D3.5 Business models of facilitation services

REFINE

31st May 2022



REFINE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 894603

DOCUMENT SUMMARY INFORMATION

Grant Agreement No	894603	Acronym	REFINE	
Full Title	Development of facilitation services			
Start Date	01/06/2020	Duration	36 months	
Project URL	https://refineproject.eu/			
Deliverable	D3.5			
Work Package	WP3			
Nature	Report	Dissemination Level	Public	
Lead Beneficiary	Creara			
Authors	Adriana Villoslada (Creara), Adrián Cañamares (Creara)			
Co-authors	Rodrigo Morell (Creara), Ruth Domínguez (Creara), Klemens Leutgöb (e7)			

DISCLAIMER

The REFINE Project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 894603. The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the CINEA nor the European Commission is responsible for any use that may be made of the information contained herein.



CONTENTS

. GLOSSARY	
2. INTRODUCTION	5
3. IDENTIFICATION OF THE FACILITATION SERVICES	7
3.1. Lean Canvas Model for the facilitation services	9
The problem	10
The customer segments	10
The early adopters	10
The unique value proposition	10
The solution	11
The alternative solutions	11
The problem	11
The solution	12
Customer segment/early adopters	12
The Unique Value Proposition	12
4. VALUE FLOW MODEL FOR FACILITATION SERVICES	14
4.1. Methodology	14
4.2. Elements of the Model	14
4.3. Actors involved	15
4.4. VFM for "Search for refinancers" service	16
4.5. VFM for "Due Diligence during the refinanciability check" service	e 19
5. METHODOLOGY APPENDIX - THE LEAN CANVAS	22



1. GLOSSARY

Some of the terms that are important in the context of the REFINE project and specifically in this document are not used in a uniform way throughout Europe. Therefore, below is a list of definitions:

Energy efficiency improvement: An increase in energy efficiency as a result of technological, behavioral and/or economic changes.

Energy efficiency improvement (EEI) action or **EEI measure:** An action normally leading to a verifiable, measurable or estimable energy efficiency improvement.

Energy efficiency improvement (EEI) investment: An EEI measure that requires the use of upfront investments, usually through the involvement of a financial institution, and regardless whether these investments are related to hardware installations or to services.

Energy Efficiency Service (EES): Agreed task or tasks designed to lead to an energy efficiency improvement and other agreed performance criteria. The EES shall include energy audit as well as identification, selection and implementation of actions and verification. A documented description of the proposed or agreed framework for the actions and the follow-up procedure shall be provided. The improvement of energy efficiency shall be measured and verified over a contractually defined period of time through contractually agreed methods [EN 15900:2010]. If the EES includes EEI investments, it may or may not include financing of these investments.

Partial services connected to EES: Services that just include parts ("components") of the EES value chain like design and implementation (excluding verification, for example), but are designed to directly or indirectly lead to an energy efficiency improvement. If the partial EES includes EEI investments, it may or may not include financing of these investments.

EES provider: A company that offers EES to its clients. Another term frequently used in this context is ESCO (energy service company), but this term is mostly connected to the provision of energy performance contracting (EPC) or energy supply contracting (ESC), which are specific forms of EES.

Energy Performance Contracting (EPC): A comprehensive energy service package aiming at the guaranteed improvement of energy and cost efficiency of buildings or production processes. An external Energy Service Company (ESCO) carries out an individually selectable cluster of services (planning, building, operation & maintenance, (pre-) financing, user motivation ...) and takes over technical and economic performance risks and guarantees. Most projects include third party financing. The services are predominantly paid out of future saved energy costs (Graz Energy Agency Ltd, 2008).

Energy Supply Contract (ESC): A contractual arrangement for the efficient supply of energy. ESC is contracted and measured in Megawatt hours (MWh) delivered (this definition is a simplified version of IEA DSM Task force 16 definition).

REFIN

Financing Models for Market Growth: Financing Models that enable EES providers to clean up their balance sheet, thus gaining financial leeway for new projects. In many cases, these models contain a refinancing scheme.

Refinancing: A model, where an EES provider sells and a refinancing institution acquires receivables to be paid by an EES client, thus leading to a restructuring of the initial financing set-up which may have been ensured through the EES provider's cash flow, credit financing, leasing financing or other financial means.

Sale of receivables or **sale of claims: an** umbrella term for any kind of receivables purchase agreements that allow a company (in our case an EES provider) to sell off the as-yet-unpaid bills or expected receivables from its customers.

Cession: The legal term for the assignment of receivables.

Factoring: A specific form of receivables purchase agreements, where short-termed receivables are sold. The non-payment risk remains with the seller.

Forfaiting: The sale of longer-term account receivables usually without the right of recourse.

EPC+/++: A EPC where the technical solutions, as well as the contractual issues of energy services, are according to an additional standardized set of structural & aesthetic measures.



2. INTRODUCTION

This report has been developed as part of the REFINE project (Mainstreaming of refinancing schemes as an enhancer for the implementation of energy efficiency service projects). The project, supported by the European Horizon 2020 programme, aims to contribute to the supply of sufficient and attractive financing sources for EEI (Energy Efficiency Improvement) investments through the enhancement of refinancing schemes which are important amplifiers of market growth.

A refinancing scheme is understood as an approach whereby an EES (Energy Efficiency Service) provider sells to a refinancing institution the receivables to be paid by an EES client. This kind of scheme can help overcome certain financing barriers that frequently emerge in the EES business in general and represent a barrier for EES markets in most South and Eastern European countries.

A variety of tools, instruments, and services have already been developed within the scope of the project to facilitate the refinancing of projects, reduce transaction costs for borrowers, and develop energy efficiency services as an asset class for corporate investors as key objectives.

One of these enabling mechanisms is the facilitation services. Facilitation services can be understood as standardized brokerage services provided by facilitators to foster EES. These services can differ in their fit across the different stages of the refinancing process and the nature and the degree of connection with the refinancing operation.

This report delves into the identification of facilitation services, the description, and the different types of services that can contribute to the realization of the refinancing operations. The methodology chosen to implement this part is the Lean Canvas Model¹. This technique is especially helpful to understand the problem in focus and the value that it creates for the customer groups, which is the first step for a successful strategy to launch new services to the market.

The second part of the report focuses on the market development of facilitation services. Using the Value Flow Model² technique, the ecosystem of actors and the relationships (motivations, influence, value flows) between them is represented graphically.

Thanks to this process, it has been possible to delve deeper into this type of services, which were not previously grouped together, nor was it possible to identify companies specialised in providing several of these specific services.

² The Value Framework is a method that supports the creation of shared value for people, organisations and society at large (Lighthouse, Eindhoven University of Technology). It also gives insight into what meaningful innovations are, what value is, and how it can be created. It is a model that can be used to describe 'new' business models requiring new business ecosystems and describes how to create meaningful value propositions. For further information consult https://www.tue-lighthouse.nl/Images/Propositions/20161003%20Value%20models.pdf



¹ For more information about this canvas, please refer to the blogpost explaining Lean Canvas and the ideas behind it on his website: <u>http://www.ashmaurya.com/2012/02/why-lean-canvas/</u>

Both the facilitation services identification and the Lean Canvas Model have been produced through a collaborative deliberation process and after several feedback loops among experts on the financial and energy fields. The consolidated results are reflected in this document.



3. IDENTIFICATION OF THE FACILITATION SERVICES

Facilitation services are standardized brokerage services provided by facilitators to foster EES from a triple perspective: market, project, and financing facilitation.

As there are a wide range of services that could potentially be classified as facilitation services, a distinction between two types of facilitation services has been deemed appropriate:

- **Core brokerage services:** those services that are essential for the realization of the refinancing operation.
- **Neighboring facilitation services:** those services which are connected to the refinancing operation but not essential.

In any case, due to the immaturity of many national refinancing markets, the large differences in market structures between EU member countries, and the variety of energy efficiency project typologies, many specific facilitation services could be identified for particular markets or projects.

Nevertheless, the Refine consortium has been able to bring together the knowledge of the national energy services markets of the partner countries and has therefore been able to identify the most widespread facilitation services in Europe.

The table below contains a list of facilitation services that follow the logic of the different stages of the refinancing process, from the inception of the operation to the signature of the refinancing contract.



Stage of the process	Description	Type of service	
Market Development	During the pre-financing stage, facilitation services help to dynamize the market promoting the use of EPC as a financing service. Both financers and IEE services are often looking for good opportunities and they could benefit from matchmaking support and related activities.	Neighboring	
Project appraisal	 A refinancing operation starts often with a project appraisal. This document must include: Introduction of the business opportunity and overall context of the operation in its sector Operation and financial structuring: Alignment of interests between parties, determining the volume to be refinanced, expected revenues and timeline, CAPEX and OPEX, compatibility with public subsidies if available. Timing and status: how much has been executed and which is the volume left for refinancing) Client's profile: who is the beneficiary of the refinancing. Contractor's profile: who is selling the project 	Neighboring	
Search for refinancers	Facilitation services can help to identify potential buyers (refinancers) and contribute to the overall alignment of their interests with the client's refinancing needs. This phase, if successful can end with the signature of a Non- Disclosure Agreement (NDA).	Core	
Estimation of the operation returns	A profitability calculation model will be needed for its distribution among potential buyers and price negotiation. This model will include (at least) the expected revenues, costs, and IRR at least. Guarantees can be added to the model.	Neighboring	
Due diligence during the refinanceabilit y check	Due diligence of the project is crucial in the refinancing process. Normally banks will perform their own risk assessment on the client, but facilitation can be useful to understand the risks of the project. Depending on the circumstances, a due diligence of the contractor might be also requested. It can also include the eligibility of the project based on EU Taxonomy. ³	Core	

³ The EU taxonomy is a classification system, establishing a list of environmentally sustainable economic activities. Further information on EU Taxonomy, please consult https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eutaxonomy-sustainable-activities_en



Verification of energy savings	The success of most projects involving EES services is centered on achieving long-term, stable energy savings that will enable the client to make the periodic payments associated with the debt generated by the project. Often the financial institution does not have the capacity to verify the savings, and if it is done by the ESCO that has carried out the project, there may be a conflict of interest. An independent company (which could be another ESCO) could carry out this verification prior to the refinancing process or on a regular basis. Reducing the risks perceived by the refinancing institution.	Neighboring
-----------------------------------	---	-------------

Table 1: Identification of facilitation services.

It must be noted that facilitation services may help to expand the refinancing market, but this does not mean that refinancing cannot succeed without them. As a matter of fact, in some countries like the Czech Republic, the market is mature enough to foster refinancing schemes without facilitation services (at least in the public sector).

Another consideration can be made regarding the need to create value for the actors involved in the facilitation process. In this sense, a successful offer of facilitation services must take into account all the elements present within the refinancing operation, and they must be complementary to the underlying contract (EPC, ESC, other EES types). This is critical when the potential beneficiary and the client are the same agent.

Overall, facilitation services can certainly be very beneficial to increase the probability of concluding a refinancing contract. Nonetheless, if good facilitation services are in place, the price of capital could be lower compared to the price of the original financing.

The techniques introduced in the next chapters (Lean Canvas Model and Value Flow Model) will help to visualize the value proposition for the agents involved in the facilitation services.

3.1. Lean Canvas Model for the facilitation services

The end goal of a Lean Canvas approach is that an unknown third party can review the process from start to end and, understand what the facilitation services are about. They will understand the problem, the customer groups, the solution provided, the added value and how it differentiates from competitors, etc.

The Canvas Model for facilitation services has been split in two to cover the different perspectives involved: FI and ESCOs.

Below, are the outcomes from the collaborative work conducted to develop the lean canvas for **Financial Institutions (FIs):**



The problem

The main problems identified towards which the facilitation services can contribute are:

- Need to bring all parts together: financial institutions on one side and EE services on the other, are looking for good opportunities to invest and to sell, respectively. Facilitators can help putting both ends together, though, for example, market development services.
- Access to projects that are suitable for refinancing: financial institutions often have little knowledge of the energy efficiency market and its growth potential. Even when FIs are among their goals to increase their Green Finance portfolio, they may have only limited access to projects.
- Lack of understanding of the refinancing concept: FIs often regard refinancing as a restructuring process due to financial difficulties on the client side, which makes them disregard the opportunity that refinancing represents.
- Increase in profitability: FIs tend to consider refinancing a **low-profit business but** some of the services offered by facilitators can contribute to improve profitability, especially through standardisation.
- Lack of volume of EEs investments: the facilitation services could increase the level of attraction for FIs.

The customer segments

Main customers for facilitation services coming from the financial side are:

- Commercial banks.
- Specialised investment funds (e.g.: for renewable energies).

The early adopters

Among the banking sector, there is one subsegment which might be more interested in facilitation services:

• Fls looking for new opportunities to invest in sustainable projects.

The unique value proposition

Certain features of the facilitation services make its offer unique:

- Facilitation services contribute to lower the risk of refinancing EE projects.
- Facilitation services support the **expansion of the FI's green finance portfolio** into the area of EE investments.



• Facilitation services enable **the bundling of several refinancing operations** into a securitization vehicle, ready to be sold on financial markets (overcoming the problem of small investment amounts).

The solution

The solution offered by the Facilitator brings the following features:

- Matchmaking between FIs and ESCOs: The facilitator prepares a pipeline of refinanceable EES investment (including technical and legal due diligence) based on framework contracts agreed with FIs.
- **Due diligence of the client:** This is perhaps the most critical step of refinancing. The facilitator can help analysis the client's financial position.
- Estimation of the returns and support to Fi to understand the savings and the risks of EE projects
- **Risk rating system**: the facilitator can provide specific tools to better assess the risk of the project and, reduce the transaction costs bore by FI. The REFINE rating system has been created to that end. The system is divided into 3 different risk levels: L1-Standard Financial Institution Default Risk Evaluation, L2- Energy Efficiency Project Risk Evaluation, L3- Energy Efficiency Service Contract Risk Evaluation.

The alternative solutions

There are mainly two alternative solutions to the facilitation services.

- Certain ESCOs that provide financing and connected services. That carries two disadvantages. First, ESCOs must bear the assets on their balance sheets, which might end up undermining their growth potential in the long term. Second, ESCOs' vision on the refinancing may be biased since they are also responsible for the project implementation. That might lead to inaccurate estimations of costs and revenues.
- Non-specialised, corporate advice (i.e.: attorneys). In this case, the lack of knowledge on energy or financing aspects is the main disadvantage.

Certain aspects of the Canvas are different when the ESCO's perspective is taken into account, while others remain the same. Below, are the distinctive elements of the Canvas from the **ESCO's** perspective:

The problem

In addition to the need to bring all parties together, other problems are specific to ESCOs when trying to get refinancing:

• Difficulties to get refinancing for **different kinds of projects** (i.e., private contracts are often perceived riskier than public contracts, and therefore refinancing is scarce).



- Lack of financial expertise: most ESCOs have a technical/engineering background, lacking the financial understanding to establish a dialogue about refinancing with a FI.
- Market barriers affecting refinancing: due to low-interest rates, ESCOs might not be that much interested in getting into refinancing projects, especially in countries with staging growth.

The solution

Certain aspects of the solution such as the matchmaking FIs-ESCOs and the risk rating system are equally useful for the ESCOs. In addition, the following elements are valuable for them:

- Estimation of returns to be offered to refinancers.
- Support on legal aspects and contractual terms.
- Information on typical conditions of refinancing/benefits/best practices from other countries

Customer segment/early adopters

- Small/Medium size ESCOs, innovative and willing to grow.
- **ESCOs** (any size) who need to free their balance sheet so they can invest in new projects and, at the same time, they have a good reputation for FI.

The Unique Value Proposition

- ESCO will be **freed of EES client's credit risk.** The facilitator has the know-how in assessing the credit risks of the EES clients in contrast to ESCOs.
- Access to FI's financing.
- Using facilitation services may allow the **bundling of projects** in a pipeline for refinancing which facilitates the refinancing, as transaction costs decrease and the volume of investment increases.

Finally, the following elements are shared among ESCOs and FIs:

Unfair advantage

• If the refinancing is not agreed from the beginning, the client can go to another provider, using the information provided by the facilitator

Channels

• ESCO associations can promote facilitation services.



• Professional media in the financial sector

Metrix

- Number of refinanced projects
- Value of refinancing contracts



4. VALUE FLOW MODEL FOR FACILITATION SERVICES

After identifying the key elements for the market development of facilitation services, next step is to land these ideas into effective business models to be launched to the market.

That implies going one step further by describing the designed services, using also visual elements. This will help to classify and rank the stakeholders involved and to visualise the various exchanges that take place among them in a clearer manner. For this purpose, the Value Flow Model methodology is used.

As a result, the business model for the two core facilitation services (Search for refinancers and Due Diligence during the refinanciability check) has been developed through the Value Flow Model canvas.

4.1. Methodology

The Value Flow Model is especially useful to describe innovative businesses including the business ecosystems and helps to reflect on the creation of meaningful value propositions. The ground beyond this technique is that new ecosystems carry complex interactions of several stakeholders, not only between the facilitation service provider with its customers but also the flow of value between multiple members of the total ecosystem.

By following this methodology, the offerings and interaction between the stakeholders who take part in a refinancing operation within a facilitation service can be identified, which enables to comprehend the added value held by each of the actors involved.

4.2. Elements of the Model

To start representing a business model and its ecosystem it is necessary to present the actors that will, either directly or indirectly, participate in the business model. A general description of the actors, their backgrounds, and a definition of their main motivations to participate in the service offered is provided in the table below.

The table also includes two columns with icons defining the Compatibility/Influence of the actor on the service provided and the Investment/Throughput time that will be required by the actor to obtain the value of the service. The icons are displayed below:



Influence:	Compatibility:	Investment:	Throughput time:
♣ High Influence	+ Compatible	€€€ High Investment	High time
+ Medium Influence	Neutral	€€ Medium Investment	$\overline{\mathbb{Z}}\overline{\mathbb{Z}}$ Medium time
+ Little Influence	Non-compatible	€ Low Investment	[∑] Low time

Figure 1: Icons for describing the actors of the FS

4.3. Actors involved

Actors involved in the business model are common for both facilitation services. The main difference is the customer of the facilitation service, which means who contracts the facilitation service (the ESCO or the refinancing institution), and the flows of goods and services, money, and information.

		Description	Motivation	Compatibility / Influence	Investment and time
End-client	===,	Public clients, private households, owners of single-family houses, neighborhood communities or homeowners' associations, corporate clients, SMEs.	Agreed to refinancing by contract	=/+	NA
Refinancer	(E) = = = 1	Investment funds and Commercial banks	Lower the risk, procedure standardization, Expansion of their green finance portfolio, bundling refinancing operations, EU Taxonor	+ /+	€€ ZZ
Facilitation Services (FS Provider)		Companies providing a facilitation service benefiting the refinancing operation	Little competition, expanding market, cover a niche market opportunity, increase turnov		€€€ ZZ
ESCO	*	Energy services company, it studies, designs and installs energy efficiency measures.	Finding affordable refinancing, estimation o returns, help on legal and contractual aspec		€€ ZZ
FS Promotors	1	ESCO associations, Market and communication agencies specialized in EE financing	Increase turnover	+/+	€ X
Insurance companies	(iii)	Public and Private Insurance companies	Increase turnover, meeting political targets sustainability	for +/+	€ Z
Public institutions	111 •	Government, regulators, etc. that may affect refinancing and facilitation services	Achieve decarbonisation objectives	+/+	€ XXX
Competitors		Other ESCOs providing the financing and the connected services	Increase turnover, get new clients	-/+	€
Society	ŶŤŶ	The general society	Increase quality of life, generate employment and welfare	^{nt} =/+	€ XXX

Figure 2: Actors involved in a Facilitation Service

The actors can be placed in the following four areas within the Value Flow Model depending on their role and relevance for the business model:

• **The Core Value Proposition** including the service provider, the client of the facilitation service, and those actors that exchange value directly with the end-client.

• The **Complementary Offerings** intend to make the total offering bundle more attractive for the client.



• The **Supplying and Enabling Networks**, composed by the actors and transactions that deliver necessary services even though they do not directly influence the business model, (such as equipment suppliers).

• Other Stakeholders or actors who are affected by the value proposition being offered by the new business model.

The last element to define in this model are the arrows that connect the actors, which will have a different colour depending on the value flow they represent:

- Goods and services: Green arrows \longrightarrow
- Money and credits: Red arrows --->
- Information: Yellow arrows ---->
- Intangible values: Blue arrows ----->

The main stakeholders in business models based on providing facilitation services in refinancing operations will be those in the Core Value Proposition zone. These actors are the three main stakeholders in most EE projects in the EU (End-client, ESCO, and Refinancing Institution) plus the Facilitation service provider.

Facilitation services business models are characterised by the inclusion of a facilitator within the Core Value Proposition that provides a facilitation service to one of the stakeholders of a refinancing operation.

4.4. VFM for "Search for refinancers" service

In the current refinancing market, the fragmentation of the sector and the lack of connection between ESCOs and refinancers has been identified as a major barrier. Therefore, a service that consists of intermediating between both actors and generating the necessary connections for a refinancing process to be successful has been identified as a core service. In the first case of "search for refinancers³", the service is provided to the ESCO, which has been identified as the main interested party in processes of this kind.

Starting with the most internal area of the model, the **Core Value Proposition** is composed of the three main actors and a facilitation service provider. The service provided is the search for potential refinancers willing to buy the receivables generated by an energy efficiency intervention conducted for an end-client. This end-client normally does not play a decisive role in the refinancing operation and is not largely affected by it. Often there is a clause in the initial contract that prevents the end-client from objecting to the refinancing.

The service provided by the facilitation service provider can be complemented by bundling projects from the same or several ESCOs to generate a larger and more attractive volume for financial institutions.

Once the refinancers search operation is completed, the facilitator receives payment for the services and the refinancing operation is closed, generating the rest of the flows in the model.





The Value Flow Model for the Search for refinancers kind of operation can be seen below:

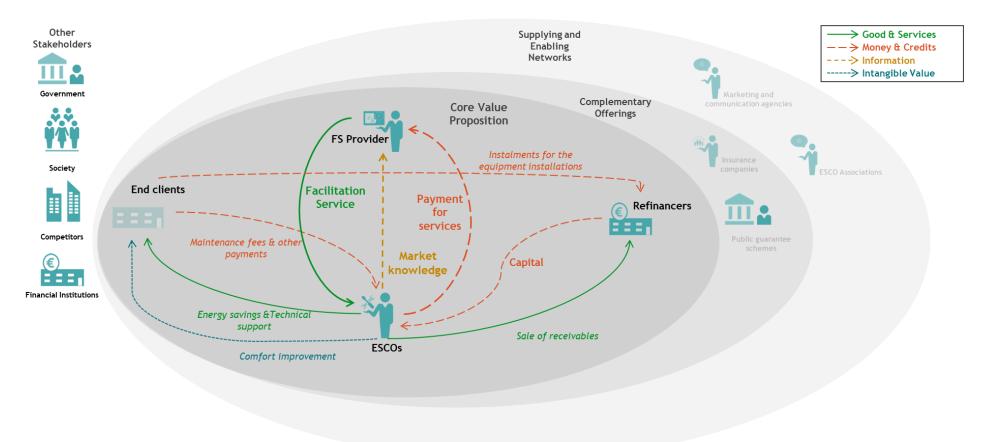


Figure 3: VFM for "Search for refinancers"

The **Complementary Offerings** are the next area of the model. Here, value-added by insurance companies and public guarantee funds can be found. Their role in this service is to make the search for refinancers for energy efficiency projects more attractive.

The external part of the diagram, the **Supplying and Enabling Networks** group consists of in actors such as specialised marketing companies or associations of ESCOs, which, without entering the core of the operation, can develop services to support and streamline refinancing operations. In this case, as it is a matchmaking operation, it does not require any equipment providers or similar services.

To promote the facilitation service, which is currently not widespread in the market, advertising and dissemination can be valuable. This can be conducted by specialised energy efficiency agencies or national or international associations of ESCOs. The latter actor, the ESCO associations can play a key role in publicising this service among their partners and providing feedback to improve the implementation of the model.

The last and most open group is formed by **other stakeholders** that can indirectly impact or be impacted by the development of this business model. The states and European governments developing and promoting policies or society, in general, looking for a higher level of energy efficiency in their homes or businesses could be included in this group. Another group indirectly affected by this scheme are the competitors, other ESCOs that because of their contacts with financial institutions, their size, or their business planning, do not use facilitation services or do not know about its existence.

4.5. VFM for "Due Diligence during the refinanciability check" service

This second facilitation service has the same actors as the "Search for refinancers", being the main difference in whom the service is provided. In this case, it is the refinancing institution that requests a Due Diligence service from a facilitation company expert in the energy efficiency market.

This service consists in carrying out an investigation, audit, or review in order to provide input for the decision on refinancing. This service is commissioned by the refinancing institution to obtain an objective assessment of the potential refinancing operation.

The Value Flow Model for the Due Diligence during the refinanciability check operation can be seen below:

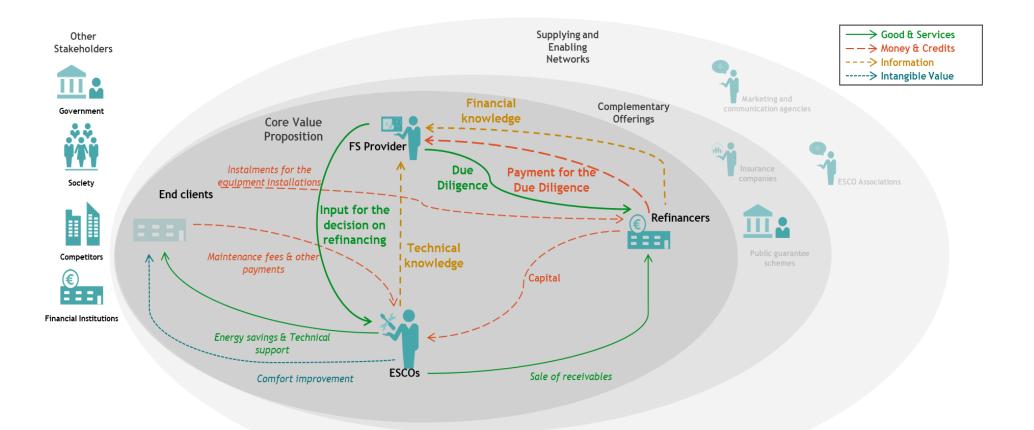


Figure 4: VFM for "Due Diligence"

If the outcome of the due diligence is positive it may lead to the initiation of the refinancing process, culminating in the purchase of the deliverables by a financial institution.

The other actors in the remaining areas of the model have the same position and role as in the "Search for refinancers³" service.

Also noteworthy in this model are the information flows from the refinancer and the ESCO to the facilitation service provider. The information handled when carrying out a Due Diligence service, both technical and economic-financial, can represent an added value for this facilitation service provider in the form of market knowledge useful for other sections or activities of the company.

5. METHODOLOGY APPENDIX - THE LEAN CANVAS

The end goal of the lean canvas is that an unknowing third-party will be able to review it from start to end and, through this revision, understand what the new services are about. They will understand the problem in focus, the customer groups that you target, the solution you provide, how it differentiates from competitors, how you intend to create value, etc.

The lean canvas helps to fine-tune and develop the exploitation strategy for the new services having in mind four questions:

1) Who is "my customer"?

- 2) What is "her/his" problem?
- 3) How does "She/he" solve the problem now?
- 4) Is our solution more efficient than the current one?

Below is a description of the main steps to be followed in order to draft the canvas.

1. PROBLEM - find 3 main problems you are addressing.

Explain: *What* is the problem and *why* is it a problem.

2. CUSTOMER SEGMENTS - identify who has the problem and define target customers (do not confuse with users). Be clear on explaining the geographic location of your customers, their social extraction, as well as any other factors connecting them to the problem in question.

3. EARLY ADOPTERS - find a small niche that is having the biggest problem, the ones that suffer the most (early adopters). These will be the first customers of your solution; Be sure to find as much information about these as possible. Explain the geographic location, connect them to the problem, explain exactly why these will be the first adopters, clarify your current connection to them, etc.

4. EXISTING ALTERNATIVES - Find out how customers and, especially, early adopters are solving the problem now (today's alternatives)

5. UNIQUE VALUE PROPOSITION (UVP) - Define your UVP based on today's alternative, what makes your product/service more efficient for your customers, and a single and compelling sentence that makes everybody understand why you are far better (your features need to be compelling to the customers' needs, otherwise are irrelevant to clients). Ensure that you clearly define how you differentiate from alternative solutions, and why the customer will come to you; Explain the *uniqueness* of your solution.

Provide facts and data, explaining the performance of your product compared to alternative solutions (efficiency increase of 20%, decreased energy consumption of 10%, 30% less development costs, etc.).

6. SOLUTION - outline the main features of your solution.



When your features are similar to the ones of the competitors, this is equality. What matters are the points of difference! What you do, that the others do not is what matters to the clients. Be sure to explain the format of your solution (is it a machine, equipment, software, a service, a process, etc.), what it does, and how it does it.

7. CHANNELS - How will you reach your customers?

Be sure to investigate whether the chosen channels are suitable for your choice of customers and consider whether they will be enough to establish the needed reputation on the market.

8. UNFAIR ADVANTAGE - what is it that gives you an advantage in front of the competition? Something that can't be easily copied or bought.

This could be IPR, being the first movers on new technology that takes years to develop, etc. Be sure to explain why the listed points provide you with an advantage. It can be difficult for third parties to understand if they do not have a wide array of knowledge regarding your industry.

9. REVENUE STREAMS - Which will be the main revenue streams when the solution is ready for the market. Explain how each of them will generate revenue and how much you expect to generate from each stream.

Estimate revenues for the seed stage after 6 months and after 3 years. Quantify amounts and prices by detailing, for example, the expected number of services provided and paid, the number of licenses sold at which prices, etc.

10. KEY METRICS - key activities you will measure to track the success (e.g., units sold, users registered, retaining users, paying customers, number of complaints)

11. COST STRUCTURE - which will be the main costs when the solution is ready for the market (e.g. customer acquisition costs, distribution costs, hosting, people, etc.).

As with revenues, estimate the total costs issued after 6 months and 3 years along with the estimated cost of each "cost-entity". This will connect your revenues to your costs. After you finish the exercise, test your hypothesis "out of the lab", with at least 2 to 3 real potential customers:

- Are the problems you assume really the ones? Is your solution solving their problem?
- Are the features your solution is offering the ones the market needs and looks for?
- Are the explanations provided in the canvas sufficient to provide the customer with an understanding of your project?

