



Description of stakeholder mapping for case studies

Deliverable 2.1

WP2: Systems Innovation Approach

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EXECUTIVE SUMMARY

This document provides a detailed account of the stakeholder mapping process for all ARSINOE Case Studies. Deliverable 2.1 builds on the methodology outlined in the following section, to detail the framework for the implementation of the stakeholder mapping component of the Systems Innovation Approach, the subsequent shortlisting for the selection of Living Lab members, and the training and support provided by WP2 to SIA workshop facilitators.

Section 2 outlines the methodology, Section 3 details the stakeholder identification process, Section 4 explains the rationale behind choices and the tools used to select relevant participants in the workshops, and finally, Section 5 describes the different training and support actions implemented to guide Case Study leaders throughout the process of convening the first Living Lab workshops. Finally, we provide some general remarks on the outcomes and their importance for the general process and give an overview of the next steps.

1.0 SYSTEMS INNOVATION APPROACH

Systems Innovation Approach (SIA) addresses the growing complexity, interdependencies and interconnectedness of modern societies and economies, focusing on the functions of the cross-sectoral system as a whole and on the variety of actors. The Climate Innovation Window (CIW) is the EU reference innovations marketplace for climate adaptation technologies. ARSINOE shapes the pathways to resilience by bringing together SIA and CIW, to build an ecosystem for climate change adaptation solutions. Within the ARSINOE ecosystem, pathways to solutions are co-created and co-designed by stakeholders, who can then select either existing CIW technologies, or technologies by new providers (or a combination) to form an innovation package. This package may be designed for implementation to a specific region, but its building blocks are transferable and re-usable; they can be re-adapted and updated. In this way, the user (region) gets an innovation package consisting of validated technologies (expanding the market for CIW); new technologies implemented in the specific local innovation package get the opportunity to be validated and become CIW members, while the society (citizens, stakeholders) benefits as a whole. ARSINOE applies a three-tier, approach: (a) using SIA it integrates multi-faceted technological, digital, business, governance and environmental aspects with social innovation for the development of adaptation pathways to climate change for specific regions; (b) it links with CIW to form innovation packages by matching innovators with end-users/regions; (c) it fosters the ecosystem sustainability and growth with cross-fertilization and replication across regions and scales, at European level and beyond, using specific business models, exploitation and outreach actions. The ARSINOE approach is show-cased in nine widely varied demonstrators, as a proof-of-concept with regards to its applicability, replicability, potential and efficacy.

1.1 Introduction to SIA

System innovation approach (SIA) is defined as an interconnected set of innovations, where each influences the other, with innovation both in the parts of the system and in the ways in which they interconnect. The SIA is applied in ARSINOE for solving complex, multi-parameter problems. The emphasis is given on the functions of the cross-sectoral system “as a whole” and on the **variety of actors**, instead of just focusing on specific functions or individual/sectoral benefits.

Through SIA, we understand and evaluate the interconnectedness within and among the System components (Figure 2) manifested through shared/common states of its agents-actors. These essential components signify decisions, decision makers, and stakeholders; resources; organizational setups emergent behavior; cultural identity; and time frame. In this course of action, visions of the future describing the functions, order and means that are communicated and shared aligning interests and framing problems. Then, trajectories to face climate change challenges will be identified in collaborative living labs, and will enable experts, decision makers and stakeholders to a priori identify current or planned integrated systems that may be on the critical path and the best solutions to prevent the worst-case scenarios. Thus, the stakeholder and policy work feed the integration of climate adaptation with the biophysical and socio-economic modelling. The aim of engaging stakeholders throughout is maximizing knowledge transfer and engagement, facilitating uptake and enhanced decision-making.

SIA refers to an innovation process that uses systems thinking as both a philosophical and analytical tool to address complex systemic challenges, by examining the underlying structure of a system and viewing systems from a broad perspective that includes seeing overall structures, patterns and cycles within the system, rather than seeing only specific events in the system. This broad view can help to quickly identify the real causes of issues within the system and know just where to work to address them.

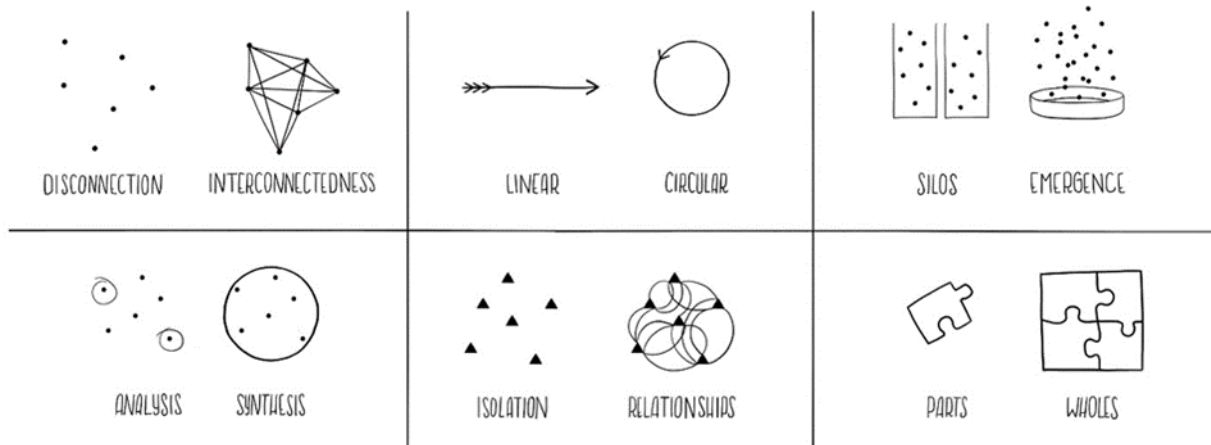


Figure 1.1 Visualizing Systems Thinking

Stakeholders are considered as part of the 3 tiers in ARSINOE. The primary long list of stakeholders circulated by case study leaders will permit to identify the tier 1 during the stakeholder mapping activity.

In Tier 1, CS stakeholders will be engaged in living labs, to facilitate participatory modelling development, analysis and validation of policy suggestions and climate-change innovation pathways.

In Tier 2, a wider constellation of interested stakeholders (local government, EC DGs, stakeholders in different regions) who wish to utilize the ARSINOE tools will be engaged as well as innovation companies that want their innovations to be incorporated in the marketplace / climate innovation window or that want to benefit from the ARSINOE Innovation bazaar funding scheme.

In Tier 3, a wide group of stakeholders will be identified for dissemination of outcomes, and could include neighbouring region / country authorities, business / private enterprises, and regional / national planning agencies.

1.2 System Innovation Approach and Living Labs

The SIA will be implemented within the context of Living Labs (LLs). The LLs will be made up of approximately **12-15 stakeholders**, the final composition of which will vary depending on the focus of the various case studies and the outcome of the stakeholder mapping activity. LLs refer to user-centred, open innovation ecosystems based on systematic user cocreation approach, integrating research and innovation processes in real life communities and settings. The approach adopts an experiential learning model, which brings together a core group of stakeholders to co-develop ideas, scenarios, and socio-technical solutions. This systemic co-creation approach integrates research and innovation processes in real life communities and settings, building on the stakeholders' experience to work through a cycle of observation, reflection, and innovation. The LLs are intended to provide the freedom and a "safe" place for the representatives to co-identify challenges, risks, and opportunities, explore innovative ideas, co-develop pathway(s) towards a common desirable future. **Thus, the LLs will form the focal point for the implementation of the System Innovations Approach (SIA).**

The main stages in the process of SIA during ARSINOE include:

- **Defining the scope:** systems boundaries (spatial, temporal or conceptual), setting focus/objectives
- **Mapping:** Mapping of the system including stakeholders, issues, and challenges
- **Problem Definition:** Isolation and challenge statement
- **Envisioning:** Outlining the desired future state/goal
- **Back casting:** Identification of Innovation Pathways working backwards from the Future Vision
- **Building:** Elaboration of the Innovation pathways and identification of concrete actions

The process will be implemented at case study level within LLs, led by the case study leaders and with the support of the WP2 team. In complex/multi-site Case Studies, working groups involving local stakeholders will be implemented, to understand the local challenges that need to be tackled and gather input from all relevant perspectives. **A training workshop on SIA for case study leaders took place in Tours, France, from 22nd - 23rd of March 2022.**

2.0 STAKEHOLDER IDENTIFICATION AND MAPPING

The process is led by the case study leader, in collaboration with the case study team and supported by the WP2 team.

2.1 Case study elaboration

The context setting is already mostly done as case study leaders have presented the main challenges they want to tackle in their case study. Crucially, the main objectives need to be defined for each case study as these will form the basis of the systems innovation work going forward.

2.2 Stakeholder identification

The first step is to identify the main sectors of the case study based on the focus of each case study which will define the stakeholders' sectors. Within these sectors, key stakeholders need to be identified. All these will compose what is called the long list of stakeholders: Identifying key stakeholders within each sector, under different categories (Quintuple Helix: Business/Industry, Government/Policy Makers, Research/Academia, Citizens, NGOs). This long-list may be further extended based on input from stakeholders during the LL workshops (Table 2.1).

- i) The starting point is **the identification of sectors and sub-sectors** (e.g. looking at the whole value chain of the water sector, from suppliers, users to managers). [See Table 1 for indicative examples]
- ii) The second step will be to identify the relevant categories of stakeholders representing those sectors. [See Table 1 for indicative examples]
- iii) The third step will be to identify key stakeholders representing those categories.

(METHODS: Desk study, literature review, critical dialogue based on CS leader knowledge of local context).

2.3 Stakeholder identification template

To help case study leaders to establish the initial long list of stakeholders, the following synthesis of the method and a template is proposed:

- First of all, synthesize the main challenges and objectives of the case study in few sentences.
- Then provide an exhaustive list of sectors concerned by these challenges and objectives.
- For each sector, provide a stakeholder identification list (Template in Table 2.1). This is the "long list of stakeholders" corresponding to MS2 submitted in Month 4 January 2022. It is an extensive

pre-selective list of stakeholders which maps all potential stakeholders implicated in the issues the case study wants to tackle within ARSINOE.

NB: Contact details have not to be included at this stage and can be added after the short list has been formulated.

Table 2.1 Stakeholder Identification Template

Case Study		<i>[Number and Title of the Case study]</i>		
Background: <i>[Paragraph providing an overview of the case study describing the context, location, focus and main issues/challenges]</i>				
<i>[Map of case study area]</i> <i>[Illustrative/representative image of the case study]</i>				
Objectives: <i>[List main objectives of the case study]</i>				
Current activities: <i>[Existing or ongoing projects/activities related to the case study focus that ARSINOE can build on]</i>				
Stakeholders				
Sector	Category	Name of Stakeholder or Organisation	Scale	Existing Contact
<i>[e.g. Water sector, Energy sector, Construction sector, Tourism sector, Agriculture sector, Maritime sector etc.]</i>	<i>[Business/Industry, Government/Policy Makers, Research/Academia, Local Citizen, NGO/Association]</i>	<i>[e.g. National Ministry of Water Resources]</i>	<i>[Local, National, Regional/International]</i>	<i>[Yes/ No]</i>

2.4 Stakeholder mapping and analysis

The aim of the stakeholder mapping is to determine a certain level of interactions between stakeholders of the **long list of stakeholders**. Following the development of the long list of stakeholders at case study level (MS2), case study leaders were asked to short-list their initial list using a mapping process using an “**influence/interest matrix**” (Figure 2.3). This is done by plotting the identified stakeholders on a graph which plots Influence vs. Interest. By influence is meant the answer to the question “**how much power and capacity the stakeholder has to effect change**”. By interest is meant the answer to the question: “**how likely the stakeholder is to engage in activities or initiatives relevant to the case study focus; this may be due to resultant benefit or adverse impact**” (Eden and Ackermann, 1998).

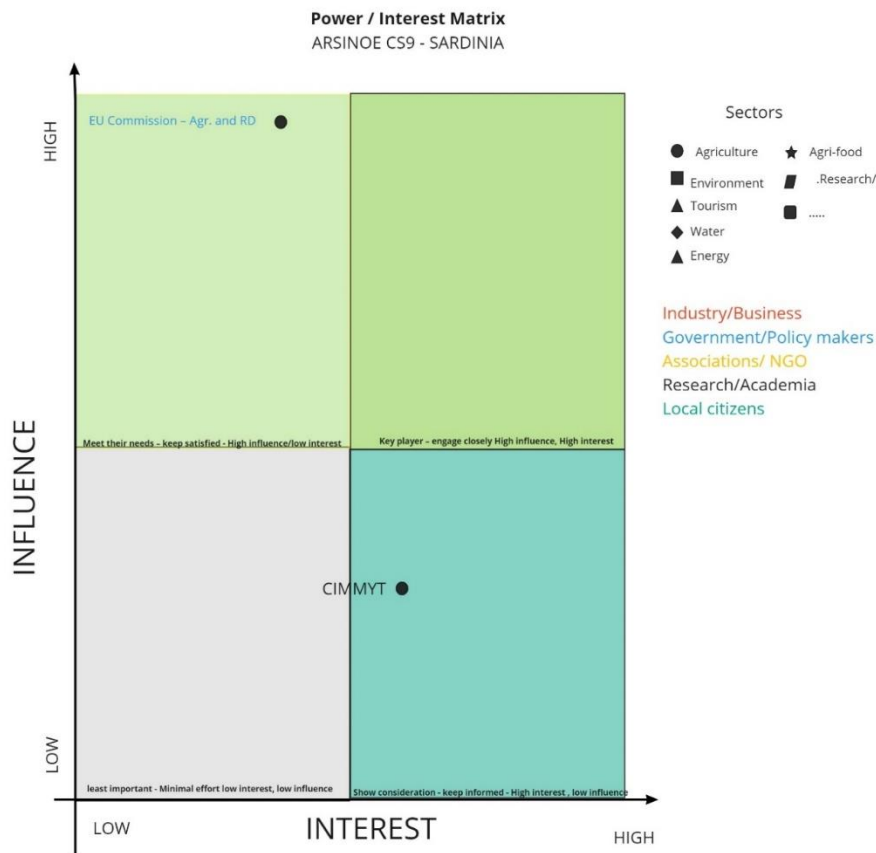


Figure 2.1 Example of Influence/Interest mapping in the matrix for one ARSINOE case study (CS9, Sardinia case study)

There is a validation process for this influence/interest matrix. For this, the initial plotting based on input from project scientists and local partners, is further revised by identified experts (e.g. project advisory board members, or other local experts).

On the strength of these results, the **short-list of stakeholders** can be determined: The stakeholders within the **upper right quadrant (high influence/high interest) constitute the core group of stakeholders within the context of the case study and will serve as the basis for recruiting LL participants**. In addition to these core stakeholders, consideration is also given to the inclusion of stakeholders at the upper limits of the top left and the bottom right quadrants.

The analysis of stakeholders based on this matrix allows for the identification of stakeholders to whom the work is most relevant and who are most likely to be engaged in the research process. While it is advantageous to utilize the LLs as an opportunity to engage influential decision-makers, the examination of 'Interest' also allows for the identification of those stakeholders who will invest time and effort into supporting the research process (Brugha and Varvasovszky, 2000; Mendelow, 1981).

3.0 INFLUENCE AND INTEREST: IMPLEMENTATION OF THE MATRIX ON MIRO BOARD

3.1 First round of one-by-one meetings with case study leaders

WP2 internal team members organised individual meetings with each of the 9 ARSINOE case studies to go through the process of stakeholder mapping (Table 3.1).

Table 3.1 WP2/case study meetings for explaining the use of the long list of stakeholders for plotting them in the preference/interest matrix

ARSINOE Case study	Name CS	SH mapping Meeting schedule
CS1	Athens	15/02/2022
CS2	Mediterranean Ports	08/02/2022
CS3	Main River	22/02/2022
CS4	Prespa / Ohrid Lake	24/02/2022
CS5	Canary Islands	23/02/2022
CS6	Black Sea	24/02/2022
CS7	Southern Denmark	24/02/2022
CS8	Torbay&Devon county	22/02/2022
CS9	Sardinia	17/02/2022

CS leaders were first asked to give a brief up-to-date summary of the case study status with an emphasis on the establishment of the key objectives and focus to be given by the living Lab: which problem(s) do we want to solve through the **co-development of innovative pathways** (final goal of the Living Labs)? Agreeing on the Living Lab focus is a pre-requisite for the stakeholder mapping to provide the context needed to properly classify each pre-identified stakeholder within the long list. The second point to agree on was the set-up of the Living Lab, as ARSINOE includes CS dealing with different geographic locations and different languages (trans-boundary, cross-regional, etc.).

3.2 Feedback on the adjustments of the long list of stakeholders according to the new work on the living lab focus

The second step focused on the long list of stakeholders, WP2 internal team gave feedback on the list in accordance with the final focus to be given to the ARSINOE Living lab as some sectors were sometimes missing while others seemed not relevant anymore. The stakeholder mapping and plotting is targeting representatives of pre-identified key sectors (cf. MS3).

WP2 internal team members reviewed the whole methodology of plotting each stakeholder from the initial Long List, on the influence/power matrix and started the actual plotting with the CS leaders to get them familiar with the process. Stakeholders are plotted in the matrix in a pre-defined color code corresponding to the category of stakeholders (Industry/business; Government/Polymakers; Research/Academia; NGO/Association; Civil Society) and assigned a symbol representing the sector they belong to. Categories and sectors can be added depending on the case study requirement.

CS leaders were given a month to complete the mapping with the delivery of the completed maps expected by the 28th of March. As soon as the mapping is completed, it will be reviewed by an external expert with knowledge of the case study area/issues as a validation process. The case study leaders are free to select the relevant person for this validation phase but will inform the WP2 internal team members. WP2 internal team members will then reconvene with each of the CS leaders first to validate

the mapping and then to proceed with the selection within the matrix of the 15 stakeholders to invite in the Living Lab's workshops.

Mapping all stakeholders from the long list of stakeholders is a necessary process to support the stakeholder engagement throughout the whole project. In the case of unavailability or lack of interest of stakeholders initially selected, it facilitates the identification of a replacement. Other stakeholders will most likely be involved through other forms of engagement (survey, interviews). However, the mapping itself is an iterative process and might evolve following the first interactions within the workshops of the living labs, where new elements are likely to come up, affecting the perception of CS leaders regarding the degree of interest and power/influence of certain stakeholders. In that case new stakeholders might be asked to join the workshops.

3.3 Second round of one-by-one meetings with case study leaders

After initial meetings, a second round of follow-up meetings was organized by UT with each CS team to supervise progress and give feedback on specific questions and issues. The meetings reflected the high diversity among CSs, revealing a higher level of difficulty for transboundary and multi-site CSs to define a focus and implementation strategy for their living labs (Table 3.2).

Table 3.2 WP2/case study follow-up meeting schedule

ARSINOE Case study	Case study name	Date
CS1	Athens	17/03/2022
CS2	Mediterranean Ports	17/03/2022
CS3	Main River	03/03/2022
CS4	Orhid/Prespa Lakes	17/03/2022
CS5	Canary Islands	11/03/2022
CS6	Black Sea	10/03/2022
CS7	Southern Denmark	17/03/2022
CS8	Torbay & Devon County	10/03/2022
CS9	Sardinia	11/03/2022

3.4 Main objectives and living labs' focus after the mapping exercise

WP2 internal team members provided additional support and advice to those teams in the form of one-to-one discussions during the Living labs methodological training workshops held at the Université de Tours on March 22nd & 23rd. All those exchanges permitted to define one focus for each case study (Table 3.3).

Table 3.3 Lab focus for each CS

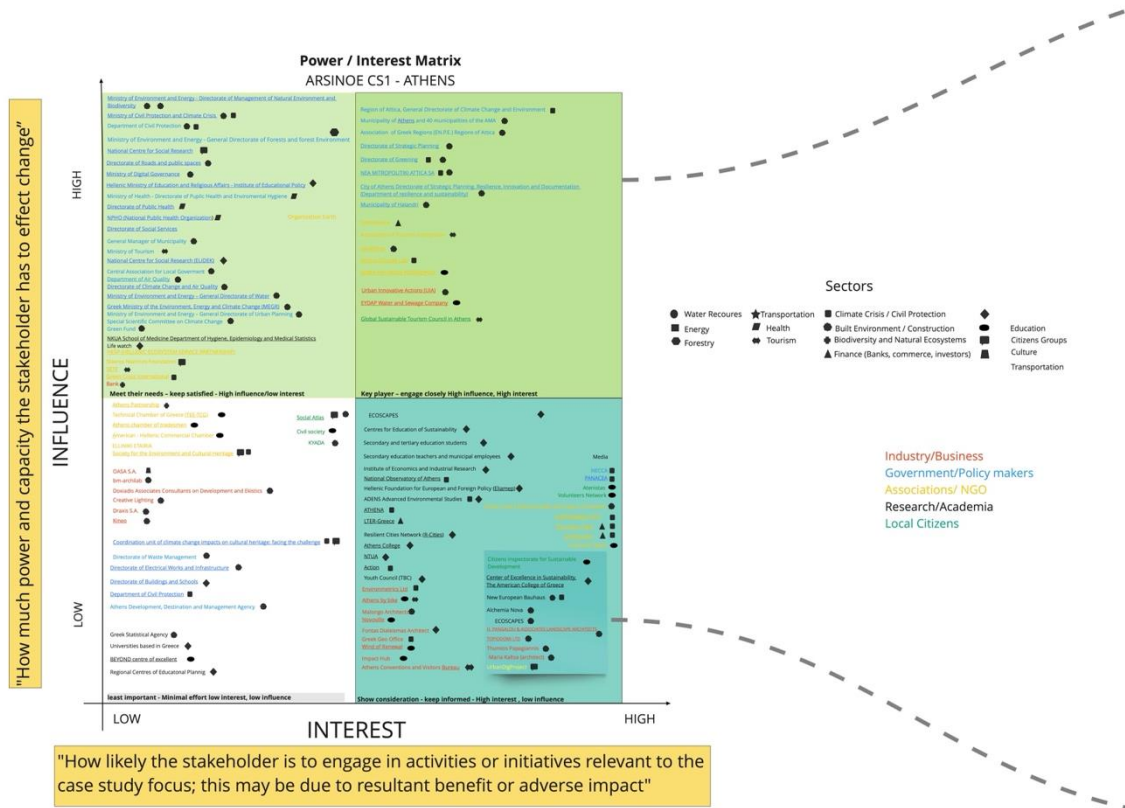
ARSINOE Case study	Local sub-groups	Lab focus	Observations	Link to completed matrix
CS1 - Athens	None	Mitigating urban heat through nature-based solutions	There could potentially be more than one living lab	https://miro.com/app/board/uXjVONwrZ1A= / Password: ARSINOECS1
CS2 – Mediterranean Ports	3	Impact of climate change on ports infrastructures and operations.	Three local living labs plus one International Working Group for all ports.	
	Valencia			Valencia: https://miro.com/app/board/uXjVONxZg84= / Password: ARSINOECS2
	Cyprus			Cyprus: https://miro.com/app/board/uXjVONwn_qA= / Password: ARSINOECS2
	Piraeus			Piraeus: https://miro.com/app/board/uXjVOKRHP-k=?share_link_id=424774337894
CS3 – Main River	None	Water-energy-food nexus	Plan to focus LL work on one sub-area of the catchment	https://miro.com/app/board/uXjVONwrZ2c= / Password: ARSINOECS3
CS4 – Orhid/Prespa Lakes	3	Water scarcity impact on water level in the two connected lakes	High disparity in terms of political systems and in languages; three working groups to prepare a common living lab.	Password to access all the matrices: ARSINOECS4
	North Macedonia	water scarcity in relation to agriculture, tourism & heritage		North Macedonia: https://miro.com/app/board/uXjVOKH7j_Y= / Password: ARSINOECS4
	Albania	water scarcity in relation to agriculture & energy		Albania: https://miro.com/app/board/uXjVOLUoMPQ= / Password: ARSINOECS4
	Greece	water scarcity in relation to agriculture & biodiversity.		Greece: https://miro.com/app/board/uXjVOKHih78= / Password: ARSINOECS4
CS5 – Canary Islands	None	Water-Food nexus	–	https://miro.com/app/board/uXjVONwrZ3E= / Password: ARSINOECS5
CS6 – Black Sea	3	Integrated water resources management from source to sea with a focus on the environmental aspects of water management	Three local working group and one international living lab	Link to all three matrices: https://miro.com/app/board/uXjVOKH7j2E=?share_link_id=398523498181 Password: ARSINOECS6

ARSINOE Case study	Local sub-groups	Lab focus	Observations	Link to completed matrix
	Bulgaria	Fresh water pollution and water scarcity		
	Romania	Fresh water pollution and water scarcity in the Danube Delta		
	Turkey	Socioeconomic change in the Sea of Marmara and Southwest Black Sea		
CS7 – Southern Denmark	2	Emergency preparedness plan in flooding extremes	Goal to include citizens. Agreement to focus on Esbjerg and Fano municipalities	https://miro.com/app/board/uXjVOLVUU8o=/ Password: ARSINOECS7
	Fanø	Focus on location-specific challenges	The first workshops will be separated; then the group will merge for the second and third workshops	
	Esbjerg	Focus on location-specific challenges		
CS8 – Torbay & Devon county		Cascading effects on infrastructures during flooding	Focus on Torbay area before expanding outputs on Devon county territory	https://miro.com/app/board/uXjVONwrZyE=/ Password: ARSINOECS8
CS9 - Sardinia		Transforming the food production system based on durum wheat	Potential connections with CS5	https://miro.com/app/board/uXjVONwrZzc=/ Password: ARSINOECS9

3.5 Results of the plotting exercise of all stakeholders in the matrix of preference/interest for the 9 case studies

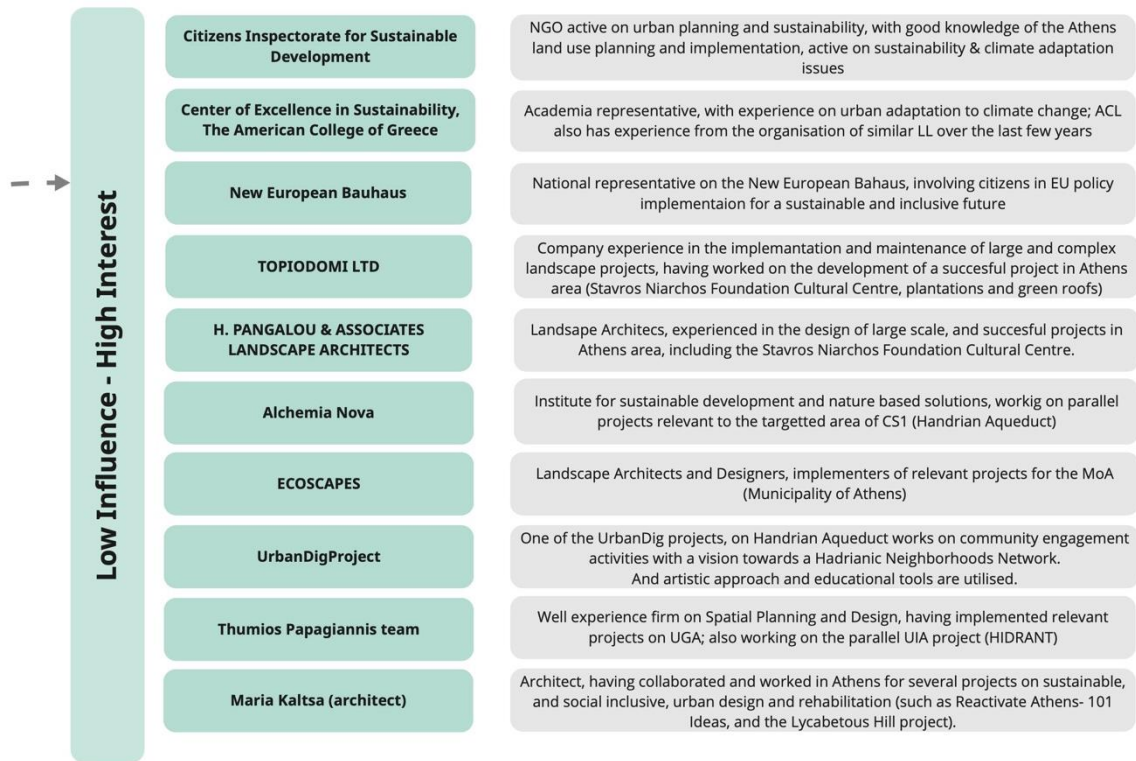
After plotting all the stakeholders from the long lists into the matrices, all case studies were asked to request feedback and validation from an external expert, and to write a justification text for the choices made to report to WP2. The following pages show images of the finalized stakeholder matrices and justification texts provided by each case study.

Case study 1 (CS1, Athens)



Justification of SHs

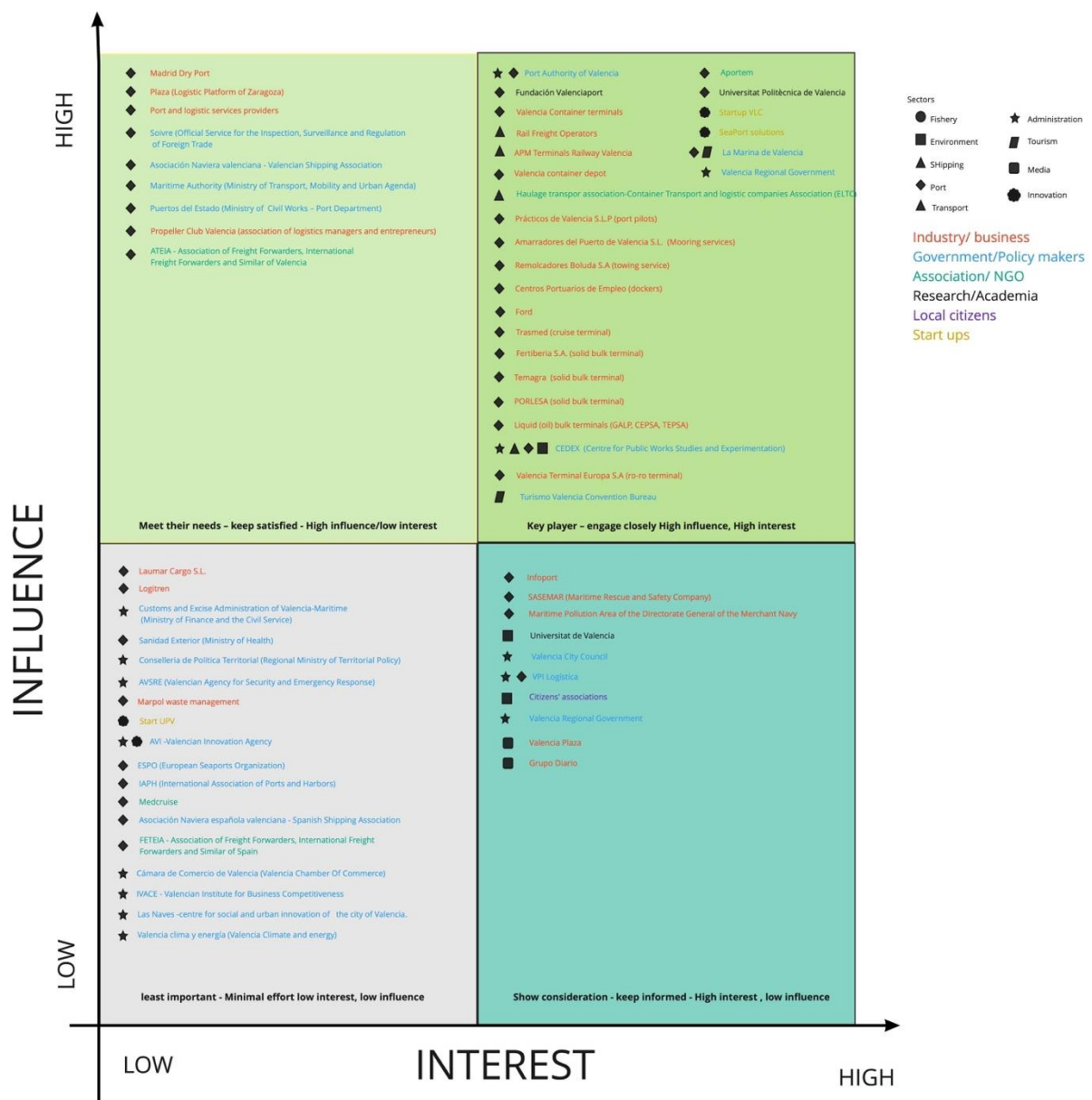




Case study 2 (CS2, Mediterranean ports)

This Case Study involves three different sites (Valencia, Limassol and Piraeus). Each one of them produced a matrix and justification text.

Port of Valencia



Justification of stakeholders

The selection of stakeholders to be engaged at the workshops is based on the objective the Port of Valencia is pursuing, which is to assess climatic vulnerabilities on the port ecosystem. Therefore, we have focused the list to port staff stakeholders, who are the ones that know on first-hand which climate impact they suffer on their premises.

Besides the consortium partner (Fundación Valencia port), we narrowed to 24 the stakeholders to be engaged, represented on the top-right quarter of the matrix, categorized as:

- 4 governmental institutions (Port Authority of Valencia, La Marina, Turismo Valencia Convention Bureau, and CEDEX)
- 2 associations (Aportem and Haulage Transport Association)
- 2 start-ups (Startup Valencia, Seaport solutions), to be engaged at workshop 3
- 1 research institutions (Polytechnic University of Valencia)
- 2 Port transport companies (Rail Freight Operators, S.A.; APM Terminals Railway Valencia)
- 3 key companies on maritime services: Remolcadores Boluda S.A (towing service), 1 port pilot, 1 mooring service.
- 10 port services companies comprising: 9 terminals (3 container terminals, 1 cruise terminal, 1 liquid bulk terminal, 3 solid bulk terminal, and 1 ro-ro terminal), 1 stevedoring employment company.

In general, these stakeholders were selected due to its key role on the Port of Valencia based on their operations, activities, and willingness to participate in EU projects regarding climate change and environmental issues, with a past participatory record on other engagement activities at the Port.

Government/ policy makers

- Port Authority of Valencia is the public body responsible for the management of three state ports located on an 80-kilometre stretch of Spain's Mediterranean east coast: Valencia, Sagunto and Gandía.
- La Marina, managed by Consorci València 2007, is the public body of nautical tourism, situated at the North part of the port of Valencia. It is composed by diverse nautical facilities and activities, restaurant facilities, and it holds cultural, leisure and gastronomic events. They could provide a perspective from the citizens and tourists.
- Turismo Valencia Convention Bureau is the public body of Valencia tourism to promote the city as destiny for congresses, meetings, expositions, and to impulse the events' gathering. It counts with the participation of a number of institutions, such as the Port of Valencia. They could provide a port-city perspective.
- CEDEX (Public Works Studies and Experimentation Center) is the public body that provides multidisciplinary support in the field of civil engineering, building and environment. Concretely, it provides technical assistance on ports and navigation.
- Valencia regional government – director of climate change office. It is the climate change office from the regional government. They can provide insights about climate change policies and activities performed by the government.

Associations/NGO

- Other reason is their relationship with the Port, as for instance in the case of the Aportem NGO, which trigger different social actions on the population nearby the port. They can provide insight about social interconnection between nearby neighborhoods and the port itself.
- Road Haulage Transport Association. This association could give a perspective about the impact of climate change on the haulage transport outside the port.

Start-ups

- Startup Valencia and Fundación Valenciaport, as co-partners, have recently launched an open hub to incubate and accelerate start-ups in relation to port interests.
- Seaport solutions works as partner with Fundación Valenciaport to strengthen the innovation and technology ecosystem in the port community.
- Research institution
- Polytechnic University of Valencia, they perform research activities in ports regarding climate change and maritime infrastructures.

Industry/business

The rest stakeholders who work on the port community are essential actors on the operations and infrastructures of the Port of Valencia. In some cases, it is due to the nature of the work they perform (port pilots, mooring services, dockers, railway operators) and in others because they are terminal owners.

Transport

- Rail Freight Operators
- APM Terminals Railway Valencia
- Companies of maritime services:
- Remolcadores Boluda S.A (towing service)
- Prácticos de Valencia y Sagunto S.L.P (port pilot)
- Amarradores del Puerto de Valencia S.L. (mooring service)
- Terminals:
- Valencia Container terminals (container terminal)
- Valencia Terminal Europa S.A (container terminal) -includes Ford.
- Valencia container depot (container terminal)
- Tramed (cruise terminal)
- Liquid (oil) bulk terminals (GALP, CEPESA, TEPSA)
- TEMAGRA (solid bulk terminal)
- PORLESA (solid bulk terminal)
- Fertiberia (solid bulk terminal)
- Valencia terminal Europa (ro-ro terminal)

Stevedoring employment company

- Centros Portuarios de Empleo

Apart from the Key players above, based on the overall participation, we will also consider inviting and keep informed the stakeholders of low power but of high interest for the project. The relevant stakeholders are included in the bottom-right quarter of the matrix.

Port of Piraeus



Justification of stakeholders

Key Players in the top-right quadrant are identified as stakeholders with strong stakes and influence in the port of Piraeus, who are capable to support the project and the portfolios of solutions towards the transition. Figure 2 presents the identifiers for Stakeholder Type and Sector.

Besides the **consortium partners** (Piraeus Port Authority - PPA -, Athens University of Economics and Business -AUEB-), the following are considered as Key Stakeholders to be contacted for the ARSINOE workshops:

Government / Policy Makers:

- Municipality of Piraeus
- Ministry of Shipping and Insular Policy
- Ministry of Environment and Energy
- Ministry of Development and Investments

Businesses/Industry and Financial Institutions with strong interest in sustainability such as:

- Sporos Platform
- UniFund
- Rogan and Associates S.A.
- Environmental Protection Engineering (EPE S.A.)
- Antipollution
- AXON Envirogroup

In regards with the **terminal users** of the port, Shipping companies with strong interest in Sustainability, such as:

- Optima-X
- Starbulk
- Danaos Shipping

At a later stage, **start-ups** orienting on sustainability and adaptation/mitigation solutions, **innovation hubs** such as

Innovative solutions:

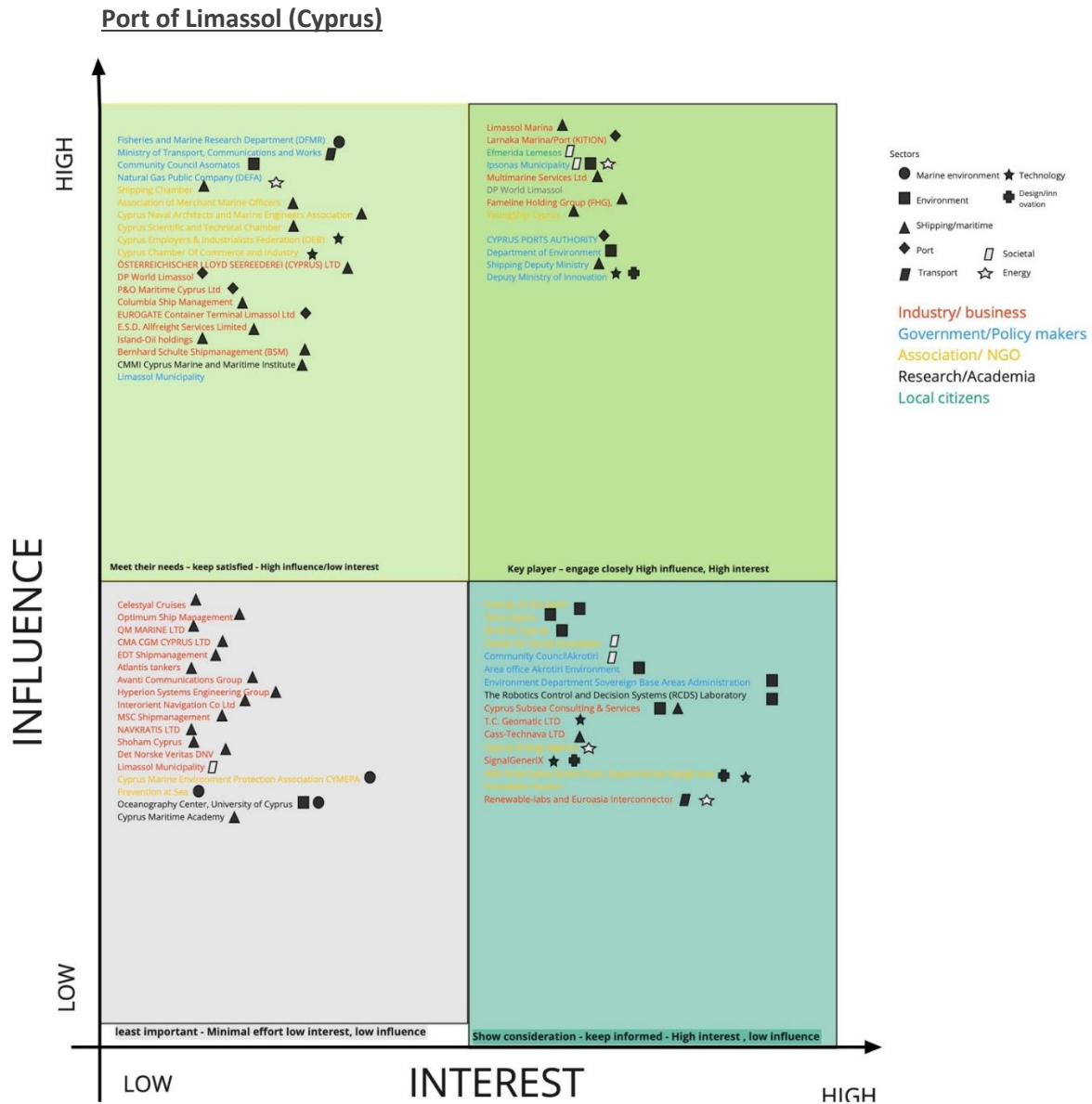
- ENSO-XL Maritime Innovation Hub
- Bank of Greece – FinTech Innovation
- ACE.In
- EIT Innoenergy
- EIT Urban Mobility
- will also be reached.
- Supplementary, we will approach strategic communities (**Local Citizens**) with strong local networks, namely, **Chambers**, such as:
- Union of Greek Shipowners
- Hellenic Chamber of Shipping
- Piraeus Chamber of Commerce and Industry

Associations and NGOs:

- Thalassa Foundation
- Hellenic Marine Environment protection association (HELMEPA)
- Blue Growth Piraeus
- Archipelagos
- Association of Shipbuilding Industry Companies
- A.C. Laskaridi Charitable Foundation
- Finally, Research centres and Academia:
- Hellenic Centre for Marine Research (HCRM)
- Foundation for Economic and Industrial Research (IOBE)

Apart from the Key players above, based on the overall participation, we will also consider inviting and keep informed the stakeholders of low

power but of high interest for the project. The relevant stakeholders are included in the bottom-right quarter of the matrix.



Justification of stakeholders

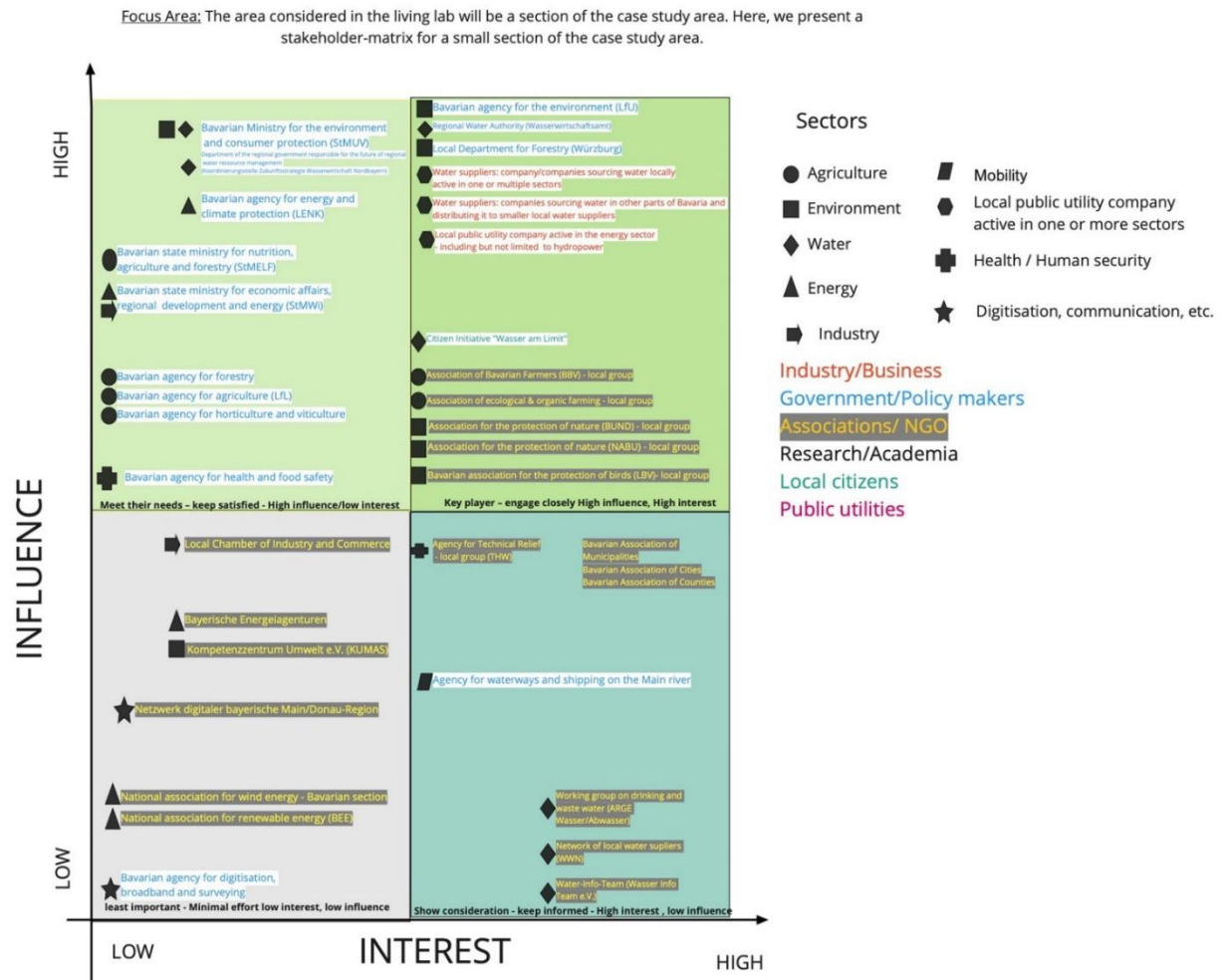
- Government/Policy makers: they are the ones drafting the policies and taking decisions! For instance, Ministry of Environment and Shipping Deputy Ministry are interested in climate change adaptation and have the lead on this. Also, they have the lead on coastal integrated zone management, which can be a key tool in adaptation of coastal areas. We have placed Limassol municipality in the high influence low interest but an attempt to them should be made in order to avoid conflicts. Additionally, the Ministry of Transport, Communications and Works is the one holding together the ports master plan. They have low interest but high influence.
- Local citizens
- Efimerida Lemosos covers local citizens in all domains. They are highly impactful. Also, their offices are next to the port.
- Association/ NGO
- The NGOs are the most important cluster to be engaged as they also have a great influence on the public sector.
- Industry/ business
- They are impactful players in the shipping sector. They can influence impact investments and sometimes decisions.
- In the meantime, Limassol port privatization led to new operators of the port's container terminal, marine services and multi-purpose terminal.
- The consortium comprising EuroGate International GmbH, in charge of the container terminal.
- The marine services at the port will be taken over by a consortium of companies comprising DP World Limited, the majority participant, P&O Maritime, while the multi-purpose terminal will be headed by a consortium of DP World Limited. Even if they have showed low interest their influence is of outmost importance.

Detailed stakeholder justification

- Efimerida Lemosos (Efimerida Lemosos covers local citizens in all domains. They are highly impactful. Also, their offices are next to the port).
- Multimarine Services Ltd (We have engaged with the specific company for previous projects, and they are very keen on in being part of the procedure. They are impactful players in the shipping sector. They can influence impact investments and sometimes decisions).
- DP World Limassol (In the meantime Limassol port privatization led to new operators of the port's container terminal, marine services and multi-purpose terminal. The consortium comprising EuroGate International GmbH, in charge of the container terminal. The marine services at the port will be taken over by a consortium of companies comprising DP World Limited, the majority participant, P&O Maritime, while the multi-purpose terminal will be headed by a consortium of DP World Limited. We have engaged with the specific company for previous projects. DP World Limassol out of the 3 the comny that has showed and they are very keen on in being part of the procedures).
- Fameline Holding Group (FHG) (We have engaged with the specific company for previous projects, and they are very keen on in being part of the procedure. They are impactful players in the shipping sector. They can influence impact investments and sometimes decisions - high interest for adaptation and climate resilience of the Limassol Ports).
- Ipsonas Municipality (We have engaged with the specific municipality before. They are very influential and progressive according to Climate! Also, part of the port region is under the jurisdiction of Ipsonas Municipality).

- CYPRUS PORTS AUTHORITY (Cyprus Ports Authority is a semi-government Organization which exercises public administration regarding the operation and management of Cypriot ports and lighthouses under the supervision of the Ministry of Transport, Communications and Works).
- Department of Environment (They are interested in climate change adaptation and have the lead on this. Also, they have the lead on coastal integrated zone management, which can be a key tool in adaptation of coastal areas).
- Shipping Deputy Ministry (The main governmental body for policy drafting terms of shipping and transportation and they are very interested in promoting Sustainability).
- Deputy Ministry of Research, Innovation and Digital Strategy (They support scientific research, investing in innovative entrepreneurship and implementing an ambitious digital transformation reform, the Deputy Ministry aspires to develop a modern and efficient state, competitive at European and international level, and a dynamic digital economy, where every citizen and every business will be able to grow and prosper).
- Friends of the Earth (They are very keen on saving the planet and they work really hard on doing so for our country).
- Terra Cypria (Very keen on biological aspects, have high priorities on saving Flora and Fauna).
- Center for Social Innovation (Working towards social aspects of Sustainability).
- Cyprus Energy Agency (They have a high interest, but we have low influence when it comes to ports however, we have been collaboration with them for most of our Port projects and their insights are of outmost importance).
- ABR-ALternative Brains Rule -Experimental Design and Innovation Studio (The studio can design innovation for many aspects including the shipping sector – they are also the owners of the biggest event community called the Afrobanana (AfroBanana Republic is a festival for all)).
- YoungShip Cyprus (The young voice of the shipping sector – would be good to engage them since they are the next generation taking the lead)
- Area office Akrotiri Environment/Environment Department Sovereign Base Areas Administration (The SBA Environmental Department was established in 2002 in recognition of new and impending environmental legislation to which the Administration has legal and policy responsibilities. In accordance with HMG's 1960 Declaration on the Administration of the SBAs, the SBAA seeks to replicate as far as possible the legislation of the Republic of Cyprus and this also applies to environmental legislation. The SBAA is also a signatory to many International Conventions and with this comes an obligation to demonstrate good environmental Stewardship of the Bases. The SBAA has the responsibility for some of the most unspoiled natural areas in Cyprus; including a substantial number of designated sites, with statutory obligations to protect and conserve).
- The Robotics Control and Decision Systems (RCDS) Laboratory (The laboratory offers a range of innovative solutions for many aspects including the shipping sector).
- Renewable-labs and Euroasia Interconnector (Insights according to the current trend for in terms of the energy sector, will be good to engage since they are also involved in the Euroasia Interconnector which is a big issue for Cyprus Electrical interconnectivity).

Case study 3 (CS3, Main river)



Justification of stakeholders

A brief description of the results of our stakeholder-mapping process – actors in the upper right quadrant of the matrix:

As key stakeholders we have included three stakeholders from the group “government/policy makers“: We have included the regional water authority in this part of the matrix as well as the Bavarian Agency for the Environment. Moreover, we will address the department responsible for forestry in the city of Würzburg.

Further, we have included five organizations from the category “Associations & NGOs“. We will be addressing the regional or local section of each association to maintain our local focus. The associations will help us in multiple ways, by (i) providing us with broad access to the common needs/problems from their respective community, (ii) helping us in finding highly motivated local representatives, and lastly (iii) as information multipliers. We have chosen two associations from the agricultural sector, as we wanted to allow for different perspectives of conventional and organic farming. Three NGOs represent environmentalist groups. They are traditionally active in conservation projects, the promotion of resource-conserving, environmentally compatible living and sustainable economic activity as well as

education. Moreover, we have added a citizen initiative to our matrix. The initiative has been suggested to us by one of our key stakeholders as a relevant local stakeholder.

We have created a separate category for “public utilities” because these companies are unique within the EU. Local public utilities provide services of general interest in Germany, based on the framework of local self-government of cities, towns, villages and counties. Providing public services is safeguarded by the German constitution. Furthermore, the fundamental national structures of regional and local self-government are explicitly protected and anchored in the Treaty on European Union. The type of capital local public utilities form and secure is a community-oriented asset. Public utilities are designed to provide basic services for their communities. They serve the interests of citizens by maintaining a service structure that counteracts forms of market failure. They are locally based, closely connected to their customers and community, and dedicated to the region. Building permanent structures, including physical infrastructure, oriented towards the current and future needs of local and regional communities is a top priority. They are ideal partners for a living lab since they have a detailed understanding of local and regional conditions, they are generally trusted and well-connected. Because of their obligation to reliably provide basic public services they are highly motivated to find effective strategies for climate-resilient development. Moreover, many public utilities are experienced in innovation processes and local cooperation. Especially in the water sector, public utility companies are already using cooperative solutions and working with stakeholders to protect water resources.

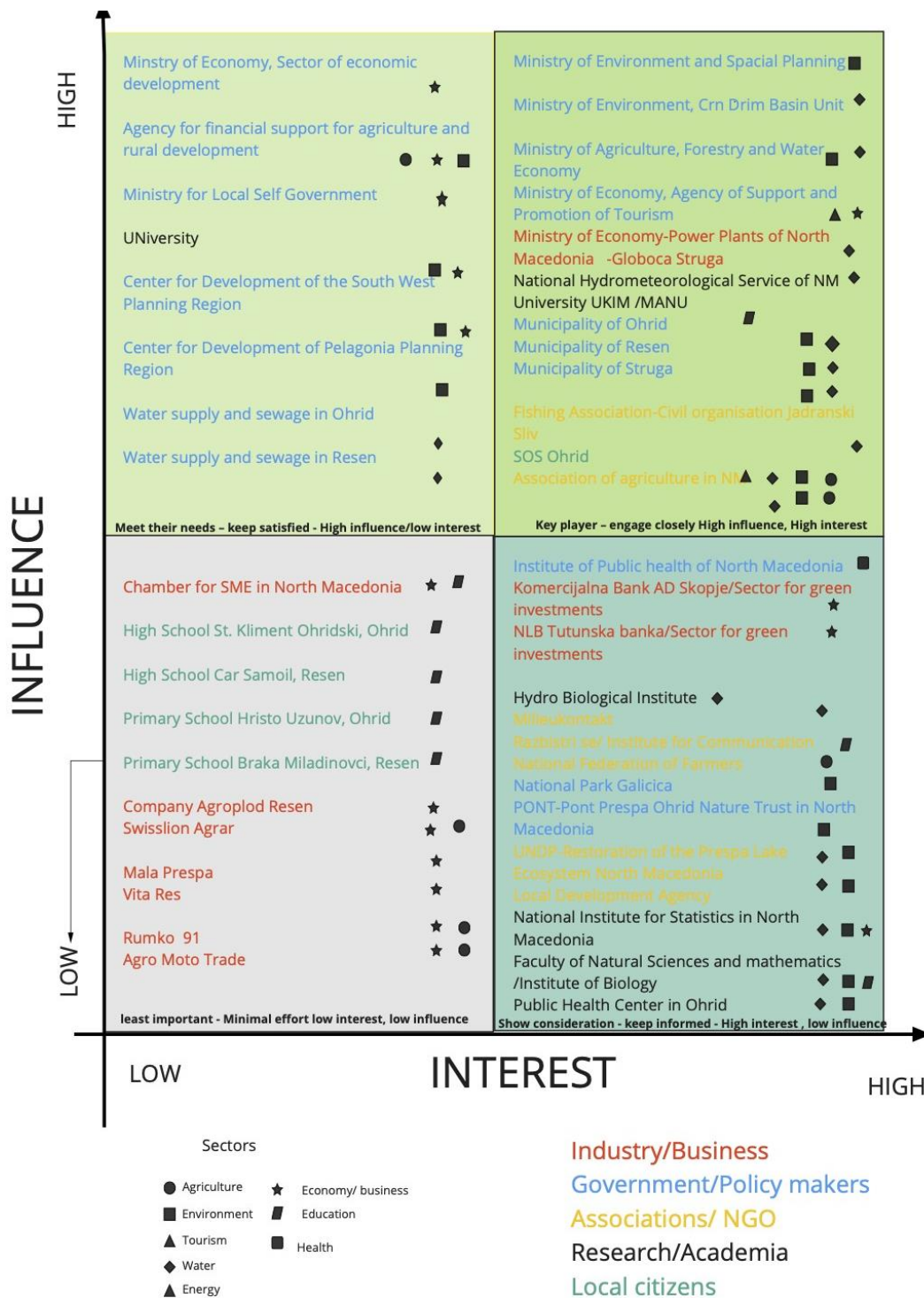
The companies differ in size and in their responsibilities. A public utility company can be active in one or in multiple sectors including water, energy, waste management, mobility, telecommunications and more.

Municipalities are free to choose the legal and organizational structure of the company. Thus, there is a variety of municipal companies operating under public and private law. However, even if a company is organized under private law, it remains a “public utility company” because the municipality setting up the company will retain a majority stake in the company and control over the organization.

Case study 4 (CS4, Ohrid and Prespa Lakes)

This Case Study involves three different sites (North Macedonia, Albania, and Greece). Each one of them produced a matrix and justification text.

North Macedonia



Justification of stakeholders

Ministry of Environment and Spatial Planning in North Macedonia, department of water. This is the main stakeholder, as the Ministry is creating national policies and recommendations for the water management and sustainability issues in the region of Prespa watershed in North Macedonia.

Ministry of Agriculture, Forestry and Water Economy, department for agriculture and department for water economy. This is very important stakeholder; they are creating national policies in agriculture management and water management in the Prespa and Ohrid watershed region in North Macedonia. Agriculture is the main economic activity in the Prespa watershed.

Ministry of Economy, Agency of Support and Promotion of Tourism. Sector tourism in the area is very important, and scarcity of water in the Ohrid/Prespa watershed will directly affect the tourism sector in the area of Prespa.

Power Plants of North Macedonia. Power plants in the area are very important stakeholder, because they are concerned of the water scarcity in the Prespa watershed from the climate changes, because of existing of hydropower plants in the region.

National Hydro meteorological Service of North Macedonia. This stakeholder has all data information: historical, meteorological and hydrological data important for assessment of water balance. Their expert opinions important for the modelling of the water balance in the region. They did research in the past regarding the topic and can also give input in the solutions.

University of UKIM and Macedonian Academy of Sciences and Arts. This stakeholder is representing the academy and education sector, they did many scientific and research projects in the topic and can create input in the innovation solutions in the area.

Municipality of Ohrid, local municipality, implementing national strategies and policy making on a local level in the Ohrid region. They manage the water in the region, important for the consumption patterns and climate adapted water management through Cross border collaboration and integrated management.

Municipality of Struga, local municipality, implementing national strategies and policy making on a local level in the Prespa region. They manage the water in the region, important for the consumption patterns and climate adapted water management through Cross border collaboration and integrated management.

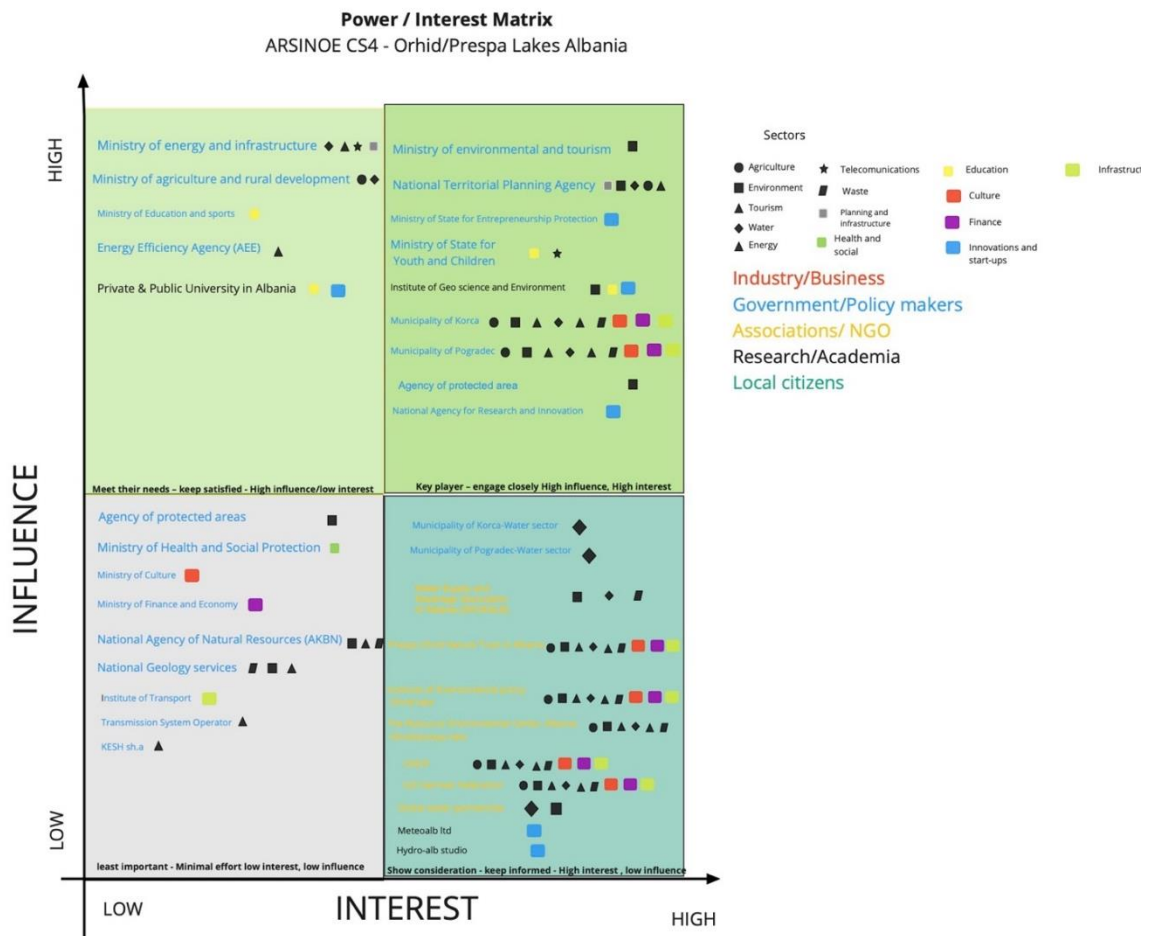
Municipality of Resen, local municipality, implementing national strategies and policy making on a local level in the Prespa region. They manage the water in the region, important for the consumption patterns and climate adapted water management through Cross border collaboration and integrated management.

Association of Agriculture in North Macedonia. Agriculture is one of the most important sector in the area, and it is directly impacted by the water scarcity in the Prespa watershed.

Fishing organization Jadranski Sliv. Fishing is one of the most important activities in the region and is directly affected by the water scarcity in the Ohrid/ Prespa watershed.

SOS Ohrid - local stakeholder and NGO involved in the actions regarding environment and water in the Ohrid/ Prespa region.

Albania



Justification of stakeholders

High interest-high influence

This group consists of stakeholders/ actors of the projects divided in authorities, NGO/ organization and research and university. According to the role of Albanian partner in CS4 of Ohrid and Prespa lake stakeholder involvements and the list prepared so far is more related with the actors that have high influence and high interest also high interest and low influence for the development of a project like ARSINOE. The stakeholder's justification is as below:

Ministry of environment and tourism in Albania: This ministry is responsible for the environmental, protected areas and tourism in Albania. It is the ministry with most influence for the management plans for the protected area, the Agency in response to the protected areas is also under this ministry (for both Ohrid and Prespa lake).

National Territorial Planning Agency: It is the national agency responsible for planning, stakeholders' engagements and coordinating planning according to the law in force. This agency works at the national and local level. This is the reason that it is part of Arsinoe, the agency is also a coordinate for several management plans in Albania in protected areas.

Ministry of state for entrepreneurship protection: This ministry is engaged for the start-ups, technology initiatives, it is responsible for the national laws for incubators and start-ups. It works on a national and local level.

Ministry of state for youth and children: A new ministry that is responsible for the initiatives for the schools for teens and children. This ministry can have a determine influence in initiatives that are linked with children engagements in the area and not only.

Municipality of Korca: It is the local actor for the project, managing the administrative units of this municipality, responsible for the water distribution, environment, climate changes and tourism.

Municipality of Pogradec: It is the local actor for the project, managing the administrative units of this municipality, responsible for the water distribution, environment, climate changes and tourism.

Institute of Geoscience and Environment: It is the institute in national level responsible for meteorological data, climate change and water distribution. It is under the polytechnic university of Tirana. It will have the main role of the water scarcity model produced by North Macedonia partner in CS4.

Agency of protected area- is an agency under the ministry of environment that is the main agency responsible for the protected area in Albania and managing the protected zones.

National Agency of Research and Innovation- This agency works at the national level responsible for the EU funds and all the innovations network and researchers.

High interest, low influence

Prespa Ohrid Nature Trust in Albania: This is an NGO responsible for Prespa and Ohrid lake, is an organization under German federation, this NGO is involved in the implementation of the actions for management/monitoring of water and biodiversity.

Institute of environment policy Ohrid Lake: NGO responsible for biodiversity and monitoring the protected area in Albania.

The resource Environment center Albania: This is an NGO responsible for Prespa and Ohrid lake. This NGO is involved in the implementation of the actions for management/monitoring of water and biodiversity.

Water supply sector at municipality of Korca - is the local entity responsible for the water and sewerage management of the lake.

Water supply sector at municipality of Pogradec - is the local entity responsible for the water and sewerage management of the lake.

Water supply and sewerage association in Albania (Shukalb) - is an association of the water and sewerage system in Albania, is a professional, not-for-profit Association of water supply and sewerage professionals, who wish to improve the management of the Water Supply and Sewerage Sector in Albania, making it efficient, sustainable and effective in accordance with the current laws and regulations in Albania.

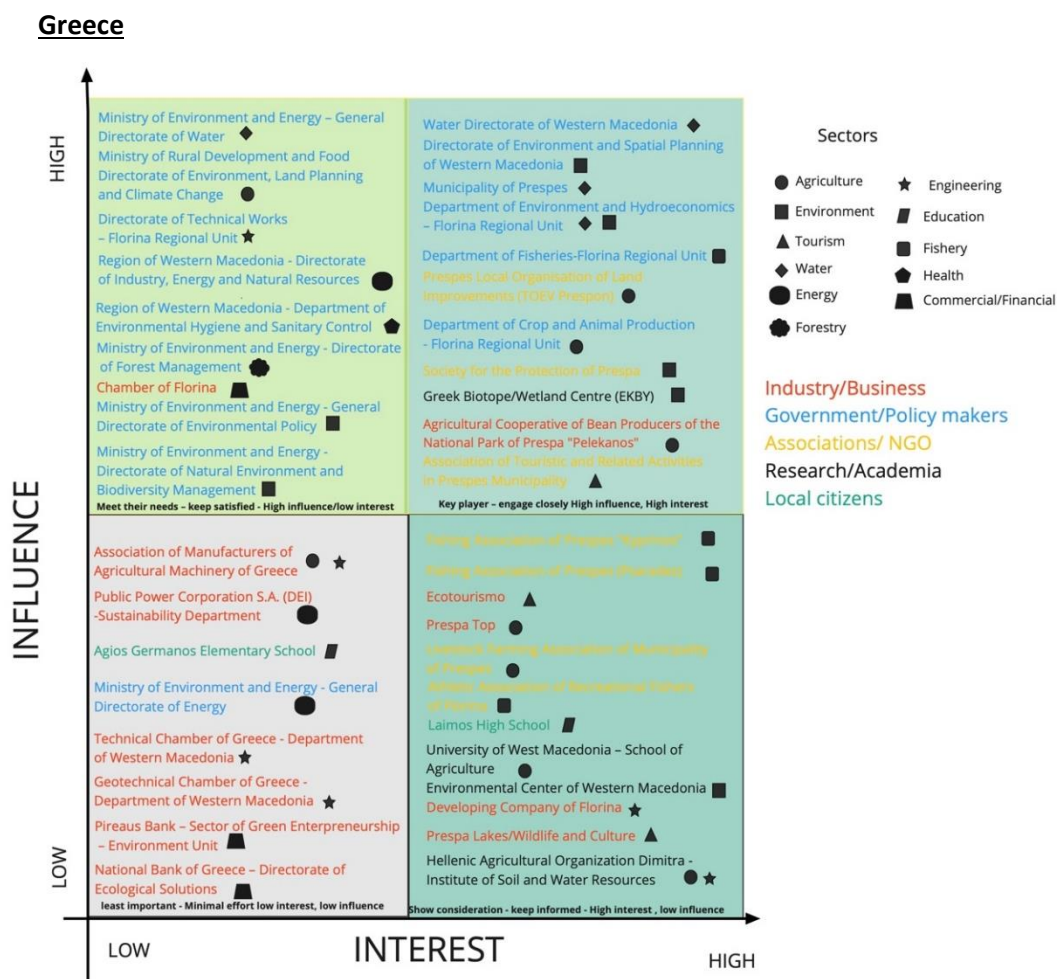
UNDP in Albania - UNDP is a member of the United Nations Country Team in Albania and is part of a single, coherent plan for all 19 UN agencies, funds and programmes titled: Albania-United Nations Sustainable Development Cooperation Framework (UNSDCF) 2022-2026 which combines the expertise of diverse UN Agencies, working together to contribute to Albania's development priorities. UNDP has completed several projects for Ohrid and Prespa Lakes.

GIZ Albania- GIZ in Albania is addressing the problems regarding unemployment. Doing so successfully requires a more competitive private sector. For this reason, companies receive support in strengthening their capacities. In the agricultural sector, programs are helping to improve productivity as well as the economic perspectives of people living in disadvantaged regions. GIZ in Albania has worked for agriculture and fish and fisheries for Prespa.

Global Water partnership- Nexus Assessment in Albania Given Albania’s significant water resources and the critical role that water has in the country’s food and energy security, water is a reasonable entry point for applying a Nexus approach. The National Nexus Assessment being prepared under the SEE Nexus Project will identify trade-offs and synergies across the Nexus sectors, including in relation to gaps in terms of institutional settings, policy integration and data management, aiming to assist towards a higher degree of inter-sectoral coherence in the implementation of the National Sectoral Programme on Water, while identifying concrete priority opportunities for joint, coordinated action that generate cross-sectoral benefits.

Metaolab ltd- is a private company in Albania that offers meteorological data for Albania, a potential innovator regarding the possible solution for water scarcity.

Hydro-alb studio- is also a private studio responsible for research and assessment for Prespa and Ohrid lakes, a group of experts on board ready to innovate and propose solutions for water scarcity.



Justification of stakeholders

High interest-high influence

This group consists of stakeholders representing various sectors mainly at the local or regional level, but also includes a national research institute. These stakeholders have important responsibilities in areas related to the subject of the case study:

Water Directorate of Western Macedonia (Decentralized Administration of Epirus and Western Macedonia): It is the competent authority for the management and protection of water resources in the region. It is responsible for drafting the management plan of the Greek part of Prespes watershed.

Directorate of Environment and Spatial Planning of Western Macedonia (Decentralized Administration of Epirus and Western Macedonia): It is the competent authority for designing and implementing policies on environment, spatial and urban planning in the region, providing the connection with the ministries at the national level.

Municipality of Prespes: It is the local actor for the administration of Prespes area. It has some specific responsibilities in controlling and managing water.

Department of Environment and Hydroeconomics – Florina Regional Unit (Region of Western Macedonia): It is the regional authority controlling the fulfillment of environmental conditions for projects. It has responsibilities in the protection and management of environment and water resources.

Prespes Local Organisation of Land Improvements (TOEV Prespon): It is the local association managing the distribution of water in agriculture and land improvement works.

Department of Crop and Animal Production - Florina Regional Unit (Region of Western Macedonia): It is the regional authority which submits and monitors proposals and studies for restructuring and improving agriculture. Agriculture is the main economic activity in the Greek part of Prespes watershed.

Department of Fisheries – Florina Regional Unit (Region of Western Macedonia): it the regional authority responsible for monitoring activities related to fisheries in the Prespa lakes, which is highly dependent on the ecological situation of the lakes.

Society for the Protection of Prespa: It is a local NGO heavily involved in the implementation of actions for management/monitoring of water and biodiversity.

Greek Biotope/Wetland Centre (EKBY): It is a national institute concentrating on Greek wetlands, with Prespes being one of the most important. It carries out research, raises public awareness and submits proposals for the management of wetland ecosystems.

Agricultural Cooperative of Bean Producers of the National Park of Prespa "Pelekanos": It is the most important local agricultural cooperative in Prespes. It is involved in agricultural projects and also contributes to the development of rural tourism.

Association of Touristic and Related Activities in Prespes Municipality: It is an association representing companies active in the tourism sector, which is increasingly significant for the economy of Prespes area. Some of these activities are ecotouristic and concentrate on the protection of environment and sustainable development.

High interest-low influence

The stakeholders represented in this group are mostly local and regional and are likely to have a great interest in the subject of the case study, since it is related to their daily activities. However, they most probably have little influence on the decision-making due to their small size or limited role. This includes local or regional associations (**Fishing Association of Prespes "Kyprinos", Fishing Association of Prespes**

(Pсарades), Livestock Farming Association of Municipality of Prespes, Athletic Association of Recreational Fishers of Florina), small local or regional companies (**Ecoturismo, Prespa Top, Prespa Lakes/Wildlife and Culture, Developing Company of Florina**), regional research institutes (**Environmental Center of Western Macedonia, University of West Macedonia – School of Agriculture**) and the local high school (**Laimos High School**). The only national stakeholder in this group is the research institute **Hellenic Agricultural Organization Dimitra - Directorate for Development of Research**, which is likely to be interested due to its focus on agriculture, the main economic activity in the Greek part of the Prespes watershed.

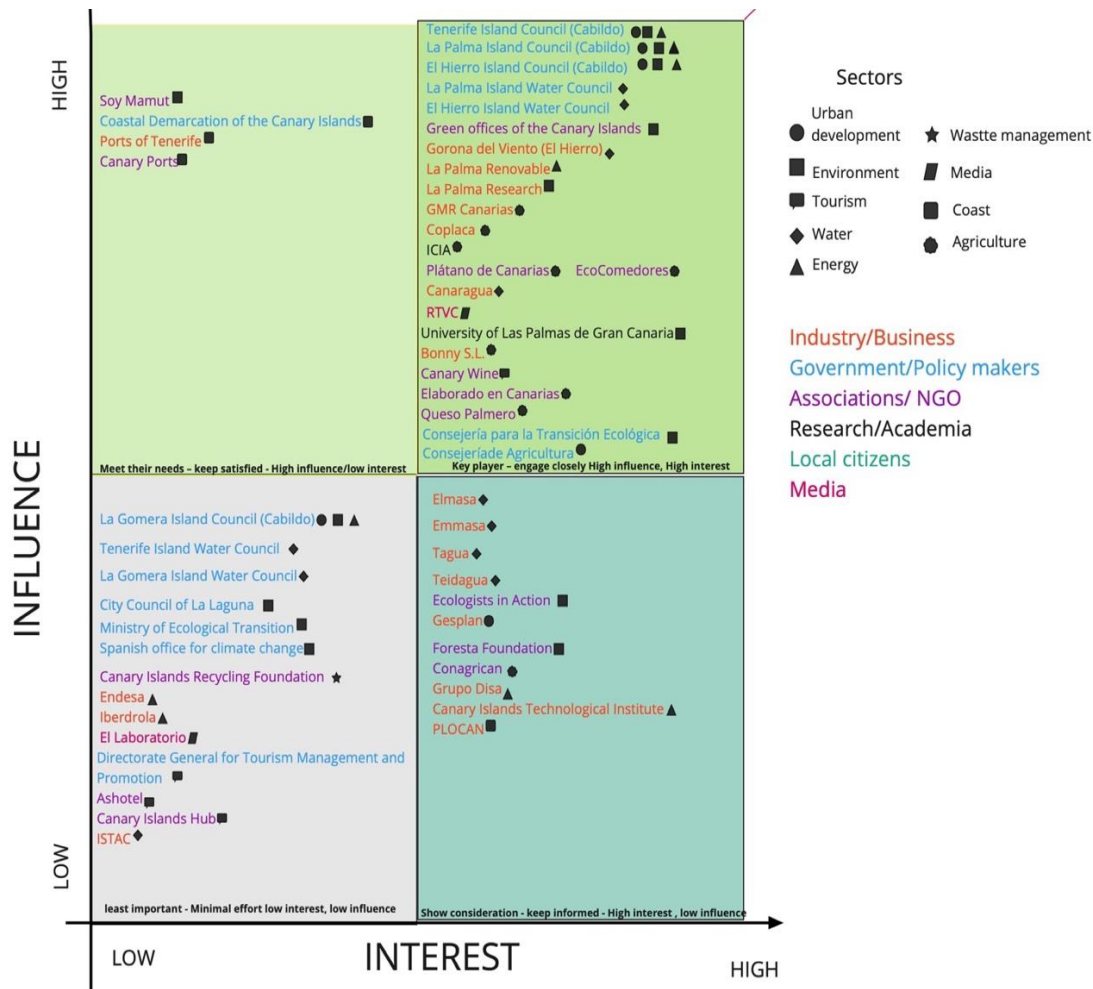
Low interest-high influence

This group consists to a big part from national public authorities, which, while having important responsibilities in the subjects on which the case study focuses (**Ministry of Environment and Energy – General Directorate of Water, Ministry of Rural Development and Food Directorate of Environment, Land Planning and Climate Change, Ministry of Environment and Energy – General Directorate of Environmental Policy, Ministry of Environment and Energy - Directorate of Natural Environment and Biodiversity Management, Ministry of Environment and Energy - Directorate of Forest Management**), are less likely to have an interest in a local area such as the Prespes watershed, which is a very small part of the Greek national territory. It also includes some regional authorities, which are competent in areas related to the case study, but rather indirectly, or in areas which are not of a high significance in the Greek part of the Prespes watershed (**Directorate of Civil Engineering – Florina Regional Unit, Region of Western Macedonia - Directorate of Industry, Energy and Natural Resources, Region of Western Macedonia - Department of Environmental Hygiene and Sanitary Control**). Also, the regional **Chamber of Florina**, although it probably represents important and influential companies in the area, might not include many that are concerned with the water management in Prespes.

Low interest-low influence

The group consists to a big part of companies, business associations and authorities mainly at the national and to a lesser extent at the regional level. Whereas they are not completely irrelevant to the subject of the case study, they have either a very broad area of interest (**Technical Chamber of Greece – Department of Western Macedonia, Geotechnical Chamber of Greece – Department of Western Macedonia, Pireaus Bank – Sector of Green Entrepreneurship – Environment Unit, National Bank of Greece – Directorate of Ecological Solutions**) or they focus on very specific areas (**Association of Manufacturers of Agricultural Machinery of Greece**) and areas such as the energy sector (**Public Power Corporation S.A. (DEI) -Sustainability Department, Ministry of Environment and Energy – General Directorate of Energy**), which is less relevant in the Greek part of the Prespa Watershed. Their responsibilities in the areas of concern for the case study are limited. The only local stakeholder represented in this group is the **Agios Germanos Elementary School**, which is less likely to have an interest in the project due to the small age of the children.

Case study 5 (CS5, Canary Islands)



Justification of stakeholders

Within the scope of the "Policy makers" we have selected the main institutions on the islands of La Palma and El Hierro, such as the Cabildo and the Consejo Insular de Aguas. We have also added the Cabildo of Tenerife, as it is a better communicated island and could be a good place to hold the workshops. In addition, we have included the Council for Climate Change and Ecological Transition and the Council of Agriculture, due to their special relevance in the Living Lab topic.

We have added the University of Gran Canaria, as we have direct contact there linked to forestry and economics, and the Living Lab can be replicated on that side of the archipelago.

We have added as "Association" 3 associations linked to 3 groups of agricultural products produced in the archipelago: bananas, wine and cheese. Also, the association of "Made in the Canary Islands", which brings together everything that is done in the Canary Islands in the food field. On the other hand, the Association related to climate change has also been added, which is the green offices, which have an office on the island of La Palma.

We have also included RTVC, which is the television of the Canary Islands, which has a special relevance in the archipelago. The idea is that they echo each of the 3 workshops, for dissemination and to make participation more attractive to stakeholders.

Regarding companies, we have included agricultural, renewable energy, water, renewable electricity production companies on E Hierro (La Gorona) and rural planning companies on the islands (GMR).

Within the field of research, we have added the ICIA, which is the Canary Islands institute that studies everything relevant to the plant world in the archipelago.

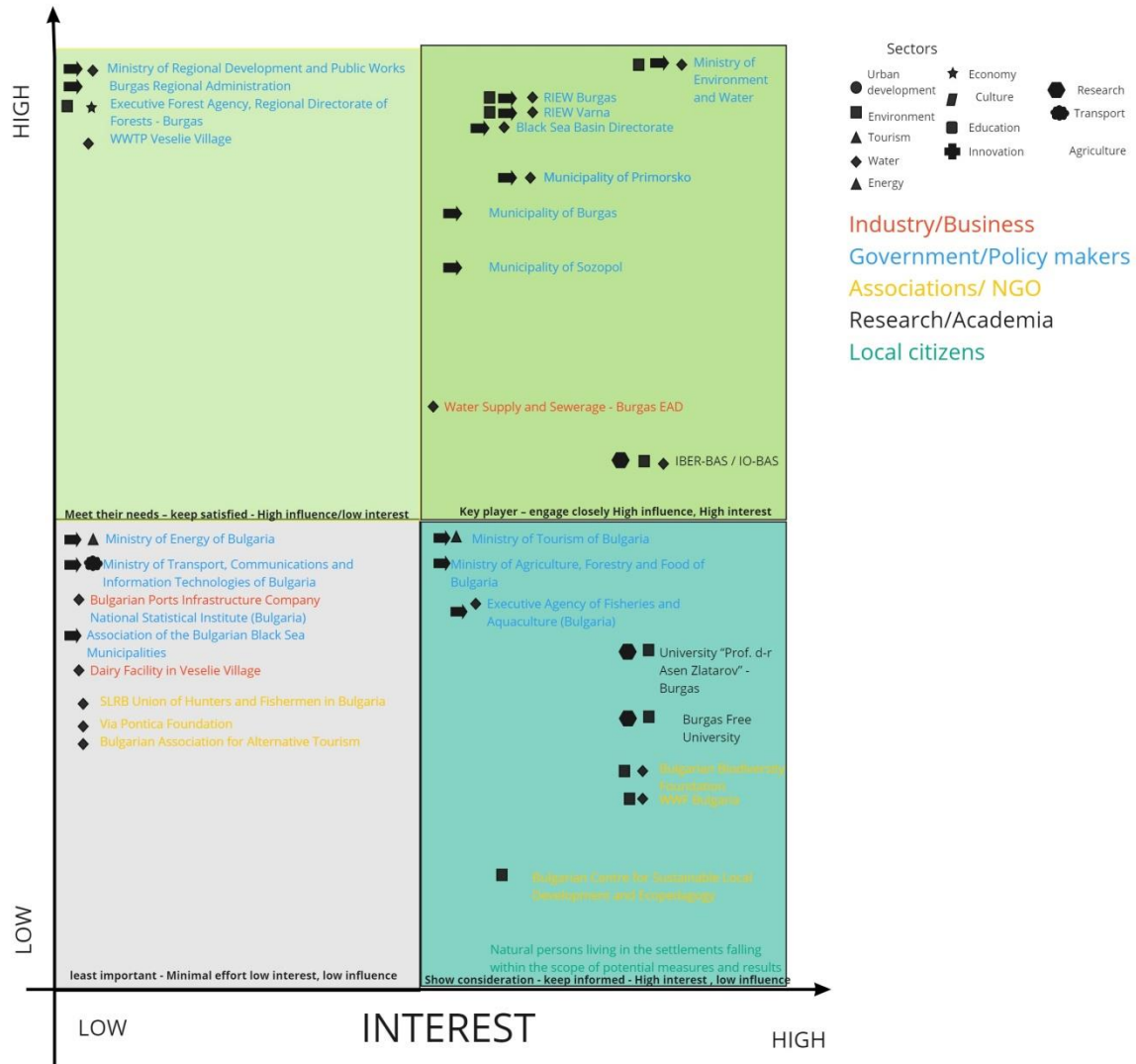
Case study 6 (Black Sea)

This case study involves 3 Black Sea countries, Romania, Bulgaria and Turkey representing a Black Sea “virtual watershed”. The stakeholder engagement process is implemented through 3 national Working Groups focusing on water management from source-to-sea in each of the countries. The outcome of the Working Group discussion will feed into an international Living Lab, bringing stakeholders from each country and regional institutions to co-develop innovation pathway at the Black Sea virtual watershed level. Each country team conducted a stakeholder mapping to identify key stakeholders to engage in the local working group. Additionally, a stakeholder mapping at the international level was conducted to support the implementation of the international living lab involving stakeholders from the local working group but also from national and regional level.

Below is the stakeholder matrix of each Working Group and for the international Living Lab, followed by the justification for the selected stakeholders to be invited in the Working Group and Living Lab workshops.

Bulgaria

Power / Interest Matrix
ARSINOE CS6 - Black Sea Bulgaria



Justification of the 18 SHs

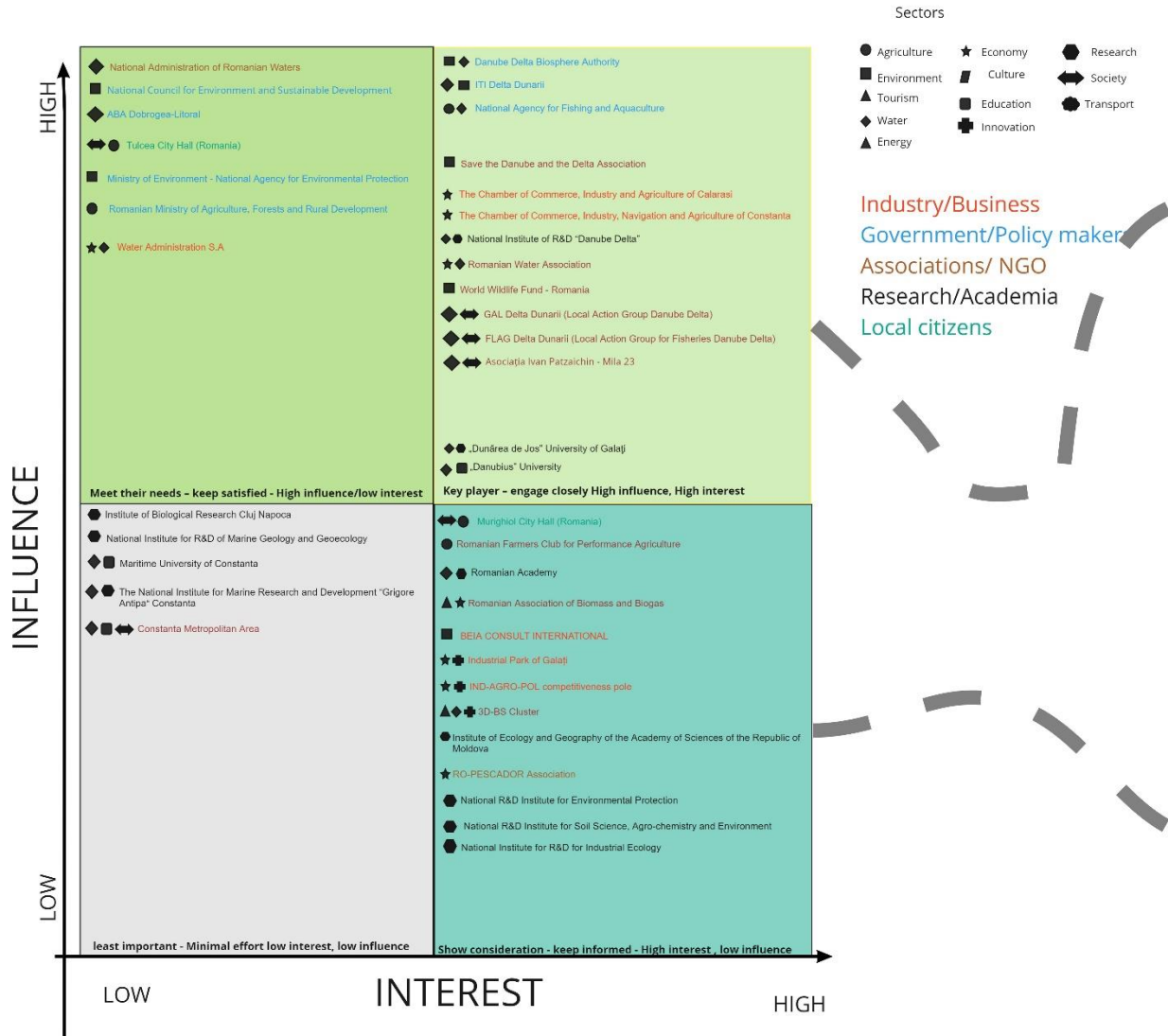
High Influence - High Interest	Ministry of Environment and Water of Bulgaria (MoEW)	Regulatory entity; Directs and implements environmental policies; Responsible for Climate Change in Protected Areas; Responsible for management of protected areas
	Regional Inspectorate of Environment and Water (RIEW) - Burgas	Regulatory body - preventive, current and subsequent control of the application of legal acts regulating all components of the environment
	★ Regional Inspectorate of Environment and Water (RIEW) - Varna	Regulatory body - preventive, current and subsequent control of the application of legal acts regulating all components of the environment
	Municipality of Primorsko ☆	Local Authority; Charged with functions to control and protect local environment; Information on critical infrastructure; local businesses; tourism; waste management, water management, etc.
	★ Municipality of Sozopol	Local Authority; Charged with functions to control and protect local environment; Information on critical infrastructure; local businesses; tourism; waste management, water management, etc.
	Municipality of Burgas	Local Authority; Charged with functions to control and protect local environment; Information on critical infrastructure; local businesses; tourism; waste management, water management, etc.
	★ Black Sea Basin Directorate	Regulatory body - water management; development, update and implementation of River Basin Management Plans, Flood Risk Management Plans and Marine Strategy; Control of the condition and conductivity of river beds, the performance of activities within the scope of water bodies, the observance of
	Water Supply and Sewerage - Burgas EAD	Provider of potentially crucial data - water supply and sewage company, responsible for the whole south coastal area; Includes also functions on irrigation, hydropower, drainage, construction, maintenance and use of water management systems or separate reservoirs, research and design in the field of water supply and
	★ Institute of Biodiversity and Ecosystem Research at the Bulgarian Academy of Sciences (IBER-BAS)	Significant national and international researches are carried out by IBER in theoretical and applied aspects of ecology, biodiversity, environmental conservation and sustainable use of biological resources; Good knowledge of the target area in terms of botany, mycology, zoology, ecology, hydrobiology, conservation biology; provides
	★ Institute of Oceanology at the Bulgarian Academy of Sciences (IO-BAS)	IO-BAS conducts fundamental and applied research in the field of oceanography in accordance with the national priorities.

Low Influence - High Interest	Ministry of Tourism of Bulgaria	Regulatory entity; The whole area surrounding the Rotopamo is a serious tourism destination and public awareness may be needed
	Ministry of Agriculture, Forestry and Food of Bulgaria	Regulatory entity; elaborates strategies and regulations specific to the agriculture, forests and food production
	University "Prof. d-r Asen Zlatarov" - Burgas	Important member of the local Research and Academia with good knowledge and capacity to support the WG / LLs
	Burgas Free University	Important member of the local Research and Academia with good knowledge and capacity to support the WG / LLs
	Bulgarian Biodiversity Foundation	Public awareness, information on the protected area and the dangers it faces from a NGO point of view
	WWF Bulgaria	Public awareness, information on the protected area and the dangers it faces from a NGO point of view
	Bulgarian Centre for Sustainable Local Development and Ecopedagogy	Public awareness, information on the protected area and the dangers it faces from a NGO point of view
	Natural persons living in the settlements falling within the scope of potential measures and results	At this stage - an open minded inclusion of natural persons which may or may not be affected by NBSs and Climate Change adaptation in the area

Romania

ROMANIA

Power / Interest Matrix ARSINOE CS6 - Black Sea

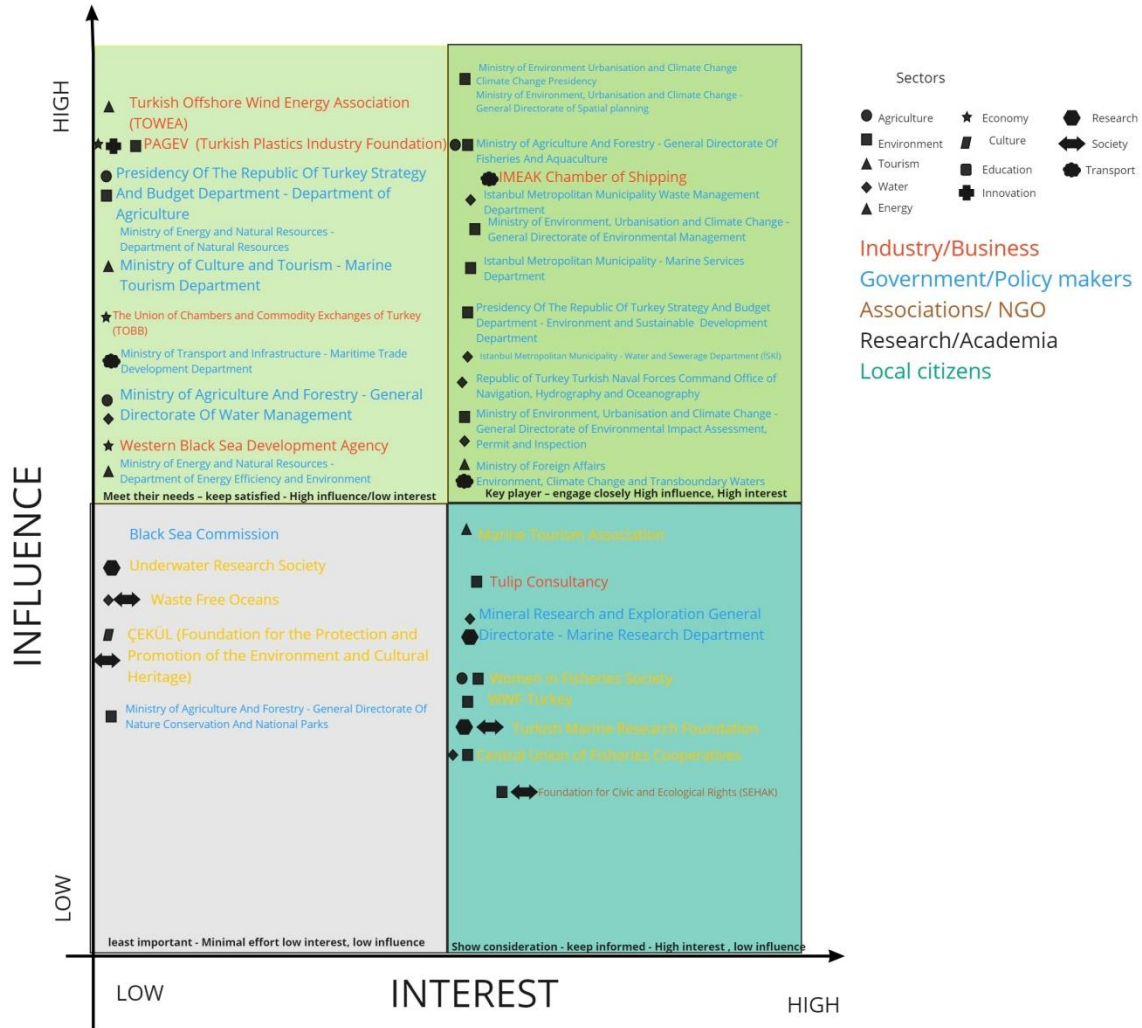


Justification of the 17 SHs

Influence Level	Stakeholder Name	Justification
High Influence - High Interest	Danube Delta Biosphere Authority	Needs to be engaged as the activities of the Romanian CS are focused on the Danube Delta. Furthermore, the results of the project might aid their work in monitoring and protecting the fragile ecosystem of the Danube Delta
	National Agency for Fishing and Aquaculture	Regulatory body; elaboration of the national strategy and of the specific regulations in the field of fisheries, aquaculture ; must be informed of the results of activities on natural biofiltration models
	Romanian Ministry of Agriculture, Forests and Rural Development	Regulatory body; elaborates strategies and regulations specific to the agricultural field
	Ministry of Environment - National Agency for Environmental Protection	Regulatory entity; ensures the implementation of environmental policies
	The Chamber of Commerce, Industry and Agriculture of Calarasi	Mediates the relations with the economic environment; provide targeted actions to inform / promote the results from proved alternative agricultural practices
	The Chamber of Commerce, Industry, Navigation and Agriculture of Constanta	Mediates the relations with the economic environment; provide targeted actions to inform / promote the results from proved alternative agricultural practices
	National Institute of R&D "Danube Delta"	Conducts fundamental and applied research for scientific support of the management of the Danube Delta Biosphere Reserve (DDBR) and other wetland areas of national and international interest, with particular focus on biodiversity conservation and sustainable use.
	Romanian Water Association	ARA facilitates and promotes collaboration between its members, with the aim of identifying new sustainable and cost-effective approaches and solutions to improve the quality of water resources management and water supply and sewage treatment services.
	World Wildlife Fund - Romania	It is involved in specific projects on the restoration of degraded ecosystems and the sustainable use of natural resources; promotes sustainable production and consumption systems to reduce the negative impact on the planet.
	Save the Danube and the Delta Association	
Low Influence - High Interest	Murighiol City Hall (Romania)	Local authority that is actively involved in the provision and preparation of land for the establishment of the experimental trials for the knowledge transfer on the alternative agriculture in saline soils
	Romanian Farmers Club for Performance Agriculture	Mediates the active involvement of farmers in the process of consultation and elaboration of European and national regulations in the agricultural field, in order to increase the performance of Romanian farmers.
	RO-PESCADOR Association	It develops local development strategies in the field of fisheries; promotes European quality schemes for agricultural and food quality systems
	Romanian Association of Biomass and Biogas	As part of EBA, are involved in promoting at local level, the flexibility of biomass sources for renewable energy purposes and investments in the region; owns a platform for for the exchange of best practices, extending the deployment of biomass for energy production in the Danube region
	Industrial Park of Galați	Acts as business incubators in the region, as tools of economic progress and as a factor meant to stimulate the development of the business environment at national, European and global level
	3D-BS Cluster	The 3D-BS Cluster (Danube-Danube Delta – Black Sea) was established to support the sustainable development of the coastal area and neighboring regions
	IND-AGRO-POL competitiveness pole	The IND-AGRO-POL pole of competitiveness is an innovation cluster (a national network with international vocation) of the main actors in the agro-industry sector and in the related sectors

Turkey

Power / Interest Matrix ARSINOE CS6 - Black Sea TURKEY



Justification of the 23 SHs

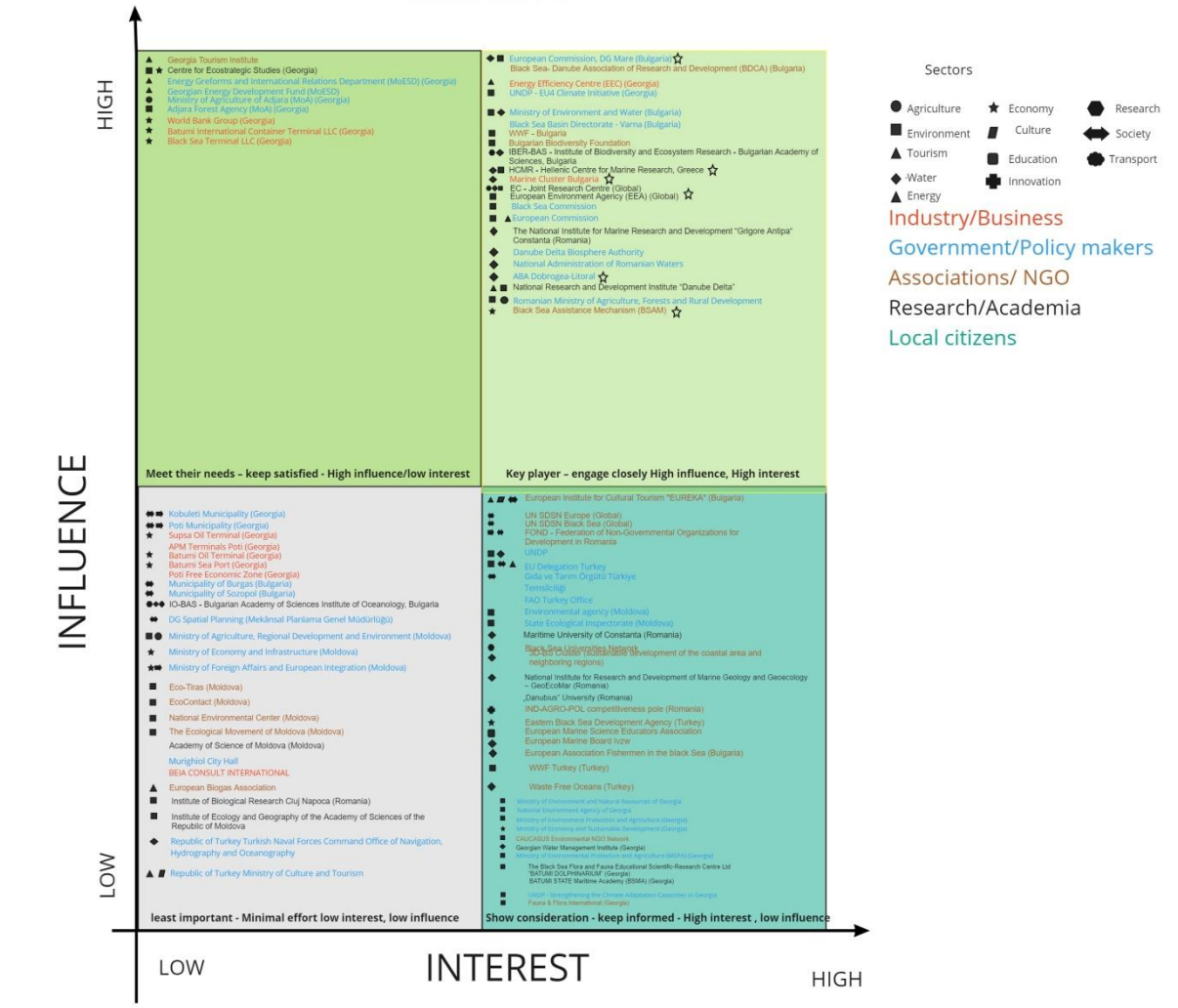
High Influence - High Interest

Ministry of Environment Urbanisation and Climate Change Climate Change Presidency	With Turkey ratifying the Paris Agreement, the Ministry is now actively focusing on climate change (CC) and adaptation. A climate council is organized to fight against the CC and CC adaptation. That's why they are of high interest and they have authority to make decisions, and also the responsible body for management and protection of natural resources.
Ministry of Environment, Urbanisation and Climate Change - General Directorate of Environmental Management	
Istanbul Metropolitan Municipality - Marine Services Department <small>Istanbul Metropolitan Municipality - Water and Sewerage Department (ISKI)</small>	Due to the recent sea snot issue (mucilage), the Metropolitan Municipality, marine related issues are high on their agenda. They also have jurisdiction in the sea of Marmara Main body responsible for water management of metropolitan area of Istanbul
Republic of Turkey Turkish Naval Forces Command Office of Navigation, Hydrography and Oceanography	SHOD (OHNO) follows marine-related developments closely and take part in relevant workshops and initiatives
Ministry of Agriculture And Forestry - General Directorate Of Fisheries And Aquaculture	Regulatory body working with many different research organization, fisheries and aquaculture sector
IMEAK Chamber of Shipping	IMEAK is a key actor in the shipping sector in the Istanbul area.
Ministry of Foreign Affairs Environment, Climate Change and Transboundary Waters	Ministry of Foreign affairs takes part in international cooperation (together with Ministry of Transport) such as Common Maritime Agenda process and therefore, they are interested in applying common vision to Turkish Seas including the Black Sea
Independent Industrialists and Businessmen's Association (MÜSİAD) - Sector Boards and Business Development	Second biggest business association, included as they will be interested in new opportunities.
Turkish Marina Environment Protection Association (TURMEPA)	The most important marine stakeholder, backed-up with one of the largest holdings in the country. TURMEPA has involved in many marine protection activities and they have solid capacity to contribute.
BAKKA - Western Black Sea Development Agency	As development agency, directly related with local development.
Turkish Industry and Business Association (TÜSİAD) - Sustainable Development Roundtable	The biggest business association in the country. They will be interested in new opportunities.
İstanbul University - Institute of Marine Sciences and Management	An important scientific body in the region.
Ministry of Agriculture and Forestry - General Directorate of Fisheries and Aquaculture	Regulatory body.
Ministry of Transport and Infrastructure - Maritime Trade Development Department	Regulatory body.
Ministry of Culture and Tourism - Marine Tourism Department	Regulatory body.



International

Power / Interest Matrix ARSINOE CS6 - Black Sea Greece INTERNATIONAL



Justification of the 15 SHs

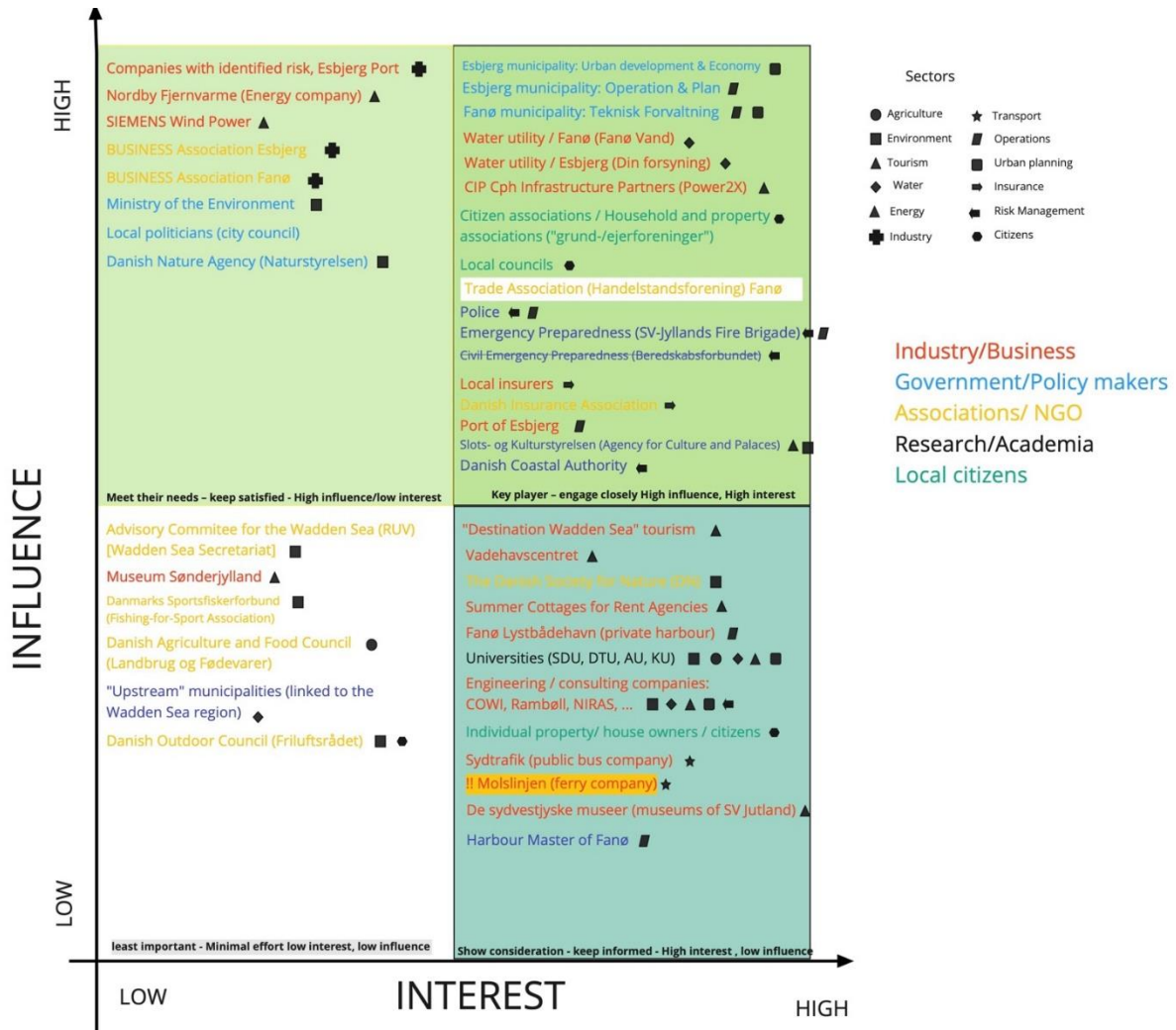
High Influence - High Interest

<ul style="list-style-type: none"> ■ Bulgarian Biodiversity Foundation 	They will help us raise public awareness on the issues of biodiversity and nature protection and they may provide us more information regarding the relationship between biodiversity and water ecosystems.
<ul style="list-style-type: none"> Black Sea- Danube Association of Research and Development (BDCA) (Bulgaria) 	BDCA is a member of the International Joint Research Center of Water Science and Engineering and they will help with their research in the environmental protection of the western Black sea coast and lower Danube.
<ul style="list-style-type: none"> ▲ National Research and Development Institute "Danube Delta" 	Their research in the management of the Danube Delta Biosphere Reserve will help us make a more sustainable use of the area.
<ul style="list-style-type: none"> ■ Danube Delta Biosphere Authority 	They are experts in the Danube Delta Biosphere Authority.
<ul style="list-style-type: none"> ◆ National Administration of Romanian Waters 	They have knowledge in water resources management, therefore they will help us ensure sustainable development in aquatic ecosystems.
<ul style="list-style-type: none"> ●●● EC - Joint Research Centre (Global) 	Their innovative tools will be very useful for policy makers and they will also help us understand better the policy environment.
<ul style="list-style-type: none"> ◆ HCMR - Hellenic Centre for Marine Research, Greece 	They can provide useful feedback about the Sea's health and quality.
<ul style="list-style-type: none"> ■ Natural Environment and Climate Change Agency (N.E.C.A.) 	They have a great experience on managing protected areas.

Low Influence - High Interest

<ul style="list-style-type: none"> ▲ ■ European Institute for Cultural Tourism "EUREKA" (Bulgaria) 	Since the study area is a tourist area, they will help promote environmentally aware tourism.
<ul style="list-style-type: none"> ◆ Marine Cluster Bulgaria 	They will help with their influence mainly in economy stakeholders, as they have partnerships with most of them.
<ul style="list-style-type: none"> ◆ European Association Fishermen in the Black Sea (Bulgaria) 	They will help us understand the coastal area better and they are the most affected people from the changes that took place in the Black Sea.
<ul style="list-style-type: none"> ★ Eastern Black Sea Development Agency (Turkey) 	They will promote cooperation for development.
<ul style="list-style-type: none"> ▲ ■ Republic of Turkey Ministry of Culture and Tourism 	Since tourism plays an important role in Turkey's economy, especially in the coastal area of Black sea, they will help us create a management plan for the Black sea.
<ul style="list-style-type: none"> ◆ European Marine Board Ivzw 	They will help us bridge the gap between marine science and policy.
<ul style="list-style-type: none"> ◆ IND-AGRO-POL competitiveness pole (Romania) 	They are dealing with bio-economy, environmental issues and climate change, largely emphasized in the field of agriculture, which is a major field in Romanias economy, therefore it is very important to participate in our study.

Case study 7 (Southern Denmark)



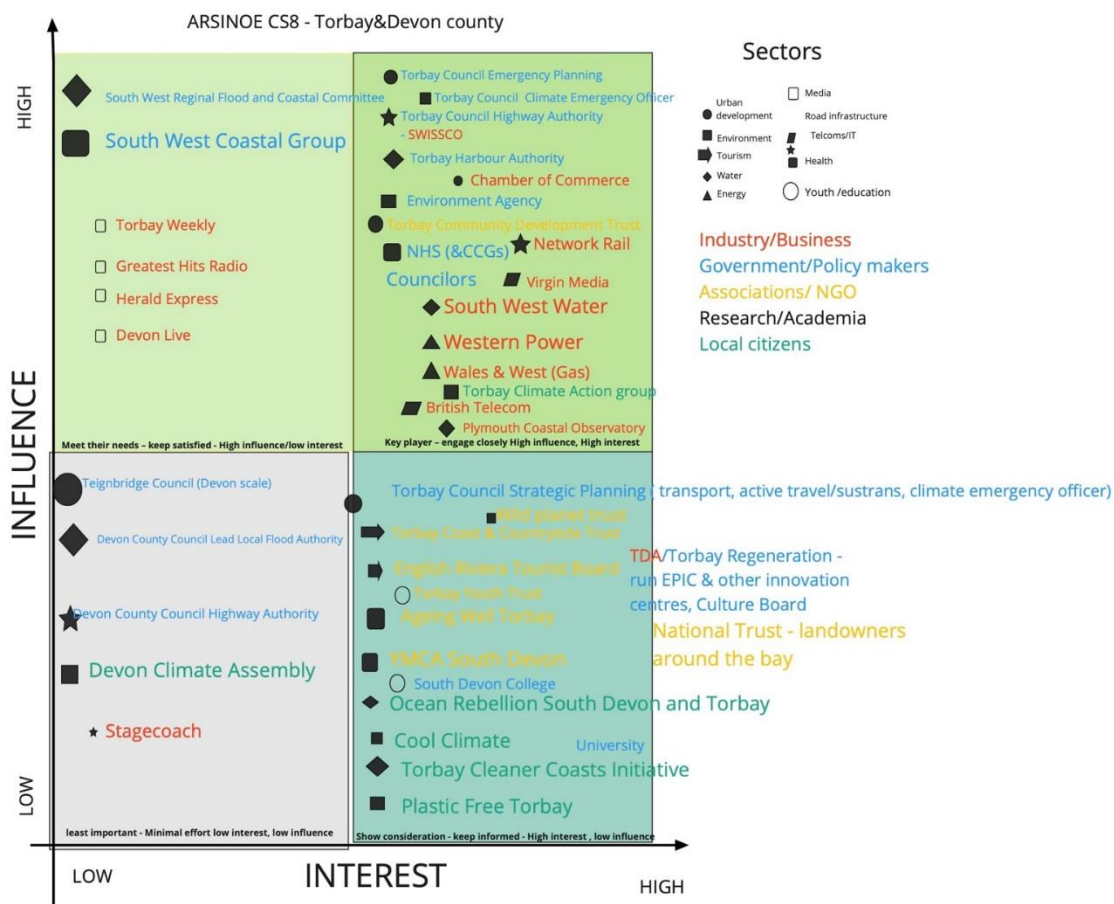
Justification of stakeholders

The **departments/municipalities** (Esbjerg and Fanø) are responsible for operations, risk management planning and climate adaptation planning, and they are the main (e.g. political, legal and financial) authorities with respect to most sectors; **water utilities** work closely together with municipalities and other local authorities and are responsible for implementing climate adaptation for flood risk / water management, which by law can be funded through local water taxes. **CIP** is a fund management company specialized in offering tailor-made investments in energy infrastructure assets globally; CIP is currently involved in building energy infrastructure along the Esbjerg coast (Port of Esbjerg) and have stated an interest in being involved in providing value to the city as a whole.

The **Fanø Trade Association** (Handelstandsforeningen) is an important local entity on Fanø, and organizes local shops and businesses with a high interest in risk prevention and high local visibility. The **Police and**

Fire Brigade are the central local actors with respect to disaster risk management, and both Fanø and Esbjerg municipalities are served by the same local branches. The **Civil Emergency Preparedness** organisation consists of volunteers organised under the Danish Emergency Management Agency; there are currently no local "chapters" in either Esbjerg or Fanø (there used to be in Fanø). The **Danish Insurance Association** (and local insurance companies) play an active role in Denmark in terms of climate adaptation and disaster risk management both as an investor and key data provider (before GDPR the Danish Insurance Association readily shared data with municipalities and academia). They also provide advisory information and organize different kind of campaigns. The **Port of Esbjerg** is a key authority for commercial activities and industry and is a part of e.g. the energy infrastructure in the North Sea, supplementing offshore activities. The port is responsible for managing flood risk within the area of the port. The national **Agency for Culture and Palaces** are responsible for protecting local natural and cultural heritage (The Wadden Sea is UNESCO World Heritage), including Natura 2000 protected nature. The **Danish Coastal Authority** delivers authoritative knowledge, support and analyses to all municipalities in Denmark regarding coastal risks and protection, and are responsible for identifying Esbjerg and (part of) Fanø as high-risk areas under the European Floods Directive. **Household / property associations and local councils** organize local citizens, e.g. house owners within exposed area and sometimes collaborate with municipalities on climate adaptation.

Case study 8 (Torbay & Devon County)



Justification of stakeholders

As the sea level is predicted to rise by over 1 m in Torbay over the next 100 years, the frequency and impact of overtopping of the sea defences will increase, resulting in more infrastructure and properties being affected by flooding. As residential properties are at risk, the case study will assess water by looking at the effects of flooding on the water supply network. Infrastructures, environment, including biodiversity can be assessed as part of the study by investigating the effects of flooding on the local environment.

By involving the stakeholders, the case study will assess beforehand outcome measures to identify areas at risk from flooding (both directly and indirectly) and improve the protection of their apparatus from future flood risk. In addition, the outcome of the study will be used to support bids for national funding from local authorities to undertake both coastal protection schemes and flood alleviation schemes in their area. Here is a list of the key stakeholders and why they are important to include in the living lab:

Torbay Council Strategic Planning

- In charge of transport, active travel/sustrans, and the climate crisis and therefore in a good position to provide information about current challenges and future plans of the town
- Will be able to provide information about how they are planning for the climate crisis

TDA/Torbay Regeneration - Dave & Mike

- TDA Group, created by Torbay Council in 2011, is a collection of companies offering a range of diversified services spanning business and property services, workspace management and affordable housing.
- Delivered a wide range of engineering projects in the Torbay area including flood alleviation, residential developments, and drainage design.

Torbay Council Highway Authority - SWISSCO

- The local highway authority has a duty of care to maintain the safety and usability of roads that are kept at public expense. These responsibilities are set out in the Highways Act 1980, which stipulates that if a highway agent can demonstrate that they made adequate provision for upkeep and safety as can be reasonably expected, a defence will be in place for any claims made against them.
- In the stakeholder mapping exercise Torbay Council Highway Authority were described as “keeping the bay running” and key to have as a stakeholder as flooding will have a significant impact on roads and transport

NHS (&CCGs)

- Torbay and South Devon NHS Foundation Trust formed in 2015, when South Devon Healthcare NHS Foundation Trust (who ran Torbay Hospital) merged with Torbay and Southern Devon Health and Care NHS Trust (who provided community health and social care services).
- Provide health and social care services to people in their homes or local community. They also run Torbay Hospital (providing acute hospital services) as well as five community hospitals, stretching from Dawlish to Brixham.
- Involving the NHS in the living lab will build on previous projects and they are a strong link with communities

South Devon College

- A large sized further education college that provides a wide variety of courses on one of its 9 different campuses within Torbay and the surrounding area. The college is part of The University of Plymouth Colleges network.
- South Devon College is expanding and is an important place for innovation. It's important for the living lab to include young people

Torbay Community Development Trust

- The aim of the Torbay Community Development Trust is to create better communication across the Bay, actively encouraging local involvement and decision making in improving the region, as well as developing and supporting volunteering opportunities of the highest standards
- Strong understanding of communities in the Torbay area

South West Water

- South West Water provides drinking water and waste water services throughout Devon and Cornwall and in small areas of Dorset and Somerset
- Key stakeholder to include on discussions about water and the climate crisis

Western Power

- Western Power Distribution is the trading identity of four electricity distribution companies in the United Kingdom: WPD South West, WPD South Wales and WPD Midlands
- Key stakeholder to include on discussions about power and the climate crisis

Environment Agency- Tom Dauben

- The EA is a non-departmental public body responsible for protecting and enhancing the environment in England. Important stakeholder to include as they have a good overview of the biodiversity and local environmental issues.

Plymouth Arts College

- Plymouth College of Art, formerly known as Plymouth College of Art and Design, is an independent university-sector Higher Education provider located in Plymouth. It's an art school run by artists and designers for artists and designers, widely regarded as a dynamic catalyst for creative learning and social justice.
- Important to have creative thinkers as part of the living lab

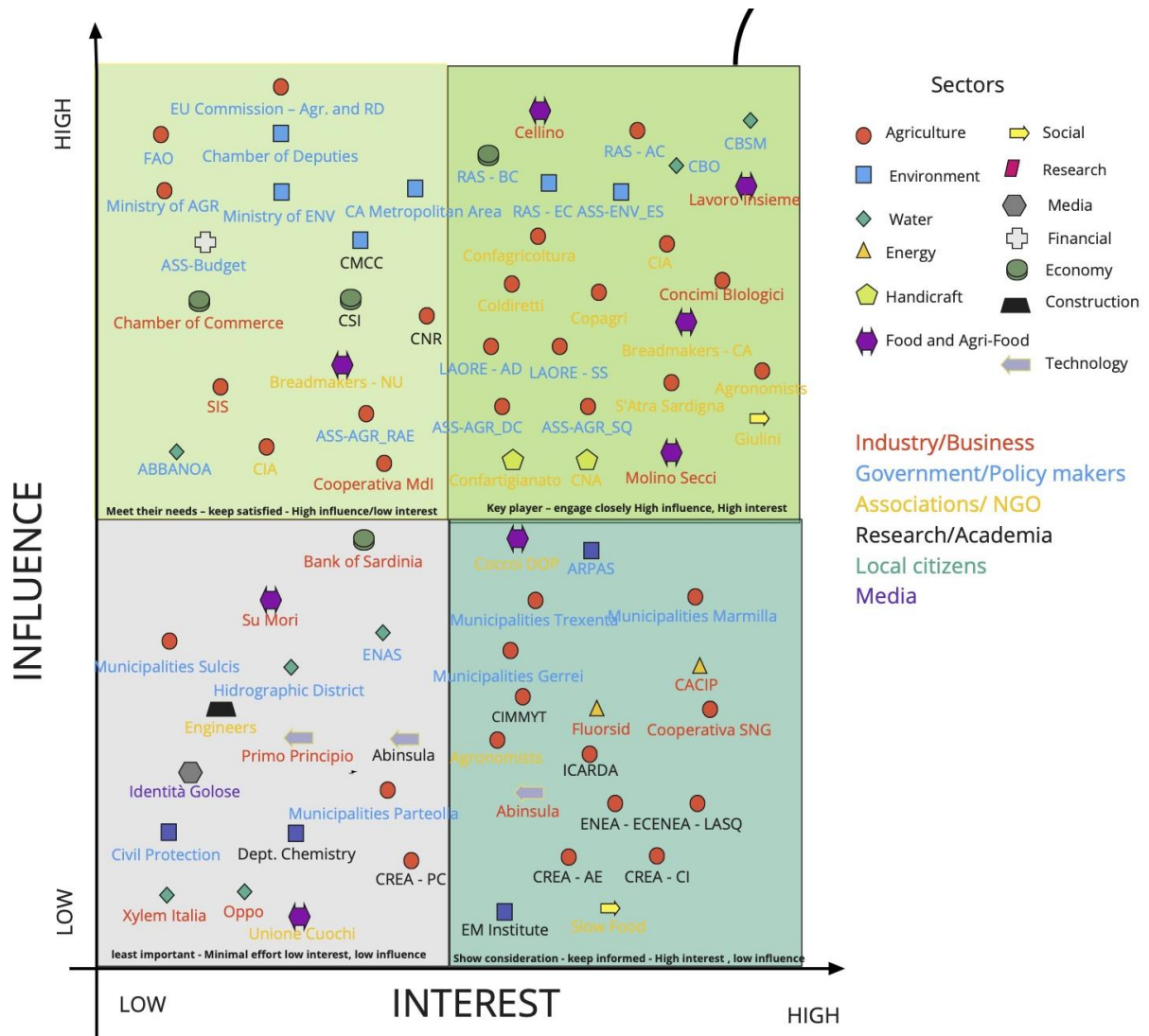
Network Rail - Mark Howells

- Owner and infrastructure manager of most of the railway network in Great Britain. Network Rail is an "arm's length" public body of the Department for Transport with no shareholders, which reinvests its income in the railways

Torbay Climate Partnership -Jacqui Warren

- Torbay is committed to working towards becoming carbon neutral by 2030. Torbay Climate Partnership is made up of a range of partners from public, private, voluntary and community sectors across Torbay with a shared goal of working together to tackle climate change.
- Key stakeholder with a strong overview of initiatives and communities in the area

Case study 9 (Sardinia)



Justification of stakeholders

The upper right-side quadrant shows 23 potential candidates to the CS9 Living Lab. This quadrant includes seven main sectors. The number of stakeholders per each sector is shown in brackets: AGRICULTURE (10), FOOD and AGRI-FOOD (5), ENVIRONMENT (2), HANDICRAFT (2), WATER (2), ECONOMY (1), SOCIAL (1).

AGRICULTURE

Stakeholders belong to the following categories:

Associations, Government, Industry/Business, Policy Makers.

They are listed below along with some explanatory notes and their main categories:

Associations

- 1) Coldiretti
- 2) Confagricoltura
- 3) Copagri

They are all leading agricultural trade Unions in Italy and Sardinia.

- 4) Cooperativa S'Atra Sardinia

Cooperative leader in Italy in organic farming.

Government

- 5) RAS - Commissione Agricoltura: Committee on Agriculture of the Autonomous Region of Sardinia
- 6) RAS - Assessorato Agricoltura DC: Regional Ministry of Agriculture, Division of Agri-Food Chains
- 7) Assessorato Agricoltura SQ: Regional Ministry of Agriculture, Division of Food Sustainability

Industry/Business

- 8) Concimi Biologici S.R.L.

SME producing organic fertilizers and amendments

Policy Makers

- 9) Laore AS - Division of Agricultural Sustainability
- 10) Laore SS - Division of Rural Development

These Divisions belong to the Agricultural Extension Service of Sardinia.

FOOD and AGRI-FOOD

Stakeholders belong to the following categories: Associations, and Industry/Business.

Associations

- 1) Lavoro Insieme S.R.L.

Social enterprise dealing with Agri-Food chains

- 2) South Sardinia Biodistrict

Association aiming to enhance organic Agri-Food short chains

- 3) Associazione Panificatori Prov. CA

Representative of breadmakers from Southern Sardinia

Industry/Business

4) F.Ili Cellino Group

International Holding leader in industrial milling and pasta-making

5) Molino Secci

Artisanal miller and pasta-maker

ENVIRONMENT

This sector includes two major Institutions belonging to the Government of the Autonomous Region of Sardinia.

1) RAS - Assessorato Ambiente ES: Regional Ministry of Environment, Division of Environmental Sustainability

2) RAS - Commissione Ambiente: Committee on Environment of the Autonomous Region of Sardinia.

HANDICRAFT

This sector includes two Italian trade union organisations of SMEs. In the CS9 context, representatives of Artisans working in the Agri-Food system will be taken into account.

1) Confederazione Nazionale Artigianato e piccola e media impresa (CNA)

2) Confartigianato

WATER

In this sector only two stakeholders belonging to the category Policy Makers have been taken into account. Nevertheless, their role in the agricultural Sardinian system is absolutely crucial, especially in a climate change context.

1) Consorzio di Bonifica dell'Oristanese (CBO)

2) Consorzio di BOoifica della Sardegna Meridionale (CBSM)

They are both public bodies dealing with water management for agricultural use.

Finally, there two sectors with one representative each.

ECONOMY

1) RAS - Commissione Bilancio: Committee on Budget of the Autonomous Region of Sardinia

This stakeholder belongs to the category Government and its role is crucial as a decision maker in terms of allocation of financial resources.

SOCIAL

1) Fondazione Carlo Enrico Giulini

This stakeholder belongs to the category Associations. The Fondazione Giulini supports social, cultural and economic development all over Italy and Sardinia.

3.6 Conclusion of the stakeholder mapping phase

All the case studies successfully completed this task following the methodology proposed by WP2. The process helped clarify the main issues at stake and narrowing the challenge(s) to focus on and prepare for the next steps of the SIA implementation. It allowed the case study teams to identify stakeholders beyond their usual network of collaborators. While this can be sometimes challenging, the involvement of an external validator helped to broaden the mapping of stakeholders.

There are, however, broad cultural and political differences across the different case studies, some of which greatly affect the perception of who “key players” are. Whose opinion is relevant, who should be invited, who has agency, are controversial issues, and answers do not necessarily coincide with the place participants hold within established political and social hierarchies. The process of defining the focus of the different living labs shifted perceptions of individual stakeholders’ influence and interest, challenging conventional assumptions on leverage points for implementing transition strategies. This is an important step towards developing a systemic approach to climate change adaptation.

3.7 Next steps on the process: convening of Living Labs

The key stakeholders namely identified “key players” within the matrix form the basis of the stakeholder shortlist. With the short list defined, the recruitment of LL participants may start: Invitations will be sent out to selected stakeholders from the short-list (12- 15 participants).

4.0 TRAINING THE LIVING LABS CONVENORS

The process was led by the WP2 team. Training sessions, pre- and post-workshop meetings, and written SIA guidelines were provided to assist CS team members working on this task.

4.1 Training sessions

Two training sessions were organized to prepare case study teams for the following steps. The first one took place in person in Tours at the Maison des Sciences de l’Homme, CITERES lab headquarters, on March 22nd and 23rd, 2022. Representatives of 8 out of 9 case studies were able to attend, amounting to a total of 19 participants.

Table 4.1 Participants in the Tours training session

CASE STUDY NUMBER AND NAME	PARTICIPATING MEMBERS	ARRIVAL DATE	DEPARTURE DATE
CS1 - ATHENS	Giannis Adamos	21/03/2022	24/03/2022
	Alexandra Spyropoulou	21/03/2022	24/03/2022
CS2 - MEDITERRANEAN PORTS	Laura Morcillo		
	Conrad Landis		
	Alexandros Charalambides	21/03/2022	24/03/2022
CS3 - MAIN RIVER	Gunnar Braun	21/03/2022	
	Marion Zilker	21/03/2022	23/03/2022 (afternoon)
CS4 - PRESPA/OHRID LAKES	Suzana Kasovska Georgieva	21/03/2022	24/03/2022
	Orfeas Roussos	21/03/2022	23/03/2022 (afternoon)
	Slavica Trajkovska	21/03/2022	24/03/2022
CS5 - CANARY ISLANDS	Noelia Cruz	21/03/2022	24/03/2022
	Juan Carlos Santamarta	21/03/2022	24/03/2022
CS6 - BLACK SEA	Nicolaos Theodossiou	21/03/2022	24/03/2022
CS7 - SOUTHERN DENMARK	Bodil Ankjaer Nielsen	21/03/2022.	23/03/2022.
	Martin Drews	21/03/2022.	23/03/2022.
CS8 - TORBAY & DEVON COUNTY	–		
CS9 - SARDINIA	Marco Dettori	21/03/2022	24/03/2022
OTHER PARTICIPANTS	Isabelle La Jeunesse	21/03/2022	24/03/2022
	Carola Moujan	21/03/2022	24/03/2022
	Ebun Akinsete	21/03/2022	24/03/2022
	Alice Guittard	21/03/2022	24/03/2022

Table 4.2 Workshop agenda

DAY 1 – TUESDAY 22 nd MARCH	
8:30 – 9:00	Arrival and registration
9:00 – 9:30	Welcome and Intro Round (All)
9:30 – 9:45	Training Overview and Agenda (Isabelle)
9:45 – 10:00	Presentation on SIA (Ebun)
10:00 – 10:15	Outline of the Workshops and connections to WPs (Alice)
10:15 – 10:30	WP5 Presentation (Isabelle)
10:30 – 10:45	GDRP and Ethical considerations (Ebun)
10:45 – 11:15	First Thoughts: Q&A
11:15 – 11:30	Coffee Break
11:30 – 11:45	Presentation of Workshop 1 + Q&A (Ebun)
11:45 – 12:00	Presentation of Workshop 2 + Q&A (Alice)
12:00 – 12:15	Presentation of Workshop 3 + Q&A (Ebun)
12:15 – 13:45	Lunch
13:45 – 14:45	Presentation of the CSs
14:45 – 15:15	Present the Mock CS & Assign Roles
15:15 – 15:30	Coffee Break
15:30 – 16:30	Mock WS 1: Scoping, Objective Setting and Mapping
16:30 – 17:00	Feedback session
DAY 2 – WEDNESDAY 23 rd MARCH	
8:30 – 9:30	Mock WS 2: Problem Definition and Envisioning (8.30 START)
9:30 – 10:00	Feedback session
10:00 – 10:15	Coffee Break
10:15 – 11:15	Mock WS 3: Innovation and Backcasting
11:15 – 11:45	Feedback session
11:45 – 12:45	Open session 1
12:45 – 13:00	Training Wrap up session
13:00 – 14:30	Lunch
14:30 – 15:30	Open session 2

To train case study team members who could not attend in person, an online session summarizing key points from the Tours workshop was organized on May 3rd, 2022 13:45 – 17:00 CET. A total of 29 participants representing the 9 case studies participated in this online workshop.

Table 4.3 Online workshop participants' list

Name	Case Study/ Work package number
Olympia Nisiforou	CS2
Sarah Ward	CS8
Maria Paraschiv	CS1
Glen Lumani	CS4
Isabelle La Jeunesse	WP2
Teresa Pérez Ciria	CS3
Pinar Uygurer	WP5
Chen, Albert	CS8
Baker, Kate	CS8
Carola Moujan	WP2
Gloria Salmoral	WP5
Nensi Lalaj	CS4
Ebun Akinsete	WP2
Akpt	CS4
Yordan Zdravkov	CS6
Alice Guittard	WP2
SPYROPOULOU ALEXANDRA	CS1
MELLIOS NIKOLAOS	CS1
Sophia Papageorgiou	CS1
Charis Stavridis	CS6
LANDIS CONRAD	CS2
KOFINAS DIMITRIS	CS1
Chrysi LASPIDOU	CS1
VALENTINA MEREU	CS9
Isabel Gamallo Paz	CS5
Veliana Zlateva	CS4
Bukem Belen	CS6
Dimitra Frysalı	CS6
Alice Guittard	WP2

Table 4.4 Online workshop agenda

Time	Topic
13:45 – 14:00	Review of SIA training workshop slides
14:00 – 14:20	Welcome and Intro Round (All)
14:00 – 14:25	Training Overview and Agenda (Isabelle)
14:25 – 14:35	Presentation on SIA + GDPR and Ethical considerations (Ebun)
14:35 – 14:40	Outline of the Workshops and connections to WPs (Alice)
14:40 – 14:55	First Thoughts: Q&A
14:55 – 15:00	Coffee Break
15:00 – 15:20	Presentation of Workshop 1 (Ebun)
15:20 – 15:40	Presentation of Workshop 2 (Alice)
15:40 – 16:00	Presentation of Workshop 3 (Ebun)
16:00 – 16:05	Coffee Break
16:05 – 16:50	Q&A
16:50 – 17:00	Training Wrap up session
13:45 – 14:00	Review of SIA training workshop slides
14:00 – 14:20	Welcome and Intro Round (All)
14:00 – 14:25	Training Overview and Agenda (Isabelle)
14:25 – 14:35	Presentation on SIA + GDPR and Ethical considerations (Ebun)
14:35 – 14:40	Outline of the Workshops and connections to WPs (Alice)
14:40 – 14:55	First Thoughts: Q&A
14:55 – 15:00	Coffee Break
15:00 – 15:20	Presentation of Workshop 1 (Ebun)
15:20 – 15:40	Presentation of Workshop 2 (Alice)
15:40 – 16:00	Presentation of Workshop 3 (Ebun)
16:00 – 16:05	Coffee Break
16:05 – 16:50	Q&A
16:50 – 17:00	Training Wrap up session

4.2 Pre- and post-workshop meetings with CS teams

Two training sessions were organized to prepare case study teams for the following steps. The first one took place in person in Tours at the Maison des Sciences de l'Homme, CITERES lab headquarters, on March 22nd and 23rd, 2022. of 8 out of 9 case studies were able to attend, amounting to a total of 19 participants.

To adapt the methodology to each CS's specific needs and resources, several one-to-one work sessions took place between May and September 2022.

During pre-workshop sessions, WP2 assisted each team in designing and planning the different activities, whereas post-workshop ones were dedicated to reviewing and analysing the workshop outcomes, and to provide support for the preparation of the WP2 workshop report.

Table 4.5 Dates of each CSs' work sessions with WP2 and 1st LL workshops

	Case study name	Living lab focus	Expected date of 1 st workshop in 2022	Final review w/WP2	Post-workshop meeting
CS1	Athens	Mitigating urban heat through nature-based solutions	May 27th	24th May	June 28th
CS2	Medit Ports 1 - Piraeus LL	Climate change impact in ports operations	September 6th	29th Aug	30/09/2022
	Medit Ports 2 - Valencia LL	Climate change impact in ports operations	July 6th	27th June	August 1st
	Medit Ports 3 - Cyprus LL	Climate change impact in ports operations	July 4th	27th June	August 1st
	Medit Ports - International WG	Impact of climate change on ports infrastructures and operations.	Nov 2022	To be defined	To be defined
CS3	Main River	Water-energy-food nexus	July 15th	July 7th	July 22nd
CS4	Prespa / Ohrid Lakes - North Macedonia	water scarcity in relation to agriculture & tourism & heritage	July 8th	July 4th	July 18th
	Prespa / Ohrid Lakes - Albania	water scarcity in relation to agriculture & tourism & energy	August 10th	July 22nd	September 7th
	Prespa / Ohrid Lakes - Greece	water scarcity in relation to agriculture & biodiversity	July 8th	July 1st	July 18th
	Prespa / Ohrid Lakes - International	Impact of water scarcity on water levels in the two connected lakes	September 23rd	September 7th	September 30th

	Case study name	Living lab focus	Expected date of 1 st workshop in 2022	Final review w/WP2	Post-workshop meeting
CS5	Canary Islands	Impact of temperature raise on the water/food nexus	June 21st	June 13th	July 8th, 13th, September 6th
CS6	Black Sea - Bulgaria	Fresh water pollution and water scarcity	September 9th	August 30th	To be defined
	Black Sea - Romania	Fresh water pollution and water scarcity In the Danube Delta	September 14th	August 30th	26/09/22
	Black Sea 3 - Turkey combined with Istanbul BRIDGE LL	Socioeconomic change in the sea of Marmara and southwest black sea	September 15th	August 30th	23/09/22
	Black Sea - International (lead by Greek team)	Integrated water resources management from source to sea with a focus on the environment aspect of water management	October 10th	October 7th	To be defined
CS7	Southern Denmark - Fanø	Emergency preparedness plan in flooding extremes	October 12th	September 15th	To be defined
	Southern Denmark - Esbjerg		October 11th	September 20th	To be defined
CS8	Torbay&Devon county	Cascading effects on infrastructures during flooding	September 22nd	September 7th	September 28th
CS9	Sardinia	Transforming the food production system based on durum wheat	September 27th	September 20th	September 29th

4.3 System innovation implementation guidelines

Written by WP2 team, this 27-page illustrated document –a step-by-step comprehensive description of the different steps of the process and how to prepare for the next steps– was circulated to the group on May 13th. The guidelines include useful tips for handling different types of situations that might arise during workshops, as well as a glossary of key terms, a bibliography, and a set of appendices to further assist teams with preparation tasks, such as invitation and reporting templates, and a list of Frequently Asked Questions collected during the training sessions.

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4.4 Next steps: preparing for the 2nd SIA Workshop

After the first round of workshops has been carried out for each case study, detailed reports and maps of the systems will be provided by CS teams. Based on the outcomes and needs of each group, tailor-made activities specific to each situation will be designed and carried out before the second round of SIA workshops (asked to take place from the amended Grant Agreement between December 2022 and February 2023).

In addition, to prepare the second workshop, a new online training session will be held between October and November 2022, and implementation guidelines will be circulated in mid-November. One-to-one meetings will also be conducted with internal WP2 to prepare the second WS.

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Systems Innovation Approach (SIA) addresses the growing complexity, interdependencies and interconnectedness of modern societies and economies, focusing on the functions of the cross-sectoral system as a whole and on the variety of actors. The Climate Innovation Window (CIW) is the EU reference innovations marketplace for climate adaptation technologies. ARSINOE shapes the pathways to resilience by bringing together SIA and CIW, to build an ecosystem for climate change adaptation solutions. Within the ARSINOE ecosystem, pathways to solutions are co-created and co-designed by stakeholders, who can then select either existing CIW technologies, or technologies by new providers (or a combination) to form an innovation package. This package may be designed for implementation to a specific region, but its building blocks are transferable and re-usable; they can be re-adapted and updated. In this way, the user (region) gets an innovation package consisting of validated technologies (expanding the market for CIW); new technologies implemented in the specific local innovation package get the opportunity to be validated and become CIW members, while the society (citizens, stakeholders) benefits as a whole. ARSINOE applies a three-tier, approach: (a) using SIA it integrates multi-faceted technological, digital, business, governance and environmental aspects with social innovation for the development of adaptation pathways to climate change for specific regions; (b) it links with CIW to form innovation packages by matching innovators with end-users/regions; (c) it fosters the ecosystem sustainability and growth with cross-fertilization and replication across regions and scales, at European level and beyond, using specific business models, exploitation and outreach actions. The ARSINOE approach is show-cased in nine widely varied demonstrators, as a proof-of-concept with regards to its applicability, replicability, potential and efficacy.



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