



# A guide for the launch of a One Stop Shop on energy retrofitting

Based on RenoWatt's experience in Liège



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# A guide for the launch of a one stop shop on energy retrofitting

## Executive Summary

### **RenoWatt: a One Stop Shop for public authorities, which facilitates the energy retrofitting of public buildings**

RenoWatt is a procurement agency, acting on behalf of public authorities that undertake energy retrofitting works in their own existing buildings. The agency aims at supporting public authorities, by modelling a system that can be replicated in Wallonia, while promoting employment in the region.

Joining the procurement agency means for the public authorities to adhere to its founding principles:

- Set-up **Energy Performance Contracts (EPC)** allowing to:
  - o cut the energy bill and the CO<sup>2</sup> footprint of the member cities and municipalities
  - o guarantee the energy performance of the works
- **Pooling of buildings**, i.e. gathering buildings belonging to different municipalities in order to reach a sufficient size for the project. It offers advantages, mainly regarding the works and maintenance price, as well as the diversification of the risk

### **Services to the public authorities**

- **“public” structure** simplifying the tendering process
- **technical audits** conducted by the One Stop Shop and identification of the investments to do
- **financial plan** (analysis of the financial return)
- **procurement of the EPC’s** (from the draft of the specifications, to the negotiation with the ESCOs)
- **pooling of buildings**, allowing the public authorities to get better contractual terms from the ESCOs and the financiers
- **search for funding**: negotiation with the existing funding agencies; giving access to funds to which a municipality would not have alone

### **RenoWatt in figures**

- Project launched in 2014
- EUR 2 million financed by EEEF<sup>1</sup> for the Technical Assistance
- EUR 40 million committed (EUR 40 million works in energetic retrofitting) by February 2017<sup>2</sup>
- 4 tendering procedures launched for the different building pools
- 10 public authorities involved
- 120 sites
- 225 buildings
- 27 %- 36% of electricity savings
- 26-35% of fuel savings for heating

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<sup>1</sup> European Energy Efficiency Fund

<sup>2</sup> February 2017 coincides with the end of the tendering procedure, and the award of the contracts.

# 1. Introduction

This toolkit is aimed at public and private actors whose objective is to work on energy retrofitting in buildings.

RenoWatt, an energetic One Stop Shop pilot project launched in Wallonia, wants to share its best practices and aims at capitalizing on its experience, so that its activities can be replicated elsewhere (in Belgium or abroad) and on a larger scale.

This document should be considered as a real toolkit, answering concrete issues, offering step-by-step guidance and is meant to evolve as the pilot project RenoWatt is developing. It should be considered as a starting point for actors (public or private) that need assistance and advise to launch a similar project.

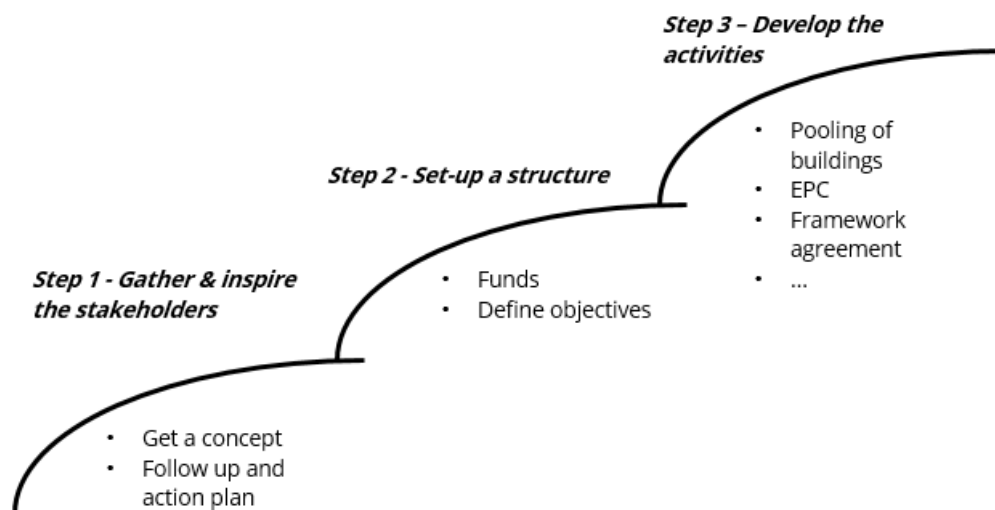
The services proposed by the One Stop Shop will also target a variety of different audiences:

- any actor working in energy retrofitting preparation (and more specifically local companies or local/regional authorities)
- any financial actor interested in responsible investments, and more specifically in investments in energy efficiency retrofitting
- any actor or entrepreneur working on energy efficiency improvements

The information you will find in the toolkit is based on Liège's experience and the model GRE-Liège developed, i.e. RenoWatt is one model among others. Each region is different and has its own specificities, which means that RenoWatt may only be a model to build on. It is not appropriate for all kinds of models developed. Specificities of RenoWatt can be identified thanks to the logo of RenoWatt next to some paragraphs of the document.

Before launching a similar structure, one should also get inspired by other models such as the ones developed by CITYnvest in [annex 8](#) (also refer to the [section focusing on the models that have inspired the pilot project in Liège](#))

The toolkit is divided into 3 parts, representing the 3 basic steps for the launch of a One Stop Shop:



## 2. Main challenges to launching energy retrofit projects related to available public funding

Any actor who aims to work on energy retrofit faces several challenges that one may not be able to resolve alone.

This guide attempts to provide a solution to the challenges listed below and exemplifies them with what was done by the Liège One Stop Shop.

<b><u>Human resources</u></b>	<b><u>Complexity</u></b>	<b><u>Financing</u></b>
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### 2.1 Human resources

- Launching an energy retrofit project requires to gather the human resources with the necessary [competencies](#).
- As far as **external competencies** are concerned, 5 to 8% of the investment budget will be allocated to the pre-studies that needs to be done before the actual launch of a project. In this respect, the Technical Assistance fund has been developed by the European Commission. It allows authorities to submit complete and qualitative projects to the funding authorities, since it finances the required pre-studies before the launch of new projects.
- The number of people within public institutions who can deal with this kind of initiative is often too limited. And yet, such a project is a **time consuming task** that should not be underestimated. It requires people to **work full time** on it or at least consider it as a **priority job**.

### 2.2 Complexity

- **Setting up** such a project is particularly complex and can be a barrier
- **Public procurement** is also a complex aspect that may frighten project initiators
- The complexity also lies in the **financing aspect** (see section [2.3 financing](#) below)

### 2.3 Financing

- The **states' debt crisis** and the **budget constraints** in public subsidies are a barrier to the launch of ambitious projects
- Financing is key and a particularly complex aspect at different levels:
  - Developing an **appropriate financing model**, which requires specific competencies, in accordance with the public debt constraint
  - Energy retrofit projects requires important **early stage capitals**
  - Financing and funding **search**

## 3. Key Success Factors

We would like to highlight the key success factors that are listed below and later explained in details. They respond to the challenges identified in [chapter 2](#).



### 3.1 Inspire the stakeholders and share best practices

As explained in the section about the workshop (see section [5. Gather & inspire the stakeholders](#)), the success of the workshop and accordingly of the pilot project lies in inspiring crucial actors. They should understand models that have already been developed across Europe and meet the practitioners who will share their experiences. Sharing experience enables participants to measure the potential of energy retrofitting projects, and make them aware that they can apply and launch a similar project in their own region.

In order to organize a successful workshop, it is important to tailor the presentations to the specificities of the participants and to facilitate learning from the experience of others.

It is also key to strike while the iron is hot and directly follow up with a concrete action plan.

### 3.2 Convince the political leaders

Convinced and inspired political leaders help a project to progress. They are a gateway to supporting such projects, changing the legislation if necessary or releasing financial incentives or funds. Here are some reasons why they support the Liège pilot project:

From a regional point of view:

- Be less dependent on energy import: such a project contributes to make energy efficiency benefits, but also to make the Walloon Region less dependent on the energies imported (currently estimated at 93%), which will help to invest the profit in local activities, creator of wealth for the territory.

From a local point of view:

- Promote local employment: the maintenance of the facilities provided by the EPC will be supplied by the local labour, which will have an impact on the sustainability of those jobs.
- Promote service economy, which is an innovative approach allowing to reconcile in a synergic way an economic, environmental and social performance.
- Energy cost savings
- CO<sup>2</sup> emissions reduction

These above mentioned aspects are positive and concrete messages towards the citizens, supporting the political leaders' actions in energy retrofitting.

### 3.3 Funding search

Subsidies such as the Technical Assistance of [EEEE](#) (European Energy Efficiency Fund) and [Elena](#) (European Local Energy Assistance) make it possible to provide grants for pre-studies to launch energy efficiency projects and show to the public authorities the potential and the added value of the project. It allows the public authorities to launch energy retrofit without having to invest from the very beginning. Financial investments by the public authorities will be made at a future stage.



In RenoWatt's case, the One Stop Shop was financed by EEEF, which financed EUR 2 million for consultancy and staff costs.

### 3.4 A neutral One Stop Shop with a facilitator role

The set-up of a neutral structure is important to assist all kind of public or private stakeholders. Moreover, this structure should be a non-for-profit one, which is the GRE-Liège's case.

The One Stop Shop plays an intermediary role with the financiers (for further information, see section [5.3. Central purchasing agency versus procurement agency](#)).

The One Stop Shop also acts as a facilitator, particularly in its role of purchasing central agency. The principal advantage of a central purchasing agency consists of concluding contracts on behalf of public contracting authorities in order to implement energy saving measures, either under EPC's (including maintenance services such as works, supplies or services related to energy retrofit), either under a framework agreement (for further details, see section [6.5. Set-up of a central purchasing agency or a procurement agency](#)). The agency's role is in principle limited to launching the procedure and awarding the contract.

A central purchasing agency also has the following advantages:

- It makes the procedures easier
- It helps preparing the required documents
- It reduces the length of time that the public contracting authorities would need to do it by themselves

For further information, see [6.5. Central purchasing agency versus procurement agency](#).



### 3.5 A dedicated and skilled team

It is essential to have an operational team working on a daily basis on the project (see [section 9. Operational structure of the One Stop Shop](#) for more details on the team in place at RenoWatt).

Gathering people with the required skills and expertise is important in order to master the complex and various domains to take into account when launching an energy retrofit project. For example, being accompanied by an EPC specialist or an EPC facilitator is important, since it is quite new and not widely practiced. Creating synergies between them is also an important aspect to develop).

### 3.6 Committed municipalities

The success of the project also lies in the degree of commitment of the municipalities to the project. This should happen at two levels:

- The Steering Committee: the public authorities involved in the project need to be represented within a steering committee, whose role is to validate the progress of the project, the recommendations made by the operational team and the technical committee. The steering committee consists of decision makers.
- An energy manager from each public authority, who has the technical skills, knows the specificities of the buildings of its municipality and is able to provide the required data.

### 3.7 Standardization of the tools

Efficiency of work is closely linked to the quality of the tools available. The One Stop Shop ensures to provide the actors with the tools they need, for example in terms of contracts or the building selection methodology (for further information, see section [7.2. Development of the investments programs](#)).

When developing the tools, the One Stop Shop makes sure they meet the needs and are appropriate. Tools are first tested and validated by the key stakeholders (the operational team and one pilot local authority) of the project, before circulating the information.

### 3.8 Communication

The concept of energy One Stop Shop's or contracts (i.e. Energy Performance Contracting) is not much widespread and is very innovative. Thus it is essential to explain what it is to those who might be involved, that is to say the clients (the public authorities) on the one hand and the providers (the companies) on the other hand.

It is also essential to be permanently in contact with the actors involved, as everybody needs to work in parallel to be as efficient as possible and needs to be involved in the project. This aspect should not be underestimated: the time spent for the briefings, information meetings, training sessions,... is proportional to the number of public authorities and providers involved.

Here is an overview of the different kinds of actors involved in such a project and with whom (regular) contact is needed and necessary:

- At a "local" level: each public authority involved in the project
  - The political representative(s) of each public authority involved
  - The energy manager of each public authority

- The finance manager of each public authority
- At a “higher” (regional/national) level:
  - Decision makers that need to be aware of the project and amends that might be done to the current legislation.
  - The different sources where to find and get subsidies or regional funds
- The providers (energy providers, construction workers,...)
- The external consultants
- The stakeholders of the project (in the case of RenoWatt, what was called the Technical Committee, which is composed of experienced “technicians”)

Section [7.4. Communication](#) gives more details about the communication aspect.

The decision-making process is also part of communication. For further details, please refer to [section 8. Decision-making processes](#).

## 4. GRE-Liège

### Economic development and job creation through energy retrofit

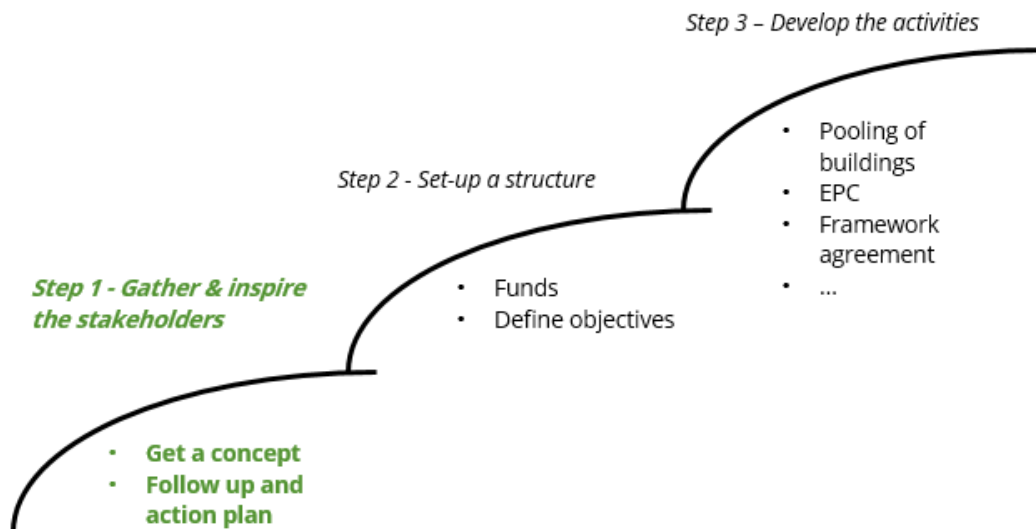
GRE-Liège (Groupe de Redéploiement Economique) is a non-profit organization created in 2004 by the Walloon Government and acts as the Development Agency for the Liège area. Its primary mission is to help develop conditions to create sustainable jobs in the province of Liège. To this end, GRE-Liège has identified key areas of focus.

Being aware of environmental challenges to be raised in the new decades and the role that public authorities have to play, GRE-Liège focuses more specifically on energy renovation of old buildings. Energy is one of the main working axis of its strategy plan 2013 – 2020.

The combination of the double objective (job creation and energy retrofit) represents an important potential of economic development. According to the European Union, one million Euros invested in energy retrofitting mobilizes 17 jobs. Based on a potential market in Wallonia close to 30 billion Euros, and considering that about one billion is invested per year, energy retrofitting would represent 17.000 jobs mobilized per year in Wallonia for the next 30 years.

GRE-Liège plays a major role in the One Stop Shop since it launched it and is the structure currently supporting RenoWatt.

## 5. Gather & inspire the stakeholders



## **Workshop on innovative financial vehicles for energy retrofitting**

GRE-Liège launched in January 2014 a reflection on the development of innovative financial vehicles for energy retrofitting.

The workshop aimed at sharing best practices to finance energy building retrofitting and brought together 48 different organizations: public authorities and companies, energy companies, the University of Liège, financing companies and legal companies.

Participation of practitioners, who could share experience and discuss practical issues, was crucial. The discussion group was limited in order to be able to facilitate smooth exchange of opinions and debate on practical issues.

Participation of some political decision makers (mainly at a local and regional level) was also important. The aim of the workshop was to inspire them and get a consensus on a model to launch in Liège.

In other words, the workshop gathered different profiles of people, who, together, asked questions, took the debate forward and made it possible to come up with a pilot project for the region.

The contents of the workshop gave attendees a comprehensive overview of the different existing models in Belgium and across Europe. It also made them realize that ambitious energy retrofitting projects do not only apply to big cities like London, but could in fact be launched on a smaller scale.

Discussed topics covered challenges related to financing for renovation, improving the energy efficiency of buildings, consolidating economic activity, planning and getting a long-term vision of the retrofits. Models from across Europe were presented. One of the objectives of the workshop was to draw upon the experience of neighboring countries, to determine the one(s) that would be the most appropriate for the Liège area and to make sure that investment begets investment (the leverage factor). And finally, the workshop aimed at discussing how to set up a similar funding vehicle in the province of Liège.

To play the video summarizing the workshop click [here](#).

The program of the workshop can be found in annex 1 and the full presentations package can be found [here](#).

The success of the workshop also lies in the way it had been prepared. When organizing a workshop, one should keep in mind that it needs to be tailored to the target region and to its specific needs. The workshop's main objective was to inspire its participants, by presenting them successful and exemplary models. The choice of the speakers, topics and models presented was key since it was tailored to the specificities and the needs of the region and of the participants. The project initiator (GRE-Liège), when organizing the workshop, need to know which direction the workshop will take. He needs to have a business model in mind that will be presented to the participants of the workshop. The speakers, the topics discussed and the models presented need to receive a consensus from the participants at the end of the workshop. It allows the project initiator to target the participants to the workshop and to guide them in their discussions

Out of this 2-day workshop, it has been decided to launch an ambitious energy retrofitting project in the province of Liège to target public building energy retrofitting, with the One Stop Shop RenoWatt, acting as a central and facilitator structure for setting up the project.

RenoWatt is the outcome of a reflection to set up a one stop shop for public authorities, for encouraging the energy retrofitting of buildings. RenoWatt was inspired by different pilot projects across Europe (see section below).

RenoWatt in figures:

- EUR 40 million committed by February 2017<sup>3</sup>
- EUR 2 million financed by EEEF
- 10 public authorities involved
- 120 sites
- 225 buildings
- 27 %- 36% of electricity savings
- 26-35% of fuel savings for heating

RenoWatt acts as a central structure with a facilitator role. The main innovative aspect of RenoWatt is the way the buildings are pooled. In RenoWatt's case, it consists in pooling buildings from different public authorities.

### **Pilot projects across Europe that have inspired the One Stop Shop model in Liège**

The pilot projects – Berliner Energieagentur, Grazer Energieagentur and RE:FIT - presented below briefly describe the 3 pilot models that served as a basis for the launch and the development of the One Stop Shop in Liège.



- Created in 1992 by the Land of Berlin, public and private ownership (Limited Company), capital : 10 million € with a guarantee from the Land of 100 million €
- Target: public buildings
- Services: projects bundling, project facilitation (EPC set up), project funding
- tools: energy conservation programs, EPC (EUROCONTRACT), knowledge (national and international)
- Business model: facilitation services by third party financiers
- Results: 25 projects gathering 1400 buildings (60 million € investments and 12 million € annual savings)
- <http://www.berliner-e-agentur.de/en>



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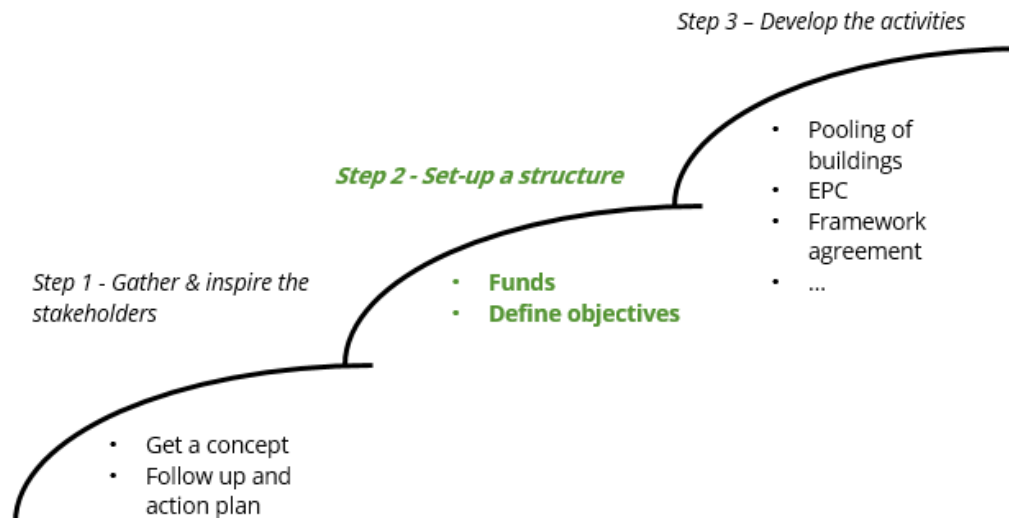
<sup>3</sup> It coincides with the end of the tendering procedure, and the award of the contracts.

- Created in 1998 by the region of Gratz (Austria), public and private ownership (Limited company)
- Target: public and private buildings
- Services: projects bundling, project facilitation (EPC set up)
- Tools: certification program of ESCO's, EPC, procedural tools and fundings
- Business model: services paid by the client and works financed by third party financing
- Results: 6 certified ESCO's, 25 carried out projects, 110 renovated buildings
- <http://www.grazer-ea.at/cms/>



- Created in 2011, under the Greater London Authority, 100% public ownership
- Target: public buildings
- Services: project facilitation (EPC set up), projects bundling, projects fundings (by the London Energy Efficiency Fund)
- Tools: EPC
- Business model: free facilitation services (subsidized by ELENA), projects fundings by third party financing or banks
- Results: participation of 125 organizations, 330 buildings renovated for 41 million £ investment, with an average of 25% of annual savings
- Objective: 600 buildings by 2015
- <http://refit.org.uk/>

## 6. Set-up a structure - How to launch of a One Stop Shop?



### 6.1. The objective of the One Stop Shop

The objective of the One Stop Shop is to speed up the process of energy retrofit, by facilitating the launch of projects and by acting as an intermediary between the different components and actors of such a project.

### 6.2. The role of the One Stop Shop

The role of the One Stop Shop consists in assisting the public contracting authorities to assess the economic feasibility of their projects and to designate the contractor. Concretely, the One Stop Shop acts as an “EPC facilitator” by fulfilling the following tasks:

- Preparation of the project
- Diagnosis
  - Identification of the financing options (including potential subsidies): it consists of identifying the financing models and funds to set up in order to finance the energy retrofitting investments.
  - Identification of the building pools for which extensive technical and financial studies will be done thus to gather similar buildings, make economies of scale on studies, and reach investments enabling the One Stop Shop to negotiate. (for further details, see section [7.2. Development of the investments programs](#))
  - Audit of the most energy consuming buildings and selection of buildings to be examined in detail
  - The information gathered from the diagnosis is used for the technical content of contract notice. Such a diagnosis needs to be done for each building pool.

- Prepare a financial plan: a financial plan is done for each pool, depending on the specificities of the building pools and of the public authorities (how finance the works and the maintenance? what's the return on investment? have we the works financed by the ESCO, by a third-party investor?)
- Assistance in the procurement process and in awarding the contract (launch of tenders and award of them). For further information of the tendering process (from the draft of tender documents, to the notification and award of contracts, see 2.B. Tendering in section 7.2. Development of the investments programs).

The role of the One Stop Shop stops when the tenderer is chosen and notified. In other words, the execution of the contract, follow up and evaluation of the contract are out of the scope of the One Stop Shop (except as otherwise provided in the accession convention). The beneficiaries contracting authorities are responsible for these aspects.

### 6.3. Partners of the project

Before launching the One Stop Shop as such, it is essential to ensure to gather all competencies and the necessary support. Partners should be at a local but also at a regional level. As mentioned earlier in the document, consensus between the different partners is also crucial as from the very beginning (and during) of the project.

For instance, the One Stop Shop RenoWatt builded on the competencies of the local stakeholders and gathered the following partners:

- GRE-Liège, which is the project coordinator and is in contact with the European institutions
- A technical partner, which is the prime contractor of the works and is in contact with the municipalities for the follow up of the EPC's
- A financial partner, which helps to finance the municipalities
- An energy partner, which brings its energy expertise
- The university, which brings its expertise in energy efficiency of buildings

The strength of RenoWatt lies in the fact that all competences are gathered under "one roof".

### 6.4. Commitment of the authorities to different operating principles

It is key that the involved public authorities commit to the operating principles of the One Stop Shop and everything it implies: time consuming project and tasks, decisions to make, giving access to their buildings for the buildings inventory, etc. The One Stop Shop has a coordination role and delegates part of the work to the involved public authorities.

In the case of RenoWatt, these principles are the following:

- Adhere to the 3 basic principles of the One Stop Shop:
  - EPC's (for further explanations on EPC's, see [annex 2](#))
  - the building pools. The innovation consists here in pooling buildings from different public authorities
  - The setup of a central purchasing agency

For further details on those principles, see [section 7.2. Development of the investments programs](#)





- Sign the Accession Convention (for further details, see [section 7.2. Development of the investments programs](#))
- Make all necessary effort to participate to the investment program, which is the EEEF for RenoWatt.
- Appoint a decision maker to participate to the Steering Committee and an energy manager within each municipality in charge of providing the data

### 6.5. Set-up of a central purchasing agency or a procurement agency

The set-up of a “framework” (either a central purchasing agency or a procurement agency) at the very beginning of the One Stop Shop is a prerequisite for the launch of the tendering process.

Setting up a central purchasing agency or a procurement agency allows the One Stop Shop to conclude public contracts on behalf of public authorities, while respecting the procurement process.

#### Why establishing a central purchasing agency or a procurement agency is useful?

It allows the agency to conclude public contracts on behalf of public authorities, while respecting the procurement process.

The objective is to assist public contracting authorities in implementing energy saving measures, either under EPC’s (including maintenance services such as works, supplies or services related to energy retrofit), either under a framework agreement.

#### Common ground between a central purchasing agency and a procurement agency

- Both allow a beneficiary contracting authority to contract with them, without having to launch a competitive tendering, under 2 conditions:
  - The beneficiary is a contracting authority
  - The central agency respects public procurement rules
- No specific structure needed
- Follow public procurement procedures
- Signing an accession agreement (for further explanations about the accession agreement, see the section “Key principles of a general regulations of an agency and of an accession convention” below)

#### Differences between a central purchasing agency and a procurement agency

	<b>Central purchasing agency</b>	<b>Procurement agency</b>
<b>Role</b>	<b>Integrating</b> role	<b>Facilitator</b> role
<b>Functioning/mechanism</b>	It acquires supplies or services that it then “provides” to the contracting authorities.	It concludes public works, supplies or services contracts or framework agreements <b>on behalf of</b> the contracting authorities/entities or, public institutions. Its role is in principle limited to launching the procedure and awarding the contract
<b>Responsibilities</b>	It is <b>the only one responsible</b> for the completion of the procurement (including the payment, possible issues in the	Once the contract is notified, <b>each beneficiary is responsible</b> for the completion of the procedure. There is a contractual relation between

	completion of it) and its follow up.	the tenderer and each beneficiary (each beneficiary who has acceded to the agreement)
<b>Activities</b>	<ul style="list-style-type: none"> <li>• achieves the conception, the completion, the operation and the maintenance</li> <li>• may be a third party financier in case it brings financing solutions</li> <li>• carries out the controls and is the client of the ESCO's</li> <li>• organizes the activities of the project on behalf of its client and is committed to defined results. The integrating ESCO: <ul style="list-style-type: none"> <li>• takes the risk for the public authorities</li> <li>• provides funding</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• acts as an Assistant to the Contracting Authority for the client</li> <li>• the contracts are concluded between the client and the ESCO's</li> <li>• makes use of the expertise of a facilitator: selection of the buildings, draft of the specifications, selection of the ESCO's and negotiations with them</li> <li>• searches for financing for the cities and municipalities</li> <li>• may offer management of EPC's services to the cities and the municipalities</li> </ul>



The option selected by the One Stop Shop is that the GRE-Liège plays the role of a **procurement agency**. The set-up of a procurement agency was a default choice since the One Stop Shop's objective is to set up a central purchasing agency. First of all, to set up a central purchasing agency, one need some fund in order to be capitalized. Moreover, a central purchasing agency is more interesting in the longer term: the One Stop Shop in the role of a central purchasing agency is the direct client of the ESCO's and the collaboration with them is therefore easier to manage. This option would also make the public authorities' work easier since they would not be directly in contact with the ESCO's.

The chart below shows graphic translation of the role played by a procurement agency, in its facilitator role in the tendering procedure.



The objective of the procurement agency is to assist public contracting authorities in implementing energy saving measures, either under EPC's (including maintenance services such as works, supplies or services related to energy retrofit), either under a framework agreement.

In the second phase of the pilot project of RenoWatt, a framework agreement is considered. The London RE:FIT program showed that it helps to reduce the contracting procurement periods and the decision making process.

In order to make a framework agreement, you need to be able to determine clear selection criteria in advance, which will enable you to select the ESCO's you will be working with. This means that you need to have some experience of the types of buildings that will be renovated. A framework agreement allows you to work on request with the selected bidders. RenoWatt will be able to set up a framework agreement after writing several contracts.

### The general regulations of an agency and of the accession convention

When adhering to the procurement agency, the public authority needs to respect and to sign the general regulations of the agency, as well as an accession convention.

- [Key principles](#)

The chart below details the key principles of the two documents:

Key principles of the general regulations of the agency	Key principles of the Accession Convention
<p>The general regulations of the agency sets the main rules of functioning of the procurement agency and defines several aspects of the collaboration between the beneficiaries contracting authorities and the central procurement agency:</p> <ul style="list-style-type: none"> <li>• The object and the role of the central procurement agency</li> <li>• The memberships conditions to the central procurement agency</li> <li>• The beneficiaries contracting authorities' commitments towards the central procurement agency</li> <li>• The beneficiaries contracting authorities' commitments in an EPC</li> <li>• Responsibilities of the central procurement agency</li> <li>• Distribution of roles regarding the contract notice</li> <li>• Distribution of roles regarding the execution of the contract</li> </ul>	<ul style="list-style-type: none"> <li>• Signing the convention means acceding to the procurement agency</li> <li>• It lays down rules of the functioning between the participant and the procurement agency and is more detailed than the general regulations document</li> <li>• Derogation is possible from the general regulations so as to adapt the convention details to the specificities of the project of a public contracting authority</li> </ul>

An example of a general regulations of an agency, and an Accession Convention can be found in [annex 6](#) and [annex 7](#).

- Main points of the general regulations of the agency and of the accession convention (specific to the One Stop Shop RenoWatt)

<b>Object of the procurement agency</b>	<ul style="list-style-type: none"> <li>• A procurement agency supports the public authority to implement measures in terms of energy savings within an EPC, a classic public tender or frameworks agreements</li> </ul>
<b>Object of the accession convention</b>	<ul style="list-style-type: none"> <li>• It concludes on behalf of the public authority a contract with a designated tenderer in accordance with public procurement rules (it concludes a contract but does not fulfil it)</li> </ul>
<b>Accession modalities</b>	<ul style="list-style-type: none"> <li>• Signature of the accession convention</li> <li>• The public authority commits to renegotiate the agreements as the project evolves and according to the market (these are unknown when the convention is signed)</li> </ul>
<b>RenoWatt's responsibilities</b>	<ul style="list-style-type: none"> <li>• Make sure the contracts are awarded (best-efforts obligation)</li> <li>• Not responsible for the relevance of the contract and the results of it</li> <li>• Not responsible for the performance of the tender and the contract</li> <li>• Not responsible for any failures in the project management resulting from breaches of the public authority in terms of information, documentation or support</li> </ul>
<b>Pooling of buildings</b>	<ul style="list-style-type: none"> <li>• Possibility to pool (in the way RenoWatt thinks it is the most appropriate) a project of a public authority within a pool or different project pools</li> <li>• The distribution key between the different public authorities within a same pool is calculated by RenoWatt</li> </ul>
<b>Distribution of roles</b>	<ul style="list-style-type: none"> <li>• The contracts documents are written by RenoWatt</li> <li>• RenoWatt is designated as the contracting authority in charge of launching, awarding and concluding a contract</li> <li>• RenoWatt appoints its contractors independently</li> </ul>
<b>Decision-making process</b>	<ul style="list-style-type: none"> <li>• RenoWatt awards the EPC contracts of the works contracts, after its Steering Committee's approval</li> </ul>
<b>Principles of engagement</b>	<ul style="list-style-type: none"> <li>• Written commitment by the public authority</li> <li>• The public authority is "definitively" engaged as soon as it agrees on joining the pool and on the publication of the tender</li> <li>• The public authority may disengage after the contracts procedure, if the offers do not comply with the financial model presented before the launch of the contract or if there are no funds available</li> <li>• The public authority will have to pay indemnities if it disengage without good reason after the publication of the tender</li> </ul>
<b>Adjustment of the convention</b>	<ul style="list-style-type: none"> <li>• The accession convention may be amended as the project evolves (for example identification of the buildings, new roles of RenoWatt, requirements of the ESCO,...)</li> </ul>

## 6.6. Search for fundings the One Stop Shop

Searching for funds is one of the first step to set up a One Stop Shop and then launch it.

It remains also a permanent concern of a structure such as the One Stop Shop, which means that it is not a one-shot operation for the management of such a structure.

The Technical Assistance (TA) enables project leaders to set up qualitative projects, by calling in external experts with the required competencies. The TA is a driver for the projects' progress.

In other words, the Technical Assistance allows public authorities to set up projects related to energy retrofitting.

One of the conditions to be fulfilled in order to receive the subsidy is that 1 Euro that is financed by EEEF should has to result in 20€ of investment.

- EEEF – Technical Assistance

RenoWatt received a subsidy from EEEF for Technical Assistance (TA).

To raise awareness of municipalities in order to lower or even neutralize their carbon footprint, the European Commission equipped EEEF with a Technical Assistance Facility of €20m at its inception in July 2011. It aimed to accelerate investments in the fields of energy efficiency, small-scale renewable energy and clean urban transport. The Technical Assistance Facility supported several public authorities in developing their projects (i.e. preparation of feasibility studies, business plans, tendering processes etc.) by providing European Commission grants for up to 90 % of the total costs and subject to a later financing by EEEF.

Here is a non-exhaustive list of available funds that should be looked at when launching a project such as a One Stop Shop:

- Elena

The European Local Energy Assistance (ELENA) facility aims to help public authorities exploit this potential by improving the chances that their plans will be able to attract external finance. Many cities and regions have recently started to prepare major energy efficiency and renewable energy proposals and have signed up to the Covenant of Mayors initiative ([www.eumayors.eu](http://www.eumayors.eu)), under which they commit to meet and/or exceed the EU's planned 20% cut in CO2 emissions by 2020.

When it comes to implementation, the problem is not so much availability of finance as lack of know-how or capacity to implement large-scale projects. ELENA aims to encourage authorities to think ambitiously and develop energy efficiency and renewable energy projects that can be replicated across the EU.

It is used to provide technical assistance to local and regional authorities seeking to implement their energy plans.

ELENA funds can be used for structuring programs, business plans and additionally needed energy audits, preparing tendering procedures and contracts, and paying for project implementation units. The EU contribution can cover up to 90% of eligible costs. Investment programs can involve the improvement of energy efficiency in buildings or street lighting, the integration of renewable energy sources in buildings or the renovation or installation of district heating systems using combined heat and power or renewable sources. Urban transport programs relating to enhanced energy efficiency, such as the introduction of

energy-efficient buses or increased renewable energy use in transport (e.g. infrastructure for alternative fuel vehicles), are also eligible.

For further details: <http://www.eib.org/elena>

- Horizon 2020 (H2020 – EE22/2016-2017)

Horizon 2020 is the main EU Research and Innovation program with nearly €80 billion of funding available over 7 years (2014 to 2020), €30 billion of which are dedicated to research in energy efficiency. There is one call that provides project development assistance, with a smaller leverage factor than ELENA.

For further details: <http://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020>

- Life +

For further details: [http://ec.europa.eu/regional\\_policy/fr/policy/cooperation/european-territorial/](http://ec.europa.eu/regional_policy/fr/policy/cooperation/european-territorial/)

- Interreg

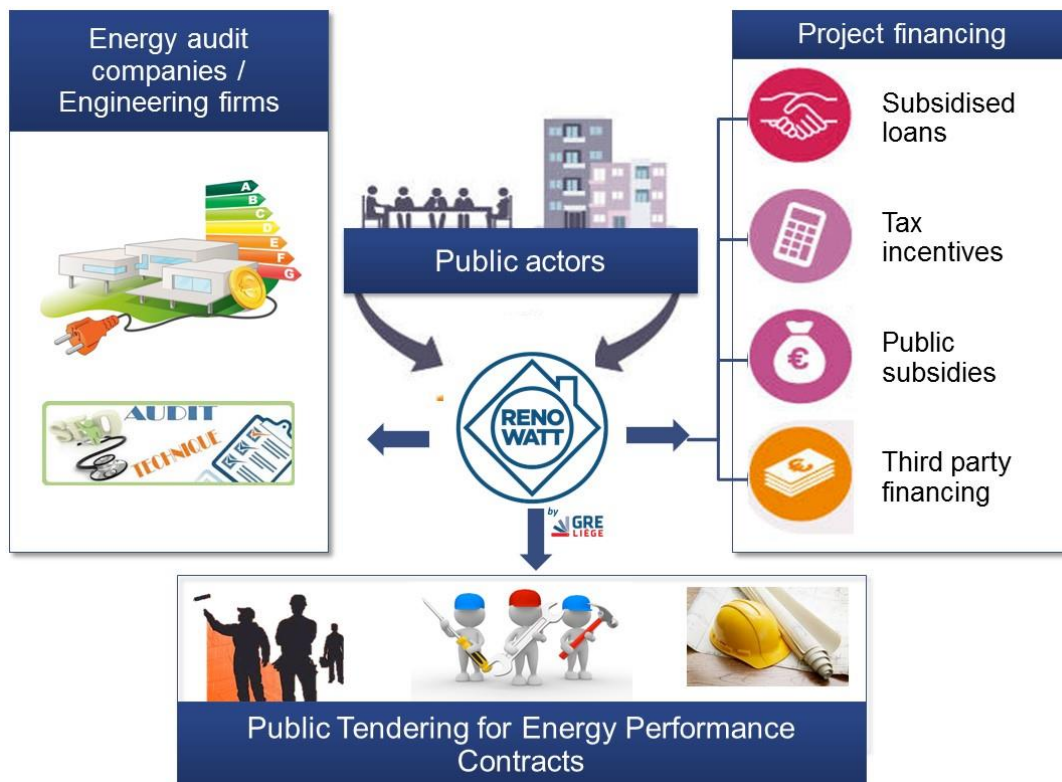
Interreg has become the key instrument of the European Union to support cooperation between partners across borders. The aim: to tackle common challenges together and find shared solutions - whether in the field of health, research and education, transport or sustainable energy.

For further details: [http://ec.europa.eu/regional\\_policy/fr/policy/cooperation/european-territorial/](http://ec.europa.eu/regional_policy/fr/policy/cooperation/european-territorial/)

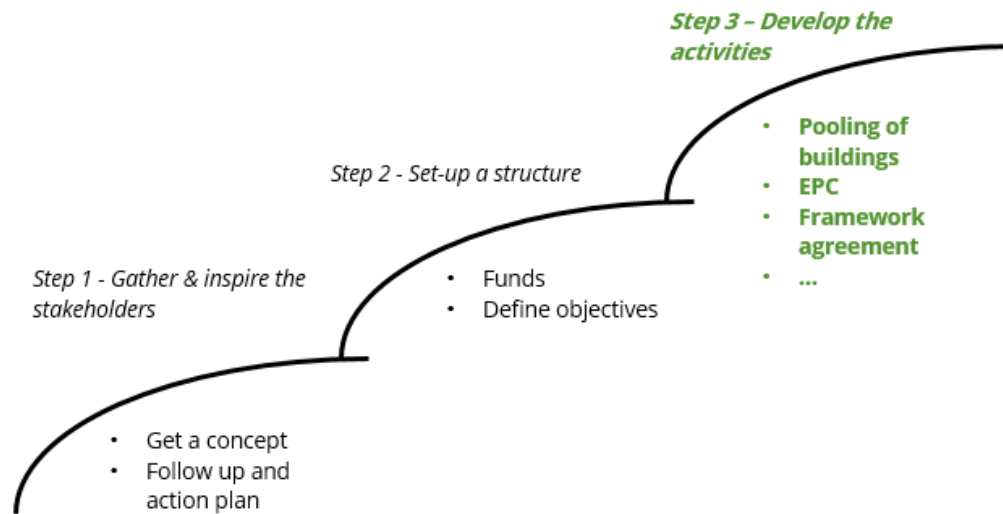
## 6.7. Summary outline of the One Stop Shop in Liège

The chart below shows the central role played by the One Stop Shop RenoWatt, as well as the different axes of the project:

- The energy companies or engineering firms that provides energy audits and estimates potential savings
- The public actors, who are the final beneficiaries of the projects launched
- RenoWatt, playing the facilitator and a central role
- The axe focusing on the search for funds and financing solutions
- The axe dealing with the tendering procedure



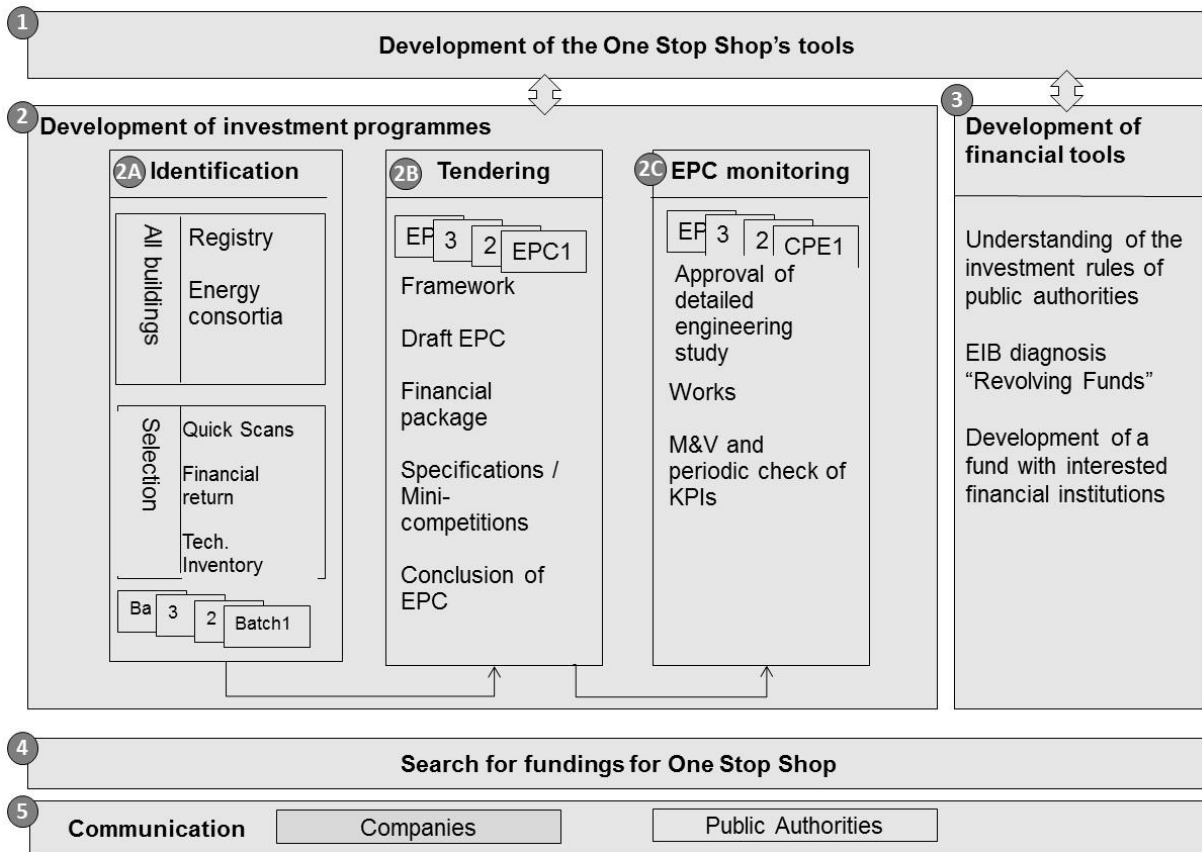
## 7. Develop the activities of the One Stop Shop



This chapter explains the 5 main activities of the One Stop Shop. The main activities are the following:

- Development of the One Stop Shop's tools
- Development of investment programmes
- Development of financial tools
- Search for fundings for the One Stop Shop
- Communication





For the sake of efficiency and for timeliness, it is important to create sustainable tools. This will enable the One Stop Shop to build on what has been developed and to replicate its tools to other sectors and countries.

### 7.1. Development of the One Stop Shop's tools

The toolkit will be constantly amended and completed, as the pilot project has progressed. It is also intended to make it available for future (similar) projects.

Besides, it is important to implement (or use) qualitative tools, since this kind of project needs to be able to process large amount of data (from many buildings).

Here is a non-exhaustive list of the tools used and/or developed and that are constantly amended:

- Energy data gathering
- Methodology for data analysis
- Methodology for the pooling of buildings
- The specifications for the different pools as part of the EPC's
- Identification of the investment programmes
- Evaluation methodology

## 7.2. Development of investments programs

The activities related to this section are essential in order to identify the investments that will be done.

More specifically, it will help to identify the buildings to be renovated, the kind of investments to make, and will help to launch tenders in renovation. Ultimately, the objective is to sign the EPC's and launch the works.

The identification of the building lots – or building pools - can provide a good solution for the management of property energy issues. The technique involves combining several buildings into a single joint project. This allows elements with lower energy saving potential to be included with others having higher energy saving potential. These pooled buildings have different levels of energy consumption, different construction materials, different fixtures and fittings etc., which leads to profitable cross calculations and also means that seemingly unprofitable buildings can be integrated into the project.

Small municipalities may not have enough buildings to do this. It may then be possible to combine with one or several other municipalities who are interested in this project, and make the buildings “suitable” for Performance Contracting<sup>4</sup>.

There are two ways of pooling buildings:

- Either by mixing buildings of all kinds together (building with different sizes, a different level of profitability, and with different functions)
- Either by gathering buildings of equivalent function

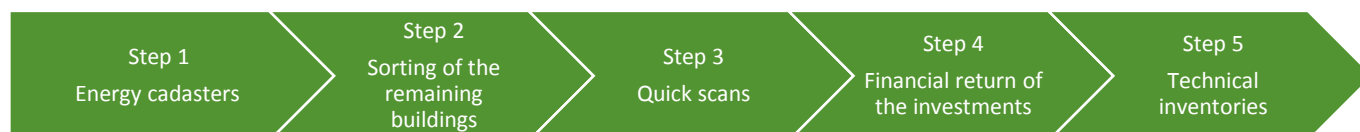
In the case of the One Stop Shop RenoWatt, the second option has been chosen because it requires a limited diversity of competencies since all buildings have the same function. The innovative aspect of the way of pooling buildings consists for the One Stop Shop to gather buildings from distinct public authorities, and to get large municipalities with small ones.



## 2A. Identification

### Identification of the building pools – The way of pooling the buildings is the innovative aspect of the One Stop Shop

The objective of the described actions below (from the energy cadaster to the quick scans) is to have an overview of the buildings to pool, depending on their consumption and the level of opportunity for an energy retrofit project. In some cases, the building's level of dilapidation is such that its renovation would be too expensive. In that case, the building is not taken into account for the building pools. The pooling of buildings happens in 5 steps:



<sup>4</sup> Source : [http://energy-cities.eu/IMG/pdf/performance\\_contracting\\_en.pdf](http://energy-cities.eu/IMG/pdf/performance_contracting_en.pdf)

Pooling buildings offers the following advantages:

- Reach a sufficient size for the EPC's
- Diversify the risk for the financiers and obtain more attractive financing conditions; diversify the risk for the companies offering EPC's
- Reduce the number of contracts and the transaction costs

For the detailed building pools of RenoWatt, see annex 3.

The step by step process described below illustrates the importance of conducting the inventories little by little. It saves time and money, it avoids unnecessary work, and allows you to focus only on the buildings that will be taken into account.

### **STEP 1 – Energy cadaster**

Establish an **energy cadaster** of the buildings. It helps to cut the number of buildings, by eliminating the unprofitable sites.

The role of the One Stop Shop is to interact with the energy officer within each public authority and work together to gather data (according to a methodology developed by the University of Mons. The methodology is explained in [annex 10](#)). Often public authorities do not have an updated list of buildings, which they own. The cadaster details the specificities of the buildings (function, heated area,...). In order to gather the energy consumptions of the buildings, the One Stop Shop, with the public authorities' agreement, directly contacts the energy distributor that will be able to give an overview of the building energy consumption, thanks to the EAN code (European Article Numbering).

A description of the methodology used to establish the cadaster can be found on [this website](#) (in French).

An example of the sheet to complete can be found in [annex 4](#).

### **STEP 2 – Sorting of the remaining buildings**

The second step aims at sorting the remaining buildings. For each building/site, **a more detailed sheet needs to be completed**. The content of the sheet is mainly technical. Data processing is an important task that is done off-site.

An example of the sheet can be found in [annex 5](#).

Before starting the third step of the selection process, the One Stop Shop presents the result of the first selection to each public authority. These meetings also help to reduce again the number of relevant buildings/sites.

Another best practice to share is that the documents to be completed should be first tested by one of the main authorities, and then validated. This helps to ensure that the energy managers will have appropriate documents.

### STEP 3 – Quick scans

The third stage of the selection process consists of performing **quick scans** to evaluate the potential energy retrofits and which buildings should be renovated. Quick scans are done by local companies that are specialized in energy audit. A methodology is provided to the audit companies. It is important to note that one single company should have the lead on this task, even if it is subcontracting (parts of) the work. Unlike step 2, which was an office work, step 3 implies sites visits.

The matrixes used insure the homogeneity of the data gathered (a matrix “insulation”, a matrix “relighting”, a matrix “HVAC” - Heating Ventilation Air Conditioning).

### STEP 4 – Financial return of the investments

This step consists in making a financial estimate of the projects’ profitability (which energy gains will be done? In what time frame will the investments be absorbed?).

The Net Present Value (NPV) method is being used to calculate the investments’ profitability. It can be summarized as follows:

- The NPV helps to define whether an investment in a project is profitable or not within a set time period
- To calculate to NPV, it is essential to convert the costs and the revenues for the years to come in the Euros of a given year (in the One Stop Shop’s case, the works start in 2017). 1 EUR in 2020 does not have the same value as 1 EUR in 2017
- The information needed to calculate the NPV of an energy investments project is the inflation, the expected increase of the energy costs, the loans’ rate, and the opportunity value of the capital.
- The NPV may include a residual value of the investment at the end of the contract.

An example of a sheet gathering the information to calculate the financial return of the investments and the NPV can be found in [annex 9](#).

### STEP 5 – Technical inventories

This step is about performing a detailed and **technical inventory**. It consists of making an inventory of the technical particularities of the buildings and of considering whether this is appropriate to renovate the buildings. It also aims at evaluating the costs related to replacing the existing elements (e.g. kind of boiler, age of the equipment, consumption, number of years to replace it). The inventory is based on the NEN2767 methodology<sup>5</sup>, which enables to measure (using a score) the condition of a building in an objective way.

The result of the third and the fourth steps is to select some buildings and distribute them in pools. Each pool will be subject to an EPC-M. A financial “profitability” analysis or “ROI” analysis will be done for each buildings pool.

In the case of the One Stop Shop RenoWatt, step 3 (quick scans), step 4 (financial return of the investments) and step 5 (technical inventory) were performed at the same time due to a lack of time. Ideally, quick scans



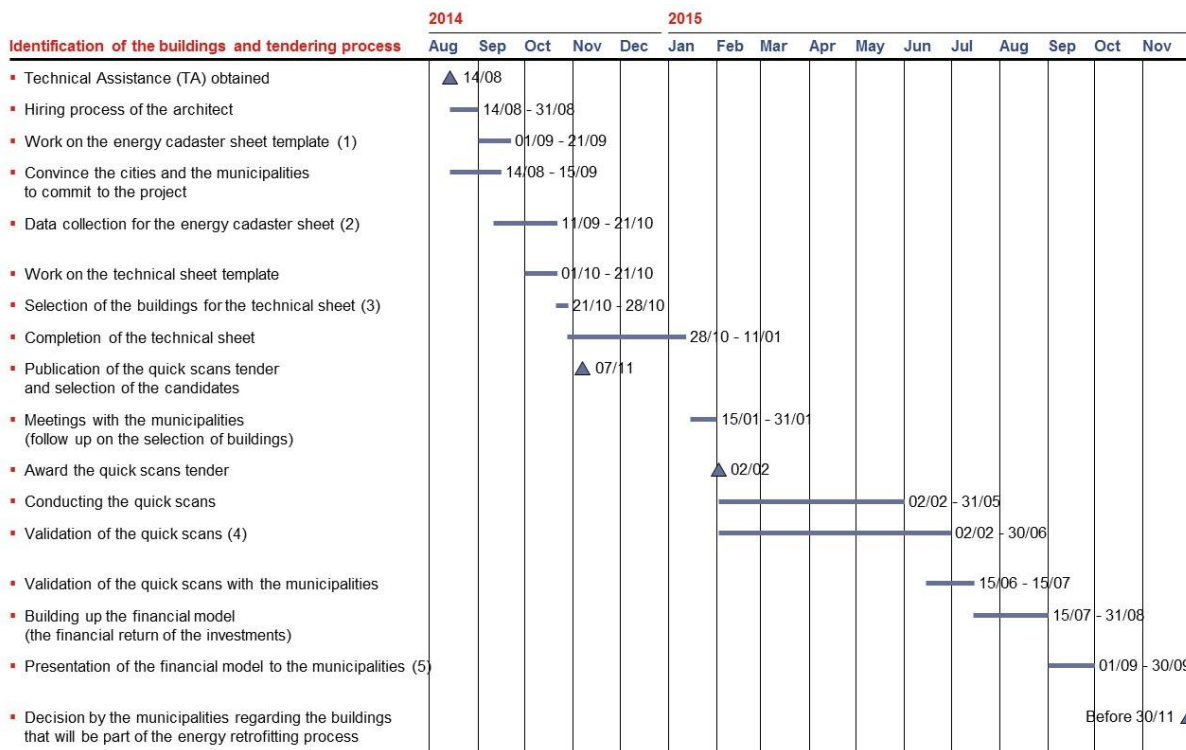
<sup>5</sup> NEN2767 is a Dutch norm, which aims at the harmonization of the way of conceiving the maintenance of buildings

should be done before the technical inventory since they allow to reduce the number of buildings and thus the number of technical inventories to do, which is expensive and is time consuming.

### The 5 steps on a timeline



The chart below translates on a timeline the theoretical approach described above. It gives the planned timeframe of the One Stop Shop regarding the identification of the buildings that will be pooled, the work on data collection, the follow up with the municipalities on the buildings to select and the validation of the buildings selected.



(1) Work on the energy cadaster sheet template: RenoWatt had to start from scratch for the content of the energy cadaster sheet. In the future, there will be no need to spend time on this task.

(2) Data collection for the energy cadaster sheet: this work has been done by the architect, who went “on the field”.

(3) Selection of the buildings for the technical sheet: this task consists in processing the data gathered for the energy cadaster sheet. It helps preparing the next step, which consists in selecting the buildings for which a technical sheet will be fulfilled.

(4) Validation of the quick scans: for time saving, the quick scans were conducted and validated at the same time.

(5) Presentation of the financial model to the municipalities: 2 meetings with each municipality were needed

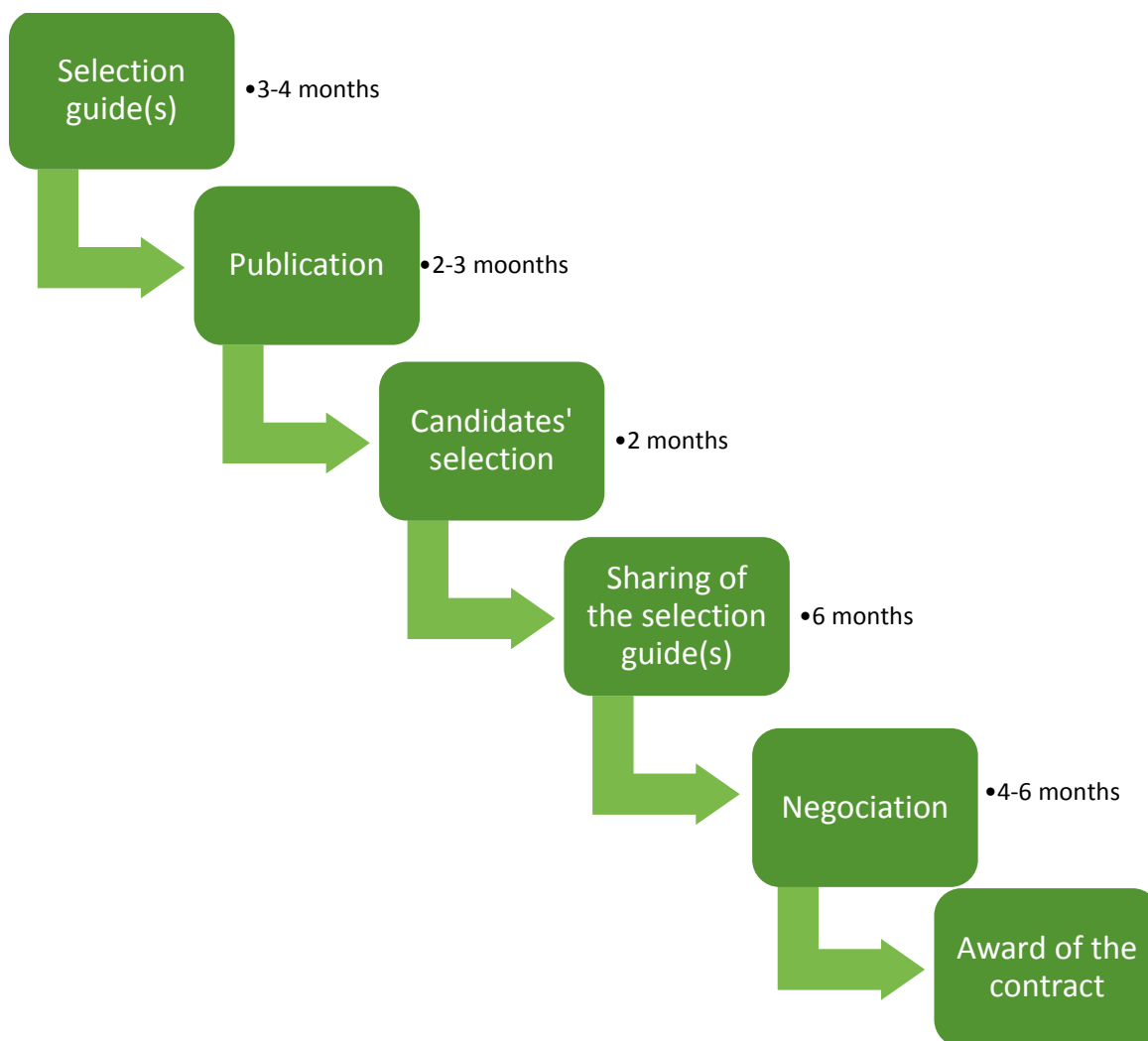


## 2B. Tendering

The set-up of a “framework” (either a central purchasing agency or a procurement agency) at the very beginning of the One Stop Shop is a prerequisite for the launch of the tendering process. For further details on it, see section [6.5. Set-up of a central purchasing agency or a procurement agency](#).



The chart below shows the different steps of the tendering process put in place by the One Stop Shop, from the draft of the selection guides to the award of the contract. Depending on the scope of the project, the tendering process may last between 17 to 21 months.



### Explanation of the chart above

Selection guide(s): draft of the tender documents, it consists of preparing the specifications for each EPC-M pool

Publication: Publication of the tender documents

Candidate's selection: selection based on qualitative and administrative criteria

Sharing of the selection guide(s): the specification for each pool of buildings is sent to the shortlisted bidders.

Negotiation: the interested bidders make an offer in which they commit to decrease by xxx (to be determined) the energy consumption against a fee of xxx€ (to be determined). The bidders carry out themselves the energy audits of the buildings. The offers are compared.

Award of the contract: Notification and award of contracts (i.e. chose the bidders): a contract is signed by the chosen bidder and the contracting authorities. The One Stop Shop accompanies the contracting authorities during the whole process and advises them on the selection of the bidder, the contract negotiation and its implementation.

The chosen procedure by RenoWatt is the European negotiated procedure with publicity, which has the advantage of being quite flexible, fast and not too expensive.

There is also what is called the « Competitive Dialogue » procedure (for further details on the procedure, please click [here](#)), which was not appropriate in RenoWatt's case, since it is a longer and time-consuming procedure, and subsequently it costs money, either for the public tenderer, or the bidders.

For informational purposes, a detailed timeline on the tendering process for the schools tender can be found in annex 11.

### **Elements to include in the public tenders**

- Environmental, social and ethical clauses, as well as an access to SME's. The object of the contract is to reach energy renewal with a view to socio professional reintegration
- A clause on giving the priority to new economic models and pushing to change the range of goods and services they offer
- Qualitative selection :
  - o Focus on development in the region
  - o List of subcontractors once the applications have been received
  - o Certificates in relation to administrative fines, in coordination with the competent administrative body
- Award criteria
  - o Score for the share of subcontracting with SMEs
  - o Scores for environmental and social aspects (maintenance plan, recycling, CO<sup>2</sup>, emissions, etc.)
- Conditions for implementation
  - o Limitation of extend of subcontracting
  - o Social implementation clauses
  - o Conditions for maintenance
  - o Reminders on minimum working conditions

## **2C. EPC monitoring**

For a definition of Energy Performance Contracts, see [annex 2](#).

### **Follow up of the EPC's**

Once the contract has been signed between the ESCO and the client, the details of the contract need to be validated, the works need to be done and followed. The most important is to ensure that the ESCO fulfills its obligations: for example, reduce the energy consumption by a percentage to determine. The way the percentage is determined or which parameters/indicators do come into account are questions that will be answered in a future version of the toolkit.

Here are the different aspects of the follow up of the EPC's:

- Validate the detailed engineering: once the bidder has been selected, the details of the contract still need to be validated. This is the last step before the start of the renovation works. During this phase, the bidder and the contracting authority define together the terms of the contract: What kind of boiler? When install it? Which is the exact timing of the works? Such practical details need to be negotiated by the bidder and the contracting authority once the bidder has been selected.
- Undertake the works: once the contract has been signed, the renovation works can start. In the current model of the one stop shop developed in Liège, this is not a task that will be carried out by the one stop shop.
- Follow up and evaluation of the EPC: an EPC is based on a provided service and the commitment of a bidder to realize a minimum energy saving. Therefore it is necessary to identify indicators and strictly monitor them, in order to make sure that the ECP is efficient.



The One Stop Shop developed in Liège plays a role of facilitator, which initiates the actions. EPC management is currently outside the scope of a One Stop Shop's activities. Nevertheless, it is a competency that should be developed within the One Stop Shop in the future.

### **Point of attention**

One should take into consideration that maintenance costs can be high. The more efficient an engine is, the higher the maintenance costs can be. Before renovation works, one should weigh the pros and cons of the added value of the renovation works planned.

### **The impact of Energy Performance Contracts on government accounts**

The [Eurostat Guidance note](#) of 7<sup>th</sup> August 2015 on the impact of Energy Performance Contracts on government accounts provides guidance on how to record the impact of EPCs on government accounts.

Some analogies with Public-Private-Partnerships (PPPs) can be found in EPCs, which implies that the accounting rules developed by Eurostat for PPPs. This means that the asset could be classified off-government balance sheet.

The conditions to be fulfilled by EPCs to be assimilated to PPPs are the following:

- A long term contract of at least 15 years
- The initial capital expenditure should cover a significant amount of works on the structure of the building itself. The total value of capital expenditure for improving energy efficiency should reach at least 50% of the value of the building after the renovation



- The majority of the risks and rewards must be transferred to the partner (the ESCO). The nature of the payments to the ESCO should imply a penalty mechanism, providing an incentive to the ESCO's performance. The responsibility of the ESCO regarding the resulting efficiency gains should be clearly identified.

Besides, an EPC could be assimilated to an operating lease and therefore show a different impact on government accounts. In this context, the capital expenditure is considered as carried out by the ESCO itself. The conditions to be fulfilled are the following:

- The government does not own the equipment but rents it (rental payments are done by the government)
- The EPCs does not cover the total expected life-time of the energy equipment

For further details on this topic, refer to the [Eurostat Guidance note](#).

### 7.3. Development of financial tools

This section describes the role of the One Stop Shop in identifying (of even setting up) the financing solutions for the energy retrofitting projects.

When financing an investment program, one should take into account the works to carry out and particularly the budget constraints of each public authority (beneficiary/client). There is also a need of a subsidy for setting up investment programs, as well as a thorough analysis of how to finance these kinds of programs.

Investment programs can be financed by different sources and is specific to each country:

- The **public authority** itself
- The **ESCO**: the ESCO may finance the works and is directly reimbursed by the public administration.
- A **third-party investor**: different kinds of investors may be considered: a bank loan, a property investment fund, a fund to finance energy retrofit,... the role of the one stop shop is to identify the potential third-party investors and propose a solution to the public authorities.

In practical terms, the role of the One Stop Shop consists of:

- Understand the budget constraints of each public authority
- Carry out an audit with the IEB in order to set up a revolving fund, with the help of the Walloon Region
- Develop financial tools, with the help of the financial institutions
- Keep a watch at European level in order to understand innovations in urban retrofit funding

### 7.4. Search for fundings for the One Stop Shop

For further details, see [section 6](#) on the set-up of a structure

## 7.5. Communication

Communication is a key aspect for the success of the project. As the “One Stop Shop” concept and its different activities are **not much widespread** yet, it is essential to inform the actors that may be involved.

It is also essential to be **permanently in contact** with the actors involved, as everybody needs to work in parallel in order to be as efficient as possible.

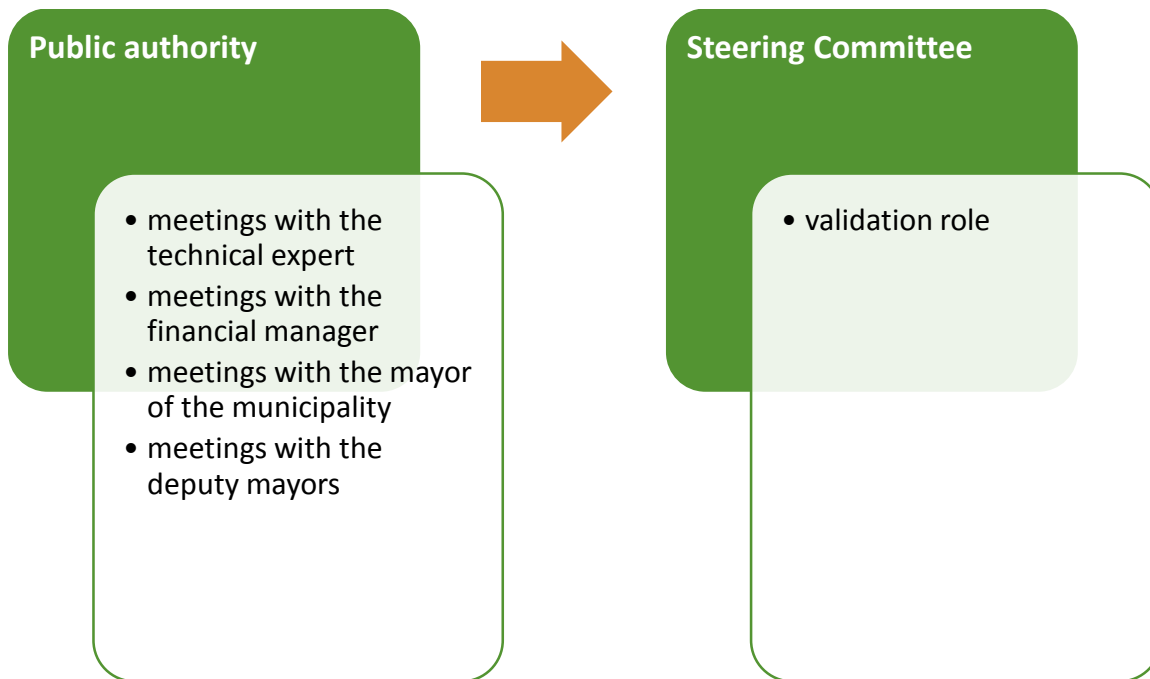
On the one hand, the One Stop Shop should communicate with the **public authorities**: the direct beneficiaries of the project should first be informed on the existence of the One Stop Shop, its role and the advantages of working with it. The communication process will happen on a regular basis, and will make sure that the public authorities work in parallel with the One Stop Shop.

On the other hand, the One Stop Shop should contact the **local companies**: awareness needs to be raised about the opportunities EPC's can offer. Local companies will also be informed on the specific trainings available in order for them to get used to the mechanism of EPC's and the role and functioning of the One Stop Shop.

Last but not least, the **press** should also be informed from the start of a project. Press releases also help formalize a project and the commitment of all actors in it. It also creates public awareness.

The chart below shows all the stakeholders involved in RenoWatt and gives a better understanding of the communication frequency to establish between the different stakeholders of RenoWatt. Communication is an aspect not to underestimate since it is essential and (very) time-consuming.

## 8. Decision-making processes



The schema above illustrates the decision-making process in place at RenoWatt. Each decision made by the Steering Committee is first discussed with the different contact persons (the technical expert, the financial manager, the mayor,...) within each public authority. This means that if 10 public authorities are involved in the project, each topic is discussed separately in each public authority. This process is time consuming.

Will it be the Accession Convention or the selection of the buildings, all aspects need to be discussed first separately within each municipality, and then presented to the Steering Committee for validation and with the objective of reaching consensus.

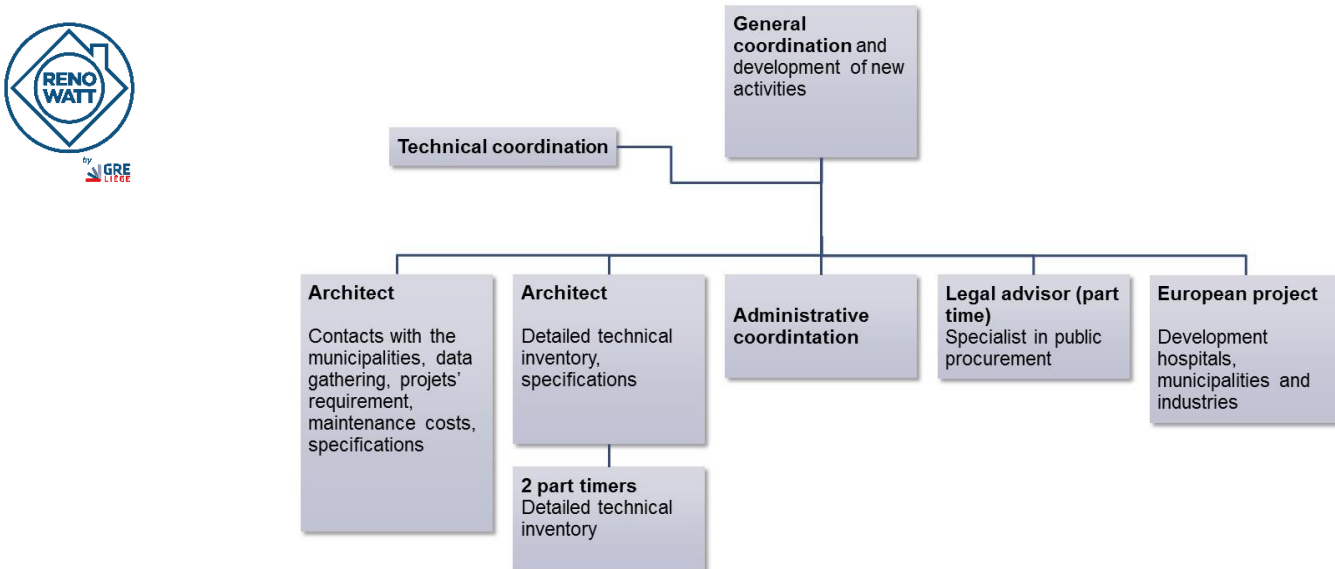
## 9. Operational structure of the One Stop Shop

The launch of such a structure requires to hire internal resources on the one hand and to call on external resources on the other hand.

The ideal scenario would be to hire all team members at the same time. In practice, it was different for the One Stop Shop: the staffing of the team took place gradually. The launch of the One Stop Shop started before the hiring of all team members. One should also take into account that the hiring process may take time (to find the right person, a selected candidate changes his mind, a selected candidate is not available immediately, etc.).

Here is an overview of the resources needed for the One Stop Shop “RenoWatt” and the role they play within the structure.

### Operational team and consultants



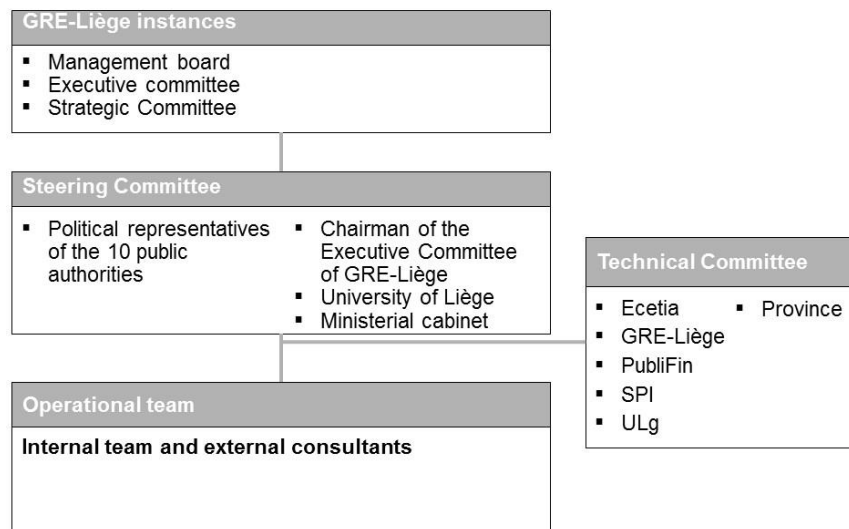
- Internal team dedicated to the set-up of the investment program
  - A project manager in charge of the global management of the project, and more specifically:
    - Coordination of the legal entities of the project (a highly time consuming task)
    - Coordination of the external auditors and follow up of the technical studies
    - Planning management
    - Management of the public procurement
    - In contact with the cities to identify correct data etc.
  - An executive administrator
    - Management of the administrative/secretarial and accounting tasks of the project
    - Organization of the meetings
    - Follow up with the person in charge of launching the structure of the first tenders

- Two architects
  - Work very closely with the public authorities for the data collection, as well as with the different consultants that will be selected in the beginning of the project
  - Are in charge of the detailed and technical inventories
- A legal person:
  - Draft of all the tenders, launch of the different tendering procedures
  - Participation to the negotiations
  - Quality check of the contracts

Depending on the development of the activities, extra team members could be hired.

- External resources:
  - An EPC facilitator
    - i.e. someone with experience in the set up of EPC's.
    - The facilitator acts as an expert intermediary between the client and the ESCO market along the whole service project life, to enable EPC projects at the best conditions.
    - The facilitator will propose different services such as :
      - Tools to gather all the energetic data and allow a baseline for follow up and evaluation of EPC contracts, tendering documents, contracts,...
      - Support to select the buildings and bundle them in different pools
      - Support for technical studies
      - Financial structuring of the projects
      - Support to select the best procurement procedure based on an estimation of the project value
      - Analysis of the works to do in buildings
        - Help to select the awarded company for the EPC contract
        - Support to set up the service contract with the awarded companies
  - A technician to perform quick scans

In addition to the operational structure to put in place, a decision-making body, as well as a technical board should also be set in order to guide and validate the work done and provide guidance on the execution of the project.



### **Technical committee**

It's role lies in the validation of the different options chosen by the operational team and consists of experienced "technicians".

### **Steering committee**

The public authorities involved in the project are represented within the steering committee, whose role is to validate the progress of the project, the recommendations made by the operational team and the technical committee.

The steering committee consists of decision makers.

Depending on the recipient of the subsidy, there is also a need to have an entity validating all expenses.

### **Budget of the structure**

For information purposes only, RenoWatt received 2,2 million € that are financed up to 90%. The remaining 10% are financed by GRE-Liège, the supporting structure.

Between 5% and 8% of the final investments go to the budget structure, and 50% of this budget is dedicated to consultancy (the facilitator).



## 10. Contact details

For further information regarding the RenoWatt project, feel free to contact :

Mrs Erika Honnay  
RenoWatt  
Project Director  
[erika.honnay@greliège.be](mailto:erika.honnay@greliège.be)

# Annexes

## Annex 1 – Presentations of the workshop on innovative funding of energy retrofit

- **Schedule of the 2 days workshop**

Day 1 – 29 January	Day 2 – 30 January
<ul style="list-style-type: none"><li>▪ <b>08.30 – 09.45 : Introduction</b><ul style="list-style-type: none"><li>– Introduction and objectives of the workshop</li><li>– The challenges of urban renewal (Climate Alliance)</li></ul></li><li>▪ <b>10.00 – 13.00 : Crowdfunding</b><ul style="list-style-type: none"><li>– Crowdfunding : principles and models (OuiShare)</li><li>– Applicability to the area of Liège</li></ul></li><li>▪ <b>14.30 – 18.30 : Funds and bank financing</b><ul style="list-style-type: none"><li>– Funds and the London Green Fund</li><li>– Financing the renovation of private housings</li><li>– Applicability to the area of Liège</li></ul></li></ul>	<ul style="list-style-type: none"><li>▪ <b>08.30 – 11.00 : Third-party investors</b><ul style="list-style-type: none"><li>– Presentation of the projects of “Energie Positif” (Paris)</li><li>– Applicability to the area of Liège</li></ul></li><li>▪ <b>11.30 – 13.00 : Green bonds</b><ul style="list-style-type: none"><li>– CDC Climat</li><li>– Applicability to the area of Liège</li></ul></li><li>▪ <b>14.00 – 15.30 : PPP</b><ul style="list-style-type: none"><li>– Présentation of the Dalkia study case</li><li>– Applicability to the area of Liège</li></ul></li><li>▪ <b>15.30 – 16.30 : European funds</b><ul style="list-style-type: none"><li>– Présentation des opportunités de financements européennes</li></ul></li><li>▪ <b>16.30 – 18.00 : Next steps</b></li></ul>

- **Short description of the models presented during the workshop**

- **Climate Alliance** – Vision and strategy of Climate Alliance – Why to act on Climate and Energy at the local level
  - o Climate Alliance is an association of cities, provinces, NGOs and further associations that fight global warming and aim for the reduction of greenhouse gas emissions. The presentation demonstrated the enormous potential in urban energy retrofit at the regional level, as well as for job creation.
- **European Commission, DG Energy** – MFF (the Multi-annual Financial Framework) 2014-2020- Support to energy efficiency investments
  - o The European Commission outlined its policy framework for energy efficiency (energy performance of buildings directive, eco-design, energy labelling directives and energy efficiency directive) and its multiple financial framework 2014-2020 with energy efficiency as a priority

- The current EU financial support to energy efficiency was also presented.
- **OuiShare** – Crowdfunding: principles and models – Focus on “urban” crowdfunding
  - **OuiShare is a global community and think and do-tank. Their mission is to build and nurture a collaborative society by connecting people, organizations and ideas around fairness, openness and trust.**
  - Part of the presentation focused on urban crowdfunding (presentation of its context, its benefits and the kinds of projects launched)
- **Energinvest** – Energy Services & ESCO’s in Belgium & the role of Belesco
  - Presentation by Energinvest on EPC’s (energy performance contracting) and TPF (third party financing) markets.
  - The Belgian Energy Services Association (Belesco) was also introduced.
- **Fedesco** – Engaging Energy Service Companies (ESCOs – Case study – Fedesco Belgium)
  - Fedesco is the federal corporation of energy services in charge of achieving energy efficiency objectives and reducing greenhouse gas emissions of the federal buildings stock.
  - The Fedesco model was presented.
- **Rotterdam Climate Initiative**
  - The city of Rotterdam launched a programme aiming at reducing carbon emission by half, preparing for the consequences of climate change, improving air quality and reducing noise by 2025.
  - The program set up a financial model targetting private housings.
- **London Green Fund** supporting Green Infrastructure – Establishing Financing Vehicle for Urban Renewal
  - The London Green Fund (LGF) is a £100 million fund set up to invest in schemes that will cut London’s carbon emission. The fund was launched in October 2009 by the Mayor of London and the European Commissioner for Regional Policy - the first JESSICA Holding fund in the UK.
  - The LGF provides funding for three Urban Development Funds that invest directly in waste, energy efficiency, decentralized energy and social housing projects. They are ‘revolving’ investment funds, where monies invested in one project are repaid and then reinvested in other projects.
- **Energies Posit’if** - Presentation of Energies Posit’if’s offer
  - Energies Posit’if accompanies condominiums from A to Z in their energy retrofitting works (including the follow up and the financing of the projects).
- **CDC Climat** – Greend bonds (Obligations vertes: un Green Bond en avant)
  - CDC Climat gave a presentation on green bonds (practical aspects were presented such as the actions that can be financed, the green bond market, presentation of practical cases, etc.)
- **Dalkia** – Energy efficiency in the heart of the region of Liege
  - Dalkia is a company offering services in energy facility management.



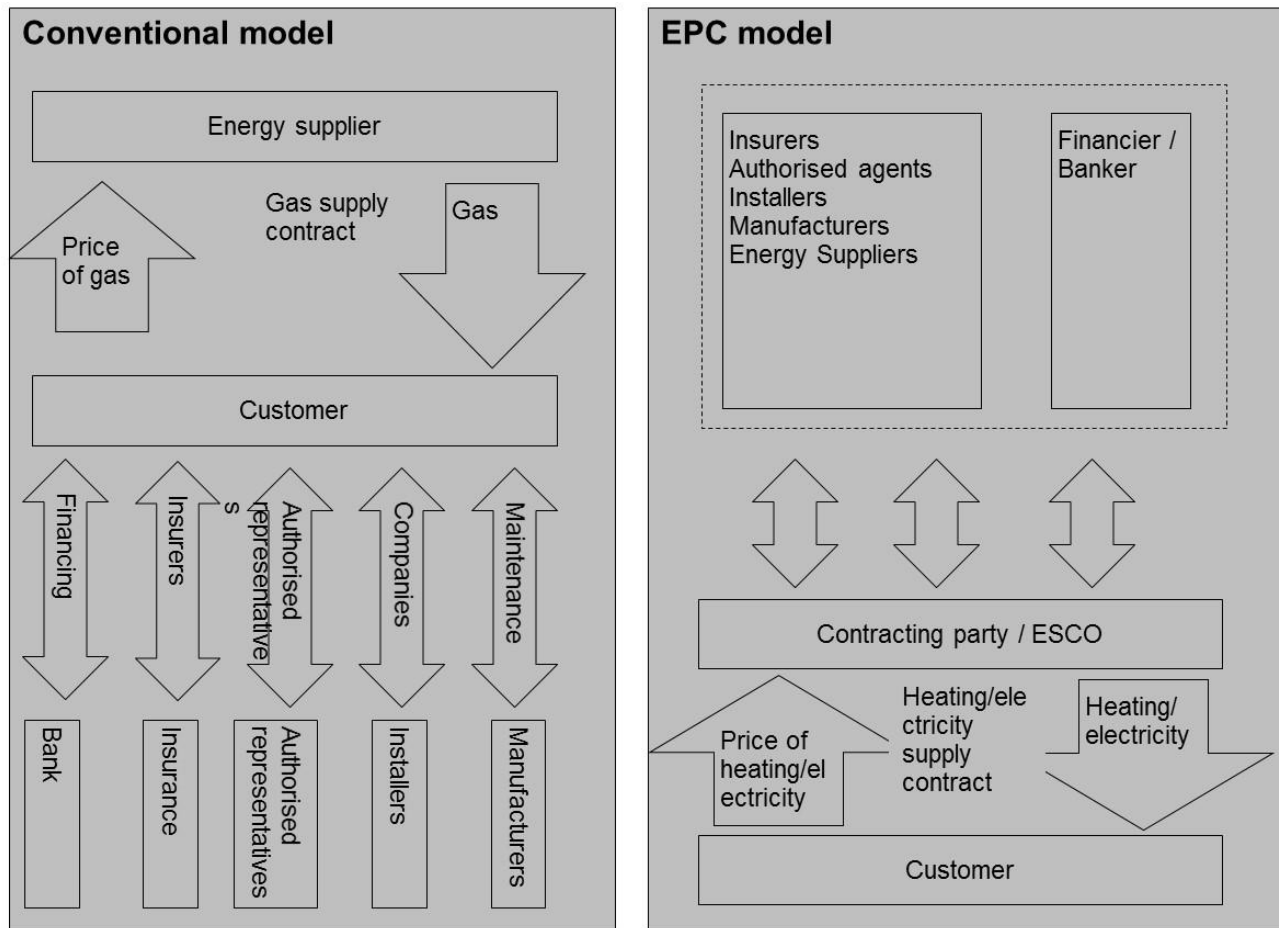
- Concrete projects Dalkia was in charge of were presented
- **European Investment Bank (EIB)**
  - The EIB presented the financial instruments related to energy efficiency projects. It also presented the technical assistance the EIB can provide (ELENA).
- Full presentations of the workshop can be found on the [website of GRE-Liège](#)

## Annex 2 – Energy Performance Contracts (EPC’s)

### What is an EPC ?

According to the Energy Efficiency Directive ([2012/27/EU](#)), “energy performance contracting” means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings.

Here is a schematic comparison between a conventional model and an EPC (Energy Performance Contracting) model:



SOURCE: Pierre-Alain Kreutschy\_SI Geneva (Switzerland)

The basic principle is quite simple: the energy saving partners (the so-called Contractors) input their know-how and the necessary financial resources into the project, which means that they plan, build, maintain and finance at their own risk. It is their responsibility to ensure that adequate investment is made in buildings, guaranteeing that there are energy savings<sup>6</sup>.

<sup>6</sup> Source : [http://energy-cities.eu/IMG/pdf/performance\\_contracting\\_en.pdf](http://energy-cities.eu/IMG/pdf/performance_contracting_en.pdf)

These energy savings are based on the average energy consumption for at the 3 previous years at least. The contractors finance their investments through the savings made in energy costs. The client pays the energy bill as usual and, at the end, becomes owner of the efficient equipment.

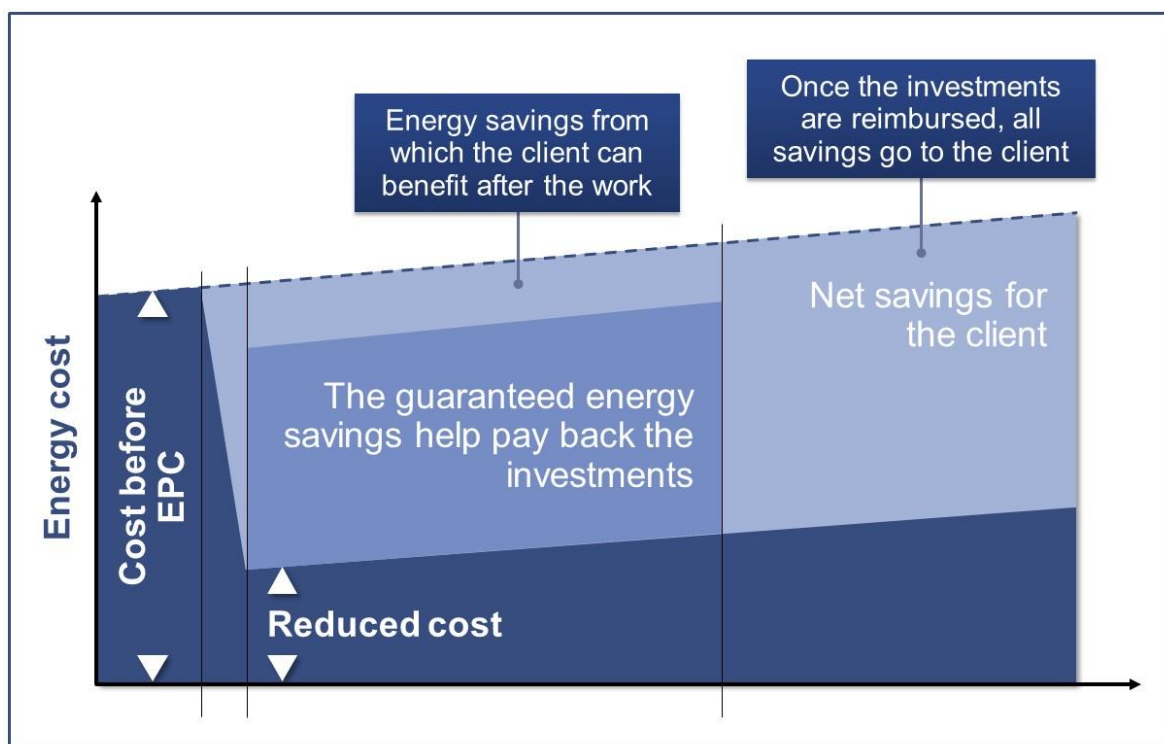
This type of contract guarantees installations of high quality, because it is in the contractors' interests: high quality installations will mean reduced operating and maintenance costs. Energy efficiency will be optimized, since the greater the amounts of energy saved, the more the contractors earn.

If installations stop working, the contractors must ensure service continuity. At the end of the contract, the client profits fully from the cost savings achieved.

In addition, the parties might agree to share the cost savings during the term of contract, which encourage the parties to strive for maximum energy savings.

Experience shows that energy costs can be reduced by over 25%. The client can also save money through savings in heating and electricity obtained as a result of the energy efficiency measures that are implemented.

The contract period is usually for a period between 7 and 15 years. The duration can be even shorter or longer, depending on the actual situation.



SOURCE: Belesco

### Different models of EPC's

There are three types of Performance Contracting corresponding to several areas of activity:

- Management and monitoring of buildings

- Investment and management of technical equipment (i.e. boilers, cogeneration equipment, ventilation, lights)
- Contracts for making energy savings, including investment in thermal insulation of buildings.

### Advantages versus drawbacks of EPC's

Advantages of EPC's	Drawbacks of EPC's
<ul style="list-style-type: none"> <li>• it is a global solution: one single supplier providing a full range of services</li> <li>• it guarantees an economic and rational energy solution, which is tailored to the needs of the client</li> <li>• the investment expenses in installations are reduced or even cut</li> <li>• all risks associated with construction are transferred to the contractor (/the ESCO)</li> <li>• the contract duration is shorter than the lifetime of the installation</li> <li>• one of the main advantages is that the ESCO/the contractor is responsible for any technical, operation, maintenance and financial related issues</li> <li>• Finally, the value of the building is maintained or even increased, positive environmental effects are produced and the comfort provided for users is improved</li> </ul>	<ul style="list-style-type: none"> <li>• As EPC's are not widely used (for example in the Walloon Region), there is a need to increase awareness about it, so that potential candidates might be interested in taking part in EPC 's.</li> <li>• Where low levels of investment and/or low levels of savings are involved, these will not be attractive either from the ECO's point of view, or from that of the client. A possible solution would be to include, for example, a smaller building in a project involving several other buildings.</li> <li>• In most cases, the term of an EPC project would be more than five years. This means that a long-term commitment will have to be made to the ESCO.</li> </ul>

### In short, EPC's main characteristics are:

- A company is responsible for
  - The engineering
  - The completion
  - The development
  - The follow up
  - The maintenance
  - The technical and energy management
- This is a performance approach, which means that there is a results obligation
- The ESCO (Energy Service Company) guarantees energy savings and gets compensation if the level of improvement is reached. But the ESCO pays a fine if the agreed savings is not delivered
- The savings are precisely calculated, following a measurement and verification plan

## Annex 3 – RenoWatt’s building pools

Based on the studies carried out, 5 lots divided into 4 contracts will be carried out for a total of 128 sites and 228 buildings.

Lots in contract	Description	Competencies
1 1 or 2	<ul style="list-style-type: none"> <li>▪ Three airport buildings</li> <li>▪ CHRH (to be confirmed)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Technical competencies and ability to manage maintenance contracts are vital</li> </ul>
2 2	<ul style="list-style-type: none"> <li>▪ +/- 2 * 40 schools</li> </ul>	<ul style="list-style-type: none"> <li>▪ General services, may work on a quantity basis / work to regulations</li> </ul>
3 1	<ul style="list-style-type: none"> <li>▪ 16 sites for Swimming Pools and Sports Halls</li> </ul>	<ul style="list-style-type: none"> <li>▪ Experience of managing and maintaining swimming pools and sports halls</li> </ul>
4 1	<ul style="list-style-type: none"> <li>▪ 24 "other" buildings: town halls, cultural centres, technical centres</li> </ul>	<ul style="list-style-type: none"> <li>▪ General services, may work on a quantity basis</li> </ul>

## Annex 4 – Energy cadaster sheet

### Informations générales

données obligatoires  
données facultatives

référence	<table border="1"> <tr> <td>priorité</td> <td>§</td> </tr> <tr> <td>haute</td> <td>x EX001</td> </tr> </table>	priorité	§	haute	x EX001				
priorité	§								
haute	x EX001								
nom du bâtiment	BUREAUX								
type de bâtiment	bureaux et services maison communale (selon liste en annexe)								
adresse du bâtiment	<table border="1"> <tr> <td>rue</td> <td>n°</td> </tr> <tr> <td>Rue des Bureaux</td> <td>1</td> </tr> <tr> <td>ville</td> <td>cp</td> </tr> <tr> <td>Liège</td> <td>4000</td> </tr> </table>	rue	n°	Rue des Bureaux	1	ville	cp	Liège	4000
rue	n°								
Rue des Bureaux	1								
ville	cp								
Liège	4000								
code EAN	<table border="1"> <tr> <td>gaz</td> <td>XXXXXXXXXX</td> </tr> <tr> <td>électricité</td> <td>XXXXXXXXXX</td> </tr> <tr> <td>eau</td> <td>XXXXXXXXXX</td> </tr> </table>	gaz	XXXXXXXXXX	électricité	XXXXXXXXXX	eau	XXXXXXXXXX		
gaz	XXXXXXXXXX								
électricité	XXXXXXXXXX								
eau	XXXXXXXXXX								
année de construction	1930								
année de la dernière rénovation (concernant efficacité énergétique)	2002								

### Description des travaux:

Changement de chaudière par gaz à condensation.

### Pouvoir gestionnaire

pouvoir gestionnaire	Ville de Liège								
adresse	<table border="1"> <tr> <td>rue</td> <td>n°</td> </tr> <tr> <td>Rue des Bureaux</td> <td>1</td> </tr> <tr> <td>ville</td> <td>cp</td> </tr> <tr> <td>Liège</td> <td>4000</td> </tr> </table>	rue	n°	Rue des Bureaux	1	ville	cp	Liège	4000
rue	n°								
Rue des Bureaux	1								
ville	cp								
Liège	4000								
tel. :	4								
fax :	5								
mail :									

### Consommation

	électricité	gaz	mazout	total	
2011			41689		
2012			41689		
2013			41689		
conso kWh (chauffage)			125067	125067	(moyenne sur les trois dernières années)
PCI combustibles (Wh)	1000	8800	9950		
Prix unitaire					
Consommation électrique (kwh/an)				2011 260000 2012 300000 2013 290000 283.333,3	(moyenne sur les trois dernières années)
saison de chauffe (h)				5800	(Durée de la saison de chauffe = du 15 mai au 15 septem)
surface externe (m²)				14376	(plancher, murs extérieurs et plafonds)
température intérieure moyenne				14	
température extérieure moyenne				6,4	
m² plancher				500	
m² plancher chauffé				450	

### Indice de potentialité d'économie d'énergie

Indice E	2,0	1,5= bâtiment ok/ 4=problème sur l'enveloppe et le moy
indice Ecapl	2,4	
ratio kwh/an/m²	629,6	

### Remarque:

## Annex 5 – Technical sheet

<b>Fiche bâtiment</b>		<b>Code couleur</b>	
Compléter une fiche par bâtiment		Nécessaire	
		Important	
		Utile	
Informations sur le complexe			
Nom du complexe			
Adresse(s) du complexe			
Code postal			
Ville			
Le pouvoir gestionnaire			
Numéro de complexe			
Bâtiment classé ? (OUI/NON)			
Combien d'unités de construction			
Surface chauffée (m <sup>2</sup> )			
Surface (m <sup>2</sup> ) chauffé et non chauffé			
Volume (m <sup>3</sup> )			
Volume chauffé (m <sup>3</sup> )			
Horaires	Jour	De ... h	à ... h
	Lundi	00:00	00:00
	Mardi	00:00	00:00
	Mercredi	00:00	00:00
	Jeudi	00:00	00:00
	Vendredi	00:00	00:00
	Samedi	00:00	00:00
	Dimanche	00:00	00:00
Horaire d'été	Date début	Date fin	
	De ... h	à ... h	
Informations sur les bâtiments composant le complexe			
	Bâtiment 1	Bâtiment 2	Bâtiment 3
Catégorie du bâtiment (Voir feuille catégorie)	Ecoles	Piscine	
Nombre de niveau			
Hauteur des étages (en m)			
Superficie chauffée par étage (en m <sup>2</sup> )			
Nombre de sous sols pour parking			
Année de construction			
Année de rénovation			
Type de rénovation (quels travaux) ?			
Type de rénovation planifiée?			
Date de rénovation planifiée?			
Présence de ventilation mécanique?			
Présence d'air conditionné			
Echangeur de chaleur (récupération sur la ventilation)			
Batterie de condensateurs (oui/non)			
Présence de panneaux solaires			
Nb de personnes travaillant sur le site (y compris élèves)			
Déménagement prévu? => Date			
Cuisine/cantine?			
Nombre de plats chauds préparés par jour?			
Résidants?			
Nombre de résidents			
Nb moyen de visiteurs/an			
Informations sur les Contacts dans le batiment			
Standard			
Tel			
fax			
Directeur / responsable du bâtiment			
Nom			
Prénom			
Tel			
fax			
email			
Contact technique (local)			
Nom			
Prénom			
Tel			
GSM			
fax			
email			
Remarques			



Information ELECTRICITE					
Nombre de compteurs					
	Compteur 1	Compteur 2	Compteur 3		
Niveau de tension					
Numéro EAN					
Numéro de compteur					
Type de Compteur					
Fréquence de relevé des consommations					
adresse de facturation					
adresse de consommation					
Fournisseur					
Nom, email, téléphone du détenteur des données de consommation chez l'occupant					
Nom du GRD					
Remarques					
Information GAZ					
Nombre de compteurs					
	Compteur 1	Compteur 2	Compteur 3		
Numéro Compteur EAN					
Numéro de compteur					
Relevé des consommations					
adresse de facturation					
adresse de consommation					
Fournisseur					
Détenteur des données de consommation chez l'occupant					
Nom du GRD					
Remarques					
Information FIOUL					
Contrat mazout?					
Fournisseur					
Présence d'un compteur de débit?					
Détenteur des données de consommation chez l'occupant					
Remarques					
Information au sujet de l'EAU					
	Compteur 1	Compteur 2			
N° de compteur					
Fournisseur					
Type télérelevé?					
Détenteur des données de consommation chez l'occupant					
Détenteur des données de consommation chez le fournisseur					
Remarques					
Information maintenance					
	Chauffage	Ventilation Air Conditionné	Eclairage	Serveurs	Autres?
Société de maintenance					
Personne de contact société de maintenance(+ n° de téléphone + email)					
Type de contrat de maintenance (entretien annuel, garantie totale, garantie de performance,...)					
Terme du contrat de maintenance					
Qui détient/gère le contrat de maintenance? Pouvain organisateur? Occupant? + nom et coordonnées du contact)					
Documents disponibles					
Présence de...	Oui/Non	Qui détient information	N° de téléphone	Email	
Cadastre énergétique					
Audit énergétique					
Quickscans					
Plan du bâtiment					
Schéma hydraulique					
Schéma électrique					
présence amiente (oui/non)					
Photo du bâtiment					

## Annex 6 – Example of a general regulations of an agency

xxx

## Annex 7 – Example of an Accession Convention

xxx

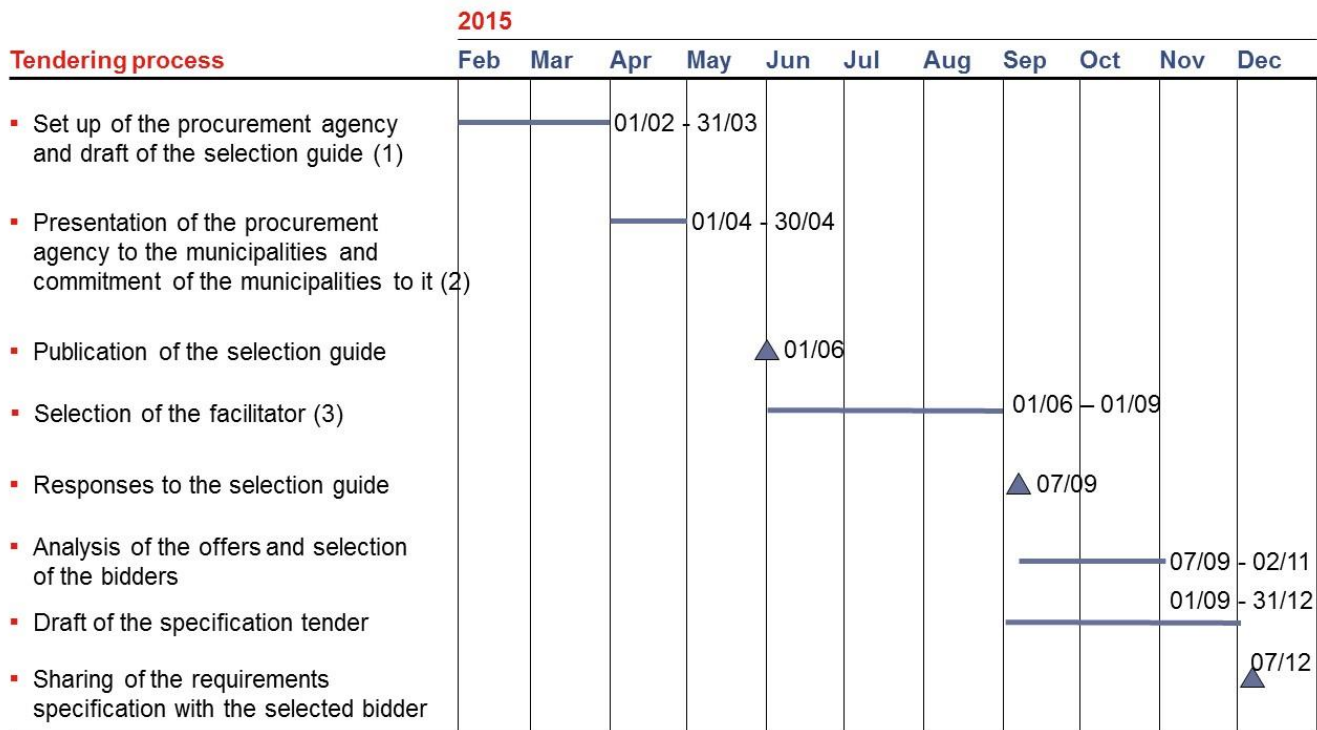
## Annex 8 – Models developed by CITYnvest



## Annex 10 – Methodology used to conduct the energy cadaster of the buildings

## Annex 11 – Process of the schools’ tender

The chart below shows the deadlines that the One Stop Shop respected for the tender related to the schools. The One Stop Shop launched 3 tenders (one for the schools, a second for the swimming pools and the sports halls and a third for buildings such as town halls, cultural centers or technical centers) and did it one after the other.



(1) Set up of the procurement agency and draft of the selection guide: RenoWatt is learning by doing. The set-up of the procurement agency could (and should) have been done before.

For the set up of the procurement agency, RenoWatt called on FEDESCO, a public procurement agency and did not have to issue a call for tenders. This organization does not exist anymore (See the article on [Fedesco](#) here - information in French or Dutch). To set up a procurement agency, at least 3 months are needed.

(2) Presentation of the procurement agency to the municipalities and commitment of the municipalities to it: the commitment of the municipalities to the procurement agency entails the town council assent and the signing of the general regulations of the agency and of the accession convention.

(3) Selection of the facilitator: a One Stop Shop structure should be launch a project by itself and needs to be accompanied by a professional facilitator.