



PED-ID

**D2.2 Holistic Stakeholder Model for
early PEDs**

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1 Executive summary

The energy scene has changed. The time for a circular and sustainable economy has come even to the energy market. The transformation goes very slowly, but it is moving in the right direction. In the last few years, different international, national, regional, and local initiatives have been taken to make the energy market more flexible and sustainable. New actors have found new business opportunities in renewable local energy. Problems with lack of effect have led to restrictions in urban development. Therefore, the possibility to produce energy locally has grown increasingly interesting. The energy scene suddenly includes the urban areas and becomes an important part of the urban planning process. Consumers become prosumers, and individuals can sell energy to the electricity network and companies that cooperate with other core businesses than energy. They can start energy cooperation and make themselves more independent energy-wise.

This is where our story begins and PEDs – Positive Energy Districts – enter the stage. PEDs are areas that produce energy instead of consuming energy. Selling power instead of buying it. Actors working together towards high performance means energy efficiency in existing buildings and infrastructure, new positive energy buildings, buildings producing energy instead of consuming, intelligent use of waste heat, and cooperation amongst stakeholders.

This report explains in a very practical and hands-on way the stakeholder process on how to apply these concepts in Positive Energy District. The first step for an actor who wants to create a PED in the neighbourhood is to take the initiative to sign a Letter of Intent (LOI). It is an important start amongst core stakeholders - it serves as a tool to engage partner organisations holistically.

A common vision, goals, ways of working together and how to communicate should also be set up amongst the core stakeholders. An early stakeholder analysis should be conducted. External communication is essential to support the process, so it is a promising idea to set up a communications group to work on a communications plan as early as possible. It is crucial to agree amongst the core stakeholders on what should be communicated and when.

The PED development depends on the current energy situation, which should be mapped as early as possible: existing buildings, infrastructure, potential waste energy from eventual production, the renewable energy potential within the area etc. This, together with the planned development, makes our scene of the performance. The current energy analysis is the base for the Energy budget, which will be the base for knowledge-based decisions amongst the stakeholders.

During the establishment and implementation phase of the PED collaboration, the long-term partnership during the operational phase must also be set up. A fruitful stakeholder engagement must be worked on continuously and needs a plan for constant improvement.

- Letter of Intent
- A common vision, goal, ways of working and how to communicate amongst core stakeholders
- A stakeholder analysis
- Communication group and communication plan
- Energy strategy: energy mapping of the area, energy budget and roadmap for the PED
- Plan for long time collaboration and constant improvement

2 Introduction

2.1 PED-ID Project

PED-ID is an innovation project that aims to accelerate the decarbonisation of the urban environment by promoting the implementation of Positive-Energy-Districts (PED). PEDs essentially are districts in urban areas that manage their resources to achieve net-zero energy balance (more energy is produced than consumed) and reduce greenhouse gas emissions. This project **provides decision-makers with improved information about PED options and impacts at an early stage and creates a corresponding knowledge-based** participation process. The data will be collected and calculated with the help of a methodology and prepared for the appropriate target group. The target groups can actively use these in the data-driven participation process, consolidate their opinions and make decisions based on data. This process will be tested using real Living Labs of potential PED projects. This concerns the participation process and the development of the necessary data. With the help of this method, the decision on PED sites will be accelerated to reach the goal of 100 PED sites in Europe.

2.2 Stakeholder engagement process

Stakeholder involvement is by far the most crucial element for a successful implementation of PEDs, according to a survey by JPI Urban Europe. From our experience, it is crucial to address key stakeholders as early as possible in the area of development, set PED requirements, and make different stakeholders cooperate.

In the PED-ID project, with Uppsala Business Park in the municipality of Uppsala, as a living lab, we are developing and assessing the innovative knowledge-based stakeholder process described below.

To be successful, the implementation of Positive Energy Districts must meet the goals of sustainable urban development and respect for heritage values and urban qualities. The innovative process scheme combining best-practice in stakeholder engagement relates to both energy planning and sustainable urban development – all kinds of stakeholders with diverse backgrounds must be considered, i.e., Authorities, real estate owners, other companies and people living and working in the area, as well as construction professionals and energy professionals. This approach to place-based stakeholder analysis and engagement is used to inform the PED-ID engagement process, which allows us to go through common learning and understanding together with the different stakeholders – considering their different perspectives, business situations and goals.

Previous experiences from multi-stakeholder engagement and co-creation processes, including inhabitants and community actors, relating to sustainable energy and sustainable urban development

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that have been used to inform the method are: **The Södertörn model** and **Partnership Energy Planning (PEPESEC)**¹.

The Södertörn model

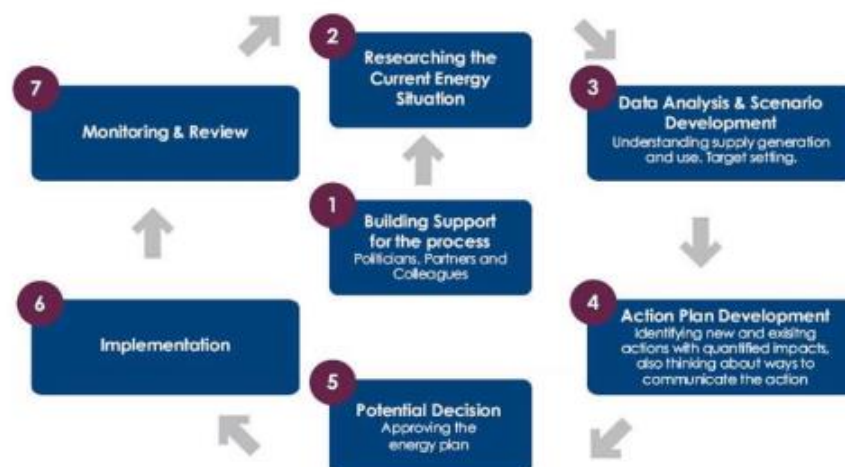
Some of the essential results from The Södertörn model is: Sustainable development is a process - not a project. An important focus in the process is:

- Common vision amongst stakeholders.
- Cooperation and a win-win-mindset.
- Communication– open communication in the project and agreed communication about the project.
- Local conditions are an important base for decision making.
- Knowledge-based decisions.

Partnership Energy Planning (PEPESEC).

The SEAP Development Process, stages 1-5 has been used in this project – in addition to a second step "Define system boundaries" for UBP PED.

SEAP Development Process



¹ The PEPESEC PROJECT: PEPESEC Energy Planning Best Practice Guide

https://issuu.com/mdda/docs/wp4_2_best_practice-draft090629

3 The PED-ID collaboration and stakeholder process

3.1 Collaboration group – Letter of Intent

The first milestone we had to pass was the **LOI** – the letter of intent for the PED-ID project. This was crucial to get the project started and know-how and how much each actor should take part and which persons at the different actors should participate. This helped to create the buy-in we needed from the actors - this internal process within every actor created an acceptance for the project that was key for our organisation.

We started the cooperation with some initial meetings and workshops (all digital because of the pandemic) to get to know each other and the project. This group we could call the **collaboration group**.

3.2 A common program statement and ways to work together

Early in the process, we agreed on a **common program statement**.

A shared overall goal for the UBP district:

Well-developed and well-established roadmap for how the district could become an energy-positive district (PED).

And on how we should work to achieve this:

We work for it through:

Collaboration, communication, exchange of knowledge, and preparation of the foundations for informed decision-making. It's about innovation and learning along the way.

Learn how working with sustainable development and energy and climate goals can go hand in hand with physical planning – making concrete plans, implementing, and following up.

A learning-by-doing approach and the dissemination of knowledge gained from the process

3.3 Definition of our PED and system boundaries

We have also worked together on the **definition of our PED and the system boundaries**:

PED-ID / Our definition of a Positive Energy District:

Districts that achieve a positive energy balance annually strive for a production surplus of renewable energy.

Energy production must take place within the defined geographical boundary.

Applies to the buildings, not transport.

3.4 Communications group and energy- and climate strategy group

We also formed a separate **communications group** and **energy- and climate strategy group**, described in the next chapter.

3.5 The stakeholder workshop

One of the most important steps on this journey is the **stakeholder workshop**, where the motivations and driving forces of the core actors and some of the involved actors are mapped and discussed. Which other stakeholders should be courted? We also agreed on the overall goal and discussed what should be done now to secure the project's success. We identified different motivations for different stakeholders, but of course, costs and CO2 were common.

This workshop (3 hours) should be done in an early stage – in Uppsala Business Park, we had planned for an early WS but postponed it to make it possible for more actors to participate. Some important actors could not participate, so we had separate interviews with them (1 hour). These interviews with two property and media representatives were also especially important to identify their driving forces and obstacles and their views on energy. We also identified that one actor had surplus energy that would greatly contribute to the PED. So, we could have made these interviews earlier in the process.

3.6 Other important stakeholder meetings

3.6.1 Meeting with the municipality representatives

At an early stage, it was identified that all the employees at the municipalities planning department are important stakeholders – if they understand the PED concept and are positive about it – they can facilitate the process in their distinct roles. A meeting was held at an early stage with the responsible planning architect at the municipality to provide her with the information needed for here to pass on the information.

3.6.2 Meeting with the architect responsible for the masterplan

It was important to identify who was responsible for the overall master planning of the area and the proposed new development. And the developer Klöver facilitated that contact for us with Mandaworks - an important stakeholder. It was particularly important for the process that this meeting could take place at an early stage. Luckily, Mandaworks turned out to be engaged and incredibly positive about our work. They also played a vital role in the stakeholder workshop. Without their invitation from Klöver, it would not have been possible for them to participate as a key stakeholder.

3.6.3 Meeting with local utility

In Sweden, the energy market is deregulated. Energy companies are divided into electricity operators, grid owners, and heat and power suppliers. Uppsala Vattenfall has several of these roles, but they are divided into different companies/departments. One of the energy-intensive actors in Uppsala Business Park had years ago asked Vattenfall to help them use their excess heat – but the interest was low. Now

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they are involved again as the new energy actor that has been procured for common energy solution by the actors in Uppsala Business Park. A meeting with Vattenfall was held just before the stakeholder workshop to inform them about the PED-ID project. Representatives from Vattenfall – positive to the PED concept were chosen to participate in the workshop.

4 The PED collaboration process

4.1 The process leader – The trusted Intermediary

The "Trusted intermediary" or the Process leader plays a significant role - we are even convinced that this role is crucial to delivering a PED concept successfully. However, as is so often the case, there is no one responsible for providing that process leader service. For the living lab in Uppsala, we think that STUNS² played a crucial role to make this PED collaboration happen. When White stepped in as the process leader, STUNS could disembark. Since so many important stakeholders have a part to play, we have also discovered that it is not enough to have a process leader just in the initial stages. The process leader needs to continue and follow up on implementing the agreed actions by the various stakeholders during the complete process.

4.2 Communication

Communication plays a significant role in all kinds of sustainability processes. The communication persons are often not always directly included in the sustainability processes. Therefore, sustainability and a positive energy profile are crucial for the trademark and implementation of the PED. The benefit of a serious approach to communication is double: The cooperating companies take advantage of their mutual communication strategy, and the Positive Energy Profile has been obtained thanks to the communication efforts.

In the PED-stakeholder process, it is important to start a communication group early. The communication group at the Living lab in Uppsala was formed amongst the core stakeholders, with from the beginning representatives from the project – but as time went on, other representatives were invited to the group, such as communication directors and sustainability managers. The group has been led by the process leader – to ensure a direct dialogue with the project - and has worked with a common communication plan from the very beginning. Important milestones have been common press releases, such as communicating about the collaboration amongst the partners and planning for a common lunch seminar.

One more benefit that we have learnt from this way of working is that this makes actors communicate and agree internally in the participating companies (communicators and sustainability managers on a general level with actors in the project).

- ➔ Form a communication group and make a communication plan amongst core stakeholders early

² STUNS - The foundation for collaboration between the universities in Uppsala, business and society, <https://stuns.se/en/>

4.3 Energy and climate strategy

An important part of the overall project is the energy and climate strategy. This work amongst the core stakeholder makes the technological scenery of the project – here, we build the basis for knowledge-based decisions. We make an energy current situation analysis, define system boundaries as well geographically as technologically, and it is also our knowledge base for our communication about the project.

4.4 Physical planning and climate/sustainability

The process of physical planning is well regulated by law. Though sustainable development is not yet the overall goal asked for due to the process. Sustainable development should be the result of every planning process. Experiences from The Södertörns model project that "Sustainability is not a project – it is a process" are applied in this PED-ID-project. The Municipality of Uppsala is in parallel with this project, exploring how they can establish the process for a sustainable planning process, and we will exchange experiences between the projects to see how the projects can enrich each other.

4.5 Collaboration process

4.5.1 Establish collaboration Core Team

When describing a PED-stakeholder process, it is important to always relate to the legislative planning process in parallel with the commercial operations where agreements and contracts are continually made between building owners and tenants and with other actors such as construction- or energy companies.

That is why when describing the process, we are asking: What will be different from the usual planning project? The image below is described the steps to be taken in the early stages of a PED:

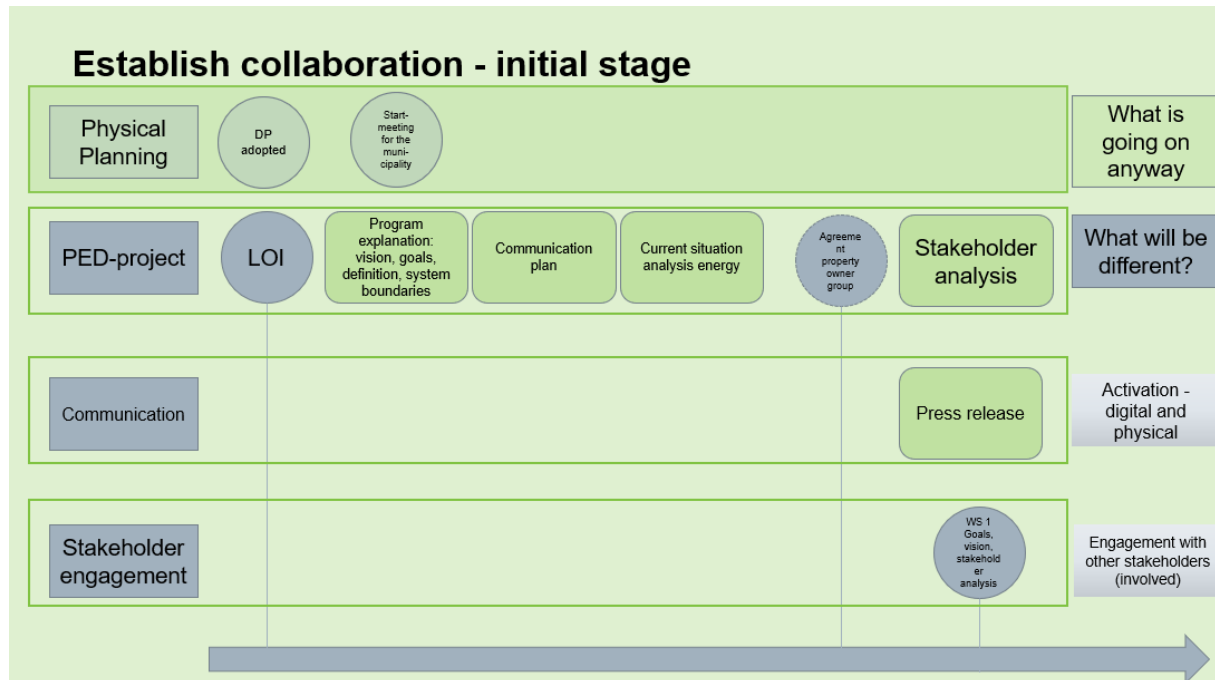


Figure 1 Establish a collaboration process for the core stakeholders in PED-ID

All stakeholders in the process are already communicating, through the usual planning process does not have sustainability as an overall goal. The overall goal of sustainable development is a particularly good common base. No one says no thanks to sustainability – so it is good to cooperate.

It should also be discussed that the stakeholder process is about trust and openness between partners. However, business parties and the municipality need agreements or contracts to secure future cooperation to make a win-win for all involved. That is why the PED process uses partnership to obtain agreements rather than traditional contracts to establish cooperation.

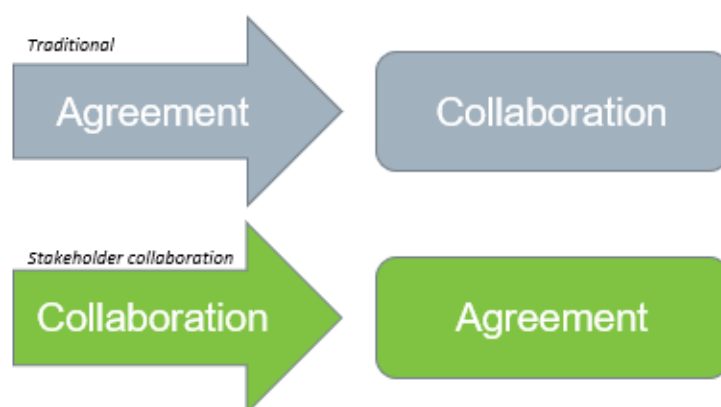


Figure 2 Agreement Process comparison: Traditional vs Collaborative

Formalities and agreements are facilitated by an initial collaboration on something else, for example, common sustainability goals or a PED. Start by thinking about what makes collaboration possible and adapt agreements according to that.

4.5.2 Implement collaboration

When the collaboration has been established, it is time to implement it. Important agreements between core stakeholders have been made, and now the process has focused on involving and informing more stakeholders.

"Business as usual" often already does this with a common website, press releases, and market activities to get the area known and get to know each other in the area. It is important to have a plan to include the "PED-philosophy" and plan for activities needed to market the PED concept and make the PED happen. So, the PED agreement must consist of an arrangement for common communication and activities to engage stakeholders.

4.5.3 Collaborate during the operational phase for constant improvement/feedback

When the area obtains the operational phase, it is important to have a plan for continuous improvements, a communications plan, and a plan for continuous stakeholder dialogue. It is important to keep up the interest and inform newcomers to keep activities on track.

5 The PED stakeholder process

5.1 The core team and other stakeholders

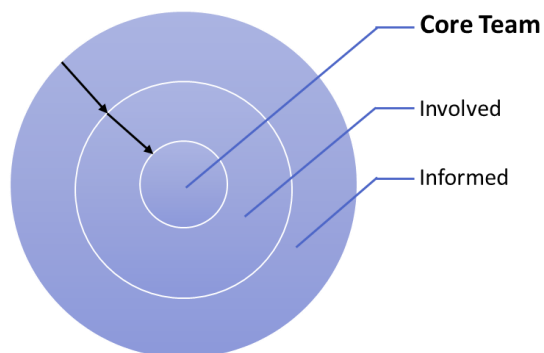
To fully understand a PED stakeholder process, it is interesting to look at several types of stakeholders. Their level of engagement decides how to communicate with them, and it is also important to see that stakeholders can move between levels: **core team, involved or informed.**

In a comprehensive urban transformation project such as PEDs, a substantial number of stakeholders

STAKEHOLDER COLLABORATION

Stakeholders can move between levels.

The goal is to get more and more actors involved.
What are their driving forces?



Have an understanding about:

Type of actors | Actor Roles | Own driving forces

Figure 3 Stakeholder category spheres

should be involved from the initial stages up to the operation phase. Dividing them into distinct categories supports planning communication and understanding their involvement at each step of the process.

The core team can, for example, consist of the leading developer, the municipality and a coordinating part or a process leader. The core team will grow gradually and be better defined as the project advances – attracting more stakeholders from the "involvement" and "informed" spheres. The goal is to get more stakeholders involved or at least informed. In this case, as the PED project advances, more stakeholders will gravitate around the project and will board the engagement spheres progressively, as shown by the arrow in Figure 3.

It is also essential to understand the **different stakeholders driving forces** – as well per actor as individually as an employee or as a private. What are their motivations? Value? Brand? Employees driving forces? Customers driving forces? For this analysis, the stakeholder mentioned above mapping tool can be used.

5.2 Identifying other stakeholders

To help identify other stakeholders important to the process, this list can be used:

#	Target group and Stakeholders	Descriptor
1	Local authorities / Municipalities	Includes housing, energy and planning departments and their associations. As well as relevant companies providing a public service owned by local authorities/municipalities.
2	Real estate owners	Interested in a shift towards more sustainable real estate, including their associations.
3	People living and/or working within Living Lab	A mixed group is important in terms of the attractiveness of establishing Positive Energy Districts.
4	Users/producers of energy within the PED area	Involved in investing, implementing and using the PED solution in the area (including taking part in the exchange of energy.
5	Energy professionals	From energy sectors, including energy advisors.
6	Construction professionals	Throughout the whole construction period.
7	Planning professionals	Include Building Engineers and Architects.
8	Environment authorities	Impacting on climate change and new clean energy production strategies.
9	Specialised governmental agencies	Mandated to address energy production, energy efficiency, climate, urban development, and manage financial and non-financial support schemes to improve the energy efficiency of residential buildings and install renewable energy sources.
10	Policymakers	Supporting a shift towards sustainable policy processes and products in the energy sector and providing financial incentives to realise this.
11	General Public	Creating awareness of Positive-Energy-Districts and how it contributes to their everyday life to their benefit.
12	Academia	Providing input for new areas of research and competencies.
13	Standardisation bodies	Enabling standardisation to be possible. Supply insight and support into how standards are established based on the project results.
14	Service providers	Companies that supply services such as access and management of energy grids, energy supply and energy generation.
15	Energy service companies (ESCOs)	Companies which specialise in Energy performance contracting (EPC), i.e. focusing on activities aimed at guaranteed energy savings, among other things, through the installation of energy-efficient technologies, i.e. verifiable and measurable increase in energy efficiency.
16	Technology providers	Companies, especially SMEs, provide solutions related to energy production, energy efficiency, climate, and urban development and manage financial and non-financial support schemes to improve the energy efficiency of residential buildings or install renewable energy sources.

5.3 Stakeholders

5.3.1 Mapping of Stakeholders

The mapping of stakeholders should be done early in the process: A discussion or workshop in the core group where the stakeholders and their driving forces are identified. This can be done in several ways and with various levels of ambition. This first table lists some examples of stakeholders and their possible driving forces to cooperate towards a certain goal, for example, a PED goal.

Stakeholder	Driving forces / Discussion
Owners	Increased value of trademark...
Municipality	Climate goals 2030....
Own employees	Proud of their company...
Clients	Attract new tenants...

It is an advantage to dig deeper into the stakeholders and their driving forces if you have more time. Below are more ambitious stakeholder analysis tools described. You can choose to use just one or all four of them in the process – depending on available time and ambition.

STAKEHOLDER ANALYSIS MATRIX

STAKEHOLDER NAME	CONTACT PERSON (PHONE, E-MAIL, WEBSITE, ADDRESS)	IMPACT HOW MUCH DOES THE PROJECT IMPACT THEM? (LOW, MEDIUM, HIGH)	INFLUENCE HOW MUCH INFLUENCE DO THEY HAVE OVER THE PROJECT? (LOW, MEDIUM, HIGH)	WHAT IS IMPORTANT TO THE STAKEHOLDER?	HOW COULD THE STAKEHOLDER CONTRIBUTE TO THE PROJECT?	HOW COULD THE STAKEHOLDER BLOCK THE PROJECT?	STRATEGY TO ENGAGE THE STAKEHOLDER?

Figure 4 Stakeholder Analysis Matrix

Step 1 is to map the different stakeholders: name, their potential impact and influence over the project (low, medium, high), what is important to the stakeholders = their driving forces, their potential contribution or in worst case risk to block the project and finally the strategy to engage them.

PRIORITAZATION



Figure 5 Stakeholder prioritisation

All the stakeholders can then be mapped into this matrix depending on their influence and interest, respectively. This helps in deciding how to communicate to the different stakeholders.

STAKEHOLDER ENGAGEMENT MAPPING

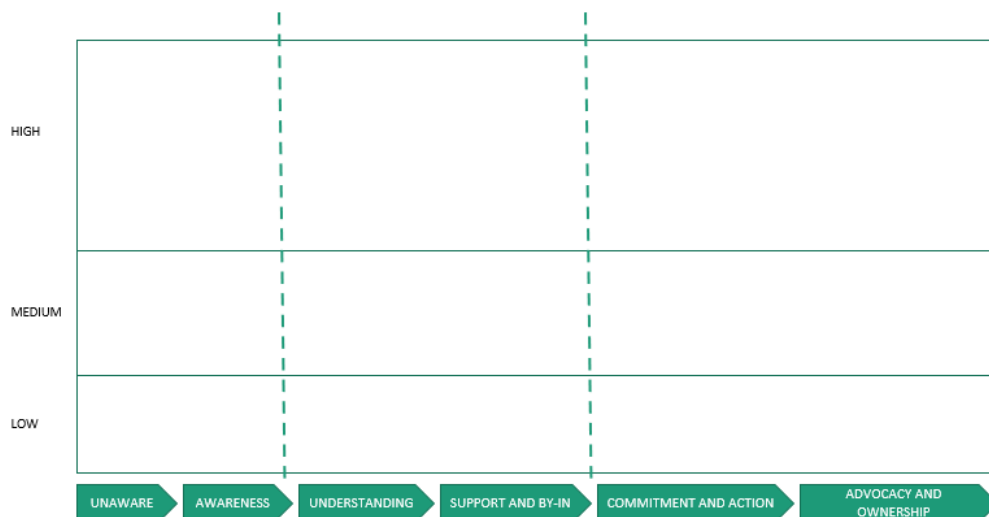


Figure 6 Stakeholder engagement mapping

The stakeholders can also be mapped into this engagement matrix – the different stages of engagement are here divided into the categories: Unaware, Awareness, Understanding, Support and Buy-in, commitment and action and Advocacy and Ownership.

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For every stakeholder choose the right stage of engagement and then the level in this stage (low, medium, high).

STAKEHOLDER ENGAGEMENT PLAN

STAKEHOLDER	POWER/INTEREST	KEY INTEREST & ISSUES	COMMUNICATION VEHICLE	FREQUENCY	COMMENTS

Figure 7 Stakeholder engagement plan

According to the results in the above results, a stakeholder engagement plan can be made. This can be of help to understand how to make stakeholders more engaged in the process and make a base for the communication plan.

6 Conclusion & recommendation

All steps in the PED collaboration and stakeholder process are facilitated by the process leader – the trusted intermediary. This role is essential and makes it possible for the different actors to collaborate and move forward together toward the common PED goal. Steps on the journey are:

- The Letter of Intent process to assure resources and acceptance from the participating organisations.
- The process to obtain a common vision and goal.
- The process of agreeing on ways of working together and how to communicate in the core team.
- The process to describe the PED roadmap with its energy budget and energy strategy.
- The stakeholder analysis process (Chapter 4) provides powerful insights into the drivers and interests of the other stakeholders in the area.
- The process in the communication group and the common communication plan to make the project visible and talked and heard about. It is important to make the involved actors proud of the project and the other stakeholders curious about it.

To keep up the results and the good work from the PED-creation process, it is also important to already in the initial work and in the roadmap make plans for long-term future collaboration between parties. The PED actors must plan for the areas work with constant improvement.

7 References

Development of a knowledge-driven process and co-creative urban development based on the Swedish model "Södertörn model"³ and Partnership Energy Planning (PEPESEC)⁴

Experience from practice: Results from the Södertörn Model on stakeholder engagement (in Swedish only): "Tolv insikter för en social hållbar planering" and "Delaktighet för en socialt hållbar planering"⁵


³ Description of knowledge-based stakeholder engagement model Södertörn from Sweden
<http://sodertornsmodellen.com/home>

⁴ Description of the European project PEPESEC <https://ec.europa.eu/energy/intelligent/projects/en/projects/pepesecc#lesson>





⁵ <http://sodertornsmodellen.com/medskapande-2-2>

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