D4.5

Stakeholders' engagement for future marketability

THEGREEFA

Thermochemical fluids in greenhouse farming

DISCLAIMER

Any dissemination of results must indicate that it reflects only the author's view and that the Agency and the European Commission are not responsible for any use that may be made of the information it contains.

Document references

Project Acronym	**TheGreefa**
Project Title	**Thermochemical fluids in greenhouse farming**
Project Coordinator	**Serena Danesi (ZHAW)**
Project Duration	**October 2020 – May 2024 (44 months)**

Deliverable No./Title	**D4.5 Stakeholders engagement for future marketability**
Dissemination level [1]	
Work Package	**WP4**
Task	**Task 4.5: Stakeholders engagement for future marketability**
Lead beneficiary	**SSA**
Contributing beneficiary(ies)	
Due date of deliverable	**31/07/2022**
Actual submission date	**21/02/2023, Rev01 04/09/2023**

[1] PU = Public
PP = Restricted to other programme participants (including the Commission Services)
RE = Restricted to a group specified by the consortium (including the Commission Services)
CO = Confidential, only for members of the consortium (including the Commission Services)

Document history

V	Date	Beneficiary	Short description of contents and/or changes
V0	31/12/2022	SSA (Andrea Trombetta)	First release
V1	04/09/2023	SSA	Description of figure 5

Content

INDEX

1. Introduction 4
2. Objective 5
3. Methodology 6
Identify the Stakeholders 8
Analyze the Stakeholders: 9
Map the Stakeholders: 9
4. Stakeholders group classification 11
Identification and classification of the relevant stakeholders 11
TheGreefa Stakeholders Analysis 12
How to prioritize the stakeholders 14
Setting up the different stakeholders' groups 16
Stakeholder needs/request analysis classified 21
5. Monitoring 24
6. Information and Communication 25
Communication to the stakeholders and their relation with the consortium partners 26
7. Final remarks 27
8. References 28

1. Introduction

The aim of the Task 4.5 is to map out stakeholder groupswhich are interested and interesting for the project for a later market analysis that will be required to develop business models and design a communication-exploitation strategy.

These stakeholder groups will also be mapped by project partners in their countries in order to have an accurate vision of the market.

A series of online and in-person sessions with the stakeholders will be organized to understand the changing business environment focusing on energy savings for their company or their experience.

Sessions will include key stakeholders (industrial agricultural producers, research centers, farmers, business chambers, unions, agricultural extension services, etc.) and help identify barriers and opportunities that currently exist in the market. As a result of this task we will complete an internal Stakeholder group inventory, which will help us to develop an efficient business plan that will improve our strengths and will enable us to look for opportunities. Working together with these selected stakeholders will enable us as well to eliminate any weaknesses or propose improvement solutions.

Classify the stakeholder groups will serve as a strategic tool in order to identify different stakeholders (industrial agricultural producers, research centers, farmers, business chambers, unions, agricultural extension services, etc.) specially to analyse their influence on TheGreefa project as a whole.

The initial work done will:

- Internet research and consortium partners collaboration to define who are the best likely stakeholders' groups to impact TheGreefa.

After this initial research we will be able to:

- Design a strategy to involve the defined stakeholders in different phases of TheGreefa.

At this time, we will present TheGreefa project to the stakeholders to be able to analyse the different influences they could have on our project results. This analysis will be made both via video conferences and personally.

Along the project lifetime, some work sessions will be hosted in order to promote TheGreefa among the stakeholders community. These work sessions will focus on the heating and cooling systems for greenhouses and/or other suitable building markets. These meetings will be organized within the countries of the project partners. Moreover, stakeholders from different backgrounds will participate. By mixing the different stakeholder's groups we will achieve a broader vision of farmers, agro-industry, agro unions, agricultural extension services and public administration bodies needs. This knowledge will qualify us to go above and beyond in looking for the rundown of opportunities and boundaries that are already in the market.

This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 101000801.

2. Objective

The mission of TheGreefa project is to **provide an efficient and environmentally friendly solution to agricultural companies/farmers/horticultural producers/ that have seen their energy bill increased even five times their cost from last year. Their production requires humidity control, heating and cooling and water recovery in greenhouses.**

TheGreefa project is aimed at a new technology for heating, cooling, air humidity control and water recovery in greenhouses as well as for drying of agricultural goods using thermo-chemical conversion principles based on the use of salt solutions (thermochemical fluids).

The stakeholders mapped group will be a used to achieve a **deep knowledge of the market** and therefore be able to address exploitation strategies and business models to offer TheGreefa technology on the market.

Furthermore, the Stakeholders engagement will **facilitate the links** and networking between partners and **external stakeholders**, prospective **end users**, other relevant projects and **networks** into the final valorisation of project results, setting-up prospective marketing strategy, business model and services, identification of prospective improvements and further development, the external knowledge exchange, involvement in existing agricultural and energy networks and industrial partnerships within the construction sector.

Through the stakeholder group engagement, the different approaches, needs and requirements of the different groups will be summarized to be able to analyse their insights about TheGreefa and achieve their commitment to **guarantee their support**. The actions planned will help to be (as shown in figure 1):

Figure 1 - stakeholders engagement actions planned

The activity will be performed in two phases.

In the **first phase**, through web research, participation in events, among partners,

After identifying the main stakeholder groups, interviews with stakeholders were hold and the project presented to have a first approach. In addition to this, the degree of interest in the project for each type of stakeholder was as well analysed and hierarchized.

The **second phase** will focus on the definition of new stakeholders, and provide technical and economic information to the selected stakeholders in order to obtain a real degree of interest in the project and be able to map a detailed analysis of the influences of any interested parties.

To acquire a comprehensive representation of the sector and be able to obtain relevant outputs to exploit the results, we will carry out:

A **methodology** used to map the different stakeholders' groups

A **classification** and involvement of the stakeholders' group for TheGreefa

A Summary of the meeting results obtained for the project.

3. Methodology

In order to make an adequate classification of the stakeholders that are interesting for the project, we have compiled different classifications taking into account the internal and external stakeholders (González, 2001) and the primary, secondary stakeholders according to the relationship with the project and the ability to represent themselves. (Freeman, 1984, 2010).

These two groups are:

- Primary stakeholders which means that they should be, for example, the farmers or greenhouse agro-industries.
- Secondary stakeholders (intermediaries), should include the public authorities, consumers/packaging/fertilizers providers.

To know the right eligibility to choose the key stakeholders to be included in the process we have question ourselves about how their influence or support will be relevant to TheGreefa.

During the stakeholder analysis the links among the different stakeholders and their link to the project itself will be considered. The treatment for every selected group may differ as to keep their interest. Some groups will need more interaction than others.

The primary stakeholders might have an easier approach to the project and at the same time will require more information about the project progress, this continuous feedback will help to increase their trust. Some stakeholders are easily identifiable (because of their background, the relation with greenhouses, their location...), while others are more diversified (unions, intermediaries...). Other stakeholders are more 'undefined' (for example, 'the local area') and we need to ponder how we will lay out and keep a relationship with them. Still, others might appear simple to distinguish in the first case.

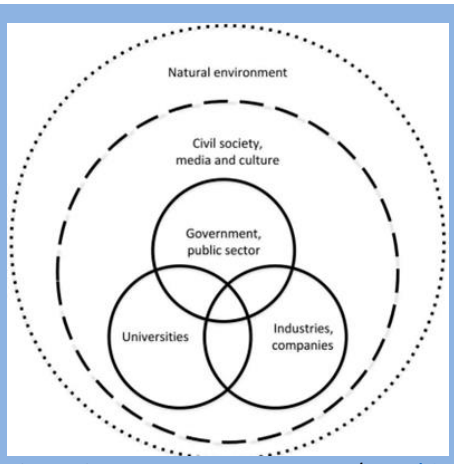


Figure 2 *The quintuple helix model* (*Joachim Rosenlund, Environmental research collaboration ,2017*)

But given the extreme importance of the environmental issue in the TheGreefa project a **Quintuple Helix Model**(figure 2) where natural environment becomes the driver and motivator for collaboration has been added.

The stakeholder analysis will help us to find project levers and maximize the impact of TheGreefa based on two important factors: the participant's level of influence and their interest. The stakeholder analysis map will assist us in determining which stakeholders will have a greater or smaller impact on TheGreefa and as well, to measure their interest. By doing this, we will be able to interact with each project stakeholder in a way that benefits both best. As there will be different kind of interests depending on each group, ranking the different kind of stakeholders depending on their roles and weight will be imperative, in that sense we classify the stakeholders as shown below in figure 3:

Figure 3 – classify the stakeholders.

To establish a right strategy with all the different stakeholders, the evaluation criteria that we have followed to select them has been based on a diagnosis for the development and marketing of the project (as show in figure 4):

PERCEIVED POWER: when the stakeholders can impose its will on the project/results.
LEGITIMACY: the stakeholders group reflects the prevailing opinions and beliefs
URGENCY: the need and sensitivity for a result

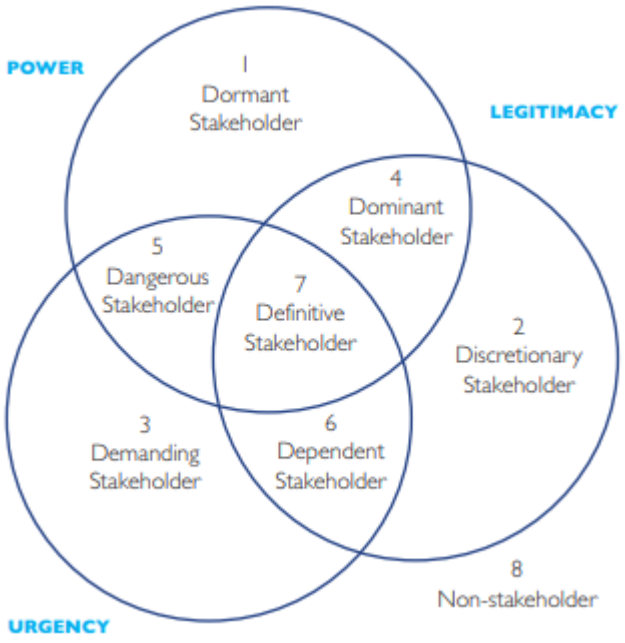


Figure 4. Source: Michell, RK Agle, BR, Wood DJ (1997) "Towards a theory of stakeholder identification and salience defining the principle of who and what really counts"

Identify the Stakeholders

Within the project consortium we have proceed to identify different kind of stakeholders which are relevant for TheGreefa objectives. By responding some of these questions we will include and divide into several groups depending on their influence and relevance:

Who enables or acts as a barrier?

Policy Makers, Governments, Authorities, investors, Agro financers

Who is directly involved with the input and the output of TheGreefa?

Farmers, horticulture producers, agro-industries, unions.

Who has a common interest in TheGreefa results?

Competitors, Suppliers, Agro associations, public entities.

Analyze the Stakeholders:

By analysing the stakeholders, we will be able to you figure out how relevant they are to TheGreeefa, as well as what perspective they bring. We have to define what type of stakeholders they are, with how much they might contribute to the project and their legitimacy in doing so. Would they be positive to engage? How much influence and involvement in the project do they have? We will use our own Database for this analysis.

Map the Stakeholders:

After the list of stakeholders and the analysis we plot them according to the two axes (as shown in figure 5) with the y-axis measuring the level of interest (bottom) to high (top). On the x-axis, you map the level of power, low (left) to high (right).

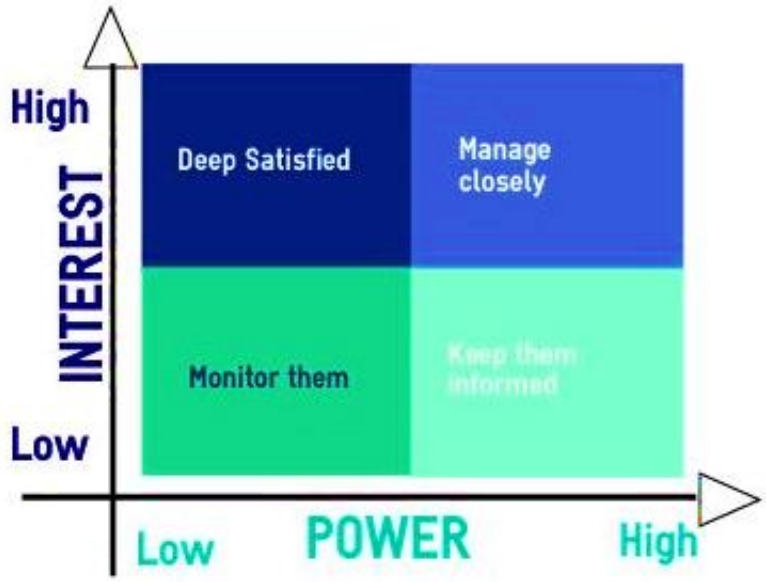


Figure 5 – Stakeholders level analysis

Prioritize the Stakeholders:

Depending where they land on the previous map, we will interact in different manners with them, keeping them informed, monitoring them or involving them in some phases of the project (as shown in figure 6).

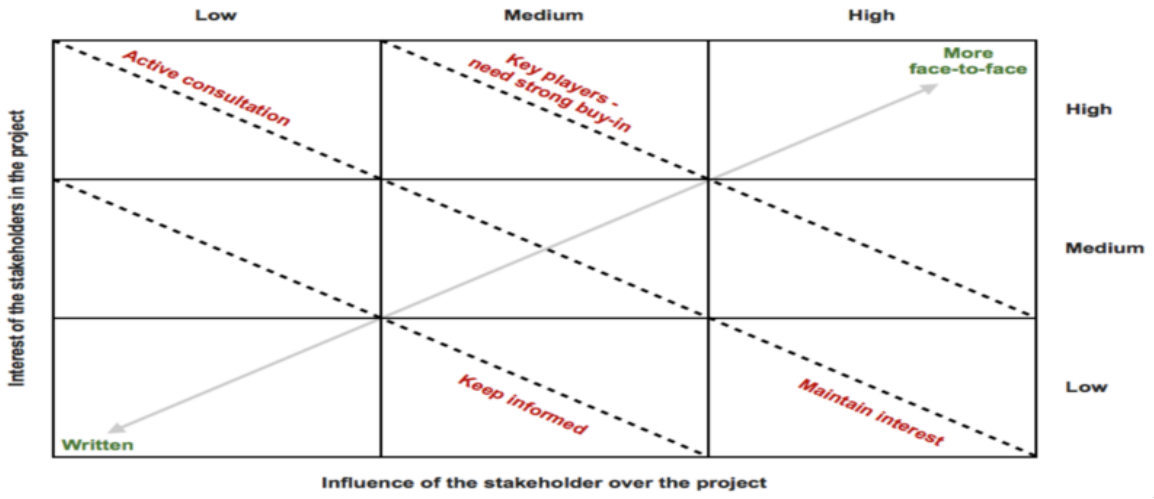


Figure 6. Source: DTU. Dpt. Management Engineering. Project Lab

Making sure that the appropriate stakeholders are included in the TheGreefa initiative from the beginning is vital. Additionally, it's important to make sure that the list of stakeholders includes those who have a strong likelihood of engaging and taking part in TheGreefa activities.

To achieve the objective of this task,int TheGreefa we divide the work into 2 parts and 5 tasks, as follows (Figure 7):

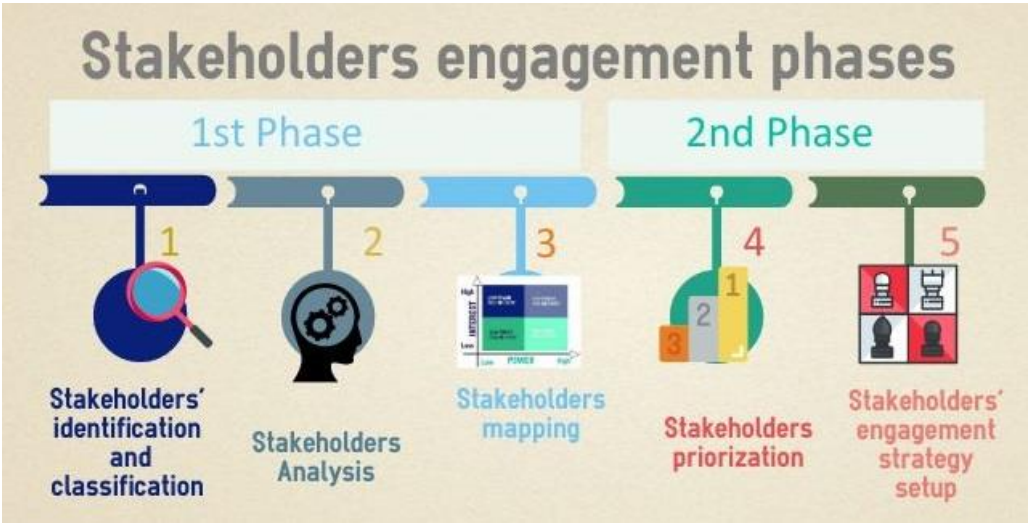


Figure 7 THEGREEFA stakeholder engagement phases

4. Stakeholders group classification

The identification of stakeholders for engage proceed with stakeholder identification and assessment, plan communication and engage.

	Identify Stakeholders	Identify Assessment	Plan Communication	Engage Stakeholders
TASK	Identify stakeholders group	Conduct high-level stakeholder assessment	Create stakeholder communication planning sheet	Maintain plan to support ongoing engagement activities
	Identify individual stakeholders representatives	Prioritize stakeholder	Identify engagement activities	Execute stakeholder communication plan
	Create initial stakeholder list	Develop stakeholder map	Develop detailed engagement plan	Monitor progress
OUTPUT	Stakeholders final list	Stakeholder map	Stakeholder communication planning sheet	Updated stakeholder communication plan
		Engagement grid	Stakeholder communications plan	Communication and engagement activities
		Updated stakeholder lists		Feedback mechanisms implemented

Table 1 *Tasks to be performed to engage the stakeholders and outputs expected.*

Identification and classification of the relevant stakeholders

The identification of stakeholders creates the basis for the engagement and flow required for communication channels necessary to gain more interest and confidence in the project.

Starting partner demonstrable evidence consists in posting groups that are both known to influence and be affected by the project. It is important to include all performers who might have an interest in the project on the list with no limitations, even it is unknown if they will be involved in TheGreefa. As the meetings will run the interest, influence and their relevance shall come up through their commitment in the process (as show in figure 8).

Figure 8 Stakeholders interest/influence

The list of stakeholders working groups might shift relying upon their performance, the project progress or their appropriateness in the project different phases. In this manner we will adjust the gatherings to the necessities identified.

Different stakeholders were identified and categorized in the first step. Agriculture producers (greenhouse horticulture, for example), industry with heating systems, academia and research on heating and dryer system, business and financial advisors (such as agricultural banks), policymakers and public authorities, public entities, and the general public were divided into six main stakeholders' groups (e.g. farmer organisations and NGOs). Each of the previously listed categories has been further defined and organized. See in the next chapter a complete list of stakeholders' classifications.

TheGreefa Stakeholders Analysis

The different stakeholder groups are analysed based on the impact the project has on them and their business operations as well as the influence they have on the project (Table 2)

TheGreefa Stakeholder Analysis

Group 1				General Information					Commitment Level				
									C - Current Level				R - Required Level
Stakeholder	**Position**	**Email**	**Influence**	**Priority**	**SME?**	**Decision-Maker**	**Comm. Freq.**	**Comm. Method**	**Against**	**Passive**	**Neutral**	**Help**	**Notes**
X			High	High	Yes	Yes	Weekly	In Person	C			R	
Y			Medium	Medium	Yes	No	Monthly	Email	C		R		
Z			Low	Low	No	No	Weekly	Phone	C	R			

Table 2. Stakeholders' analysis work document

Influence is defined as the power to direct project development and the extent of coordination with other stakeholders. The standards used to gauge stakeholder influence are shown in Table 3.

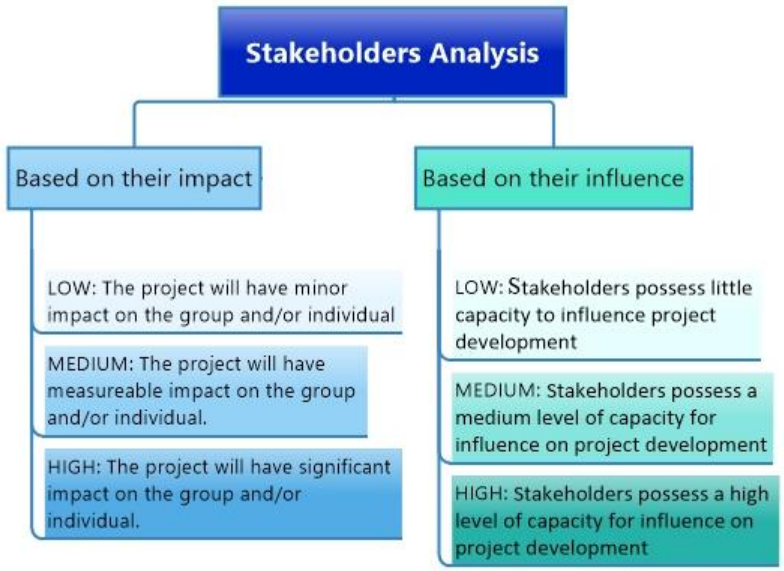


Table 3 Parameters for assigning the potential level of influence and impact of relevant stakeholders

A stakeholder's location on the grid illustrates the steps the project management must take to engage in the project (see Table 4).

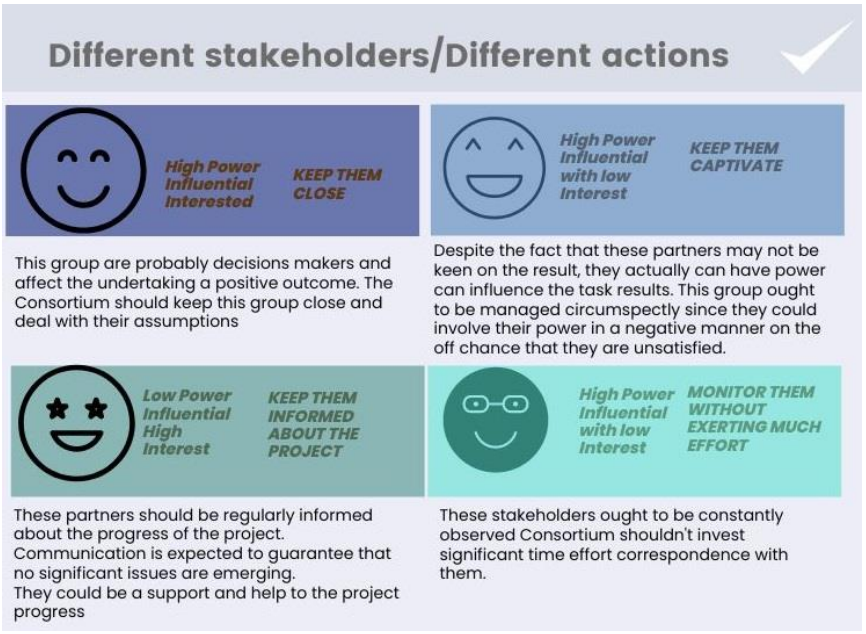


Table 4 Parameters for assigning the potential level of influence and impact of relevant stakeholders

Depending on the importance that each of the stakeholders can contribute to the project, values will be assigned for their interest and power of influence and thus correctly monitor the actions to be undertaken (as show in figure 9).

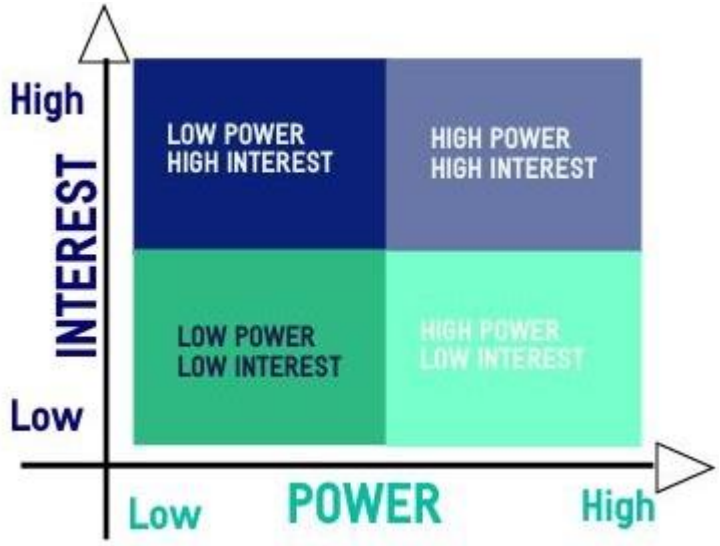


Figure 9 – Stakeholders level power/interest

Stakeholder groups analysis: Characterization and Influence in TheGreefa

Stakeholders Group 1	Have high impact and influence on the project development and might be the potential users
Stakeholders Group 2	Have high impact and high-medium influence on project development and might be the potential users
Stakeholders Group 3	Academia and research centers that add influence on the project development.
Stakeholders Group 4	Have medium impact and influence on the project
Stakeholders Group 5	Have predominantly low impact while influence may vary from high to low.
Stakeholders Group 6	Have predominantly low impact while influence may vary from high to low.

Table 5 Stakeholder groups analysis: Characterization and Influence in TheGreefa

How to prioritize the stakeholders

The prioritization is based on the high or low power of influence or decisions of the stakeholders. These values determine the communication actions that will be derived to the group. This list is alive throughout the duration of the project and depending on the interactions with each of the stakeholders, their position will vary on the list. It is desirable that they align in the most positive quadrant (as show in figure 10).

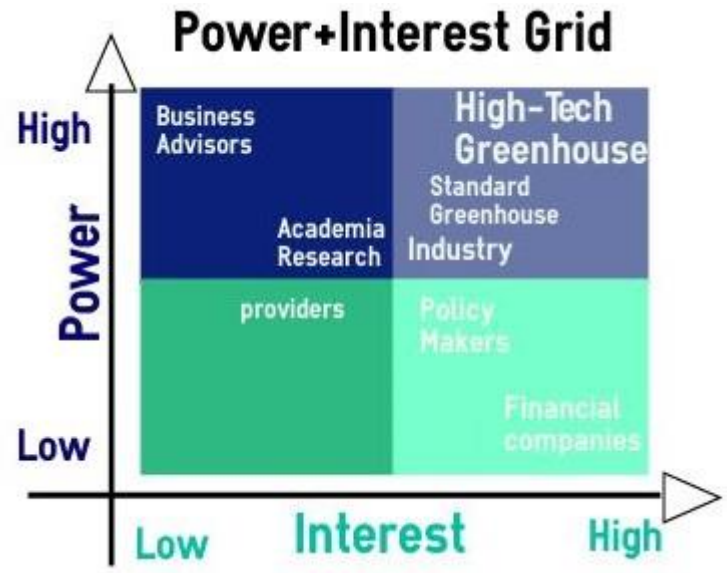


Figure 10– Stakeholders level power/interest with stakeholders

The final objective to arise the stakeholder's engagement is to gain support and maximise opportunities and minimise barrier for the project. Therefore, it will help the project to know better the expectations and needs that TheGreefa should cover. Hence, there are some general hints to consider pondering the process and the results:

- each stakeholder commitment is different, so will be their perception and interest about the project.
- there is no single response or approach.
- the impact of one can't be considered without affecting the other.

Events	2020	2021	2022
Open Summit	december	december	
Food, Wine & Co. Food sustainability		october	
press tour Regione Toscana	june		
Expo 2020 Dubai			february
Maker Faire Rome	december	december	
Siena Food Lab		june	
Sit-Com divulgazione scientifica			
Premiazioni 40° Assoutenti			march
Life Sciences Job Day 2021		november	
FestivALfuturo 2018 "Ri-generazioni - l'era dell'economia circolare"			
Expo consumatori 4.0		december	
Festival For The Earth			
Startup Weekend Food Sustainability Parma		october	
TECH IT EASY – Agritech			
GiornataNazionalesullaBioeconomia	september		
AgTech Forum			
Spark-la scintilla che accende i sogni		july	
AgrINNovation		november	april
TAVOLO GIOVANI #AGRIFOOD TECH			february
Verso l'agricoltura del futuro		april	
"WakeUP – Realizzare un'impresa non è un sogno",			
Villaggio Rousseau di Milano			
Smart Agriculture e nuove politiche territoriali	june		
SINNOVA 2019	october		
Forum Retail 2020	october		
Epale Milano			
Take a breath, make a move			
BUONO! Storie italiane di agricoltura		june	
The Festival for the Earth. Sustainable Visions in Art and Science			
Robotica, Agricoltura ed Ambiente'			may
Incontro Agricoltura Innovativa (Soroptimist)	september		
Towards The ECONOMY of FRANCESCO		october	
Bioeconomy day	september	may	
Didacta in fiera			may
AI e automazione. Nuovi fattori per il precision farming			may
Interferenze dal Futuro 2.0			may
Job-Day 2022			april
Agristartup			january
Beate Vivo Expo-Summit '22		november	
Bravo Innovation Hub		november	
Trusty - Var Group - IBM		november	
"Food, Ambiente e Sostenibilità: per sempre ecologici"		october	

Table 6 The Events to identify the TheGreefa stakeholders

The stakeholder list was defined after checking through different events the interest of future stakeholders in energy, new technologies, agriculture innovation, greenhouses, in general, sustainable production, agro-industries and academia applications valued as of high interest for heat recovery systems.

In addition to meeting the stakeholder at events, additional companies were marked as they already have relationships with the partners of TheGreefa consortium, each partner provided companies data in order to add them to the different stakeholders group and so be able to share project information and receive their feedback.

Setting up the different stakeholders' groups

After the research made, the six stakeholder groups have been set up as follows:

(i) greenhouse, (ii) industries that have to dry heating processes, (iii) academia and research, (iv) business and financial advisors, (v) policymakers and public authorities and (vi) public entities and general public.

By setting these different stakeholders' groups we were able to have a better appraisal of their interests. Different stakeholders' segmentation ought to uncover the greatest potential roads to arise TheGreefa results become to market because of the project.

To be able to accomplish this, we attempt to survey every one of the potential partners which can be influenced by or could affect the THEGREEFA project. The stakeholders' segmentation bunches give a significant level of comprehension which further help with grasping their commitment.

We will pay special attention to those stakeholders who have shown interest in TheGreefa solution proposed, therefore fluid communication and meetings will be held to assure their positive feedback.

In the first period after meetings and interviews with the stakeholders that have a high interest for the TheGreefa project, they requested more detailed information that will be shared later during the project.

In this historical moment, we are facing a strong increase of energy costs. It is essential to define accurately the economic benefits, emissions abatement and investment for this technology in order to make this technology more interesting for greenhouses and large plants where it could be applied.

In the months coming when we will have more accurate information about the project results. The communication with TheGreefa's stakeholders actively engaged to the project thanks to our web page news, or even by inviting them to participate in project meetings, etc. These highly interested stakeholders will be regularly contacted, and taken into account to improve TheGreefa results.

We are positive for the large number of potential users as many greenhouses have heating systems with fossil fuels depending on the high cost of the fuel. TheGreefa technology might start to be considered very interesting to reduce these production costs.

Stakeholders' groups identified in Table 7. The Stakeholders groups classification has been realized according to their different interests and influence that could have in their sphere.

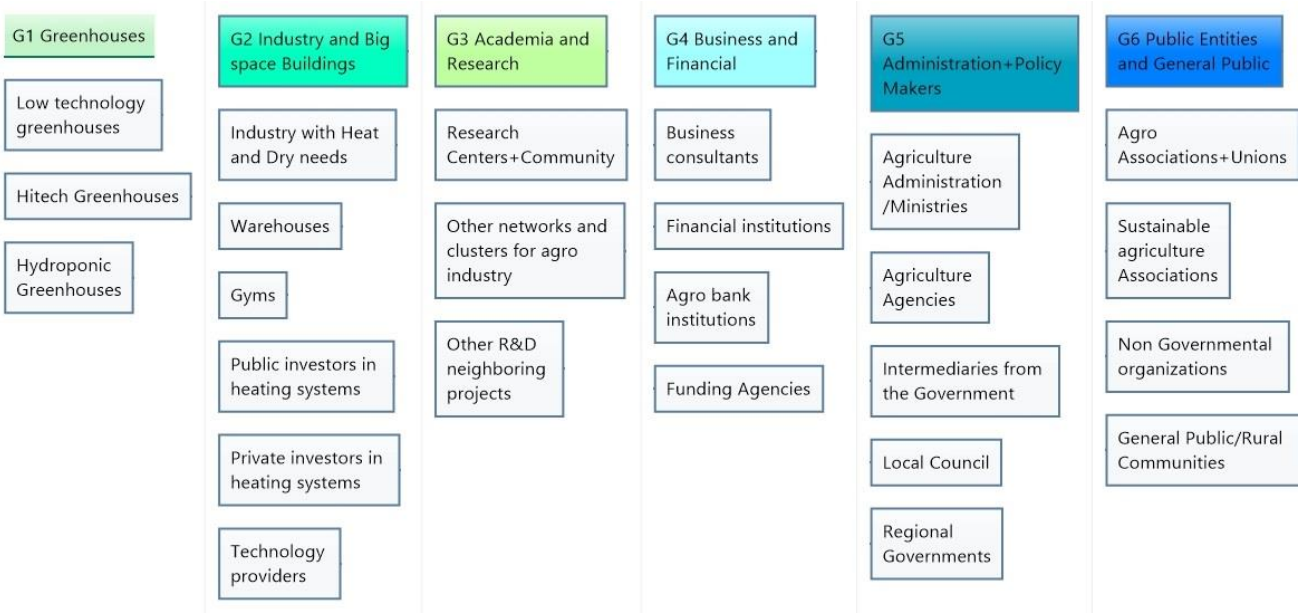


Table 7. The TheGreefa project stakeholders' groups.

Contacts made by each group

For each stakeholder group, we show below the number of companies contacted and highlight those of which we have received feedback on the project.

A continuously updated summary file, in order to define the strategies to be made for the dissemination of the project and also to modify it in order to make it commercial and truly usable for end users, will be strategic.

STAKEHOLDERGROUP 1 (G1) - Greenhouses

Stakeholder: 34
Contacted stakeholder: 15
Average rating: High
Location:

15 Italy
6 Switzerland
1 Germany
5 Tunisia
4 Spain
3 France

STAKEHOLDERGROUP 2 (G2) - Industry and other big spaces buildings

Stakeholder: 20
Contacted stakeholder: 12
Average rating: High
Location:
14 Italy
3 Spain
3 France

STAKEHOLDERGROUP 3 (G3) - academia and research

Stakeholder: 25
Contacted stakeholder: 12
Average rating: Medium
Location:
12 Italy
13 Spain

STAKEHOLDERGROUP 4 (G4) - business and financial advisors

Stakeholder: 58
Contacted stakeholder: 45
Average rating: Medium
Location:
51 Italy
7 Spain

STAKEHOLDERGROUP 5 (G5) - policy makers & authorities

Stakeholder: 22
Contacted stakeholder: 15
Average rating: Medium
Location:
11 Italy
5 Tunisia
6 Spain

STAKEHOLDERGROUP 6 (G6) - policy makers & authorities

Stakeholder: 14
Contacted stakeholder: 10
Average rating: Medium
Location:
10 Italy
4 Spain

The feedback received during interviews and meetings was defined for each category and we will determine the power and/or interest axis on the basis of the power and interests of each stakeholder.

The stakeholder groups identified for the THEGREEFA, the companies contacted and for which we have received feedback on the project are highlighted.

All information from the interviews and meeting are categorized and shown for each stakeholder, the type of company, the size, the type of relationship with the partner, the opportunities, suggested actions to be carried out and the degree of interest and impact on the project.

In this first phase, the power of each stakeholder is defined as it will help to manage and control their impact on the project. As well their influence on other stakeholders.

Once the interviews with every stakeholder have been made, we will proceed to categorize them through to acquire a global vision about their power/interest/influence (as show in figure 11).

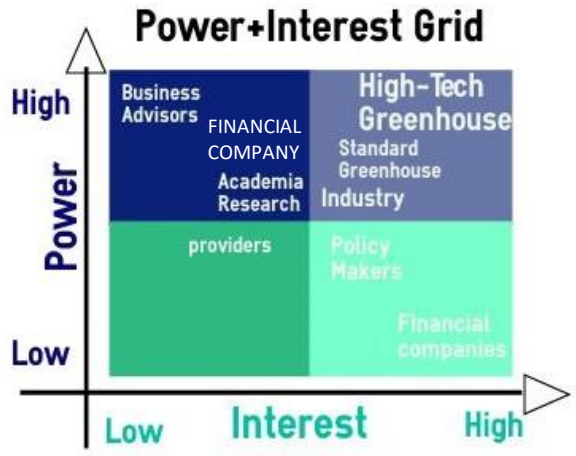
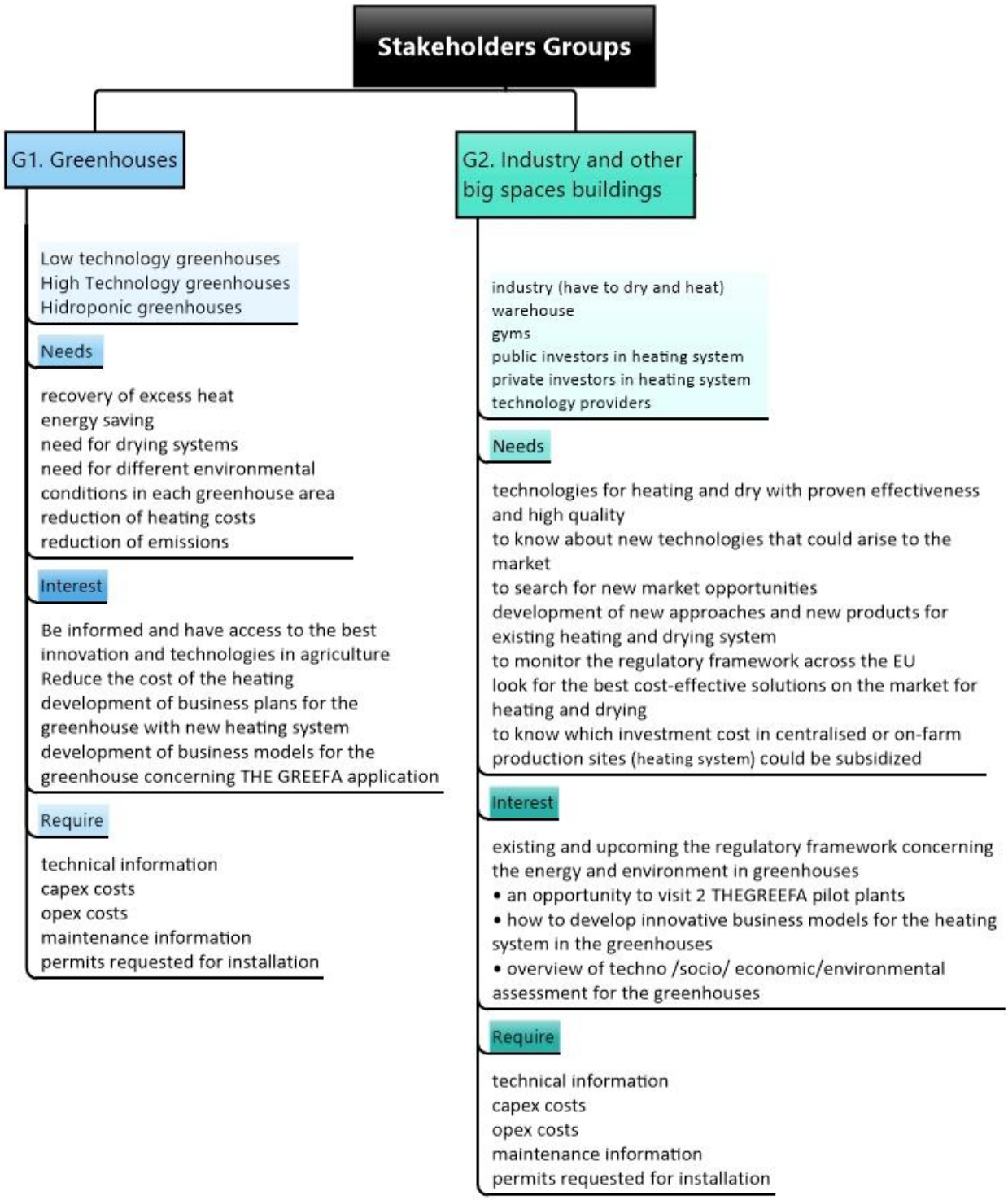
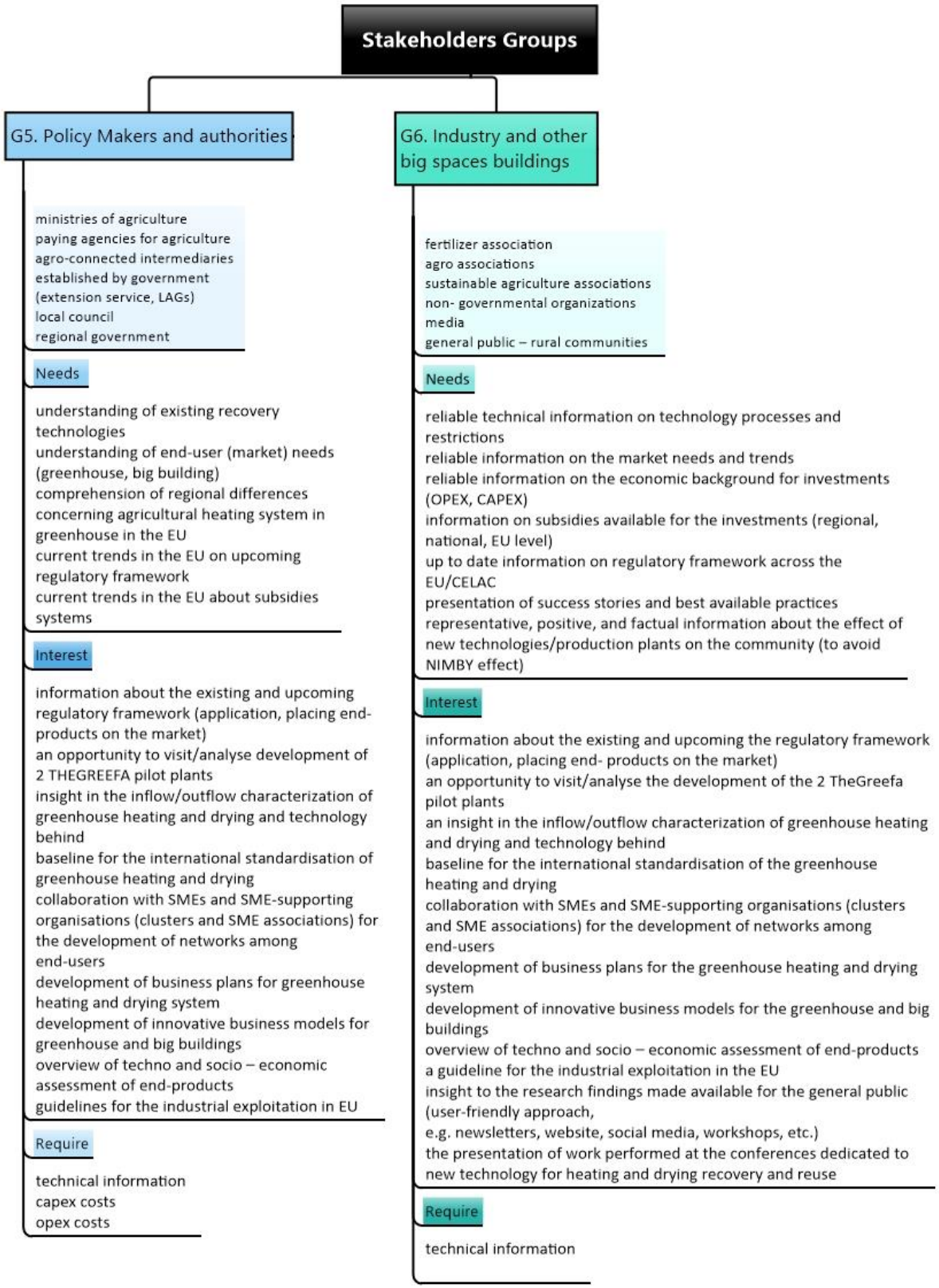


Figure 11– Stakeholders level power/interest/influence

Stakeholder needs/request analysis classified





5. Monitoring

To monitor the results and analyse them within the different contexts of the project will help to understand their needs and impact that their commitment will have on the project. The aim with the stakeholders engagement is to work on current and future administration of the results to add them or be aware of them in the project consecution.

To ensure the right management of the stakeholders´ group relation and the feedback that will emerge from the meetings, a synopsis-memo of the meetings will be made to keep records and better interact with the rest of the stakeholders involved.

in this first phase of the project, we have identified the stakeholders, defined which ones can give greater importance to the development of the project and defined the requests that each stakeholder group has requested to better analyse the project and provide ideas for improvement and to lower it on real needs of their companies or their partners.

Specifically, it is necessary to provide the following information more accurately about:

- technical information
- capex costs
- opex costs
- maintenance information
- permits requested for installation.

Moreover, based on the different feedbacks throughout the duration of the project, some of the initial planning actions should be rethought about it, such as:

- review the plan and reassess the effectiveness of the messages sent to stakeholders.
- type of stakeholders and target audience to be reached.
- the suitability of the experts delivering the message
- the channels of communication chosen, and the next steps planned.

In line with this, the WP4 leader will quarterly organise sessions with dedicated consortium partners regarding the prioritisation list update.

Commitment processes are probably going to include various individuals with different aptitude, certainty, and experience. While connecting with them, it is essential to address limitations or information holes. Understanding this, we should take into consideration:

- **there is not a common knowledge** – every person has a different degree of understanding,
- give enough time to everyone to be able to deeply understand the project.
- guarantee that the stakeholders will receive enough information about the project progress.

Engaging the stakeholders will result on an awareness of the positive disposition of the highly engage stakeholders towards positive feedback to the researchers and enable to find the advantages or boundaries critical for a successful implementation of TheGreefa.

6. Information and Communication

TheGreefa information provide to the stakeholders will be easy to understand (science for all) and aligned with the stakeholders' profiles in order to create a well-informed stakeholders mass.

Specifically, it is necessary to provide information regarding technical information capex/opex cost, maintenance information and permits requested for installation more accurately.

Since many people interviewed are not specialized technicians in the thermochemical sector, it is necessary to spread clearly the information which need to be based on verified facts and figures. Arguments used should be technical, credible, representative, positive, factual, and coherent. This will enable us to remove barriers, by being clear and use non scientifical language.

Stakeholders mapping

Some influential contacts for the project were distinguished and will be gathered in the data set, which was used at the business stakeholders' group meetings.

173 partners were identified, among these we have featured that the gatherings that could carry greater advancement/improvement/advisor to TheGreefa are G1 and G2.
During the meetings and interviews a bottom-up examination of the project outcomes were featured to get some remarks on the most proficient method to create and market the innovation.

It is expected to enlarge the stakeholders' participants to foster TheGreefa project in an efficient and appropriate way.

Communication to the stakeholders and their relation with the consortium partners

How will be managed the communication with the Stakeholders.

- Every data in regard to TheGreefa project is introduced in a **straightforward manner.** The data partook in a legitimate, genuine, and simple to fathom design, the almost certain it is that stakeholders will require the investment to grasp our goals, understand their role, and what it might mean for them.

- Keep an open and inquisitive disposition will assist TheGreefa to figure out the set of experiences and worries of all the stakeholders. This open, inquisitive demeanour will assist the two sides to beat barricades, adjusting values and interests simultaneously.

- Keep an eye on the relation between the stakeholders and their interchanges to guarantee that no misinterpretation could arise.

The **communication strategy** in the THEGREEFA project for engaging with key stakeholder groups will be based on the answers given below:

	Action	Reason behind
WHAT	What topics need to be discussed and objectives behind?	Negative, neutral, positive
WHY	Why this subject should be addressed within this group?	Prevention, reaction, general announcement
WHO	Who is responsible to communicate with each stakeholder's group?	WPs leaders, project coordinator, consortium dissemination experts
HOW	How will communication with each stakeholder group occur? How can stakeholders respond/react?	Workshops and/or round table discussion,paper or web forms, video communication etc.
WHEN	When the communication will occur?	Establish a regular timeframe

Before engaging with key stakeholder groups, it is important to review their general profiles and explore their needs and interests. These actions have been noticed as helpful for the project partners to understand stakeholders' backgrounds, expectations, motivations, beliefs, and ultimate goals within TheGreefa.

Mapping stakeholders has been done at the beginning of the activity and has been a key to define which stakeholders are the most interesting to engage on. Visualisation helps to detect and fully understand the often-complex interplay of issues and relationships.

The analysis has been performed by doing research of the possible stakeholders to be contacted and meet.

During the first phase, "Define the best stakeholders for the project", we participated in the events listed in table 6. This allowed us to draw up a list of stakeholders and divide them into macro-categories and for each category to define the degree of interest and potential for involvement in the project.

7. Final remarks

Working with the stakeholders guarantees a successful dissemination of the project and enables a better implementation for TheGreefa. In this way, stakeholders' analysis will become an iterative cycle that will go on all through the project lifetime. TheGreefa Consortium will work together and draw in with various and different stakeholders and the results obtained will permit a better comprehension of the genuine needs that will allow us to get an improved market focused solution in the greenhouses´ energy requirements.

By classifying the stakeholders in different influence/power groups and interest it becomes clear where the stress should be focused, and this shows how decisive the interaction of the different stakeholders groups are.

The stakeholders' preliminary analysis has been done by evaluating the stakeholders through a preliminaryresearch on their interests' scope about agro-industry, agriculture, greenhouses, energy efficiency concerns, new technologies applied in agriculture, eco-sustainable production. With all this data collected, 6 stakeholders' groups have been created, which are:

(1) greenhouse, (2) Industry and other big space building, (3) academia and research, (4) business and financial advisors, (5) policymakers and public authorities and (vi) public entities and general public. Each of the categories mentioned has been further elaborated and classified.

Stakeholder group 1 - **greenhouse** existing company (hydroponics, high- and low-level technology). **Stakeholder group 2** – **Industry and other big space building** chemical industry, building where heating and drying is need, warehouse, big company, office, gym. **Stakeholder group 3** - **academia and research** involves research centers, EU subject related networks and clusters, EU R&D neighbouring projects and alternative heating and drying system recovery community. **Stakeholder group 4** - **business and financial advisors** includes business consultants and financial institutions. **Stakeholder group 5** - **policy makers & authorities** refers to ministries of agriculture, paying agencies for agriculture, agro-connected intermediaries established by government, as well aslocal council and regional government. **Stakeholder group 6** – **public entities and general public** includes different association, media and public.

Stakeholders' engagement and continuous evaluation of the process will support researchers in detecting the most prominent attitudes, as well as benefits and potential barriers that are crucial for the development and further progress of the TheGreefa project.

The Inventory of stakeholder groups is thus a living document that will be continuously updated to incorporate perspectives, priorities and questions generated by stakeholders over the course of the time.

8. References

Doughty Centre. Cranfield University “Stakeholder Engagement: a road map to meaningful Engagement” https://www.fundacionseres.org/lists/informes/attachments/1118/stakeholder%20engagement.pdf

Javier+Oscar González Benito The role of stakeholder pressure and managerial values in the implementation of environmental logistics practices. https://www.tandfonline.com/doi/abs/10.1080/00207540500435199

R. Edward Freeman. Managing for the stakeholders. Survival Reputation and Success.