) tendered a framework contract 'Klimaatscholen2050', which includes citizen participation for renewable energy projects. The aim was to elaborate the scope to energy saving measures, but to date only few projects started. VEB has a framework contract for energy supply contracting (RES) via citizen participation, and in principle all schools can benefit from this.</p>																																																						
Growth Potential	<p>A very high-level estimation for the following 10 years for in depth renovations via EPC could look like the following (based on 200€ renovation cost per square meter to reach minimum 40% energy savings):</p> <table><tr><th>Years</th><th>2021</th><th>2022</th><th>2023</th><th>2024</th><th>2025</th><th>2026</th><th>2027</th><th>2028</th><th>2029</th><th>2030</th></tr><tr><th># schools</th><td>50</td><td>75</td><td>100</td><td>125</td><td>150</td><td>150</td><td>150</td><td>150</td><td>150</td><td>150</td></tr><tr><th># m²</th><td>125000</td><td>187500</td><td>250000</td><td>312500</td><td>375000</td><td>375000</td><td>375000</td><td>375000</td><td>375000</td><td>375000</td></tr><tr><th>Investment (Mio €)</th><td>1.250</td><td>2.812</td><td>5.000</td><td>7.812</td><td>11.250</td><td>11.250</td><td>11.250</td><td>11.250</td><td>11.250</td><td>11.250</td></tr></table>											Years	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	# schools	50	75	100	125	150	150	150	150	150	150	# m²	125000	187500	250000	312500	375000	375000	375000	375000	375000	375000	Investment (Mio €)	1.250	2.812	5.000	7.812	11.250	11.250	11.250	11.250	11.250	11.250
Years	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030																																													
# schools	50	75	100	125	150	150	150	150	150	150																																													
# m²	125000	187500	250000	312500	375000	375000	375000	375000	375000	375000																																													
Investment (Mio €)	1.250	2.812	5.000	7.812	11.250	11.250	11.250	11.250	11.250	11.250																																													
Applicable Citizen funding mechanisms	See above.																																																						

3.4. Barriers & enablers analysis

Table 3.8 - Barriers & enablers analysis for Targeted Beneficiaries (VEB)

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
For each of the following pre-identified barriers, indicate whether it applies to your country, evaluate the level of impact and criticality it has and describe the enablers and/or suggested measures to overcome the barrier. Complete the list with your own identified barriers. This may include both barriers at the citizen's side and at the platform or cooperation side that are hindering the adoption or development of the use of citizen financing.				
Barriers to Citizen Funding	Applies	Impact	Criticality	Enablers
Level of political support to citizen funding and/or citizen-led initiatives	Yes	High	High	Both regulatory and public purchasing policy could foster broader range of energy actors and support base. Eg. launching customer and creation of (more) divers market player landscape.
Lack of awareness and/or legitimacy in the Citizen Funding market as a real market player	Yes	Medium	Medium	Developing the adequate rewarding criteria during procurement.
Lack of trust & confidence in the Citizen Funding market as an effective investment alternative	Yes	Medium	Medium	Exploring niche markets, enabling cooperation between citizen funding and other funding mechanisms via procurement.
Unknown Crowd or difficulty to access the Crowd	Yes	Medium	Medium	Use the strong community awareness around schools.
Size of the projects (projects too small or too large) and related funding level requirements	Yes	High	High	Aggregating different buildings.
Payback time of the projects (too long)	Yes	High	High	Enabling the crowdfunding for measures with shorter payback time.
Yield/return on investment of the projects (insufficient)	Yes	High	High	Limiting the crowdfunding to low risk efficiency measures with combination of investment platform for high risk measures.
Uncertainty/risks over project's technical and financial performance	Yes	High	High	Starting the process with a feasibility check to examine the technical and financial possibilities.
Funding Operating costs (high level of costs due to the costs of complying with regulation)	No			
Disclosure requirements (more stringent requirements for projects to disclose detailed information on specific investment opportunities	No			

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
and the overall investing proposition)				
Due diligence requirements including deal timetable (too long, too complicated)	Yes	Medium	Medium	Due diligence will be checked via the standardized contractual framework and the required conditions.
No complementary competitive funding available from banks/ESCOs/...	Yes	High	High	Only for high risk measures. Setting up an investment platform for the high-risk efficiency measures.
Lack of guarantee for the investors & financing institutions	Yes	High	Medium	Limiting the crowdfunding to low risk efficiency measures with combination of investment platform for high risk measures.
Competition from Highly Subsidized Energy Efficiency Funding	Yes	Medium	Medium	Integrating subsidies in the investment platform.
Interest rates on the savings market	Yes	Medium	Medium	Focus on crowdfunding/Coops as a tool to gain support for energy transition.
Energy prices fluctuations	Yes	Low	Low	Fixed energy price.
<i>Complete the list with your own identified barriers</i>	n.a.	n.a.	n.a.	n.a.
Barriers to uptake the CFs4EE Financing Scheme	Applies	Impact	Criticality	Enablers
Timetable to set-up the scheme and get cooperation with the stakeholders	Yes	Medium	high	Involving expertise of the national promotional bank to develop financing scheme.
Structuration of the project delivery organization (to support the scheme)	Yes	Medium	Medium	Involving expertise of the national promotional bank to develop financing scheme.
Mobilisation/engagement of the targeted Beneficiaries	Yes	Medium	Medium	Involving the school federations in the elaboration of the investment program.
<i>Complete the list with your own identified barriers</i>	n.a.	n.a.	n.a.	n.a.
Barriers to serve the targeted Beneficiaries	Applies	Impact	Criticality	Enablers
Lack of interesting or viable projects within the beneficiary's portfolio	No			
Lack of internal capacity of beneficiaries to develop projects	Yes	High	Medium	VEB helps with project development.

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Lack of efficiency in the Project Delivery Process (too long or too complicated)	Yes	Medium	Medium	PDU as one stop shop to ease the project delivery process.
<i>Lack of internal decision procedures for energy projects</i>	Yes	High	Medium	Developing a decision framework to help decision makers choose effectively.
<i>Complete the list with your own identified barriers</i>	n.a.	n.a.	n.a.	n.a.

3.5. Analysis & Conclusions

3.5.1. CFs4EE SWOT and comparative analysis

Table 3.9 - SWOT and comparative analysis (VEB)

SWOT & Comparative analysis		
Comparative analysis	Cooperative Model	Crowdfunding Model
Level of development	Well developed in the domain of RES, new model in EE.	Only partly developed in Flanders, only one major example (Ecco-Nova).
Development Maturity	RES: growth EE: start-up	START-UP: Only one platform offers crowdfunding. Other like LITA are interested.
Scalability	High scalability. 17 RESCoops are established and a few more are being founded. This means that the geographical spread of REScoops will be ensured.	Moderate scalability: Most crowdfunding platforms are focused on general crowdfunding. But platforms are further specializing in niches like real estate and EE.
Citizen Funding leverage capacity	High, until now, no known problems with collecting the necessary amounts. For bigger investments, the REScoops ask pre-financing from the bank and repay them when the citizen financing is collected. Due to high investment needs in building stock of school, citizen financing can only be part of the solution.	High, until now, no known problems with collecting the necessary amounts. Due to high investment needs in building stock of school, citizen financing can only be part of the solution.
Crowd access & mobilization capabilities	There is a high mobilization capacity as the cooperatives are locally anchored. They are tied with local governments, businesses and organizations (cultural, social). They have often elaborated communication channels and are active on social media. A characteristic of their communication and exposure potential is that their communication is approachable and accessible (transparent). Many start-up cooperatives can make use of the 'Tax Shelter', which is a fiscal regime that	Within public projects there is an inclination to opt for crowdfunding via cooperation for energy projects. Investment platforms tend to set a higher threshold amount to participate in the RES and EE projects.

SWOT & Comparative analysis		
	<p>enables tax deduction of the share (until 250.000 €). This is the main driver for 'connecting to' the unusual suspects.</p> <p>Another characteristic of the cooperative model is the decision-making process, at least via the yearly shareholders general assembly. The citizens co-decide on the next projects and how to divide the profit. The cooperatives with a 'social intent' can also decide to fund a social project (e.g. energy poverty) with the profit of the cooperative. Regardless of how many shares owned, there is one vote on the G.A. which makes more citizens empowered.</p>	
Project Delivery capabilities & requirements	This is not yet based on a broad experience and one of the main barriers. Many cooperatives are start-up's depending on volunteers' capacities.	Crowdfunding platforms only deliver the financial aspects of the project. In this way they provide services for the ESCO's that will be responsible for the energy efficiency measures.
Quality control mechanisms and related reputational Risk capabilities and requirements	<p>This will be an issue of high importance. Traditionally, only low-risk investments are targeted by the cooperative model, due to the risk aversion of the board and founders to 'jump in the unknown' with citizen's capital.</p> <p>With our CF4EE scheme, higher risk projects will be financed, however, due to the risk sharing mechanism this should be mitigated.</p> <p>There are legal obliged requirements such as a financial prospectus and information spreading about potential risks to investor-citizens.</p>	There is a legal obligation for a due diligence and information leaflet for potential investors.
Funding & Financing Challenges	As the bank loans are currently very cheap, it is impossible to 'compete' with another third-party financing model in a pure economic way. The investment project conditions should set requirements on citizens engagements in order to create an equal level playing field.	
Operational Challenges	Operational challenges will occur by start up's. More experienced RESCoops will however be a source of knowledge for them. VEB can support in capacity building to mitigate as many risks as possible.	Platforms that will focus on energy efficiency will have to invest in their own expertise and capacity.
Risks	When citizen participation will be promoted by schools and politicians,	When citizen participation will be promoted by schools and politicians,

SWOT & Comparative analysis		
	citizens still have to be aware there is an inherent risk to participation in EE and RES.	citizens still have to be aware there is an inherent risk to participation in EE and RES.
SWOT analysis	Cooperative Model	Crowdfunding Model
Strengths	<ul style="list-style-type: none"> • Tax shelter for start-up's. • strong interdependence with local community. 	<ul style="list-style-type: none"> • Lower risk for citizen investor. • Less involvement / engagement required from the citizen: easier to crowd-lend.
Opportunities	<ul style="list-style-type: none"> • Potential more fiscal incentives when investing in EE in schools. • More investment will be needed because of binding climate targets. 	<ul style="list-style-type: none"> • Potential more fiscal incentives when investing in EE in schools. • More investment will be needed because of binding climate targets.
Weaknesses	<ul style="list-style-type: none"> • Direct participation inherently holds a higher risk for the shareholder (in case of bankruptcy). • Less maturity, less experience, high dependency on volunteers... 	<ul style="list-style-type: none"> • Only 1 platform focusing on EE • Unknown and less exposure / reach out capacity.
Threats	<ul style="list-style-type: none"> • Bank loans are very cheap. • Lagging behind with binding energy efficiency targets. • ESA-neutrality obligation (stability pact) will hamper CAPEX investment in public buildings when accounted within the public balance sheet. 	<ul style="list-style-type: none"> • Bank loans are very cheap. • Lagging behind with binding energy efficiency targets. • ESA-neutrality obligation (stability pact) will hamper CAPEX investment in public buildings when accounted within the public balance sheet.

3.5.2. Conclusion on the analysis

Table 3.10 - Conclusion on the CFs4EE market characterization analysis (VEB)

Conclusion on the CFs4EE market characterization analysis
<p>Political support to activate the savings of citizens as a leverage can have a big impact, as the current financial stream dedicated to renovations is far from sufficient. There is recently a higher focus on the potential impact of citizen financing because of the increased number of cooperatives with strong collaborative ties. When the developed CFs4EE solution can provide a possibility to share risks and crowd-in more investors (EIB channels combined with local ESCO + Rescoop financing) we are one step closer towards the energy transition.</p> <p>VEB will develop a CFs4EE Financing scheme based on the cooperative model to co-finance school energy efficiency upgrades through EPC contracting. The EPC involves an Energy Service Company (ESCO) which provides various services, such as finances and guaranteed energy savings. However, Citizen funding will by far not be sufficient to finance the transition towards a climate neutral building stock in schools. Hence the needs for supplementary investments is a necessity. The focus of VEB will be firstly to examine how further investments via private and public funds via an investment platform can be directed towards EPC. Secondly, VEB wants to develop the right set of selection- and awarding criteria to achieve the desired impact of the EPC and create the possibility of citizen financing. When it comes to citizen financing, VEB believes this impact has to go beyond the purely financial to achieve the full potential of a CF4EE scheme.</p>

4. MARKET CHARACTERIZATION ANALYSIS – GOPARITY (PORTUGAL)

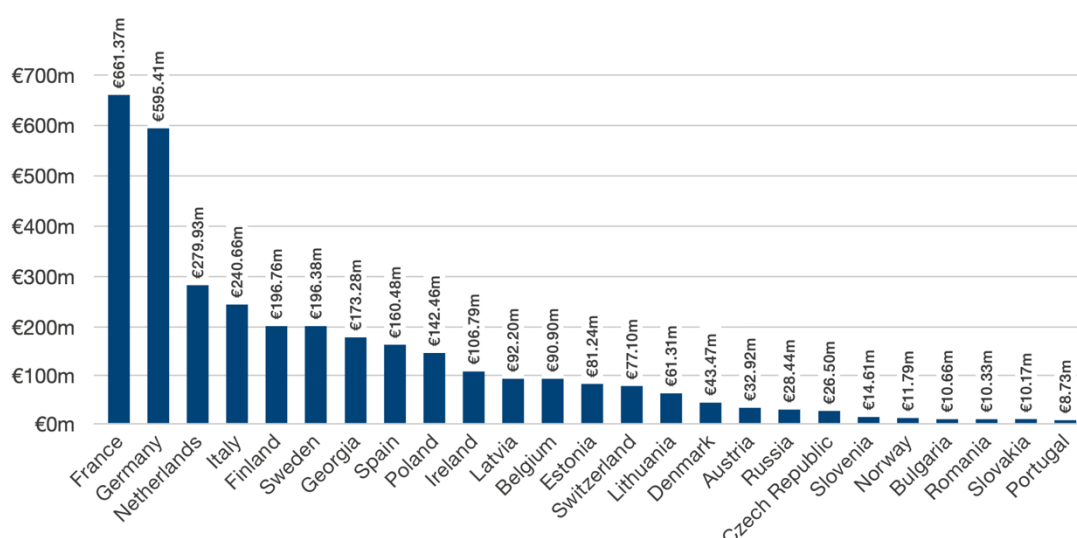
4.1. Citizen Funding current industry analysis

4.1.1. Crowdfunding Model

Table 4.1 - Crowdfunding Market Characterization in Portugal

Local Crowdfunding market structure
<p>In Portugal, the legislation for crowdfunding (CF) was published in 2015 (decree law 102/2015) and entered into force in February 2018. There are 4 authorized forms of crowdfunding in Portugal: donation, reward, loan and equity. Donation and reward are supervised by ASAE (Portuguese Agency for Economic Activities) and loan and equity are supervised and regulated by CMVM (Portuguese Securities Commission).</p> <p>Regulation 1/2016 from CMVM is the main framework for loan and equity crowdfunding and general requirements are as follows.</p> <p>As of December 2019, the management entities of platforms for loan and equity registered at CMVM are:</p> <ul style="list-style-type: none"> • Power Parity, Lda (GoParity) - crowdlending platform launched in 2017 for projects aligned with the SDG's. 35 projects successfully funded, in the amount of EUR 1,65M • Izilend, SA (Izilend) – crowdlending platform for real estate projects launched in 2019 and directed for professional investors. No public data available. • Lincefunding, SA (ClicInvest) – crowdlending platform focused on working capital for SME's. Discontinuing phase, in 2019 this platform ceased activity for new projects and its only managing the ongoing wallet of projects/investors. • Querido Investi SA (Querido Investi) – platform for real estate projects launched in 2019. 2 projects successfully funded, in the amount of EUR 94k. • Raizecrowd Serviços de Informação e Tecnologia, Sociedade Unipessoal, Lda (Raize) – crowdlending platform focused on working capital for SME's, launched in 2012. 1530 projects successfully funded, in the amount of EUR 34M. • Seedimo, Lda (Seedimo) – crowdequity platform for real estate. No projects funded yet. <p>On the donation side, prior to the CF regulation, the market was mainly composed of a couple of crowdfunding platforms, managed by the same entity. Since then there were no relevant developments and the main players are still the same:</p> <ul style="list-style-type: none"> • Orange Bird, Lda (Novo Banco Crowdfunding) – a tailor made crowdfunding platform launched in 2012 by Novo Banco, a Portuguese financial institution. 125 projects successfully funded. • Orange Bird, Lda (PPL) – a crowdfunding platform for donation founded in 2011. 1127 projects successfully funded, in the amount of EUR 4,5M. <p>There are also international platforms that are starting to work on the Portuguese market, namely by having translated versions of their platforms to Portuguese and by targeting the Portuguese market on social media. Examples of the most active are:</p> <ul style="list-style-type: none"> • Housers – a crowdlending platform for real estate based in Spain. • Seedrs – a crowdfunding platform for equity based in the UK. • GoFundMe – a crowdfunding platform for donation based in the USA. <p>In terms of awareness of crowdfunding platforms and alternative finance investment opportunities, it is considered that the general public is gaining knowledge of its existence and model and volumes have been on the rise. Notwithstanding, the actual volume of investments in Portuguese crowdlending platforms is still very low when compared to other more mature markets, as we can see on the map below.</p>

Local Crowdfunding market structure

Figure 4.1 - Online Alternative Finance Volume by Country 2017 (€millions)⁹

Local Crowdfunding market context ongoing

In recent years the public interest in subscribing alternative financing products as an alternative, for example to underwriting bank deposits, has to a large extent been instigated by the environment of very low interest rates in Euro Area, as a result of very low levels of inflation and the adoption by ECB of quantitative easing as a measure of economic acceleration and financing support of sovereign debt.

From the perspective of those seeking financing (business), interest in collaborative financing schemes has also been driven primarily by cyclical factors. In particular, the fall in bank credit in the years following the financial crisis of 2008 and the sovereign debt crisis of 2010, resulting either from the regulatory tightening of capital requirements against bank credit or, in the specific case of Portugal, of a very demanding bank transformation ratio reduction.

In parallel, sustainable finance is a growing trend and collaborative finance can play an important role as a direct way of involvement of the community and alignment of return with impact. Transitioning to a sustainable planet and economy requires relevant amounts of investment. While the United Nations estimates a funding gap of US\$2.5 trillion¹⁰ to reach the Sustainable Development Goals (SDGs), the OECD calculated the need of US\$500 billion investments per year¹¹ in infrastructure above current levels in order to achieve the Paris Agreement objectives. Effort of this magnitude requires every part of our society to be engaged and involved, and a new generation seems to be more concerned with environmental impact and long-term sustainability than the previous one and technology is quickly responding to those trends.

Percentage of consumers considering environmental impact in their choices¹²:

- Baby-boomers: 49%
- Generation X: 70%
- Millennials: 87%
- Generation Z: 94%

⁹ Source: https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2019-05-4th-european-alternative-finance-benchmarking-industry-report-shifting-paradigms.pdf

¹⁰ <http://www.undp.org/content/undp/en/home/blog/2017/7/13/What-kind-of-blender-do-we-need-to-finance-the-SDGs-.html>

¹¹ <https://www.oecd.org/environment/cc/g20-climate/synthesis-investing-in-climate-investing-in-growth.pdf>

¹² US Trust Bank of America; CONE communications



Local Crowdfunding market context ongoing

These trends are driven by a genuine concern with sustainability and social responsibility but also with the strong sense of empowerment, frugality and long-term thinking for which younger generations are getting known. Millennials and GenZers tend to value quality over quantity and value commitment. That applies to their choices when purchasing, investing or saving for retirement (GenZers are surprisingly avid savers¹³).

There's a lack of market data related specifically to the Portuguese investor profile in crowdfunding, but we believe the main forces previously identified at a global level are more or less the same.

Regarding the specific Portuguese investor profile, in the Online Investor Profile Survey performed by CMVM in 2018 a little more than half (52%) of the respondents were current investors in the financial markets. The investors were mostly male, aged between 25 and 54 years old, employees and had completed at least their degree. About 4 out of 10 investors belong to households that earn between 1000 and 2500 euros of monthly disposable income. Some highlights of the survey were:

- Investors consider that they have technological knowledge above the average of the population and attribute more relevance to the information collected on the internet as opposed to the information obtained through social networks.
- Approximately three out of five investors diversify their investments by holding three or more types of financial assets in their portfolio. This investment portfolio represents less than 25% of the total assets. The most common assets in investment portfolios are PPR, stocks, investment funds and public debt.
- The behaviors related to the investment decision process reveal that investors are more autonomous, valuing their own experience more than external advice. Investors place particular importance on understanding the yields, levels of risk and advantages associated with an investment decision, as well as the pricing practiced by each financial intermediary, showing that they are more likely than non-investors to make a prior comparison of investment rates, interest or profitability of the products. In turn, non-investors give more weight to the characteristics of the issuers (i.e., notoriety, nationality, State).

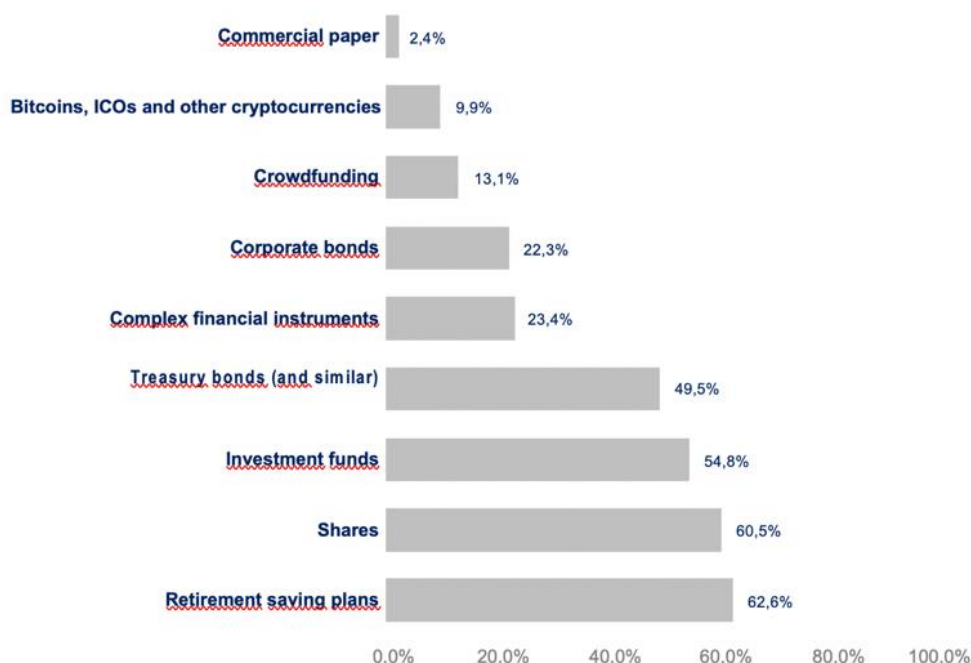


Figure 4.2 - Wallets with some specific asset (%) ¹⁴

¹³ <https://www.investmentnews.com/article/20180725/BLOG09/180729947/with-money-on-their-minds-generation-z-is-ready-to-invest>

¹⁴ Source:

https://www.cmvm.pt/pt/EstatisticasEstudosEPublicacoes/Estudos/Documents/Resultados%20Inquerito%20Online%20Perfil%20Investidor_2019.pdf

Local Crowdfunding market context ongoing

A more general overview of the Portuguese population about financial literacy and investment preferences in Portugal was performed by the 2019 Cetelem Survey over Financial Literacy (Cetelem is a consumer lending, part of BNP Paribas). Some of the main conclusions include:

- 56% of Portuguese people saved money in 2019 and 21% put it in a term account. The alternative of transferring to current account registered 14% of preferences among respondents, and investment in banking products 7%. It should be noted that 14% of respondents choose to save money by keeping their money at home (traditional piggy bank, safe, others).
- One third of the Portuguese prepare for retirement and the method that stands out the most is the deposit in a term account (16%). The PPR (retirement savings plan) recourse options bring together 8% (versus 7% in 2018), the use of the traditional piggy bank 7% (2% in 2018) and savings certificates 4% (2% in 2018). Conversely, investment in various banking products, such as shares and bonds, fell by half, from 6% in 2018 to 3% in 2019. There is also a decrease in the percentage of Portuguese who do nothing to prepare for the future, from 70% in 2018 to 61% in 2019.
- When choosing financial products, more than half of the respondents consider several products from different companies (53%) and 32% say they compare several products, but only from one company. 7% say they consider a single product from a single company. Still on the choice of financial products, the study found that websites and communication from financial institutions (advertising, letters, email, sms, phones ...) are the main sources of information for subscribing to financial products for most of the Portuguese, 29% use the media in general and 17% of the respondents ask for advice from friends and family who work in the sector.

Specifically, for the crowdfunding industry, there are no public or private incentives. We believe the market has potential to maintain high growth rates in the next 5 years, considering this is an emerging industry and the new generations, more digital and receptive to impact investment, start entering the market. But we also see international competition starting to become more intense, so our vision is that Portuguese crowdfunding platforms to survive will have to increase their size (abroad) or focus on specific niches of the market.

Estimated size of the local Crowdfunding market ongoing (only platforms registered in PT)	Equity	Debt
# of platforms	1	4
# of platforms addressing the energy sector (RES, EE)	0	1
Amount raised to date	0	35,7 M€
Amount raised to date in the energy sector (RES, EE)	0	2 M€
# Campaigns	0	n.a.
# of Funded Campaigns (if known)	0	1450
Average raised per campaign	0	25k€
Average raised per investor	0	600€
Average yearly growth in the recent years	0	66%
Estimated growing potential for the next 5 years	n.a.	30% (CAGR)

Operational/management trends within the local Crowdfunding market

Incorporation of new services for a more robust offer on the investor side:

- One of the key services being incorporated on collaborative investment finance platforms today is a secondary market for the investments (loan or equity) initially sold on the platform. Indeed, one of the

typical problems that investors using these platforms face is the tendency for their investments to be illiquid, so the recent trend has been for these platforms to create secondary markets to increase liquidity.

- Marketplace for other financial products. One platform in Portugal incorporated a market for term accounts, so investors have a broader choice to keep their money with return in the platform. Other platform is working with a digital bank to incorporate their campaign offers in their marketplace of financial products.
- Auto investment is another trend being incorporated in major platforms. The ability for the investor to create an investment profile and automatically invest when projects that match their profile arise.

Tax limitations:

- Portuguese beneficiaries of loan or equity campaigns that have nonresident investors have to apply a withholding tax of 28% for individuals or 25% for companies when they pay interest or dividends to them. Considering that in other European countries there's an exempt of withholding tax for nonresidents, this represents a disadvantage for the Portuguese industry of crowdlending by equity or loan on the beneficiary side, making necessary to implement more complex and expensive solutions to mitigate this limitation.

Verticalization:

- Incorporation of the payment system. Typically, this is outsourced to a specialized third party, namely because of the more complex requirements to access the industry and the strict regulation that follows. One platform in Portugal incorporated the payment solution in their operational structure via the creation of a new entity inside the group.

Political factors that could affect the local Crowdfunding market

Overall political context

Portugal is a semi-presidential republic with a head of government - the prime minister - and a head of state - the president - who has the power to appoint the prime minister. The prime minister is the head of the Government and holds executive power, which includes implementing laws and overseeing the everyday running of the country.

Legislative power is vested in both the government, the Assembly of the Republic and the self-government bodies of the Portuguese autonomous regions (only for specific regional matters). The parliament, called the Assembly of the Republic, has 230 seats. The executive branch of government is directly or indirectly dependent on the support of Parliament, often expressed by a vote of confidence. The Government can only legislate about its own organization, about the development and regulation of basic laws issued by the Assembly and on matters under a legislative authorization. All other matters must be legislated by the Assembly.

The Judiciary is independent of the executive and the legislative power.

The country is administratively divided into 308 municipalities, subdivided into 3,092 civil parishes, as well as two autonomous regions (Azores and Madeira islands). Since 1975, the party system has been dominated by the social democratic Socialist Party and the liberal-conservative Social Democratic Party.

Legislation for Crowdfunding is relatively recent, with a law approved in 2015 but that it only entered into force in 2018, so it took almost 3 years for the public authorities to finish the legal framework. In the political agenda crowdfunding has marginal visibility (in the society there's still confusion between the different forms of crowdfunding, typically associated with donation). On the other hand, green and social issues are gaining momentum, with ambitious goals set in place for Portugal and a leftish government that's traditionally more aligned with this agenda. So, we see crowdfunding for impact (social, environmental) as an interesting axis where market conditions start to be aligned for a rapid scale up of players working this segment.

Key political issue that could affect the model

We don't see any relevant political factor that could affect the model at the local level. Traditionally in Portugal we have two main political parties that govern, one center left and the other center right, so although small

Political factors that could affect the local Crowdfunding market

changes may arise in specific areas, stability in the main politics are expected. Financial area or similar, like crowdfunding, are areas where these parties have similar positions.

On a European level we expect a major impact in the industry with the new regulation for crowdfunding for business. This will enable a frictionless environment for crowdlending, and we expect will give a boost to the industry. Notwithstanding, this has been a painfully legislative process, with expectations of entering into force being delayed consecutively. In December 2019 the EU legislative bodies have announced that political agreement has been reached on the proposed Regulation on European Crowdfunding Service Providers for Business.

Impact of this issue in terms of opportunities and threats

- | | |
|---|--|
| <ul style="list-style-type: none"> • Opportunity1: Broader market (EU) with the same level playing field. Continental Europe has a huge potential to grow, when compared to other more integrated markets, like the USA or China, or even the UK (market 5 times bigger than continental Europe). • Opportunity2: Consolidation process of platforms from other European countries. | <ul style="list-style-type: none"> • Threat 1: Increased competition from players from other parts of Europe; • Threat 2: Weaker or smaller players will be absorbed or disappear. |
|---|--|

Governmental & regulatory factors that could affect the local Crowdfunding market

Overall regulatory context

In Portugal, the legislation for crowdfunding (CF) was published in 2015 (decree law 102/2015) and entered into force in February 2018. There are 4 authorized forms of crowdfunding in Portugal: donation, reward, loan and equity. Donation and reward are supervised by ASAE (Portuguese Agency for Economic Activities) and loan and equity are supervised and regulated by CMVM (Portuguese Securities Commission).

Crowdfunding platforms for loan and equity have to register at CMVM (regulation 1/2016) and are required to be endowed with a minimum capital of €50,000 or, alternatively, a liability insurance covering for that amount. Individuals with an annual income below €70k can invest up to €3k per project and a total of €10k in the last 12 months in crowdlending platforms. Individuals with an annual income equal or higher than €70k, companies and qualified investors have no limit. Entrepreneurs and projects can cumulatively raise up to €1 million in a 12 months period, unless the offer is limited to qualified investors only, in which case the cap is €5 million.

There are no specific regulations and rules that apply to regions or to technical or financial aspects of crowdfunding for renewable energy or energy efficiency in buildings projects and programs. The main regulation under development and that will impact the market is the European Regulation for crowdlending, that will harmonize the activity in the EU and will be a major force for creating a level playing field and stimulate cross border investments.

Regarding crowdfunding for renewable energy or energy efficiency, there's no direct impact on the crowdlending sector, but only an indirect impact, as new legislation could impact on the project holders that might be funded via crowdlending. As an example, last year the government changed the legislation for the PV small production units (UPPs), which changed the economic opportunity for this kind of project. From the perspective of the funding entities, this segment of the market disappeared (since them GoParity didn't had any more funding approach for this segment). An overview of legislation and priorities on energy efficiency is done below, on the cooperative analysis.

Key governmental & regulatory issue that could affect the model

The new EU regulation for crowdfunding for business could have a major impact in the activity at the European level.

Adoption of crowdlending models by public authorities is still very difficult, by ways of political will and credibility risk associated with lending from citizens, as well as the existence of complex public tendering procedures.



Governmental & regulatory factors that could affect the local Crowdfunding market	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> Opportunity 1: current and future pipeline of projects from public authorities that need a funding solution. 	<ul style="list-style-type: none"> Threat 1: navigating the public tendering procedures will continue to be difficult and might disincentivize private partners coming onboard.

Economic factors that could affect the local Crowdfunding market	
Economic situation, trends & economic factors	
<p>EC estimates the economic growth in Portugal is expected to moderate from 2.4% in 2018 to 2.0% in 2019 and 1.7% in both 2020 and 2021, driven by buoyant investment but weighed down by foreign trade. The general government headline balance and debt-to-GDP ratio are expected to continue benefiting from economic growth and favorable financing conditions. The structural balance is forecast to slightly improve in 2019 and remain broadly unchanged thereafter (source EU). And on the monetary side, recent ECB decisions, including renewed monthly net asset purchases, upward pressure on nominal interest rates should be very limited over the forecast horizon and real short and long-term rates should remain negative, maintaining the search for higher yield investment. So, it is our understanding that there will be no major changes at the macroeconomic level.</p> <p>On the market side, the rise of fintech solutions, like crowdlending, will continue to grow and consolidate their presence. At the same time, they are gaining visibility and becoming under the radar of the incumbent players, so we might start to see more acquisitions in the next few years.</p> <p>For the retail client, younger generations are adopting these new solutions and services at a steady pace. In general, the generation that was between 15 and 23-year-old in 2008, during the financial crises, is now thinking about savings and investment. At the same time the economy is slowly recovering. However, the trust in the traditional banks hasn't recovered. The awareness of the power of your investments and knowing where the money is, is rising. More and more people are digital natives and trust in online institutions. All these factors help to explain why the crowdfunding market has been growing in Portugal and Europe.</p>	
Main economic issue that could affect the model	
<p>Monetary policy and increase in interest rates will impact the competitiveness of these financial instruments in the perspective of their return. But economic forecasts predict a low interest rate environment in the medium term.</p>	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> Opportunity 1: To give a stronger focus on the impact of these investments, implementing metrics and communicate them to the investors, in order to incorporate intrinsic value in the investments. 	<ul style="list-style-type: none"> Threat 1: A more rapid return to higher interest rates environment.

Other factors that could affect the local Crowdfunding market (technological, social, environmental) ongoing	
Other factors	
<p>Climate change on the news (increasing pressure for more energy optimization and sustainability; tech-native citizens; relevant recovery from crisis (GDP increase of 2,7% in 2017 and 2,3% in 2018 (according to IMF); increasing capacity for personal savings.</p> <p>All of these create an opportunity to increase crowdfunding as an alternative and democratic model of funding and investment, at the crossroads of 2 major trends: alternative finance and sustainable finance.</p>	

Main issue that could affect the model	
International trade wars and impact on the economic growth.	
Impact of this issue in terms of opportunities and threats	
Opportunities: n.a.	<ul style="list-style-type: none"> Threat 1: International trade wars between major economic blocks that can impact on growth forecasts. Portugal has a small an open economy, so more exposed to these trends.

4.1.2. Cooperative Funding Model

Table 4.2 - Cooperative Funding Market Characterization in Portugal

Local Cooperative Funding market structure				
Portuguese cooperativism is characterized by its strong popular traditions, and its development started in the 19th century. Cooperatives are governed by the Cooperative Code, updated by Law No. 119/2015, of 31 August. There's a lack of recent data, but cooperatives areas of activity were as follows in 2009.				
Cooperatives in Portugal (2009) ¹⁵	Number	Turnover (Mio€)	Jobs	Associates
Farming	723	4 305	14 067	409 594
Craftwork	38	4	23	190
Commerce	45	1 692	2 222	5 760
Consuming	104	273	3 164	360 456
Credit	97	n.a.	4 639	401 993
Culture	211	72	1 146	4 825
Learning	111	556	12 803	12 561
Housing and construction	424	482	1 140	31 261
Fishing	13	40	132	221
Worker production	41	11	308	205
Services	393	318	5 875	40 756
Social Solidarity	190	167	5 872	85 285
TOTAL	2 390	7 920	51 391	1 353 107
<p>In the credit area the relevant cooperative player is Crédito Agrícola. The Crédito Agrícola Group is a Portuguese national financial group, integrated by a large number of local banks and by specialized companies, with the central structure of the Caixa Central de Crédito Agrícola Mútuo, a banking institution also equipped with supervisory powers, guidance and monitoring of the activities of the local banks and FENACAM, a cooperative representation institution and provider of specialized services to the Group. With 89 local banks, holding more than 670 branches throughout the national territory, more than 400 thousand associates and more than one million customers, the Crédito Agrícola Group is one of the main Portuguese banking groups.</p> <p>In the financial services area, there is another model similar to the cooperative model, the mutuality. Also, with relevant presence in the portuguese financial sector is Associação Montepio Geral, a mutuality with more than 600 thousand associates, that owns Montepio, a mid-size bank with 328 branches that serve also as a distribution channel of the financial products of Associação Montepio Geral.</p>				

¹⁵ Source: https://cases.pt/wp-content/uploads/AIC%202012_O%20sector%20cooperativo%20em%20Portugalv3_BRAGA_24%2003.pdf

Local Cooperative Funding market structure

So, on the local cooperative funding market and similar (mutuality) we can identify 2 relevant players that compete in the financial industry with the same range of products as other private and public financial institutions.

Regarding specifically FINCoop and RESCoop models, although the overall cooperative sector is well developed in Portugal, there's only one cooperative doing citizen funding, specifically RES projects (PV plants with feed-in tariff or self-consumption). Coopérnico is a RESCoop founded in 2013 by a group of 16 citizens from different professional backgrounds, but who share a common concern: sustainable development. Currently it has 1453 members, over 1,6M€ of investment and 904 electricity contracts. It has 24 projects in operation through agreements with Private Social Solidarity Institutions (IPSS) and cooperatives, to which it rents roofs to install solar panels. Later, it sells the energy and, when the project is over, offers them the equipment.

Local Cooperative Funding market context

There are no relevant studies available for the citizen engagement on cooperative funding activities. That said, citizens that join the cooperative are usually motivated by participation in the civil society, people that are engaged and with a high democratic sense. In particular, on the RES model, what motivates members to join is the ownership of their own green energy service, as well as low risk investment opportunities.

Cooperative funding is a more conservative and stable sector, so the potential for growth exists, but at a slower pace. There are no relevant ongoing public or private incentives, only ad hoc or sporadic ones (ex. Coopernico €50k grant from Gulbenkian Foundation in 2018).

Estimated size of the local Cooperative Funding market (including FINCoops)

# of cooperatives (addressing exclusively RES & EE)	1
# funded projects	24
Amount invested at date (including loans)	1.6M €
Amount raised in shareholding	n.a.
Average raised per investor/shareholder	928€
Average yearly growth in the recent years	20%
Estimated growing potential for the next 5 years	10% (CAGR)
Complete with your own key figures if available	n.a.

Operational/management trends within the local Cooperative Funding market

Verticalization: Very recently Coopernico obtained a license to sell electricity to their members (until now it was outsourcing this area to a third party), closing the circle to be a truly community of producers and consumers of green energy.

Political factors that could affect the local Cooperative Funding market

Overall political context

Portugal is a semi-presidential republic with a head of government - the prime minister - and a head of state - the president - who has the power to appoint the prime minister. The prime minister is the head of the Government and holds executive power, which includes implementing laws and overseeing the everyday running of the country.

Political factors that could affect the local Cooperative Funding market

Legislative power is vested in both the government, the Assembly of the Republic and the self-government bodies of the Portuguese autonomous regions (only for specific regional matters). The parliament, called the Assembly of the Republic, has 230 seats. The executive branch of government is directly or indirectly dependent on the support of Parliament, often expressed by a vote of confidence. The Government can only legislate about its own organization, about the development and regulation of basic laws issued by the Assembly and on matters under a legislative authorization. All other matters must be legislated by the Assembly.

The Judiciary is independent of the executive and the legislative power.

The country is administratively divided into 308 municipalities, subdivided into 3,092 civil parishes, as well as two autonomous regions (Azores and Madeira islands). Since 1975, the party system has been dominated by the social democratic Socialist Party and the liberal-conservative Social Democratic Party.

Following the establishment of the democratic regime, the cooperative movement has grown significantly and has established itself in the Portuguese business world, with a particular focus on agriculture, housing and services. Today there are over 3000 cooperatives in Portugal, a couple of them with relevant presence on the funding area. Crédito Agrícola and Montepio are medium banks owned or operating in a cooperative or mutuality structure. Montepio has passed in the last couple of years by a stressed situation related with NPL's and poor governance, so the government had to implement new legislation to mitigate these issues. Overall, the cooperative sector in Portugal is a case of success and has a good reputation and government commitment.

Regarding the RESCoop and FINCoop models, the sector is mainly represented by Coopernico, that has gained relevant visibility. But unfortunately, that has not allowed for the multiplication of this model in Portugal.

Key political issue that could affect the model

Problems with the major player in the mutuality funding (similar to cooperative model) made necessary for the government to intervene. This has caused political conflicts between the major parties, but we believe it will not affect smaller community funding models.

Impact of this issue in terms of opportunities and threats

- | | |
|---|--|
| <ul style="list-style-type: none"> • Opportunity 1: Reinforced commitment from the government to work on the best measures to protect the associative sector (cooperatives, mutualities and others). | <ul style="list-style-type: none"> • Threat 1: Reputational risk of associative models. |
|---|--|

Governmental & regulatory factors that could affect the local Cooperative Funding market

Overall regulatory context

In a strict sense, cooperative funding activity (financial institutions or similar) is regulated by one off the Portuguese financial regulators (Banco de Portugal, CMVM or Autoridade de Supervisão de Seguros e Fundos). Cooperatives of citizens for funding RES projects or others, are regulated by the general Cooperative Code, updated by Law No. 119/2015, of 31 August.

Cooperative funding in the energy sector, as well as private players, are indirectly affected by legislation in the energy field that can impact on the projects that they intend to fund/implement.

Major policies for EE	Legislation	Summary
National Action Plan for Energy Efficiency	Resolution of the Council of Ministers no. 80/2008, of 20 May; Resolution of the Council of Ministers no. 20/2013, of 10 April	Approves the National Action Plan for Energy Efficiency, which integrates the energy efficiency policies and measures to be developed, which is published as an annex to this resolution; Updates de PNAE.

Governmental & regulatory factors that could affect the local Cooperative Funding market		
Energy Efficiency Fund	Decree-Law No. 50/2010, of 20 May	Creates the Energy Efficiency Fund (FEE) provided for in the National Action Plan for Energy Efficiency.
Energy Efficiency Fund - Management Efficiency Fund Management Regulation.	Ordinance No. 26/2011, of 10 January	Approves the Energy Efficiency Fund Management Regulation.
Energy Efficiency Fund - Management Structure Regulation	Ordinance No. 1316/2010, of 28 December	Approves the Management Structure Regulation of the National Action Plan for Energy Efficiency.
Ecodesign requirements for products related to energy consumption	Decree-Law no. 12/2011, of 24 January	Within the scope of the National Energy Strategy 2020, establishes the requirements for ecodesign of products related to energy consumption and transposes Directive 2009/125/EC, of the European Parliament and of the Council, of 21 October.
ECO.AP - Energy Efficiency in Public Administration Program	Resolution of the Council of Ministers no. 2/2011, of 12 January	Launches the Energy Efficiency in Public Administration Program - ECO.AP which aims to create conditions for the development of an efficiency policy energy in Public Administration, namely in its services, buildings and equipment, in order to achieve a 30% increase in energy efficiency by 2020.
Energy efficiency	Decree-Law no. 319/2009, of 3 November; Decree-Law No. 68-A / 2015 of 30 April	Transposes Directive 2006/32/EC, of the European Parliament and of the Council, of 5 April, on efficiency in the final use of energy and into the internal legal order to public energy services and which repeals Council Directive 93/76/EC, and establishes objectives and instruments that should be used to increase the cost-effectiveness of improving efficiency in the end use of energy. It establishes indicative objectives, mechanisms, incentives and institutional, financial and legal frameworks necessary to eliminate the current deficiencies and obstacles in the market that prevent an efficient end use of energy and creates conditions for the development and promotion of a market for energy services and for the development other energy efficiency improvement measures for final consumers; Transposition of the Directive 2012/27/EU, of the European Parliament and of the Council, of 25 October 2012, establishing a new framework that promotes energy efficiency in the European Union and defines actions that materialize, on the one hand, the proposals included in the 2011 Energy Efficiency Plan and, on the other hand, the needs identified in the roadmap for the transition to a low carbon economy competitive in 2050.

Other relevant development is the Decree-Law 162/2019 published in 2019, which enshrines collective self-consumption and energy communities. The law, which takes effect from January 1, 2020, will allow electricity consumers in the neighborhood to organize themselves for the production from renewable sources, consumption, sharing, storage and sale of surpluses. Until now, those who installed solar panels could not share energy with neighbors, which is now possible. The government hopes that ending this limitation will give a strong incentive to decentralized production and significantly increase in the installation of PV panels in houses, industrial parks or public buildings. In addition, city councils or parish councils can themselves be energy producers, storers and sellers.

The more recent National Energy and Climate Plan (PNEC) is part of the obligations arising from Regulation (EU) 2018/1999 of the European Parliament and of the Council, of 11 December 2018, on the Governance of the Energy Union and Climate Action, and it will be the main instrument of energy and climate policy for the decade 2021-2030. The PNEC defines the national contributions and main lines of action planned for the fulfillment of the

Governmental & regulatory factors that could affect the local Cooperative Funding market	
<p>different global commitments of the Union, including in terms of reducing greenhouse gas emissions and increasing renewable energies, energy efficiency and interconnections.</p> <p>Portugal's main targets on energy and climate are as follows:</p> <ul style="list-style-type: none"> • GHG emissions 2030: -45% to -55% • Energy efficiency: 35% • Renewable: 47% • Renewable in transport: 20% • Electrical interconnections: 15% <p>In complement to the PNEC, the Roadmap for Carbon Neutrality 2050 (RNC2050) was developed in alignment with the territorial dimension mirrored in the National Program for Spatial Planning Policies and incorporating the guidelines of the Circular Economy Action Plan. The RNC2050, establishes, in a sustained way, the path to reach carbon neutrality in 2050, defines the main guidelines and identifies the cost-effective options to achieve that end, in different scenarios of socioeconomic development. Achieving carbon neutrality in Portugal implies reducing greenhouse gas emissions by more than 85%, compared to 2005, and guaranteeing an agricultural and forestry carbon sequestration capacity in the order of 13 million tons.</p>	
Main governmental & regulatory issue that could affect the model	
<ul style="list-style-type: none"> • Rather heavy administration process and slow adoption. • Overall perception for excessive and too strict regulations. 	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: Improve accessibility of alternative Energy sources - build efficient structure in order to simplify application and optimize execution of green energy related projects. • Opportunity 2: Increase awareness by launching informative campaigns for optimizing energy use, resources and capacity. 	<ul style="list-style-type: none"> • Threat 1: Difficult administration demotivating potential investors. • Threat 2: Cooperative projects losing attractiveness due to lack of public information and transparency.

Economic factors that could affect the local Cooperative Funding market
Overall economic situation and trends
<ul style="list-style-type: none"> • Increasing investment capacity and savings. • Openness to cooperation. • Increasing need for counting on alternative energy sources and optimizing energy use (renewables). • Fiscal incentives to be further developed (e.g. like in Belgium).
Main economic issue that could affect the model
<ul style="list-style-type: none"> • Initial investment (resources). • Investment risks. • Insufficient information and still lack of mass awareness on the subject. • Incentivizing.

Economic factors that could affect the local Cooperative Funding market	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: Improved incentive model for investment. • Opportunity 2: Better visibility on projects set up, development and financial benefits. 	<ul style="list-style-type: none"> • Threat 1: Still relatively low levels of investment in cooperatives, but tendency to improve. • Threat 2: Lack of transparency limiting interest of the audience.

4.2. Citizen Funding services providers analysis

Table 4.3 - Portuguese Citizen funding service provider - GoParity

GoParity	
Funding mechanism	Crowdfunding
Legal structure	Private company with limited liability (LDA)
Date of creation	April 2017
Organizational structure and governance	<p>9 FTEs, both employees and shareholders:</p> <ul style="list-style-type: none"> • CEO + CFO + COO (3) • Head of IT + Web Developer (2) • Head of Communication + Customer Support Manager (2) • Head of Operations (1) <p>Board of directors (CEO, CFO and COO) with monthly meetings; Team with weekly meetings.</p>
Financial products	Loan
Investment domain	RES, EE, electric mobility, eco-fashion, sustainable housing. In general, projects aligned with the SDGs defined by UN.
Beneficiaries	Citizen & Communities, Public entities, SMEs, Energy Services Companies
Number of Investors/shareholders	1.040 investors, out of 5.150 users
Type of investors/shareholders	Individuals (>95%) and companies
Investors/shareholders benefits	Fixed monthly instalments of capital and interest.
Number of projects/campaigns to date	35
Amount raised to date	1.7M€
Investment volume to date	2.000 investments
Average projects payback time	4,7 years
Business model	Setup and ongoing fee charged to the beneficiary of the loan. Investors only pay a fee in the secondary market service, if they are selling their position, being the rest of the services free.
Commercial process	Citizens are brought onboard with online marketing (SEO, Social Media, Google and Facebook adds) and word of mouth. The beneficiaries are brought onboard mainly by a network of ESCOs and sustainability consulting partners.

GoParity	
Financing arrangements	First, a services agreement between the beneficiary and GoParity is established, in order to manage the funding campaign, settlement and management of ongoing loan and relation with investors. A loan agreement is established between the investor and the beneficiary.
Project delivery process	GoParity is only responsible for the fundraising, settlement, management of the loan (payments) and relation between the parties (investor and beneficiary). Although the implementation of the project is a direct responsibility of the beneficiary of the loan, GoParity follows up on the project during their implementation phase and then, periodically asks for updates or news related to the project (in order to inform the investors of the stage and impact of the project they invested in).
Key (pilot) projects	<p>4,90% yearly interest 8 years 11.730 €</p> <p>The Project</p> <p>A 10,18 kWp solar power plant for self-consumption will be installed at Sant'Ana Kindergarten. The estimated solar energy production will be 44% of the Kindergarten current energy consumption, allowing them to be financial and energetically more independent.</p> <p>The Impact</p> <p>The energy consumption from fossil fuels reduction to almost half will avoid the annual emission of 7 tons of CO₂. Thus, the solar power plant will be as beneficial for the environment as planting around 315 trees.</p> <p>The Business Model</p> <p>The model associated to the solar production for self-consumption implies that the savings generated by the project surpass the loan's financial costs (payments to its investors and GoParity).</p> <p>Risk minimization and guarantees</p> <p>This loan is secured with the pledge of the equipment. The credit with pledge fits in the category of guaranteed credit, being therefore an additional guarantee in the event of a general breach by the promoter.</p>
Key success factors	Fintech based and impact oriented.

Table 4.4 - Portuguese Citizen funding service provider - Coopernico

Coopernico	
Funding mechanism	Cooperative funding.
Legal structure	Cooperative with limited liability (CRL)
Date of creation	2013
Organizational structure and governance	The cooperative's governing bodies are the General Assembly, the Board, the Board of Trustees and the Fiscal Council. The General Assembly is the supreme body of the cooperative, in which all the cooperators participate in the full use of their rights. The Board of the General Assembly is composed of a Chairman of the Board of the General Meeting and a Vice-Chairman. The Board is composed of a President and four members. The Board of Trustees has nine members, being a President, a secretary and seven members.
Financial products	Shareholders loan

Coopernico	
Investment domain	Renewable energy (solar)
Beneficiaries	Citizen & Communities, Public entities, SMEs and Energy Services Companies).
Number of Investors/shareholders	1.420
Type of investors/shareholders	Individuals
Investors/shareholders benefits	Shareholders are rewarded for its investment through financial benefits proportional to the lent capital.
Number of projects/campaigns to date	24
Amount raised to date	1.641.000 EUR
Investment volume to date	842 investments
Average projects payback time	12 years
Business model & fees	Trough production and selling of the energy produced by the PV centrals. No fees are applied to the cooperatives.
Commercial process	Citizens are brought onboard with online marketing (SEO, Social Media, Google and Facebook adds) and word of mouth.
Financing arrangements	Coopernico rents the roof (rent agreement) of the entities where it installs PV centrals to produce energy and sell it to the grid. Coopernico loans the money from the cooperatives to finance the investment and then reimburses with the revenues from the production of energy.
Project delivery process	Outsourced to an ESCO company, responsible for auditing, project design, engineering, implementation, operations and maintenance. ESCO companies may differ from project to project.
Key (pilot) projects	<p>Adega Cooperativa de Palmela 240.0 kWp (219 750 € investment)</p> <p>Adega Cooperativa de Palmela was founded in 1955 with 50 winegrowers. Today it has approximately 300 winegrowers representing 1000 hectares of vineyards. With the investment of Coopernico members, it was possible to implement a photovoltaic plant for sale to the grid that will produce around 400,000 kWh per year, equivalent to the consumption of more than 150 families.</p>
Key success factors	There are those who come together because they believe in a renewable and decentralized model or because they want to be part of a civic movement and change towards a reality in which people decide. There are also those who join to see a good opportunity to use savings in a positive way, through renewable energy production projects.

Table 4.5 - Other Portuguese Citizen funding service provider

Others	Raize	Seedrs (UK)	Housers (ES)
Funding mechanism	Loan crowdfunding	Equity crowdfunding	Loan crowdfunding
Legal structure	Limited liability	Limited liability	Limited liability
Date of creation	2014	2009	2016
Organizational structure and governance	11 employees	n.a.	30 employees
Financial products	Loans; term accounts	Equity	Loans
Investment domain	General	General	Real Estate
Beneficiaries	SMEs & Startups	SMEs & Startups	SMEs
Number of Investors/shareholders	54.000 investors	199.490 investors	114.024
Type of investors/shareholders	Individuals	Individuals; professional investors	Individuals
Investors/shareholders benefits	Interest	Dividends; capital gains	Interest
Number of projects/campaigns to date	1530	920	244 (19 in Portugal)
Amount raised to date	34.000.000 EUR	913.000.000 EUR	102.318.000 EUR invested
Investment volume to date	n.a.	n.a.	n.a.
Average projects payback time	2,9 years	n.a.	n.a.
Business model	Fees to promoters (upfront + ongoing)	Fees to promoters and investors (success fee)	Fees to promoters and investors
Commercial process	Digital	Digital	Digital
Financing arrangements	Loan agreement	Equity agreement	Loan agreement
Project delivery process	Project preselection- Offer-Investment- Execution-Return	Project preselection- Offer-Investment- Execution-Return	Project selection- Investment-Execution- Return
Key (pilot) projects	n.a.	n.a.	University City Lisbon, 188.000 EUR financed, 9.93% IRR Campo D'Origue, 193.000 EUR financed, 9.93% IRR
Key success factors	Time decision for loans; high interest rates; digital	Time decision for loans; high interest rates; digital	Time decision for loans; high interest rates; digital

4.3. Demand analysis

4.3.1. Current Beneficiaries analysis

Table 4.6 - Current beneficiaries analysis addressed by the Citizen Funding market (PORTUGAL - GOPARITY)

Current beneficiaries addressed by the Citizen Funding market				
Cooperative Funding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage	Growth potential
Citizens & communities	Yes	Yes	High	Moderate
Public entities	No			
Large corporations & SME's	No			
Commercial Companies	No			
Energy Services Companies	No			
Public entities with social purpose	No			
Crowdfunding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage	Growth potential
Citizens & communities	Yes	Yes	High	High
Public entities	Yes	Yes	High	High
Large corporations & SME's	Yes	Yes	High	High
Commercial Companies	Yes	Yes	High	Moderate
Energy Services Companies	Yes	Yes	Moderate	Moderate
Public entities with social purpose	Yes	Yes	High	Moderate

4.3.2. CFs4EE Financing Scheme Targeted Beneficiaries

Table 4.7 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (GOPARITY)

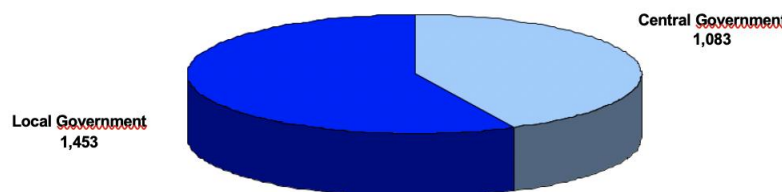
CFs4EE Financing Scheme Targeted Beneficiaries analysis	
Citizens & Communities	
Beneficiaries	<p>Considering direct funding to citizens would be considered consumer lending, we are addressing the communities in the form of associations of citizens with a social purpose. Private Social Solidarity Institution (IPSS) in Portugal is an institution set up for non-profit purposes, on the initiative of private individuals, with objectives that include:</p> <ul style="list-style-type: none"> • Support for children and young people; • Family support; • Protection of citizens in old age and disability and in all situations of lack or reduction of means of subsistence or capacity for work; • Health promotion and protection, namely through the provision of preventive, curative and rehabilitation medicine; • Education and professional training of citizens; • Resolution of the population's housing problems.
Size	There are 5.647 IPSSs in Portugal that can assume different legal forms and sizes.

CFs4EE Financing Scheme Targeted Beneficiaries analysis			
	Legal form of the IPSSs ¹⁶	#	%
	Social Solidarity Associations	3 364	60%
	Parish Social Centers	1 017	18%
	People Houses	174	3%
	Religious Organizations Institutes	219	4%
	Holy Houses of Mercy	375	7%
	Social Solidarity Foundations	252	4%
	Social Solidarity Cooperatives	161	3%
	Mutualist Associations	85	2%
	TOTAL	5.647	100
Technical & operational needs	Typical these institutions need help in all the stages of the technical and operational process. The most common is to outsource this part to an ESCO.		
Financing needs	A relevant part of the revenues of these entities comes from public subsidies (Social Security) in the form of contracted responses to the communities. On average their own funding capacity is small, and they have difficulties to access traditional finance, so they are constrained on their capacity of investment. Typical project size for these kinds of institutions are on the 10-100k€ range.		
Growth Potential	We forecast a CAGR of 20% for the next 5 years.		
Applicable Citizen funding mechanisms	Crowdfunding can finance directly the IPSS as the project holder or can finance the ESCO that is the project holder of a specific IPSS project. On both options crowdlending has the flexibility in terms of size and term of the project. Cooperative could also apply in some circumstances (Cooperative as an ESCO), and considering they are more directed to projects in public entities and IPSSs.		
Public Entities			
Beneficiaries	Central government: they are the central administration and report to the government in the form of their ministries. The decision making is very centralized and concentrated in Lisbon, where the headquarters of the government and decision making are based. We don't see them as a priority beneficiary for the CFs4EE financing scheme.		
	Local government: They are elected bodies and have a great degree of autonomy and decision. In Portugal we have 308 municipalities (and a sub-level of 3091 parishes that depend entirely from the municipalities in terms of funding), witch widely vary in terms of dimension. 186 municipalities cover a population of less than 20 thousand habitants each and 24 a population of more than 100 thousand habitants each.		
	Their annual budget is related with their dimension in terms of population and economic activity and the gross of the funds come from the national budget, although they have some taxes charged directly and that they can adjust under a defined range (ex. property tax).		
	Portuguese municipalities by size population ¹⁷		
	Small (< 20 000)	Medium (>20 000 <100 000)	Large (> 100 000)
	186	98	24
	Corvo (465 residents)	Lisbon (507 220 residents)	
	Municipalities have a relevant pipeline of projects concentrated in public lighting and energy efficiency in buildings, but limitations arise on the funding side, where a relevant part is		

¹⁶ Source: Study on the Importance of the Social Economy, Catholic University, 2018.

¹⁷ Source: Municipalities Directory, 2018 edition



CFs4EE Financing Scheme Targeted Beneficiaries analysis																					
	<p>constrained for on-balance sheet debt and on finding funding solutions to support their characteristics (typically, support from nonrefundable European funds are the main trigger for the majority of these projects to happen).</p> <p>In terms of energy efficiency, Portugal has ambitious goals and a National Plan for Energy Efficiency (PNAEE) has been ongoing with reasonable success. But, if we look at the detail by main areas of intervention, we realize the public sector is lagging far behind.</p> <p>Monitoring of the implementation of PNAEE measures (period between 2008 to 2015)</p>																				
	Areas of intervention ¹⁸	Primary energy saved (toe)	Goal 2020																		
	Transportation	348 883	406 815																		
	Households and Services	558 680	1 098 072																		
	Industry and Agriculture	273 209	561 309																		
	Public Sector	38 904	295 452																		
	Behaviours	24 058	32 417																		
		Execution																			
		86%																			
		51%																			
		49%																			
		13%																			
		74%																			
Size	<p>Central government: besides, the headquarters, the relevant public buildings from central government and that have a disperse distribution all over the country are the ones related to the health, social security and education system (with the exception of the buildings from basic school, which are property of the municipalities; also, there's a new agreement between the government and municipalities to transfer to these the property and operational management of the buildings of the schools up to the high-school).</p> <p>Local government: the relevant public buildings from local government are the headquarters, public libraries, sports equipment (swimming pools) and schools (basic school). Public lightning is an area already advanced in terms of energy efficiency, with ESCOs very active in this field.</p> <p>There's no detail or updated aggregated data available, but for a general overview of the main segments, we present the information below.</p>																				
																					
	<p>Figure 4.3 - Consumption of energy on public buildings (GWh, 2005 data)¹⁹</p>																				
	<table><tr><th colspan="3">Electricity consumption on the public sector (2005)</th></tr><tr><th>Segment</th><th>Values [GWh]</th><th>Values [Gtep]</th></tr><tr><td>Schools</td><td>282</td><td>24</td></tr><tr><td>Public administration</td><td>2 536</td><td>218</td></tr><tr><td>Hospitals</td><td>148</td><td>13</td></tr><tr><td>Public lighting</td><td>1.410</td><td>121</td></tr></table>			Electricity consumption on the public sector (2005)			Segment	Values [GWh]	Values [Gtep]	Schools	282	24	Public administration	2 536	218	Hospitals	148	13	Public lighting	1.410	121
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¹⁸ Source: R&C 2017 Fundo Eficiência Energética

¹⁹ Source: Energy Efficiency of Buildings and Public Lighting in Public Administration (study APDC)

CFs4EE Financing Scheme Targeted Beneficiaries analysis																																							
Technical & operational needs	Bigger municipalities and those in metropolitan areas have constituted energy agencies that give them all the technical and project development support. Smaller municipalities, outside local energy agencies, have more difficulty on the entire process (technical and project development).																																						
Financing needs	<p>Due to debt limitations on the public administration, the majority of these entities have limitations to increase their debt. For these projects they are very dependent on European subsidies. So, in complement, an off balance-sheet model to implement these projects could be an important way of accelerating the implementation of the pipeline of projects. In recent years ESCOs have been very active on the public lighting.</p> <p>Depending on the size of the municipality and project, the typical size can vary between 50k€ and 3M€.</p> <p>In Portugal and until now, only one 1 project has been successfully funded by citizen funding, through Coopernico, so there's no relevant universe for conclusions.</p>																																						
Growth Potential	<p>On energy efficiency in public buildings Portugal is lagging far behind the goals established in PNAEE, so the growth potential is significant.</p> <p>According to the Road for the Carbon Neutrality, 2,5€ Billion of funding are estimated to be needed yearly towards achieving the Net Zero Carbon Footprint, of which an estimated 15% or 375M€ need to be directed to the public sector.</p> <p>As referred, the starting point for citizen funding in this sector is nearby zero, so the potential for growth is significant. Estimating to capture 1% on the first year could represent 3,7M€ of yearly potential citizen funding for these project holders (directly or via ESCOs). And a total 18,5M€ over a 5-year period.</p> <p>Estimating that a yearly reduction of 0,25 CO2/ton will be achieved for each 1.000 euros of investment (reference for LED lighting), the total investment could represent a permanent yearly reduction of 4.642 CO2/ton at the end of a 5 years period.</p>																																						
Applicable Citizen funding mechanisms	Crowdfunding is more flexible. Cooperative could also apply in some circumstances (Cooperative as an ESCO) and more directed to projects in public entities and IPSSs.																																						
Large corporations & SME's																																							
Beneficiaries	<p>Large corporations don't normally seek citizen funding via crowdfunding. Normally they have more easy access to traditional finance, like bank loans or issuance of debt with a financial intermediary (commercial paper, bonds, etc).</p> <p>In terms of age, the profile of the portuguese companies are as follows²⁰</p> <table><tr><th>Profile by seniority</th><th colspan="2">Companies</th><th colspan="2">Turnover</th></tr><tr><th></th><th>%</th><th>N °</th><th>%</th><th>K€</th></tr><tr><td>Start-up (< 1 year)</td><td>7,50%</td><td>24 221</td><td>0,50%</td><td>1 702 993</td></tr><tr><td>Young (1 - 5 years)</td><td>29,80%</td><td>96 352</td><td>9,00%</td><td>29 753 688</td></tr><tr><td>Adult (6 - 19 years)</td><td>39,20%</td><td>126 711</td><td>29,70%</td><td>97 865 963</td></tr><tr><td>Mature (> 20 years)</td><td>23,50%</td><td>76 115</td><td>60,80%</td><td>200 761 410</td></tr><tr><td>TOTAL</td><td>100,00%</td><td>323 399</td><td>100,00%</td><td>330 084 054</td></tr></table>				Profile by seniority	Companies		Turnover			%	N °	%	K€	Start-up (< 1 year)	7,50%	24 221	0,50%	1 702 993	Young (1 - 5 years)	29,80%	96 352	9,00%	29 753 688	Adult (6 - 19 years)	39,20%	126 711	29,70%	97 865 963	Mature (> 20 years)	23,50%	76 115	60,80%	200 761 410	TOTAL	100,00%	323 399	100,00%	330 084 054
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²⁰ Source: Profile of the Portuguese Companies 2018 (Informa DB)

CFs4EE Financing Scheme Targeted Beneficiaries analysis						
	And in terms of sectors, the top ones are in retail, business services and general services.					
	Portugues companies by sector		Companies		Turnover	
			%	Nº	M€	
	Retail		15,5%	50 349	59 124	
	Business Services		13,7%	44 215	21 350	
	General Services		13,4%	43 195	15 129	
	Industry		10,0%	32 264	82 364	
	Construction		9,7%	31 384	17 552	
	Hotels and restaurants		9,4%	30 305	10 979	
	Wholsale		8,2%	26 425	59 265	
	Real Estate activities		7,3%	23 575	7 054	
	Transportation		4,6%	14 926	18 400	
	Agriculture and other natural resources		4,0%	13 033	5 826	
	Information Technologies and Communication		3,8%	12 422	14 292	
	Energy and Environment		0,4%	1 306	18 748	
TOTAL		100%	323 399	330 084		
Source: Profile of the Portuguese Companies 2018 (Informa DB)						
Typically, the market for crowdfunding is directed for SME and micro companies. In Portugal there are more than 320 thousand registered companies, of which these ones represent more than 98% of the overall. And the micro companies, with turnover of up to 2M€, represent 94,5% of the total companies. These ones are the priority target for citizen funding.						
Size	Snapshot of micro companies in Portugal ²¹					
	Micro companies (turnover <2M€)	Average age Years	Average Turnover (K€)	Companies		Turnover
				%	Nº	(M€)
	< 50 k€	10,4	19,0	36,10%	110 467	3%
	50 to 200 k€	12,3	107,7	34,30%	104 852	17%
	200 to 500 k€	14,4	315,9	16,80%	51 498	24%
	500 k to a 1 M€	16,2	702,7	7,90%	24 076	25%
	1 to 2 M€	17,9	1 394,5	4,90%	14 861	31%
	TOTAL	12,6	220,2	100,00%	305 754	100%
Technical & operational needs	Typical these companies need help in all the stages of the technical and operational process. The most common is to outsource this part to an ESCO.					
Financing needs	Typical project size for these kinds of institutions are on the 10-100k€ range. And crowdlending campaigns normally fund between 80 to 100% of the investment.					
Growth Potential	According to the Road for the Carbon Neutrality, 2,5€ Billion of funding are estimated to be needed yearly towards achieving the Net Zero Carbon Footprint by 2050, of which an estimated 85% or 2.125M€ need to be directed to the private sector.					

²¹ Source: Profile of the Portuguese Companies 2018 (Informa DB)

CFs4EE Financing Scheme Targeted Beneficiaries analysis																					
	<p>Estimating to capture 1% on the first year could represent 21,3M€ of yearly potential citizen funding for these project holders (directly or via ESCOs). And a 106,5M€ over a 5 year period.</p> <p>Estimating that a yearly reduction of 0,25 CO2/ton will be achieved for each 1.000 euros of investment (reference for LED lighting), the total investment could represent a permanent yearly reduction of 26.720 CO2/ton at the end of the 5 years period.</p>																				
Applicable Citizen funding mechanisms	Crowdfunding is the most appropriate for this segment. Crowdfunding can finance directly the company as the project holder or can finance the ESCO that is the project holder of a specific company project. On both options crowdlending has the flexibility in terms of size and term of the project.																				
Energy Services Companies																					
Beneficiaries	<p>Energy Service Companies are private companies that provide value added services in terms of energy efficiency, partnering with their customers to the extent that they assume risk. Part of their remuneration is based on the savings achieved with the energy efficiency projects. There's no aggregated information of the market, but to work with the public sector these companies have to comply with some KPIs and be registered.</p> <p>Public Contract Regime with the Energy Service Companies (ESE): Under the National Energy Strategy 2020, Decree-Law n.o 29/2011, of 28 February, was published aiming to establish a role for the public sector in the promotion and development of an energy services market, as well as the adoption of measures to improve end-use energy efficiency.</p> <p>This legislation regulates the use of ESE (ESCOs), through a competitive tender process, allowing these companies to identify potential energy savings in buildings and public facilities and to implement procedures for enhancing energy efficiency, reflected in the final energy bill. Decree-Law nº 29/2011 also establishes the procedures for the formation and conclusion of contracts between public administration bodies and energy service companies, with a clear commitment on simplified and objective models for the evaluation of proposals.</p> <p>To help implement this process, the eligibility criteria for companies were created, with the objective of guiding companies already registered as ESE (ESCO), defining two levels of qualification with different technical and financial requirements. In addition, a standard specification was also developed, which is the benchmark for launching procedures aimed at entering into energy efficiency management contracts. In order to achieve the objectives proposed by ECO.AP, an Energy Efficiency Barometer was also created, with the objective of characterizing, comparing and disseminating the energy performance of the different entities of the Public Administration.</p> <table><tr><th>ESCO Levels</th><th>Energy Consumption</th><th>Technical Requirements</th><th>Financial Requirements</th><th>Numbers of ESCO (31/12/2017)</th></tr><tr><td>Level 1</td><td>≤ 3 GWh_{eq}</td><td><ul style="list-style-type: none">• 2 Energy Expert (EPBD)• 1 Energy Auditor</td><td><ul style="list-style-type: none">• Turnover ≥ 200 k€• Financial Autonomy ≥ 15%</td><td>28</td></tr><tr><td>Level 2</td><td>> 3 GWh_{eq}</td><td><ul style="list-style-type: none">• 2 Energy Expert (EPBD)• 1 Energy Auditor• 1 CMVP (M&V)• 2 Engineer (Industrial energy expert)</td><td><ul style="list-style-type: none">• Turnover ≥ 1 M€• Financial Autonomy ≥ 25%</td><td>38</td></tr><tr><td colspan="4"></td><td><div>TOTAL 66</div></td></tr></table>	ESCO Levels	Energy Consumption	Technical Requirements	Financial Requirements	Numbers of ESCO (31/12/2017)	Level 1	≤ 3 GWh _{eq}	<ul style="list-style-type: none">• 2 Energy Expert (EPBD)• 1 Energy Auditor	<ul style="list-style-type: none">• Turnover ≥ 200 k€• Financial Autonomy ≥ 15%	28	Level 2	> 3 GWh _{eq}	<ul style="list-style-type: none">• 2 Energy Expert (EPBD)• 1 Energy Auditor• 1 CMVP (M&V)• 2 Engineer (Industrial energy expert)	<ul style="list-style-type: none">• Turnover ≥ 1 M€• Financial Autonomy ≥ 25%	38					<div>TOTAL 66</div>
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Level 1	≤ 3 GWh _{eq}	<ul style="list-style-type: none">• 2 Energy Expert (EPBD)• 1 Energy Auditor	<ul style="list-style-type: none">• Turnover ≥ 200 k€• Financial Autonomy ≥ 15%	28																	
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				<div>TOTAL 66</div>																	

Figure 4.4 - Registered ESCOs as of 31/12/2017²²

Figure 4.4 - Registered ESCOs as of 31/12/2017²²²² Source: DGEG presentation

CFs4EE Financing Scheme Targeted Beneficiaries analysis	
Size	<p>We are targeting the small ESCOs, with turnover on the range 200k-1M€. The ones registered at DGEG for participating in public tendering total 28 and they have at least 2 energy experts and 1 energy auditor.</p> <p>Considering the turnover range of the segment, between 200k-1M€, we consider an individual average turnover of 600k€. That represents a total average turnover for the 28 companies of 16,8M€ per year.</p>
Technical & operational needs	These entities are supposed to be completely capacitated from the technical and operational side.
Financing needs	Typically, small ESCOs that are also project holders fund themselves via traditional banking. Size of the project eligible for crowdfunding may vary from 10k€ up to 1M€. Citizen funding typically varies between 80-100% of the total investment.
Growth Potential	<p>According to the Road for the Carbon Neutrality, 2,5€ Billion of funding are estimated to be needed yearly towards achieving the Net Zero Carbon Footprint by 2050,</p> <p>Estimating to capture 1% on the first year to be funded via crowdfunding could represent 25M€ of yearly potential citizen funding for these project holders, equivalent to a cumulative 125M€ on a 5-year period.</p> <p>Estimating that a yearly reduction of 0,25 CO₂/ton will be achieved for each 1.000 euros of investment (reference for LED lighting), the total investment could represent a permanent yearly reduction of 31.362 CO₂/ton at the end of the 5 years period.</p>
Applicable Citizen funding mechanisms	Crowdfunding is the most applicable for this segment.
Public entities with social purpose	
Beneficiaries	The state doesn't have a relevant direct presence in this area. The model followed in Portugal is of partnerships between the state and more than 5 thousand private entities with social purpose (IPSSs). So, the state delegates in these private institutions a relevant part of the social support to communities, co-funding the costs.
Size	n.a.
Technical & operational needs	n.a.
Financing needs	n.a.
Growth Potential	n.a.
Applicable Citizen funding mechanisms	n.a.

4.4. Barriers & enablers analysis

Table 4.8 - Barriers & enablers analysis for Targeted Beneficiaries (GOPARITY)

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Barriers to Citizen Funding	Applies?	Impact	Criticality	Enablers
Level of political support to citizen funding and/or citizen-led initiatives	Yes	Medium	Medium	Tax incentives for impact investing
Lack of awareness and/or legitimacy in the Citizen Funding market as a real market player	Yes	High	High	Innovative marketing campaigns are needed, from the players.
Lack of trust & confidence in the Citizen Funding market as an effective investment alternative	No			
Unknown Crowd or difficulty to access the Crowd	Yes	High	High	Partnerships with market segments that haven't been targeted.
Size of the projects (projects too small or too large) and related funding level requirements	No			
Payback time of the projects (too long)	No			
Yield/return on investment of the projects (insufficient)	No			
Uncertainty/risks over project's technical and financial performance	No			
Funding Operating costs (high level of costs due to the costs of complying with regulation)	No			
Disclosure requirements (more stringent requirements for projects to disclose detailed information on specific investment opportunities and the overall investing proposition)	No			
Due diligence requirements including deal timetable (too long, too complicated)	No			
No complementary competitive funding available from banks/ESCOs/...	Yes	Medium	Medium	Having complementary financing schemes would change how CF is perceived in terms of trust or risk investments and would give more fire power to tackle bigger projects. To develop partnerships for co-investment with financial institutions.
Lack of guarantee for the investors & financing institutions	Yes	Medium	Medium	Having complementary financing schemes would change how CF is

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
				perceived in terms of trust or risk investments. To develop partnerships for co-investment with financial institutions.
Competition from Highly Subsidized Energy Efficiency Funding	No			
Interest rates on the savings market	No			
Energy prices fluctuations	No			
Standardized European CF legislation	Yes	High	High	With a standardized EU legislation for CF there would be market for aggregators that simplify investor's management tasks. It would also increase competition among EU CF platforms.
Barriers to uptake the CFs4EE Financing Scheme	Applies?	Impact	Criticality	Enablers
Timetable to set-up the scheme and get cooperation with the stakeholders	Yes	Medium	Medium	Communication tool in place
Structuration of the project delivery organization (to support the scheme)	No			
Mobilisation/engagement of the targeted Beneficiaries	Yes	High	High	Mainly public entities. To work with Bundle up to approach a pipeline of projects and beneficiaries from which we have a deep knowledge
Barriers to serve the targeted Beneficiaries	Applies?	Impact	Criticality	Enablers
Lack of interesting or viable projects within the beneficiary's portfolio	No			
Lack of internal capacity of beneficiaries to develop projects				
Lack of efficiency in the Project Delivery Process (too long or too complicated)	Yes	High	High	Public tendering is complex. To work closely with BundleUP, a program that is also an enabler for public tendering.
Lack of understanding about CF financing scheme	Yes	Medium	Medium	Most RE and EE projects come to us through project developers from companies specialized in energy. The financial scheme is often not clear of how it works. An enabler would be having good material online to present to the new beneficiaries. Or incentivize the project developers to take the time and introduce CF.

4.5. Analysis & Conclusions

4.5.1. CFs4EE SWOT and comparative analysis

Table 4.9 - SWOT and comparative analysis (GOPARITY)

SWOT & Comparative analysis		
Comparative analysis	Cooperative Model	Crowdfunding Model
Level of development	<ul style="list-style-type: none"> One example. With only one RES cooperative the market reach is low. Moreover, the flexibility to approach new project types and financing schemes is low because of the democratic decision making. 	<ul style="list-style-type: none"> Few examples, gaining traction.
Development Maturity	<ul style="list-style-type: none"> Mature. The model itself is proven and established but there's still space for new players. 	<ul style="list-style-type: none"> Growth. With already a couple of players in the market, the model is scaling.
Scalability	<ul style="list-style-type: none"> Moderate. It's a scalable model, but more complex in terms of management. 	<ul style="list-style-type: none"> High. Pure digital model with automated processes, the potential for scale with no major increase in structure is high
Citizen Funding leverage capacity	<ul style="list-style-type: none"> Moderate. More oriented for citizens looking for higher involvement in the community. 	<ul style="list-style-type: none"> High. Broader market for the impact investing and alternative finance.
Crowd access & mobilization capabilities	<ul style="list-style-type: none"> Medium – To be part of the RES cooperative buy “shares” is needed, which is a small barrier to become a member of the cooperative and then invest. 	<ul style="list-style-type: none"> High. Low barriers to enter as an investor and digital model with high capacity of implement a digital marketing campaign capable of explore and reach unknown crowd.
Project Delivery capabilities & requirements	<ul style="list-style-type: none"> Medium. Cooperatives are the project owners, so they need some minimum technical capability to select and follow up on the development of projects. 	<ul style="list-style-type: none"> Low. CF platforms are not responsible for project technical deployment.
Quality control mechanisms and related reputational Risk capabilities and requirements	<ul style="list-style-type: none"> Cooperative is the project holder and the management is more democratic. 	<ul style="list-style-type: none"> Risk analysis of the project and the beneficiary, as well as KYC of the beneficiaries and investors.
Funding & Financing Challenges	<ul style="list-style-type: none"> Capacity to fund bigger projects. 	<ul style="list-style-type: none"> Limitations on the investor side. Up to 3k€ per project or up to 10k€ in the last 12 months if the investor has a yearly income of less than 70k€).

SWOT & Comparative analysis		
		<ul style="list-style-type: none"> • Limitations on the beneficiary side. Up to 1M€ in the last 12 months.
Operational Challenges	<ul style="list-style-type: none"> • Streamline project acquisition 	<ul style="list-style-type: none"> • Streamline risk due diligence
Risks	<ul style="list-style-type: none"> • Very low risk, legally supported frame 	<ul style="list-style-type: none"> • Fraud, collapse due to malpractice • Cyber security breach • Higher interest rates environment
SWOT analysis	Cooperative Model	Crowdfunding Model
Strengths	<ul style="list-style-type: none"> • Well established, proven track • Reliability • Community 	<ul style="list-style-type: none"> • Innovative • High scalability • Project Impact
Opportunities	<ul style="list-style-type: none"> • Expand coverage • Diversify projects 	<ul style="list-style-type: none"> • Gain popularity based on high return rates • Setting patterns for sustainable consumption
Weaknesses	<ul style="list-style-type: none"> • Decision making • Limited involvement possible in running own project (technical & financial) 	<ul style="list-style-type: none"> • Legislation • Tax for non-residents
Threats	<ul style="list-style-type: none"> • Lower popularity due to slow decision-making process and higher investor targets 	<ul style="list-style-type: none"> • Alternative investment options with higher interest rates

4.5.2. Conclusion on the analysis

Table 4.10 - Conclusion on the CFs4EE market characterization analysis (GOPARITY)

Conclusion on the CFs4EE market characterization analysis
<p>Energy efficiency is gaining dramatic focus of importance, which has been visibly emphasized in the European legal framework and is becoming one of the key public priorities in the fight against climate change.</p> <p>Crowd and to a lesser extend cooperative approach are both highly functional mechanisms to accelerate the investment on energy efficiency. Accomplishing projects which are at the same time delivering evident impact on sustainability and bringing competitive return on investment, is making related platforms an attractive option for decreasing consumption and energy prices and investing in the future.</p> <p>The model still needs to gain mass popularity and volume, which will allow larger parts of the society to get into an effective cooperation and achieve sustainable energy usage installation in the households and/or industrial areas. Based on a limited initial investment, energy efficiency projects can foster businesses and production, optimize budgets and also work as appealing green marketing strategy for every investor and beneficiary.</p> <p>We see the small/mid-market as an opportunity for citizen funding and we expect to focus on 4 different main segments:</p>

Conclusion on the CFs4EE market characterization analysis

- Public entities – municipalities
- Companies – Micro and SMEs
- NGOs - IPSSs
- ESCOs – Level 1 ESCOs, that

We expect to use the CFs4EE in a crowdlending model and as a co-investment instrument to the Investment Platform. For this one, considering there has to be a financial intermediary as a sponsor (bank, investment fund), we are exploring the opportunity to bring onboard an investment fund manager.

5. MARKET CHARACTERIZATION ANALYSIS – VIPA (LITHUANIA)

5.1. Citizen Funding current industry analysis

5.1.1. Crowdfunding Model

Table 5.1 - Crowdfunding Market Characterization in Lithuania

Local Crowdfunding market structure
<p>The Crowdfunding initiative has started in Lithuania in 2016 as one of the measures of 2012-2016 Government program in order to improve the mechanism of citizens' savings investment in economy, and to widen the spectrum of alternative finance instruments for enterprises. The goal was to eliminate barriers, add clarity and ensure consumer protection (level playing field). As the first actors, the peer-to-peer lending platforms took on the activity based on Consumer Credit Directive (2008/48/EC). Special requirements for peer-to-peer (P2P) lending platforms were introduced into the Law on Consumer Financing in the end of 2015.</p> <p>The Law on Crowdfunding was established in November 2016 and it was the first national law in the EU regulating Crowdfunding activity. The main requirements consist of:</p> <ul style="list-style-type: none"> Platform operator requirement of own capital amounting to EUR 40,000 or Insurance, surety, guarantee amounting to EUR 100,000 for one financial claim and EUR 500,000 for all financial claims within the same year; If platform operator is involved in MIFID activity – MIFID requirements apply; Investors protection: appropriateness test before allowing to invest through platform; clear and full information about project; Project owners' due diligence assessment; Fit and proper requirements for managers of platform; KYC/AML requirements apply; To ensure flow of money: payments or e-money institution license needed. <p>Since introduction, loans extended via crowdfunding platforms increased 6x in 2018, and 50% via P2P platforms, however the market size is still low. Currently there are 5 P2P lending platform operators and 12 (4 are active) Crowdfunding platforms operators licensed in Lithuania. In 2018 26,83 million EUR 26,83 was raised through P2P platforms, and 8,5 million EUR through Crowdfunding platforms. The main beneficiaries are persons with the need to refinance consumer credits and SMEs.</p>

Local Crowdfunding market context
<p>There are no special motivation schemes to engage in Crowdfunding activities. The citizens could be motivated with higher returns they can get compared with the bank's offered rates on deposits. Another motivator is that potential participation (investments) in the crowdfunding platforms is very easy and convenient (easy to register, transfer funds, monitor the performance of the investment), also it's easy to switch service providers if investor is not satisfied with the results or wants to try other platforms.</p> <p>Such type of investments is still not popular enough, majority of people think that banks are the safest option and due to risk aversion are not willing to try other alternatives. However, there is a steep growth of the market and it is expected to keep growing. The risk is that due to little regulation, there might be platforms going bankrupt, and due to the spillover effect a bankruptcy of a single platform might negatively affect the others.</p>

Estimated size of the local Crowdfunding market	Equity	Debt
# of platforms	n.a.	12
# of platforms addressing the energy sector (RES, EE)	n.a.	0
Amount raised to date	n.a.	19.9 million EUR
Amount raised to date in the energy sector (RES, EE)	n.a.	0
# Campaigns	n.a.	NA
# of Funded Campaigns (if known)	n.a.	NA
Average raised per campaign	n.a.	NA
Average raised per investor	n.a.	123 Eur
Average yearly growth in the recent years	n.a.	562 percent
Estimated growing potential for the next 5 years	n.a.	25 percent a year
<i>Complete with your own key figures if available</i>	n.a.	n.a.

Operational/management trends within the local Crowdfunding market

The recent trend of financing was channeled towards immovable property project, however, this trend might be amended due to possible downturn in property sector.

Political factors that could affect the local Crowdfunding market

Overall political context

The Parliament of Lithuania has a legislation right in Lithuania. Legislation which was passed in the Parliament must be approved by the President of Lithuania and the President of Lithuania has a veto right.

There is different legal regulation for the crowdfunding and P2P platforms in Lithuania. Crowdfunding platforms are under regulation of the Law on Crowdfunding and P2P platforms – under the Law on Consumer Financing. The Law on Crowdfunding came into force at the end of 2016.

One of the goals established in the 2012-2016 Program of The Government of Lithuania is “to improve the mechanism of citizens’ saving investment in economy, and to widen the spectrum of alternative finance instruments for enterprise”. The Ministry of Finance is responsible for the creation of alternative finance instruments for enterprise, improvement of the existing regulation as well as for the development of financial market.

One of the challenges is to make crowdfunding market attractive for investors as well as create competitive conditions with other market players, e.g. banks, credit unions etc.

In accordance with the Law on Consumer Financing only private investors (natural persons) can invest through P2P platforms, nor companies, neither institutional investors can invest into P2P platforms. This restriction hinder development of the crowdfunding market and determines relatively high interest rates.

Key political issue that could affect the model

The development of financial market is the key aspect which could lead to the growth of crowdfunding market in Lithuania. The growth of the market is essential for all players. Political support increase awareness and assurance for the investors, the growth of the number of the investors increase funds available for the campaigns. However, development of the financial market must include strong regulatory issues which ensure transparency, publicity and sustainability.

Impact of this issue in terms of opportunities and threats



Political factors that could affect the local Crowdfunding market

- | | |
|---|---|
| <ul style="list-style-type: none"> • Opportunity 1: increased number of crowdfunding platforms improves competition • Opportunity 2: decreasing cost of borrowing | <ul style="list-style-type: none"> • Threat 1: unreliable platform operators may enter into the market • Threat 2: more risky projects = increased investors loss |
|---|---|

Governmental & regulatory factors that could affect the local Crowdfunding market

Overall regulatory context

Crowdfunding platforms and P2P operators are supervised by the Central Bank. Also, the important role plays the Ministry of Finance which is responsible of the development of financial market. Taxation issue is covered and supervised by the State Tax Inspectorate.

As it was mentioned above, there is different legal regulation for the crowdfunding and P2P platforms in Lithuania. Crowdfunding platforms are under regulation of the Law on Crowdfunding and P2P platforms – under the Law on Consumer Financing. There is no specific regulation of Crowdfunding of renewable energy or energy efficiency in buildings projects and programs as there is no such specific operators acting in the market.

The amendment of the Law on Consumer Financing which would allow for companies and institutional investors invest into P2P platforms would contribute to development of financial market. But this initiative doesn't have strong support in the political level though it could have positive impact to the market.

Key governmental & regulatory issue that could affect the model

1. Unification of the laws applied for the crowdfunding and P2P platforms could lead to clearer regulation.
2. Creating the possibility for the legal entities, institutional investors, fund managers etc. to become investors in P2P platforms would increase the number of investors, amount of funds available for beneficiaries and add an additional layer of control and supervision because institutional investors would perform their own due diligence of the platform to make sure that the platform is properly operated and the risks are well managed.
3. Incentivizing of crowdfunding platform operators dedicated to EE projects via public money investments into the platforms.

Impact of this issue in terms of opportunities and threats

- | | |
|--|--|
| <ul style="list-style-type: none"> • Opportunity 1: legal entities, institutional investors, fund manager invests into crowdfunding platforms • Opportunity 2: increased amount of funds available for EE projects | <ul style="list-style-type: none"> • Threat 1: decrease of returns for natural persons can reduce their willingness to invest • Threat 2: loss of confidence |
|--|--|

Economic factors that could affect the local Crowdfunding market

Economic situation, trends & economic factors

It is expected that the (electricity) energy price is going to increase in the upcoming years. This is a strong factor both for companies and citizens to invest in energy efficiency measures more actively.

People still tend to keep their savings in the commercial banks, but commercial banks lending to businesses is decreasing, it is getting harder and harder for SMEs to get financing in the bank. Therefore, these SMEs are expected to look for new financing alternatives and this will create a stable growing demand for investments.

In addition, real estate is still considered the best investment opportunity. Citizen's believe real estate investments have lower risk. Taking into consideration this, some crowdfunding platforms are real estate oriented and invest only in real estate.

Economic factors that could affect the local Crowdfunding market	
Main economic issue that could affect the model	
Borrowing and lending practices and tendencies in the commercial banking sector.	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> Opportunity 1: Reduced lending activity of commercial banks is an opportunity for crowdfunding platforms and other innovative ideas for funding Opportunity 2: Risk aversion and low or negative returns from deposits is an opportunity to increase the client portfolio and attract citizen investments 	<ul style="list-style-type: none"> Threat 1: Low participation of commercial banks in investment projects financing is an opportunity for crowdfunding platforms not only to grow, but also to fail (the more start-ups, the more failures) which might lead to lower trust

5.1.2. Cooperative Funding Model

Cooperative funding model is not existent in Lithuania. Therefore, this part of the assessment is not applicable in Lithuania's case.

5.2. Citizen Funding services providers analysis

Table 5.2 - Lithuanian Citizen funding service provider - SAVY

SAVY (operates Peer 2 peer lending platform and crowdfunding platform)	
Funding mechanism	Peer 2 peer and crowdfunding
Legal structure	limited liability
Date of creation	2014 March
Organizational structure and governance	Governance: general shareholders meeting; company's manager (director)
Financial products	Consumer loans (lending); small medium enterprises loans (SMEs lending), donation projects
Investment domain	All sectors are interesting for us. Main portfolio of SMEs loans consists of companies working at services sector. We haven't financed any renewable energy or energy efficiency project yet
Beneficiaries	Consumers (private persons) – 95%; SMEs – 5%
Number of Investors/shareholders	SAVY has 8000 active investors. Active means that investor has at least one active investment on platform
Type of investors/shareholders	individual investors
Investors/shareholders benefits	Interest rate returns
Number of projects/campaigns to date	Consumer loans – 11 000 units; SMEs loans – 150 units
Amount raised to date	Active attracted investments into consumer loans – 10,5 mln EUR; SMEs loans – 0,8 mln EUR

SAVY (operates Peer 2 peer lending platform and crowdfunding platform)	
Investment volume to date	Volume of investments made to date: consumer loans – 24 mln EUR; SMEs loans – 1,2 mln EUR
Average projects payback time	Consumer loans – average duration 36 months, SMEs loans – 24 months
Business model & fees	SAVY has 2 main sources of income: 1) administration fees paid by borrowers (amount of income collected is proportional to the active loan portfolio 2) interest income from balance sheet investments into loans
Commercial process	We are constantly looking for potential investors with the aim to grow our customer database. We do proactive marketing efforts to them when fundraising money for a particular project
Financing arrangements	SAVY investor and SAVY borrower signs loan contract between each other. This contract gives us the right to reserve sufficient amount of money in investors account. When the loan is fully funded by numerous investors, reserved money is debited from investors account and transferred to borrower
Project delivery process	SAVY operates as platform administrator and is in charge of the project delivery process (i.e. auditing, project design, engineering, implementation, operations, maintenance). Company has 17 employees
Key (pilot) projects	Recently we launched donation projects. Citizen have possibility to support social projects or initiative free of charge
Key success factors	platform exclusiveness product novelty marketing strategy

Table 5.3 - Lithuanian Citizen funding service provider - FinBee

FinBee	
Funding mechanism	Peer to peer
Legal structure	limited liability
Date of creation	2015 June
Organizational structure and governance	Executive board and CEO
Financial products	Loans are offered to citizens via peer to peer lending
Investment domain	Organization does not focus on one domain – all legal activities are accepted and can be funded if legally acceptable
Beneficiaries	Natural persons and SME's
Number of Investors/shareholders	4500 (invested in past 6 months)
Type of investors/shareholders	Individual investors
Investors/shareholders benefits	Interest rate returns

FinBee	
Number of projects/campaigns to date	~5 000
Amount raised to date	23 000 000 Eur
Investment volume to date	~10 000 units
Average projects payback time	33 months
Business model & fees	Investor money is lent to borrowers. Borrowers pay interest and monthly instalments to investors, also a onetime contract fee and a monthly loan administration fee is paid to organization.
Commercial process	Citizens are engaged through extensive marketing and recommendations. Citizen creates his/her account, reads and accepts terms and conditions, answers customer due diligence questions. Citizen is then onboarded through KYC process. After confirming the citizen as a client, he can start investing in various available projects – once the desired project is selected, client allocates a sum he is willing to invest, agrees with the contract and other terms and the contract is signed
Financing arrangements	After the loan is paid out to the borrower, the client receives monthly instalment and interest. He can then choose an “auto-invest” option to invest the sum received.
Project delivery process	All project delivery process is done within the organization using its own resources (marketing, IT, Finances, Legal compliance etc.). Mostly it is always the same program delivery process, but it can be adapted if needed
Key (pilot) projects	None
Key success factors	Our organization offers friendly loans with very good interest rate to the borrowers, and investors like our organization because it has a low default rate and offers a very competitive interest rate.

5.3. Demand analysis

5.3.1. Current Beneficiaries analysis

Table 5.4 - Current beneficiaries analysis addressed by the Citizen Funding market (LITHUANIA - VIPA)

Current beneficiaries addressed by the Citizen Funding market				
Crowdfunding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage (low, moderate, high)	Growth potential (low, moderate, high)
Citizens & communities	Yes	RES	Low	Moderate
Public entities	No	n.a.	n.a.	n.a.
Large corporations & SME's	No	RES/EE	Low	Moderate
Commercial Companies	No	n.a.	n.a.	n.a.

Current beneficiaries addressed by the Citizen Funding market				
Energy Services Companies	No	RES/EE	Low	Moderate
Other (detail)	No	n.a.	n.a.	n.a.

5.3.2. CFs4EE Financing Scheme Targeted Beneficiaries

Table 5.5 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (VIPA)

CFs4EE Financing Scheme Targeted Beneficiaries analysis	
<i>Citizens & communities. Energy domain – RES</i>	
Beneficiaries	One group of targeted beneficiaries is citizens and communities. Citizens and communities that are targeted are upper middle class, approx. under 50 years and quite tech savvy. The priority target is citizens and communities living in their own houses or semi-detached houses in the suburbs or in the outskirts. This is a growing middle class that are sensible about environment and start acting on it. The second priority are residents of the multi-apartment blocks. Recent developments in the laws create a possibility and moderate growth potential for this citizen group to engage in RES projects (residents of multi-apartments blocks have already been widely engaged in EE projects through different governmental programmes, therefore it is not included in the scope of CitizEE): the amendment of the law on RES creates a possibility to become a prosumer when the solar PV (or another RES source) is geographically detached from the point of consumption. The third priority is energy communities. This is another recent development in the laws that should set a separate specific legal form of energy communities and will create opportunities for their actions on RES.
Size	<p>~53-58 percent of households live in flats in multi-apartment blocks; ~42-47 percent – in semi-detached or detached houses.</p> <p>The maximum size of the target age group is less than 1 million (912 k). In addition, ~25 percent of all households in Lithuania have the monthly income higher than 1200 eur/month. This leaves the average target beneficiary group consisting of ~300k households.</p> <p>The average energy consumption of each household varies from 100 kWh to 200 kWh: less than 100 kWh – 30 percent; 100-150 kWh – 23 percent; 150-200 kWh – 20 percent. The target group are households that have higher electricity usage.</p>
Technical & operational needs	<p>From the operational perspective the growing trend is to engage in projects/activities that require little effort and are very simple and/or quick to implement. The target group does not want to engage in the project delivery process, operation and maintenance. They wish to pay the price and outsource all the functions relating to project development.</p> <p>In addition, there are some technical aspects that catch the attention of potential prosumers and foster the project pipeline: PV module price per Watt decreased in last 25 years over 5 times; PV module efficiency increased in last 25 years more than 3 times.</p>
Financing needs	<p>The typical project for this target group would be an installation of 5 kW solar PV per one household. Currently the implementation of such project costs ~6000 euros.</p> <p>It is estimated that part of the target beneficiaries has enough cash to cover the project costs immediately, however, the majority of the target group would be willing to look for financing in the market.</p> <p>The average percentage of citizen funding per project would be defined in the whole financing scheme (at a higher level) and would be applied for all the projects.</p>

CFs4EE Financing Scheme Targeted Beneficiaries analysis	
Growth Potential	<p>Growth potential in this sector is moderate/high. The main reason for this growth potential is the government strategy and various initiatives that have been introduced and/or are planned to be introduced (amendments of laws; planned subsidies). The government strategy is to achieve that 50 percent of all electricity consumers are prosumers by 2050 (and 30 percent by 2030). For the upcoming 2-5 years, the plan is to support 34k consumers to become prosumers. 34k prosumers means that there is approximately 200 million demand for investments.</p> <p>It is already foreseen that part of this financing demand will be covered by government subsidies (17 million), the rest – from various other sources, including own resources, commercial financing, measures developed and launched by VIPA and citizen funding (e.g. P2P platforms).</p>
Applicable Citizen funding mechanisms	<p>In the current financial market, there are very few options for the consumers to get financing for such projects. Basically, there are two options, and both are very expensive and therefore make the project financially non-viable. These two options are the following: apply for funding in a commercial bank (such credit is treated as consumer credit and therefore the interest rate is ~13-20 percent), apply for funding in a P2P platform (interest rate ~10-16 percent due to high expectations of investors for returns).</p> <p>During various discussions with the crowdfunding or P2P lending operators VIPA has discovered that it is possible to leverage citizen funding raised through various platforms with VIPA's resources (either its own or from the investment platform for RES/EE) and reduce the price significantly to foster the demand for RES projects. High interest is expected from potential beneficiaries since the price would be significantly lower and there would be no requirements for collateral. Lower price of funding makes the RES project financially viable and results in payback period up to 8-10 years.</p>

5.4. Barriers & enablers analysis

Table 5.6 - Barriers & enablers analysis for Targeted Beneficiaries (VIPA)

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Barriers to Citizen Funding	Applies?	Impact	Criticality	Enablers
Level of political support to citizen funding and/or citizen-led initiatives	YES	High	Medium	Crowdfunding platforms and P2P operators as the part of FinTech ecosystem are still in development stage. Therefore, public entities have overcome several issues as law enforcement, criminal investigation, data protection, supervision, economic and fiscal policy.
Lack of awareness and/or legitimacy in the Citizen Funding market as a real market player	YES	Medium	Medium	In Lithuanian Citizen Funding market are only a few active market players, who are facing awareness and citizens as investors attracting challenges. But well to mention, that these market players are running effective marketing campaigns, so the awareness of Citizen funding market is rising. However additional crowdfunding platforms and P2P operators would increase awareness and bring the effort in creating market legitimacy.

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Lack of trust & confidence in the Citizen Funding market as an effective investment alternative	YES	High	High	Funding market is an effective investment alternative and could provide higher investment return for investors in compare to others traditional investment alternatives. However, investors are facing trust and confidence issues. Transparent risk assessment, better supervision and sharing good practises in media might be right indicators to reduce it.
Unknown Crowd or difficulty to access the Crowd	No	Low	Medium	The crowd as the whole body of investors is segmented and divided in different investors' groups. We believe, that there is less problem with investors identification and more with investors attracting strategy.
Size of the projects (projects too small or too large) and related funding level requirements	No	Medium	Medium	Size of investment projects and their requirements are suitable for investors. However, most of the projects in market are related either to consumer credit or to business development loan (housing loan is under consideration). Other type of project (EE and (or) RES) would probably increase the attractiveness.
Payback time of the projects (too long)	No	Low	Low	The payback time of project normally is from 12 to 60 months.
Yield/return on investment of the projects (insufficient)	No	Low	Low	The return on investment for citizens is higher comparing to other investment alternatives.
Uncertainty/risks over project's technical and financial performance	Yes	Medium	Medium	The risk assessment is organized by crowdfunding platform and supervised by the National Bank of Lithuania. More transparency would reduce the fright for investors.
Funding Operating costs (high level of costs due to the costs of complying with regulation)	No	Medium	Medium	Cost of regulations takes only a small part in the whole funding operating costs.
Disclosure requirements (more stringent requirements for projects to disclose detailed information on specific investment opportunities and the overall investing proposition)	Yes	High	High	Crowdfunding operators have their own specific requirements for projects as well as risk assessments. This information in most of the cases are not shared with investors. The citizens have only summarized information about projects, their risk level, yield rate, payback time etc. Therefore, detailed information on specific investment opportunities and the overall investing proposition would improve the size of investment in funding market.

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Due diligence requirements including deal timetable (too long, too complicated)	No	Medium	Medium	The timetable of due diligence is enough.
No complementary competitive funding available from banks/ESCOs/...	Yes	High	High	ESCOs' market is still in development stage with only a few ESCOs companies. These Lithuanian ESCOs companies have limited access to funding and they are financed by banks with traditional instruments – loans.
Lack of guarantee for the investors & financing institutions	Yes	Medium	Medium	Only a few indicatives in market are available, which seek to improve the financing conditions for investors.
Competition from Highly Subsidized Energy Efficiency Funding	No	Low	Low	According to the national financing policy is to turn from subsidized funding to the sustainable financing instruments and mechanism.
Interest rates on the savings market	No	Medium	Medium	On one hand the energy price in Lithuania is comparing to other EU countries low, however the PV module price per Watt decreased in last 25 years over 5 times and PV module efficiency increased in last 25 years more than 3 times. These technical issues guarantee enough saving in the market.
Energy prices fluctuations	No	Medium	Medium	The energy price rises annually 3 percent.
Barriers to uptake the CFs4EE Financing Scheme	Applies?	Impact	Criticality	Enablers
Timetable to set-up the scheme and get cooperation with the stakeholders	Yes	Medium	High	The existing crowdfunding operators are willing to cooperate and see the potential to grow as well as to expand. However, to project success depends on cooperation model and stakeholders' input.
Structuration of the project delivery organization (to support the scheme)	Yes	Medium	Medium	Since VIPA has established the investment platform and already allocated capital for projects, the next step will be the set up the requirements for project and crowdfunding operators as well as their organization and capacity to deliver project pipeline.
Mobilisation/engagement of the targeted Beneficiaries	Yes	Medium	Medium	Mobilisation and engagement strategies will be shifted to the crowdfunding operators. Their success will be depended on their marketing campaign performances.
Barriers to serve the targeted Beneficiaries	Applies?	Impact	Criticality	Enablers
Lack of interesting or viable projects within the beneficiary's portfolio	Yes	Low	Low	Final beneficiaries (prosumers) are generally interested in green energy projects. However, we assume that only for limited part of

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
				beneficiary's' portfolio additional financing scheme is needed.
Lack of internal capacity of beneficiaries to develop projects	Yes	Medium	Medium	Yes, not all beneficiaries can develop and finance project, that is why the investment platform invite these beneficiaries to participate in it, by providing suitable solution
Lack of efficiency in the Project Delivery Process (too long or too complicated)	Yes	Medium	Medium	Designing the financing scheme and creating the whole process must be based on principle – keep it short and simple.

5.5. Analysis & Conclusions

5.5.1. CFs4EE SWOT and comparative analysis

Table 5.7 - SWOT and comparative analysis (VIPA)

SWOT & Comparative analysis	
Comparative analysis	Crowdfunding Model
Level of development	The market is in early development stage. There are a few platforms that are actively operating, their investment levels are constantly increasing.
Development Maturity	Start-ups.
Scalability	The model is quite scalable, especially when the investment need is high and the commercial banks are reducing their lending to projects, especially for SMEs or other small-scale projects.
Citizen Funding leverage capacity	VIPA believes that leverage capacity is high, however it is impossible without the amendment of the Law. This amendment should allow institutional investors participate in the platforms.
Crowd access & mobilization capabilities	The existing platforms have very good marketing strategies and are constantly trying to increase their investors base. The issue is that the potential investors lack trust in the platforms.
Project Delivery capabilities & requirements	So far there is very little variety of projects that are financed through crowdfunding platforms. There is high potential for other types of projects to be introduced, such as RES or EE. However, the capabilities and project due diligence framework as well as attraction of projects of each platform is unknown to VIPA.
Quality control mechanisms and related reputational Risk capabilities and requirements	n.a.
Funding & Financing Challenges	High financing cost of the project; Institutional investors not allowed to co-finance projects, therefore no leveraging of citizen funding

SWOT & Comparative analysis	
Operational Challenges	NA
Risks	Project implementation related risks SME financial viability related risks Risks management framework and capabilities of platforms to perform due diligence
SWOT analysis	Crowdfunding Model
Strengths	<ul style="list-style-type: none"> Strength 1. Strong marketing strategies Strength 2. Model already set-up and the first good examples are seen Strength 3. Not too strict regulation
Opportunities	<ul style="list-style-type: none"> Opportunity 1. Country level political support for fintech and citizen funding platforms Opportunity 2. Decreasing lending by commercial banks Opportunity 3. Forecasted increase in energy price Opportunity 4. Low/zero interest rates from deposits in banks
Weaknesses	<ul style="list-style-type: none"> Weakness 1. Lack of trust in citizen funding platforms Weakness 2. Very high cost of funding for projects Weakness 3. Only short-term financing for projects (max. 36 months).
Threats	<ul style="list-style-type: none"> Threat 1. No variety in projects = no sector diversification Threat 2. Any failure might have a strong negative spillover effect in the market

5.5.2. Conclusion on the analysis

Table 5.8 - Conclusion on the CFs4EE market characterization analysis (VIPA)

Conclusion on the CFs4EE market characterization analysis
<p>Strategic context in Lithuania is very advantageous and favorable: both fintech market and RES market are supported at the highest political level. Citizen funding platforms are at an early development stage, but because the environment is welcoming (not too strict regulation, political support) it is expected that more platforms will be set up and the market share of this business model will increase. A great opportunity for this alternative funding scheme is reduced lending by commercial banks, especially in riskier sectors/beneficiaries, e.g. SMEs or natural persons borrowing for solar PVs.</p> <p>From the funded projects perspective, even though the availability of such funding is increasing, the price of funding is high. Therefore, there is no variety of project types, there is no sector diversification.</p> <p>Participation of institutional investors into P2P platforms would contribute to development of financial markets: it would increase the number of investors, amount of funds available for beneficiaries and add an additional layer of control and supervision because institutional investors would perform their own due diligence of the platform to make sure that the platform is properly operated and the risks are well managed. Amendment of the Law on Consumer Financing is necessary to achieve these objectives. There is no objection to such amendment from Ministry of Finance or Bank of Lithuania, but there is no strong political will either. Without this amendment, VIPA would not be able to invest and leverage citizen funding collected in the platforms.</p> <p>Ministry of Energy and the government have very ambitious goals for the upcoming 10-20 years in the renewable energy market, including development of prosumers. To achieve these ambitious goals, Ministry of Energy is engaging in both legal and financial aspects to support the development of RES. From the legal perspective, the procedures have been reduced substantially, quotas – increased; also there is a new possibility to become a</p>

Conclusion on the CFs4EE market characterization analysis

remote prosumer (production and consuming are detached geographically) or be involved in the energy community (the concept of energy communities is still under development). From the financial perspective, there are a few measures that provide financial support up to ~30 percent for beneficiaries to become prosumers.

To sum up, the strategic and financial context in fintech market and energy market is very promising, and with some additional changes in the legal background there is very high potential for prosumers market development through crowdfunding platforms.



6. MARKET CHARACTERIZATION ANALYSIS – REGEA (CROATIA)

6.1. Citizen Funding current industry analysis

6.1.1. Crowdfunding Model

Table 6.1 - Crowdfunding Market Characterization in Croatia

Local Crowdfunding market structure
<p>Crowdfunding is still in its early stages in Croatia, but the interest is increasing year by year. From 2011-2017 there were 272 initiated CF campaigns where 77 collected the required amount. 2017 has been the most successful crowdfunding year so far as Croatian campaigns raised around EUR 2 million. Out of 78 domestic projects that were launched this year (mainly on the Indiegogo platform), 26 collected the required amount. Funderbeam Southeast Europe crowdfunding platform alone raised more than half of total funds from 2017, mostly through equity model. Market demand for crowdfunding is constantly growing and in 2018 a ground-breaking crowdfunding initiative was commenced by the Green Energy Cooperative (ZEZ). for construction of a 30-kW municipal solar power plant. The amount was collected in ten days by 53 small investors, based on micro-loans model, and represents the first application of a P2P crowdfunding micro lending model in Croatia. Demand for replication of this model is very high, especially from the public sector, which has led to creation of a new P2P crowdfunding platform from ZEZ – ZEZ Invest. While the donor and reward-based models have been occasionally used for energy efficiency projects, equity-based model has yet to see its first application in this sector. Funderbeam SEE crowdfunding platform is the only one allowing this model to be utilized, although ESIF loans for energy efficiency projects have made both P2P and equity model less favourable for SMEs and large enterprises. Currently there are 5 active CF platforms, but only 2 of them related to crowdlending/crowdinvesting models. Recently one other platform related to real estate crowdinvesting occurred but still do not have any successful projects conducted/financed.</p>

Local Crowdfunding market context
<p>More than a half campaigns are initiated in the area of City of Zagreb (capital of Croatia), while smaller number of campaigns cover other parts of Croatia. Also, more than the half of raised money is related to equity models, even though, majority of campaigns are initiated related to reward/donation models. The number of backers in 2017 was 13531, campaigns usually end in December and campaign initiators are mostly from creative and art industry (film, music, writing).</p> <p>There are no national incentives to back up CF models but social innovations (CF included) are included in Croatian Smart Specialisation Strategy 2016-2020. Within the strategic objective 5 (Working in partnerships to address societal challenges) social innovations have main role- Development of policy framework for social innovation, Preparation of detailed recommendations for improving the social innovation ecosystem in Croatia, Developing financial instruments that can be used to support social innovation, Development of methodology for selection of social innovation projects, Preparation of several pilot projects of social innovations.</p> <p>Biggest potential demand for crowdfunding projects should come from start-ups and companies which do not possess adequate collaterals required by traditional financial institutions.</p>

Estimated size of the local Crowdfunding market	Equity	Debt
# of platforms	1	1
# of platforms addressing the energy sector (RES, EE)	1	1
Amount raised to date	-	55 000 Eur
Amount raised to date in the energy sector (RES, EE)	2 million Eur	55 000 Eur

Estimated size of the local Crowdfunding market	Equity	Debt
# Campaigns	2	2
# of Funded Campaigns (if known)	n.a.	2
Average raised per campaign	n.a.	27 000 Eur
Average raised per investor	n.a.	n.a.
Average yearly growth in the recent years	n.a.	n.a.
Estimated growing potential for the next 5 years	n.a.	n.a.
<i>Complete with your own key figures if available</i>	n.a.	n.a.

Operational/management trends within the local Crowdfunding market

Currently two platforms are in the upgrading phases- croenergy.eu and AMPnet. Both of these platforms are at the moment donation/reward based. Croenergy.eu will be upgraded to investment platform where, in addition to the donation and reward models- 'croenergy.eu 2.0' will include crowdlending model where citizens will be able to financially participate in various RES and EE projects- P2P lending. The Citizens will have the opportunity to invest a certain amount of money in the project and in return- they will receive their investment plus additional amount of money through previously defined interest rate (during certain time period). Other part of croenergy.eu upgrade will be a match-making part where initiators (project owners) can nominate their projects for private financing through ESC (energy supply contracting), leasing or other if applicable. In that case, no financial transaction will be made on the Platform. Public tender documentation and general contract will be the added value of the Platform where project initiators (public authorities, in the case where public buildings are the subject of campaign) can get a tender & contract documentation for their project.

AMPnet is currently developing Retail energy platform (providers will be able to issue bills, track consumption and manage subscribers of their electric utility) and Electricity exchange platform (providers will automatically sell excess electricity on regulated electricity exchanges- also leverage AMPnet licensed brokers will handle electricity trading on behalf of the client and and its customers).

Capital partners initiated real estate platform based on equity model (first of that kind in Croatia) but still there are no successful or implemented projects.

Political factors that could affect the local Crowdfunding market

Overall political context

Croatia is a republic by its state structure, with a democratically elected parliament - the Croatian Parliament as the highest representative body of citizens, and the President of the Republic as the head of state. The Croatian Parliament is the holder of the legislative power in the Republic of Croatia. The President of the Republic has a representative and executive function. He represents the Republic of Croatia at home and abroad and is responsible for the defense of the independence and territorial integrity of the Republic of Croatia, as well as for the stable, normal and coherent operation of the state government. According to Article 112 of the Constitution, the Government of the Republic of Croatia proposes laws and other acts to the Croatian Parliament, proposes the state budget and the final bill, implements laws and other decisions of the Croatian Parliament, adopts regulations for the implementation of laws, conducts foreign and internal policy, directs and supervises the work of the state administration. takes care of the economic development of the country, directs the activities and development of public services and performs other tasks stipulated by the Constitution and law. Ministries are in charge of the execution of the laws and regulations.

Political factors that could affect the local Crowdfunding market	
The units of local self-government are municipalities and cities, while the units of regional self-government are counties. Their area is determined in the manner prescribed by law. The capital Zagreb has the status of a county. Croatia is divided into 21 counties, 127 cities and 429 municipalities.	
Key political issue that could affect the model	
The political issue which definitely affect the future development is non existing political structure in charge for the issues of innovative financing mechanisms, mainly crowdfunding. The reason for this is non existing legal framework and laws regulating this part of financing models.	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: Local interests (cities and municipalities) are high since local authorities in general have limited budgets and investments like CF can trigger broader project implementation • Opportunity 2: Use of growing number of campaigns to encourage ministries to take in consider involving innovative financing mechanisms in their yearly plans and budgets 	<ul style="list-style-type: none"> • Threat 1: Locally focused campaigns (most of campaigns are initiated by small cities in North-West part of Croatia) • Threat 2: Lack of knowledge on innovative financing mechanisms among policy makers • Threat 3: Public entities cannot be, by law, in debt with the citizens, so for now they are limited to reward/donation CF models

Governmental & regulatory factors that could affect the local Crowdfunding market
Overall regulatory context
<p>The main problem related to governmental & regulatory factors that could affect the local CF market is non-existence of basic legal framework that could support its further development. Therefore, each crowdfunding model (donation, reward, lending and equity model) has to tackle with different parts of Croatian legislation. Numerous acts are regulating legal framework for crowdfunding investments: Value Added Tax Act, Local and Regional Government Financing Act, Income Tax Act, Companies Act, Profit Tax Act and Act on Contributions. There are no legal obstacles with regard to donating and sponsoring models, but such funding models have limited potentials for up-scaling of EE/RES projects. Investors cannot receive any kind of financial return with these investments meaning that the motivation for support is usually of philanthropic nature. Crowdlending is however strictly regulated by the Law on obligations and Law on capital markets. Funds paid through crowdlending platforms are not secured by the national deposit insurance system run by the State Agency for Deposit Insurance and Bank Resolution under Deposit Insurance Act meaning that investors' capital is at constant risk. The equity model is possible in form of investing in exchange for shares in a joint-stock company, private limited liability company, for stake in a cooperative or in an exchange for a "silent" partnership stake in the profit of the fund-seekers company. If the future business of the crowdfunded company is organized as a joint-stock or limited liability company in which every investor that participated in the crowdfunding campaign will receive stock/share in return, restrictive provisions of the Croatian Commercial Companies Act that regulate joint-stock and limited liability companies apply. Silent partnerships present a model which is much more appropriate for crowdfunding since its contract is not subject to a particular form and it does not require the personal presence of an investor.</p>
Main governmental & regulatory issue that could affect the model
<p>Taking in consider all mentioned above it is important to allow crowdfunding to evolve with as few restrictions as possible under existing legislation in order to show its true nature, and only then to intervene legally where necessary. Legal gaps can always be better filled by interpreting and adapting existing regulations than by adopting premature, and therefore often bad, special laws.</p>

Governmental & regulatory factors that could affect the local Crowdfunding market	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: In 2019 a group of 11 stakeholders formed of crowdfunding platform operators, project developers, energy cooperatives and agencies has approach the national ministries of finance and economy with the aim to change/adapt the current legal framework and to make it more favorable for innovative financing mechanisms and social innovations. • Opportunity 2: The Council of the Croatian Financial Services Supervisory Agency discussed the proposal for an EU Parliament and Council Regulation on crowdfunding. The ensuing debate was also significantly contributed by Croatia. 	<ul style="list-style-type: none"> • Threat 1: Lack of cooperation by the ministries regarding topics related to innovative financing mechanisms • Threat 2: Adopting the laws which are not previously tested through already developed projects or in line with the current regulatory CF requirements

Economic factors that could affect the local Crowdfunding market
<p>Shortly describe the local economic situation and trends in which Crowdfunding is developing, especially focusing on the citizens' savings and investment context. What are the prevalent economic factors?</p> <p>For the fourth consecutive year, positive economic trends continue in Croatian economy. GDP growth was in 2018 +2.7%. After four years of fairly strong growth in goods, exports and services had a significant slowdown in its growth. The base has increased significantly over the years, due to which is harder to maintain higher growth dynamics, effects of EU accession are exhausted, the growth of the EU economy, including foreign demand, has slowed down, and some activities failed to achieve export results at the levels from previous years. Therefore, the real value of exports of goods and services has increased annually only 2.8%, while the average for the previous four years was 6.9%. On the other hand, domestic demand continued to recover last year. Affected continued growth of net wages, positive trends in employment trends, slight recovery in lending activity of commercial banks, but also an increase in propensity to spend and investment, domestic demand growth was slightly higher than in the previous two years. The biggest influence on accelerating the dynamics of domestic demand growth from 3.7% to 4.0% was related to gross and fixed capital investments. Personal growth consumption, which has the largest share in GDP structure, was slightly higher than in 2017, but under the influence of the stated base growth there was a slight decrease in the rate growth from 3.6% to 3.5%. Further recovery in domestic demand, was accompanied by continued growth in imports of goods and services. This growth has also slowed down considerably in the relation to the previous three years, but he was expressive enough that the contribution of net exports to GDP growth after six years be negative again. Data show that the continuous six-year trend of increasing the coverage of total demand for imported goods and services has continued, and in the last year this coverage reached 32.9%, the highest value in the last eighteen years (The data used are taken from https://www.hgk.hr/documents/gospodarskakretanja345b226d9d3f8c0.pdf).</p> <p>The dominant position in the financial system of the Republic of Croatia is occupied by credit institutions whose work is regulated and supervised by the Croatian National Bank. Currently, 30 credit institutions are operational - 25 banks (including one savings bank) and five housing savings banks, 17 leasing companies, 6 factoring companies, 19 insurance companies, and 4 mandatory pension companies. The financial market today can be considered as stable, even though Croatian economy was badly affected by the global financial crisis which, together with slow progress of economic reforms, resulted in six years of recession and a cumulative decline in GDP of 12,5%. After a significant increase in 2010-2011 across all the sectors, from 2012 to 2017 there has been a decline in lending to non-financial corporations and households (the two largest ones), caused by the continuing economic and financial crisis, while in contrast lending to local and central government and to social security funds has increased over the</p>

Economic factors that could affect the local Crowdfunding market	
<p>same period. It should be noted, however, that lending to local government remains low in absolute terms; this is due to a number of challenges encountered by municipalities seeking to obtain financing such as legal debt limits, volatile revenues and in some cases a lack of experience in dealing with the financial sector (e.g. low capacity in smaller municipalities). In private sector, demand for small and micro loans has steadily increased in the SME sector since the introduction of ESIF loans to date. Potential demand for tailor made EE micro loans is quite high and the government has future plans for their implementation.</p>	
Main economic issue that could affect the model	
<p>Project developers from the energy sector in Croatia still overly rely on availability of traditional instruments such as ESIF grants and soft loans and the supply for this kind of financing is not enough to meet the expected demand. According to the study conducted by the European Investment Bank, expected demand is estimated at 1 billion EUR and approximately 500 million to achieve the policy targets of the National Energy Efficiency Action Plan (NEEAP). Such demand makes it highly unlikely that the supply of finance through traditional models (ESIF grants and loans from the state-owned Croatian Bank for Reconstruction and Development) will be sufficient. For that reason, it is of upmost necessity to start using innovative financing mechanism which will be used in combination with traditional ones to satisfy expected demand.</p>	
Impact of this issue in terms of opportunities and threats	
<ul style="list-style-type: none"> • Opportunity 1: Combine crowdfunding and credit institutions for projects that cannot compete for credit because they cannot offer collateral, but have the potential to succeed • Opportunity 2: Lower rates on bank savings give opportunity to crowdlending models since they have higher return interest rates 	<ul style="list-style-type: none"> • Threat 1: Grant depended culture • Threat 2: Credit institutions have dominant position in financial system

6.1.2. Cooperative Funding Model

Cooperative funding model is not existent in Croatia. Therefore, this part of the assessment is not applicable in Lithuania's case.

6.2. Citizen Funding services providers analysis

Table 6.2 - Croatian Citizen funding service provider - ZEZ Invest

ZEZ Invest	
Funding mechanism	Crowdfunding
Legal structure	Platform
Date of creation	2019
Organizational structure and governance	The platform is managed by Green Energy Cooperative
Financial products	Lending model- micro loans
Investment domain	EE/RES
Beneficiaries	Public entities, citizens & communities, entrepreneurships
Number of Investors/shareholders	Around 100

ZEZ Invest	
Type of investors/shareholders	Citizens
Investors/shareholders benefits	Interest rates
Number of projects/campaigns to date	2
Amount raised to date	55 000 Eur
Investment volume to date	55 000 Eur
Average projects payback time	10 years
Business model	Crowdlending
Commercial process	The project investment model works on the principle of micro loans. Citizens can invest in the project by giving a loan to the Green Energy Cooperative, for a period of 10 years, with return interest per annum. Green Energy Cooperative manage and operate the PV plant and after 10 years the beneficiaries become the owners.
Financing arrangements	Investors receive annual return in form of fixed interest rates for the whole time of the contract duration
Project delivery process	The project first has to apply on the platform and after the approval it can be put online and ready for investments. The initiator signs contracts with the investors who agree with certain interest rate and time frame in which their investment will be returned. Yearly investors receive their invested amount with the agreed interest rate and after the end of contract the beneficiary is the owner of the project/plant while the legal obligation between initiator and investors finishes.
Key (pilot) projects	<i>Installation of PV plant on the rooftop of Krizevci Entrepreneurial Centre Installation of PV plant on the rooftop of Franjo Markovic Library</i>
Key success factors	<i>More than 50% of citizens who invested said that their most important motive was to encourage the use of renewable energy sources, and more than 20% said local community development. The requested amounts for both projects were collected in only 10 days.</i>

Table 6.3 - Croatian Citizen funding service provider - Funderbeam SEE

Funderbeam SEE	
Funding mechanism	Crowdfunding
Legal structure	Platform
Date of creation	2017
Organizational structure and governance	LTD
Financial products	Stock exchange
Investment domain	Investing in early-stage and growth companies
Beneficiaries	Start-ups and growth companies

Funderbeam SEE	
Number of Investors/shareholders	
Type of investors/shareholders	Citizens, companies
Investors/shareholders benefits	Share trading
Number of projects/campaigns to date	-
Amount raised to date	-
Investment volume to date	-
Average projects payback time	-
Business model	Stock exchange
Commercial process	First step is an online application and after this is approved, the initiator receives Account manager. Together, they work closely throughout the process to build a compelling campaign. Private Mode: Initiator invites select investors from their own network, and invite well-aligned angels, VC's and Institutional Investors. Public Mode: After, initiator has the option to launch in public mode, inviting platform 15,000+ investor base to join the syndicate. Initiator sends formal investment proposals to the interested investors that he would like to participate in the syndicate. As the proposals are accepted, investor funds are wired to the syndicate, which are then transferred to initiator in one go.
Financing arrangements	According to stock exchange rules and regulations
Project delivery process	Beside already mentioned above, all the projects have to have developed business plans which are available to possible investors. The projects cannot be approved without previously developed and analyzed business plans.
Key (pilot) projects	INCLUDE development and production of smart street benches.
Key success factors	INCLUDE has initiated two campaigns in total of 2 million Eur. Both campaigns were finished in record time and investors interest was very high

6.3. Demand analysis

6.3.1. Current Beneficiaries analysis

Table 6.4 - Current beneficiaries analysis addressed by the Citizen Funding market (CROATIA - REGEA)

Current beneficiaries addressed by the Citizen Funding market				
Crowdfunding Model	Applies? (Yes/No)	Energy Domain? (RES/EE)	Market coverage (low, moderate, high)	Growth potential (low, moderate, high)
Citizens & communities	Yes	RES/EE	Low	High
Public entities	Yes	RES/EE	Low	High
Large corporations & SME's	Yes	RES	Low	Moderate



Commercial Companies	No	RES/EE	Low	Moderate
Energy Services Companies	No	EE	Low	Moderate

6.3.2. CFs4EE Financing Scheme Targeted Beneficiaries

Table 6.5 - CFs4EE Financing Scheme Targeted Beneficiaries analysis (REGEA)

CFs4EE Financing Scheme Targeted Beneficiaries analysis	
Beneficiaries	Main beneficiaries of CFs4EE are citizens and public entities since all CF projects related to RES/EE until now were initiated by those two groups. These beneficiaries have the most potential and interest for additional sources of funding since public entities have limited budgets and citizens cannot by themselves finance major investments. As described in GA there is also great potential for ESCOs in this field. In the future, biggest potential demand for crowdfunding projects should come from start-ups and companies which do not possess adequate collaterals required by traditional financial institutions
Size	Energy efficiency and renewable energy projects generate significant financial savings for final beneficiaries and high co-financing rates (up to 85% for less developed regions) have generated an overwhelming demand from the market. This can be evidenced by almost complete exhaustion of ESIF resources from the Operational Programme Competitiveness and Cohesion 2014-2020 (OPCC). Energy renovation of public buildings has induced the highest interest for funding and by 2019 all allocated ESI funds (EUR 211 mil.) have already been awarded in two shortly opened calls. Similar case happened with the ESIF programme for renovation of private multi-apartment buildings which was temporarily closed in 2017 after more than 75% (EUR 75 mil.) of total financial allocation was granted. The age profile of Croatia's building stock (public, commercial and households), coupled with continental climatic conditions in much of the country, provides a strong base of demand for actions related to energy efficient renovations and replacement of older fossil fuel heating systems with renewable energy sources. Until now all initiated CF projects were based on local/regional level. Only one project (on Funderbeam platform) reached national/international level. Also, all projects until now were related to RES.
Technical & operational needs	The beneficiaries (citizens and public entities) have very limited technical knowledge regarding PV installations, but this is not seen as a limiting factor for CF campaigns. The same is valid for operational needs, as operation of PV installations is performed by the private investor (who receives funds from CF campaigns and guarantees a fixed return on investment to lenders i.e. citizens).
Financing needs	This aspect is very hard to specifically identify as the experience in Croatia with implementation of CF campaigns through the lending model has been very limited (two projects implemented so far). The main conclusions of the implemented projects are that the volume of investments from private persons ranges from app 100 to app 1.000 eur, and thus projects with total volume of investment in the range of 30.000 to 100.000 eur would be suitable.
Growth Potential	There is considerable growth potential for PV installation through CF with lending model, especially considering the decrease of investment costs of PV installations which results in these projects being economically feasible even without any subsidies. The exact potential in numbers cannot be estimated at this point.
Applicable Citizen funding mechanisms	For now, after 2 initiated crowdlending projects, it can be said that the citizen interest was very high and motivations were focused more on social innovations and environment protection than on financial gain. Also, for the 2 campaigns on Funderbeam platform it can be said that they were very successful and amounts are collected in record time even though they were very high. In the first campaign, they raised the largest amount on the Funderbeam platform

	at the time, and in the meantime, while the amounts raised have increased, they have again raised more than any other campaign on the platform in just six days, globally
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6.4. Barriers & enablers analysis

Table 6.6 - Barriers & enablers analysis for Targeted Beneficiaries (REGEA)

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
Barriers to Citizen Funding	Applies?	Impact	Criticality	Enablers
Level of political support to citizen funding and/or citizen-led initiatives	Yes	High	High	It is important to appoint the institution in charge for innovative financing mechanisms
Lack of awareness and/or legitimacy in the Citizen Funding market as a real market player	Yes	High	High	Organize workshops/seminars in order to raise awareness on these topics
Lack of trust & confidence in the Citizen Funding market as an effective investment alternative	Yes	Medium	Medium	This is again related to raising awareness methods
Unknown Crowd or difficulty to access the Crowd	No	Low	Low	Conduct previous market analysis
Size of the projects (projects too small or too large) and related funding level requirements	No	Low	Low	-
Payback time of the projects (too long)	No	Low	Low	-
Yield/return on investment of the projects (insufficient)	No	Low	Low	-
Uncertainty/risks over project's technical and financial performance	No	Low	Low	-
Funding Operating costs (high level of costs due to the costs of complying with regulation)	Yes	Medium	Medium	During Campaign preparation, initiators have to calculate all the campaign costs (all fees included)
Disclosure requirements (more stringent requirements for projects to disclose detailed information on specific investment opportunities and the overall investing proposition)	Yes	High	High	Detailed business plan- for example, projects applying on Funderbeam have to have detailed business plans so initiators have to invest certain amount of hours/time to develop business plan which will be approved from the platform
Due diligence requirements including deal timetable (too long, too complicated)	Yes	Medium	Medium	Same as previous
No complementary competitive funding available from banks/ESCOs/...	Yes	High	High	CF campaigns should be presented as a great way to gain additional/missing part of investment- special

CFs4EE Financing Scheme Targeted Beneficiaries analysis				
				investment combining models (for example CF+EPC)
Lack of guarantee for the investors & financing institutions	Yes	Medium	Medium	CF campaign, with the amount collected, can serve as the required collateral while applying for bank loans
Competition from Highly Subsidized Energy Efficiency Funding	No	Low	Low	-
Interest rates on the savings market	Yes	Medium	Medium	Low interest rates on saving market can be shown as an incentive for citizens to invest their money in CF projects, since the interests and yield are higher
Energy prices fluctuations	Yes	High	High	Higher energy prices are incentives for EE/RES use, as well as incentive for citizens to invest in their own energy sources (PV plants for example)
Barriers to uptake the CFs4EE Financing Scheme	Applies?	Impact	Criticality	Enablers
Timetable to set-up the scheme and get cooperation with the stakeholders	Yes	Medium	Medium	Offer technical assistance thorough available EU projects/funds
Structuration of the project delivery organization (to support the scheme)	Yes	Medium	High	Same as previous
Mobilisation/engagement of the targeted Beneficiaries	Yes	High	High	Good market strategy, organization of stakeholder events, site visits, media coverage
Barriers to serve the targeted Beneficiaries	Applies?	Impact	Criticality	Enablers
Lack of interesting or viable projects within the beneficiary's portfolio	Yes	Medium	Medium	Include potential beneficiaries in pilot projects/cases, workshops, seminars on development of viable projects
Lack of internal capacity of beneficiaries to develop projects	Yes	High	High	Offer expert assistance through project development- currently there are several EU projects related to the topic which offer different forms of assistance
Lack of efficiency in the Project Delivery Process (too long or too complicated)	No	Low	Low	-

6.5. Analysis & Conclusions

6.5.1. CFs4EE SWOT and comparative analysis

Table 6.7 - SWOT and comparative analysis (REGEA)

SWOT & Comparative analysis	
Comparative analysis	Crowdfunding Model
Level of development	Few examples- there are currently only 4 EE/RES projects implemented through debt/equity CF models
Development Maturity	Start-up- the market is still in its early stages. There are currently 5 platforms, but only 2 of them lending/equity based
Scalability	Moderate. Lending projects implemented were of smaller value (2 projects- 55000Eur), while equity model had larger amounts required (2 projects- 2 million Eur).
Citizen Funding leverage capacity	Moderate
Crowd access & mobilization capabilities	All projects implemented had a very good promotional campaigns and the interest of the citizens to invest was very high. Campaigns included general media, social media, web pages and videos.
Project Delivery capabilities & requirements	All projects were implemented successfully. Project initiators were very well prepared, while the information on the projects were transparent and all issues analyzed in advance.
Quality control mechanisms and related reputational Risk capabilities and requirements	All projects were pre-assessed before putting them on the platforms. Also, contracts were signed with the investors to avoid possible future issues.
Funding & Financing Challenges	Since the projects involved didn't have additional sources of financing, CF models were the only ones necessary for the project initiation. The only problem was that this type of financing model is still new in Croatia but nevertheless has brought unexpected success.
Operational Challenges	Both platforms have very good operational and implementation assets, so the campaigns didn't have any additional problems regarding operational issues.
Risks	Risks were pretty much the same as in every CF campaign (lack of interest, possibility of not collecting the required money; underdeveloped project planning...) but with good planning ahead, they were overlapped easily.
SWOT analysis	Crowdfunding Model
Strengths	<ul style="list-style-type: none"> • Very accessible way to collect the required amount of money • Good way to test the market project value and "crowd opinion" • Inclusion of citizen to invest in projects- social innovations • Wide scope of potential investors • Simple administrative processing (in comparison to bank loans) • Networking
Opportunities	<ul style="list-style-type: none"> • Low saving interest rates

SWOT & Comparative analysis	
	<ul style="list-style-type: none"> • Combination of CF with other financing models (for example EPC) • Inclusion in national planning documents- Croatian Smart Specialisation Strategy • New EU crowdfunding regulations which should be transferred to Croatian regulation system
Weaknesses	<ul style="list-style-type: none"> • Unprepared campaign, along with unprepared project • Risk that requested amount will not collected • Limited capacities for preparation and implementation of EE/RES projects • Necessity of extensive marketing efforts (time consuming) • Risk of future funding (if the campaign is unsuccessful) • Platform costs
Threats	<ul style="list-style-type: none"> • Croatian market is quite small • Awareness of citizens about CF opportunities is at a very low level • Lack of interest from potential investors • Non-existent legal framework • High bank and card processing transaction fees • Croatia boasts one of the lowest percentages of internet users in the EU

6.5.2. Conclusion on the analysis

Table 6.8 - Conclusion on the CFs4EE market characterization analysis (REGEA)

Conclusion on the CFs4EE market characterization analysis
<p>Croatian market is quite small and crowdfunding is still in its early stages of development even though there were several successful campaigns implemented. Majority of implemented campaigns were reward/donation based. Currently, there are only 4 EE/RES campaigns implemented through lending/equity model and 2 platforms operating with these models, which are the focus of this report. ZEInvest platform operate on non-profit principles and their primary role is to support projects with low financial profitability and high economic benefits for local communities. Funderbeam SEE is a professional equity crowdfunding platform for start-ups that Croatian investors can use to trade their shares immediately after the initial investment phase, as if those were companies listed on the stock exchange.</p> <p>There are several barriers tackling crowdfunding development, but still are pretty much the same as the rest of EU countries. Lack of legal framework, high bank and card processing transaction fees and low levels of know-how and general awareness about available crowdfunding models. On top of all Croatia boasts one of the lowest percentages of internet users in the EU. The fact that only 53% Croatian shoppers prefers to use their bank cards as payment option shows a high degree of mistrust towards e-commerce.</p> <p>Despite all the recognized barriers, campaigns (lending/equity) implemented so far were successful and citizens interest was very high. For that reason, the pilot project chosen within CitizEE project is the upgrade of the platform croenergy.eu. The platform will be upgraded from donation/reward platform and will include crowdlending model where citizens will be able to financially participate in various RES and EE projects. Also, it will be upgraded to be a match-making platform where initiators (project owners) can nominate their projects for private financing through EPC, ESC (energy supply contracting), leasing or other if applicable. With this kind of models, we will tackle the issues of necessity for additional financing and matching problems, as well as encourage citizens to become investors and have the income through their investments and increase their quality of living.</p>