

Deliverable.6.3

Civil Society Engagement: Strategy for SH engagement

HOLOSS



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Executive summary

Single-use plastic pollution has increasingly become a topic of concern over the last few years regarding sustainability issues [1]. Among multiple sustainability measures put forward by the European Union (EU), the Joint Research Centre (JRC) has introduced the Safe and Sustainable by Design (SSbD) framework [2]. The framework, based on safety and life cycle sustainability methodologies, seeks to assess products on health safety and sustainability pillars. The SSbD framework allows for an in-depth view of potential concerns that certain materials may pose to the environment.

The E-OILÉ project wants to introduce novel biopolyesters and polysaccharides packaging solutions for oily products. These innovations will be assessed under the SSbD framework. Additionally, End-of-Life (EoL) solutions will be predicted using digital-twins and Artificial Intelligence (AI) technologies. This will allow an accurate simulation of the degradation process of bio-based materials.

This deliverable (D) is a part of Work Package (WP) 6 “Social impact enhancement, communication and dissemination”, particularly tied to Task (T) 6.2 “Stakeholder engagement strategy and social impact enhancement”. The present document explores how E-OILÉ stakeholders and civil society are mapped and interacted with based on expertise. The activities under this deliverable were led by HOLOSS (HOL), who fostered an interactive process of stakeholder identification with project partners. Initial findings led to the identification of 104 stakeholders, found in 19 different countries, divided among 5 stakeholder groups.

By providing a unified and clear strategy, the contents of this deliverable will provide a baseline for future interaction with identified stakeholder groups. The activities scheduled will involve the contribution of project partners in the elaboration of white papers, social media posts, surveys, focus groups, and workshops.

The involvement of stakeholders and civil society actors will be continuously updated throughout the project’s lifetime to ensure active engagement. The strategies presented will facilitate fruitful interactions of different demographics hereby enhancing social acceptance of project innovations.



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Glossary of terms and abbreviations used

List of Abbreviations and Acronyms	
AI	Artificial Intelligence
D	Deliverable
EoL	End of Life
EC	European Commission
HoReCa	Hotel, Restaurant, and Cafe
JRC	Joint Researcher Centre
M	Month
NGO	Nongovernmental organization
RRI	Responsible Research and Innovation
SSbD	Safe and Sustainable by Design
T	Task
USA	United States of America
WP	Work Package



1.Introduction

The present document details efforts in line with T6.2 “Stakeholder engagement strategy and social impact enhancement” of the E-OILÉ project. Main activities of this task are led by HOL, running from M1 to M48 of the project.

The goal of this deliverable is to detail the process of stakeholder identification, mapping, and monitoring. To achieve it, a robust methodology was applied that guarantees the contribution of all project partners in the identification and engagement processes. At an early stage of project development, the methodology took the form of a stakeholder mapping template. This template was developed by HOL, reviewed, and validated by ILSI in M3 of the project through an online meeting. By doing so, both partners ensured alignment between all WP6 activities for E-OILÉ.

Moreover, the contents of this deliverable are divided into:

- Methodology – The section explores the methodology adopted to the project that ensures identification, analysis, and mapping of stakeholders. The different stakeholder groups considered are also explained in depth.
- Results and Discussion – Provides an extensive discussion of the information collected from partners in the exercise of stakeholder identification. Partner inputs are then divided into stakeholder groups and their geographical area.
- Engagement activities – A section where the planned events and activities are explained. Going into depth on how activities will be tailored to different stakeholders and involve various partners depending on their role within the project.

By including these sections, HOL provides great context into the strategy used to complete the task objectives successfully. Overall, the deliverable provides a detailed baseline on activities to be completed in relation to T6.2, that will guarantee proper engagement with E-OILÉ stakeholders and disseminate project outcomes.

1.1 Purpose of the document

The main purpose of this document is to present the stakeholder and social engagement activities performed under T6.2 in the context of WP6 “Social impact enhancement, communication and dissemination”. It outlines the methodological approach led by HOL, in collaboration with all project partners. In addition, it also details how the implementation of engagement activities will occur until M48 of the project. Through participatory approaches, activities will align with the principles of Responsible Research and Innovation (RRI), which advocate for inclusiveness, responsiveness, and transparency in research and innovation processes [3]. The proposed engagement is



essential for supporting the introduction of bioplastic alternatives. This will be achieved by integrating diverse stakeholder perspectives, thereby ensuring social acceptability, relevance, and effectiveness of proposed solutions.

The activities put forward in this deliverable are highly supportive of technical, engaging, and dissemination activities of the E-OILÉ project. Particularly towards T6.1 “Communication and Dissemination”, the outcomes of stakeholder and civil society engagement will be interdependent with media channels managed in the project. It is essential for stakeholder activities to be disseminated in social media to fulfil the total outreach of the project.

Additionally, sub-Task 7.1.1 “Value chain and ecosystem analysis” relates to the strategies and activities detailed in this deliverable. The task will identify the main organisations related to the E-OILÉ value chain and the broader group of stakeholders involved in manufacturing. The exercises conducted under this task will serve to expand the number of potential stakeholders in the project’s duration.

In that regard, this document provides valuable insights into how multi-stakeholder input is being actively integrated into the project development process. It reflects the importance of inclusive, strategic engagement in guiding innovation towards practical real-world application and long-term adoption.

1.2 Relevant background

Stakeholders are characterised as individuals or groups of people that have some level of interest in an organisation or activity, meaning they have something at stake [4]. Civil society are entities, often private individuals or institutions, that are not ran or controlled by government agencies. They are best represented by nongovernmental organisations (NGOs) or charities who often seek to create awareness and change on socio-political concerns [5]. In the context of this deliverable, stakeholders and civil society are described as actors in association to the E-OILÉ project.

The gap between research and stakeholders such as civil society actors, policy makers, and manufactures, continues to be wide. This gap often undermines scientific developments where the little involvement of stakeholders affects the possibility of real-life applications and wide-spread adoption [6]. For these reasons, the implementation of mechanisms that guarantee ongoing participation and feedback loops of relevant stakeholders can provided add-value to research endeavours [7].

Additionally, it has become more evident over the years that many research endeavours often discredit, or do not account for, diverse perspectives. The diversity is not only seen in terms of field of study or expertise, but also lack of diversity in life experience and



social demographics. This lack of consideration for diversity of individuals has often led to incomplete or biased research practices or results. It is essential to guarantee a diverse pool of actors who provide insight into different social realities and make sustainable innovations available for all. To properly include all perspectives into the E-OILÉ project, the engagement strategies will focus on building an ongoing collaborative strategy, adapting to the needs of both project partners and stakeholders.

The use of stakeholder and civil society engagement are essential drivers for communication of scientific results [6]. Through engagement activities, the general public is able to contribute significantly to project results, heightening societal awareness over the research topic. In this deliverable, the development was focused on the identification of major players to the E-OILÉ project and presenting planned interactions until M48.



2. Methodology

The strength of civil society and stakeholder engagement actions lies in the methodology developed and implemented. The stakeholder engagement methodology in the E-OILÉ project has been developed by HOL, ensuring that the development of innovations and solutions are grounded in real-world needs and expertise. Recognising that meaningful innovation requires active participation, the methodology seeks to identify, analyse, and engage civil society actors and stakeholders.

The methodology combined mapping and analysis with open engagement methods in the identification of major stakeholder contacts from the consortium. Stakeholders identified will be included in project dissemination and communication activities. These activities may vary from subscription to newsletters, workshops, or survey participation. A communication plan was defined following D6.1, assigning channels and formats according to stakeholder profiles. This ensures that stakeholders are not just informed but are active contributors through collaborative methods, validation, and adoption of the project's outputs. These spaces enable stakeholders to influence the design and adoption of solutions, increasing legitimacy, social and industrial acceptance.

With the integration of different stakeholders at an early stage of the project, E-OILÉ strengthens the relevance, usability, social and industrial acceptance of its bio-plastic innovations. The primary goal of stakeholder engagement in the project is to identify, involve, and collaborate with all relevant stakeholders of diverse backgrounds and expertise. To achieve this, an inclusive approach was applied, considering geographical, sectoral, and demographical diversity. Monitoring and evaluation mechanisms were also implemented to ensure engagement and adaptability to contextual changes.

Additionally, early integration is operationalised through timelines that include engagement milestones from conceptual design to final validation. This ensures that innovations are technically feasible, aligning with market and social expectations.

Stakeholder engagement activities must be tailored to the specific needs and context of the project. However, several recurring steps, as shown in Figure 1, provide a foundation for effective engagement.

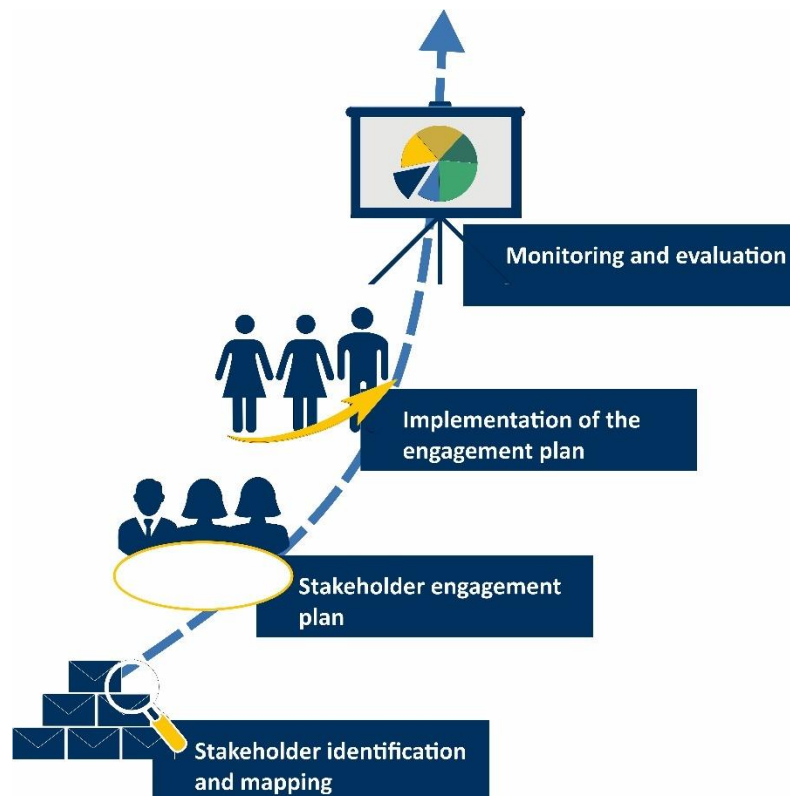


Figure 1. Stakeholder engagement methodology.

As described, steps include identification, analysis, mapping, and monitoring that must be maintained throughout the project's lifetime. The following sections will explore the methods applied to the E-OILÉ project in the process of stakeholder selection and analysis. These methods were then adapted to the project and actualised in collaboration with project partners.

2.1 Stakeholder mapping

The stakeholder engagement strategy begins with the process of identifying key stakeholders. It is followed by a thorough analysis and mapping of their roles, interests, and potential influence in E-OILÉ. Stakeholder mapping is an essential step for understanding which individuals or groups have the potential to impact or be impacted by the project. This process enables the project to make informed decisions on where to focus their engagement efforts and how to approach each stakeholder. By doing so, this strategy helps guarantee that the stakeholders identified have a correlation to the objectives of the E-OILÉ project.

In light of this, HOL applied a collaborative approach, meaning that each project partner got to collaborate in the identification of civil society actors and stakeholders. This



strategy focuses on the interaction between partners, capitalising on different expertise from the consortium and contacts in various sectors. With the introduction of a stakeholder mapping template, as seen in Figure 2.

	GAIK			
Target Stakeholders	Contact/Name	Organisation*	E-mail (If applicable) or Website	Participation Interest
Manufacturing Industry Stakeholders (Large manufacturing companies, SMEs, Industry associations)				
HoReCa Sector (Business Associations, Food/Holiday chains and franchises, Catering services)				
Policy Makers and Government Agencies (EU institutions and bodies; National and regional government bodies; Regulatory agencies)				
Research Centers and Higher Education (Technical schools and vocational training centers; Universities ; Academia and research organisations; Student Unions)				
Civil Society Charity associations, NGOs, Public Centers. Institutions that have contact with citizens from different demographics and social backgrounds				

Figure 2. Stakeholder Mapping template for the E-OILÉ project

Each partner had the opportunity to contribute with an unlimited number of inputs, which were organised in five different categories to differentiate the stakeholder. The categories were established at the proposal stage and include:

- Manufacturing Industry stakeholders.



- Hotel, Restaurant, Café (HoReCa) Sector.
- Policy Makers and Government Agencies.
- Research Centres and Higher Education.
- Civil Society.

The listed stakeholders are then classified based on their relation to power/authority within the industry and their social relevance or impact. This classification will determine the way in which stakeholders are engaged and included in the project's activities.

Additional information about the stakeholder groups and the implementation of the mapping process will be thoroughly explained in sections 2.3 and 3.1.

When mapping and analysing stakeholders, informed decisions can be taken about whom to engage, how, and when. Consequently, a foundation is formed for future engagement activities and supports project success. It should be ensured that diverse perspectives are included, risks are addressed, and opportunities for collaboration are maximised.

2.2 Monitoring strategies

Monitoring procedure is essential throughout the engagement process guaranteeing that engagement processes are effective, that the project stays on track, and that the desired outcomes are achieved. A systematic approach helps identify what works well, what needs improvement, and how best to allocate resources for future engagements.

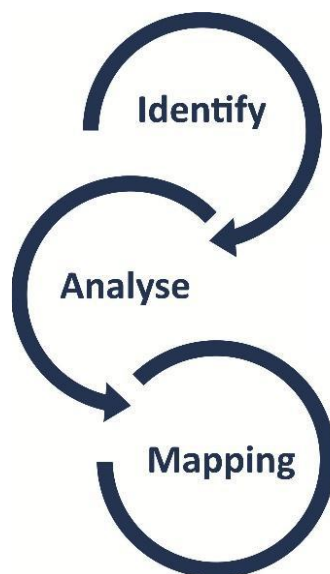


Figure 3. Stakeholder identification and mapping process



Observed in Figure 3, the process of stakeholder mapping involves three essential steps which will be explored in the following sections.

2.2.1 Identify

The identification stage starts by establishing all individual profiles, institutions, organisations, and industries that may be relevant to the project. This is important to determine prior to any sort of engagement action. Identifying different stakeholders will vary depending on the nature of the project and its objectives. To facilitate the identification of stakeholders, the following guidelines are presented:

- Entities with expertise related to the innovation and themes explored by the project.
- Contributors who could help the project to achieve its targets and impacts or may be interested in the project's outcomes.
- Entities involved in networks or trade associations that can be beneficial for the project.
- Stakeholders who can present barriers or challenges to the project (i.e.: competitors, regulatory authorities, or policymakers)
- Parties who will be directly or indirectly impacted by the project's outcomes, such as the manufacturers, end users, end-of-life actors, etc.
- Entities with legal oversight to ensure the project adheres to legislation, regulation, and standards.
- Actors concerned with ethical, safety or environmental concerns.
- Local communities, civil society, or interest groups who can influence a project through public opinion.

Stakeholder identification is central in ensuring that the project gathers diverse insights at different levels of expertise and impact. To perform this exercise effectively it is useful to adopt certain methods that will support the project. With that motive, at an initial stage of the project, HOL has worked in collaboration with the consortium. This led to the creation of a shared document where each partner could contribute with contact details. Through this effort, a great number of stakeholders were identified as being impactful for the project.

2.2.2 Analyse

Following the identification phase, the process proceeds to the stage of analysis of the identified stakeholders. The analysis will help determine the best way in which to engage with stakeholder depending on the profile. To proceed with this process, certain



parameters and considerations must be determined. The list below presents some of the parameters [8], [7] to account for when analysing stakeholders.

- **Capacity:** The stakeholder's resources and capability (e.g., time, skills, mandate) to engage effectively at the level required by the project. Capacity also reflects the ability of the stakeholders to deliver on agreed roles.
- **Diversity and inclusion:** Stakeholder identification should reflect diverse perspectives, including under-represented groups or communities that may be impacted by the project. Ensuring inclusivity leads to a more robust and ethical approach.
- **Engagement willingness:** The openness, motivation, and capacity of the representatives to engage in project related activities. This includes their responsiveness and level of commitment.
- **Expertise:** The representative's knowledge, experience, or technical competence in areas relevant to the project. Representatives with high expertise may contribute significantly to specific tasks, consultations, or co-creation activities.
- **Influence:** The extent to which the representatives can shape the direction or results of the project or influence key decisions.
- **Interest:** The level of concern, involvement or benefits the stakeholder holds in the project's outcomes.
- **Impact potential:** The extent to which the representatives are affected by the project's outcomes positively or negatively.
- **Power:** The ability to shape decisions, control resources, or impact project outcomes directly or indirectly.
- **Transparency:** Open and transparent communication with stakeholders fosters trust and can prevent conflicts or misunderstandings later in the project.
- **Trust:** The level of trust and mutual respect between the project team or partner and the stakeholder. This includes a previous record of collaboration between both sides adhering to commitments, shared values, and respecting confidentiality.

2.2.3 Mapping

The step of mapping stakeholders is the last to be implemented. Taking on the work of previous steps, mapping allows for a more visual understanding of the results and orderly categorisation.

The approach to mapping of stakeholders will be achieved by employing the Influence-Interest Grid [9] framework. For the proper integration of this framework, the two main concepts that integrate it must be defined and contextualised. Influence alludes to the stakeholder's ability to shape the decisions and outcomes of the project. This factor can



greatly impact the project outcomes, regardless of the level of interest of the stakeholder. Interest on the other hand, refers to the relevancy of the project to a certain stakeholder and their likelihood to engage. Highly interested stakeholders are usually more motivated to participate, provide inputs and support the project, regardless of their power.

According to the Influence-Interest Grid (Figure 4), stakeholders can be divided into four groups base on the two dimensions.

Level of influence	High	Context setters	Key players
	Low	Crowd	Subjects
		Low	High
Level of interest			

Figure 4. Interest-Influence Grid

The four groups included in the grid can be described as follows:

Key Players (High Influence + High Interest): These stakeholders play a main role in guaranteeing the success of project outcomes and should be involved for its entirety. To guarantee this, systems of close collaboration, regular updates, and join decision-making are essential. These strategies must be applied periodically as the project evolves as a form of continuous support.

Context setters (High Influence + Low Interest): As these stakeholders present a relatively low level of interest, it is much harder to gather attention and engage in a meaningful manner for the project. This may mean that additional efforts must be made to capture attention and establish beneficial relations. The information shared and engagement activities should be targeted strategically.

Subjects (Low Influence + High Interest): In general, these stakeholders are supportive of the project but lack in the ability to strongly contribute to its outcomes. Despite this, it does not mean that they should be ignored or disregarded from engagement activities. Strategies of regular communication, consistent updates, and encouragement in involvement should help maintain the support of these stakeholders.



Crowd (Low Influence + Low Interest): The involvement of this stakeholder type can be operationalised through occasional updates and light monitoring. Despite being identified at a low level at an early stage, their influence or interest may increase over time or throughout different project periods.

2.3 Stakeholder groups

To facilitate the identification and monitoring procedures, HOL has defined five categories of stakeholder groups. This was an effort made at the proposal stage in accordance with T6.2 and will be explored in more depth in this section. To this effect, the groups of stakeholders mentioned below were considered to be the most impactful to the project objectives at the proposal stage.

Manufacturing Industry – Given the nature of the E-OILÉ project that seeks to introduce packaging solutions for single-use monodose packaging for oily products, a close contact with industrial manufacturers is an essential stakeholder category. This stakeholder type will help understand the interests of plastic, packaging, and oily products manufactures. For the successful implementation of project solutions, industry actors must accompany the evolution of E-OILÉ supporting it with meaningful contributions. The insights of industrial stakeholders ensure that the E-OILÉ innovations align with actors early in the value chain.

HoReCa Sector – Are entities representing the following stage of the value-chain. This sector has a close relationship with both manufacturers and end-users. Consequently, organisations in this sector can provide a well-rounded view of the adoption of new products based on the industrial willingness and the market acceptance.

Policy Makers and Government Agencies – This stakeholder category holds influence on political, legal, and state affairs. Policy Makers have a very particular level of power in central decision-making institutions. The support of these stakeholders allows E-OILÉ to become a central example for the construction of policies related to monodose packaging. Consequently, by engaging policy makers, the project can help facilitate the integration of innovative solutions in the market and the regulatory environment.

Research Centres and Higher Education – While research must be shared with the public and involved in different industries, it mustn't forget to do so within its own ecosystem. By engaging with fellow researcher and Higher Education institutions, the project can continue to draw insights in the academic world and fostering insightful collaborations. In this manner, E-OILÉ can meaningfully contribute to the academic discourse and sustainability.



Civil Society – This stakeholder category is an umbrella of different kinds of institutions that serve the public good, communities, and wider society. Under civil society, entities such as, Nongovernmental organization (NGOs), voluntary groups, charities, and grass-roots organisations, can be found. The existence of these institutions often reflects wider societal concerns with socio-environmental issues. In the scope of the project, the engagement with this stakeholder group is important to gain acceptance and support in wider society. Additionally, it may serve to validate the perception on the progress made within the project.

Distinguishing between the different groups of stakeholders will allow the adoption of appropriate methods of communication and engagement with the E-OILÉ project. By recognising different expertise, it allows more understanding of the stakeholders' profiles and how they may meaningfully impact the project outcomes.



3. Results and discussion

3.1 Stakeholder influence

As mentioned in previous sections, when defining stakeholders, it is important to understand their level of impact in the project. The process of understanding the stakeholder influence is within the step of analysis. This will shape the way in which stakeholders are contacted and engaged in the project.

Based on the Influence-Interest Grid, the stakeholder groups identified in the E-OILÉ project were classified at the proposal stage in T6.2.

Table 1. Stakeholder Groups distributed in the Influence-Interest Grid based on T6.2

Grid Group	Stakeholder Group
Key Players	<ul style="list-style-type: none"> • Manufacturing Industry • Policy Makers and Government Agencies • Research Centres and Higher Education
Context setters	
Subjects	<ul style="list-style-type: none"> • HoReCa Sector • Civil Society
Crowd	

According to Table 1, three stakeholder groups (Manufacturers, Policy Makers, and Research community) suit the highest levels of influence-interest. While the other two groups (HoReCa sector, and Civil Society) are among the lowest levels of influence-interest. This exercise was based on the definition previously described and their context in the E-OILÉ project. Additionally, complete validation and understanding on the levels of influence-interest will be achieved once the stakeholder contacts identified are contacted and engaged with. Through that process, HOL will be able to accurately understand where the stakeholders lie within the grid.

The point must be made that, the position of a certain stakeholder in the grid may change over time and accompany the projects evolution. It is equally important to understand that the aggregation of a stakeholder group into the same grid may be too simplistic. There is an awareness that not all stakeholders of the same group will view the interest in the project in the same manner or hold the same influence. For this reason, once the project reaches a greater level of maturity and timely engagement with stakeholders, the results may be more scattered.



3.2 Analysis of stakeholders

The process of stakeholder mapping was exercised through the strategy previously presented and detailed in section 2.1. The mapping strategy allowed all consortium partners to participate. In this manner, it was possible to optimise the process of contributions to T6.2, the collection of valuable inputs and relevant stakeholders to the project based on the partner's expertise and fields.

3.2.1 Divided in stakeholder groups

The results of the mapping exercise allowed the identification of **104 stakeholders**. This is thanks to the work led by HOL with the inputs of seven out of the fourteen project partners who collaborated in a stakeholder mapping template. The template was sent to partners by M3 of the project and completed by M4.

It is likely that several stakeholders may not be completely interested in engaging with the project once contacted. However, the number of stakeholders gathered is optimal to begin the exercise of engagement strategies and build a community for E-OILÉ. The project goal is to have at least 30 stakeholders highly engaged in project activities throughout early adoption, replication, and exploitation.

For a better understanding of the stakeholders identified through this exercise we present Figure 5. This figure demonstrates how the 104 stakeholders are divided into the different groups.

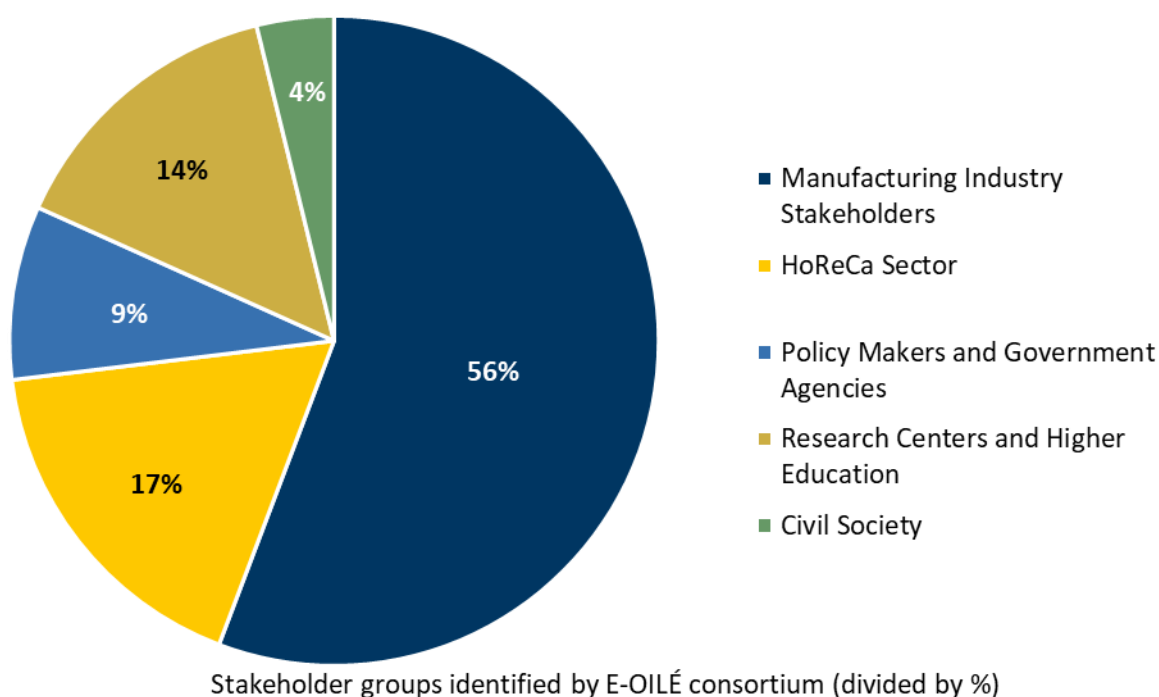


Figure 5. Stakeholder groups identified by E-OILÉ consortium (divided by %)



By far the most represented stakeholder group, making up 56% (58 stakeholders) of the total, is '**Manufacturing Industry Stakeholders**'. The results are attributed to the importance of the E-OILÉ project towards this industry, given the project's main goal of introducing bio-based solutions to packaging. The project will have to work closely with this stakeholder to gather insights on the manufacturing eco-systems, points of attention and concern. Additionally, the project is made up of 5 partners involved in manufacturing processes. This increases the likelihood of having multiple contacts and connections within the industry to whom the project outcomes may be of interest.

The **HoReCa sector** is the second most represented stakeholder group, representing 17% (18 stakeholders) of the total. This stakeholder integrates different types of services in the food sector (restaurant chains, retailers, hotel chains, cafés, etc.) it may facilitate the identification of various players in the industry. Additionally, this sector has proximity with manufacturers, which can contribute to additional contacts and networking opportunities.

The third most represented stakeholder group is '**Research Centres and Higher Education**' making up 14% (15 stakeholders) of the total. Given the nature of E-OILÉ as a research project, most partners have research as their main activity and are included in the research eco-system. Sharing of scientific results between academics is greatly incentivised by the EU. The prospects are that this stakeholder group increases as the project evolves, either by additional inputs from the partners or from the success of engagement activities.

The stakeholder group of '**Policy Makers and Governments Agencies**' representing 9% (9 stakeholders) of the total. This is a low reflection on the possibility to disseminate the outcomes of E-OILÉ at a policy level. Due to high importance of the stakeholder group, engagement activities should reflect an active effort to include policy makers into the project. The gap between research advancements and the policy sector is still evident in many cases and E-OILÉ should make an effort to tackle it in the best way possible.

Finally, the least represented stakeholder group is '**Civil Society**' which makes up 4% (4 stakeholders) of the total. Although they are important given, they are closest to what could be considered as the 'general public', the number of entities identified in this group is rather low in comparison. Due to there not being great contact between industry/academia with civil society, it might be harder to gather contacts or make connections to this stakeholder group. Additionally, many of the discourse and language adopted by the industry/academic communities may be too specific and inaccessible to individuals outside of these contexts. To guarantee greater outreach to this group, the contents produced to capture this group (social media posts, newsletters, etc.) should be tailored accordingly.



3.2.2 Divided into geographical areas

Stakeholders have influence within their sectors of expertise and action, however this is not the only form of influence they hold. It is valuable to understand how stakeholders are divided from a geographical point of view.

By analysing where stakeholders act at a global scale, it allows an understanding on the potential social impact of the E-OILÉ project in the global eco-system surrounding the introduction of bioplastics. Additional inputs to tackle and address different stakeholders will be explored in section 4. This will provide guidance on future interactions on the best ways to capture attention of stakeholders through engagement activities.

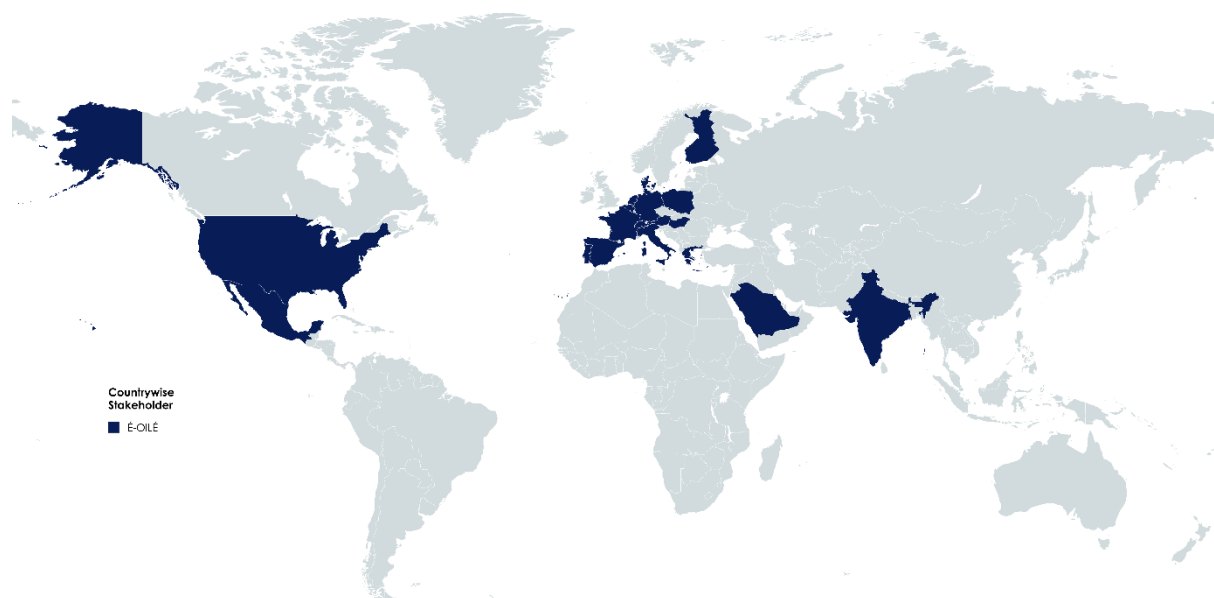


Figure 6. Stakeholders identified by the E-OILÉ consortium, divided by country

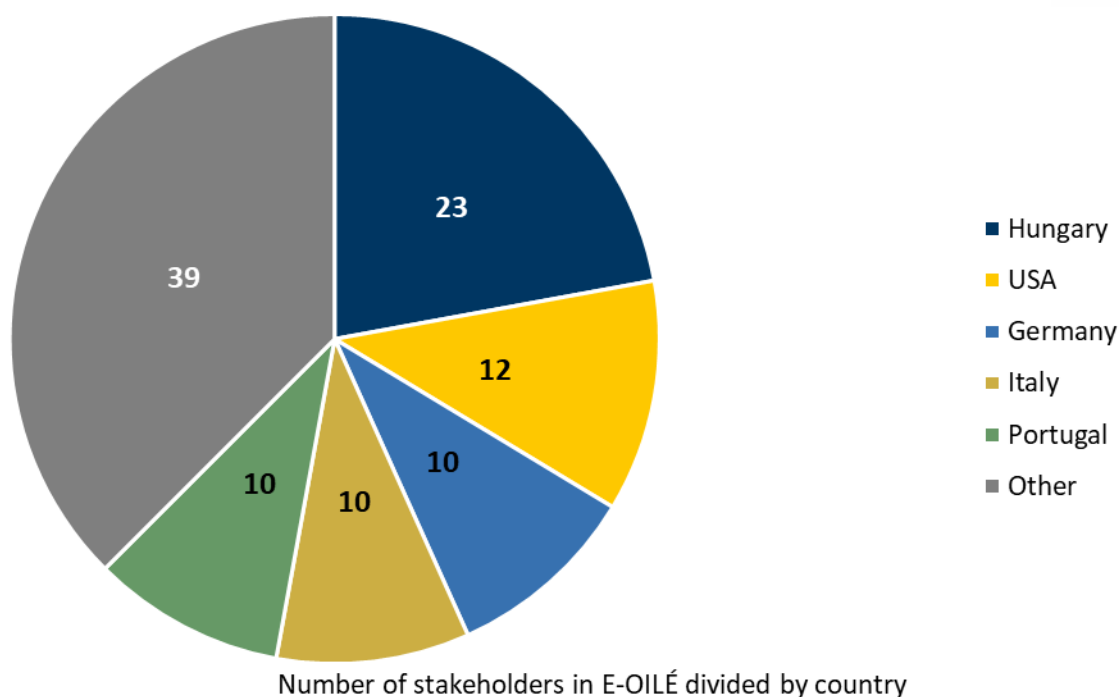


Figure 7. Number of stakeholders in E-OILÉ divided by country

As shown in Figure 6 and Figure 7, stakeholders from 19 different countries were identified divided across the European, Asian, and American continents. The most represented countries are Hungary and the USA, with 23 stakeholders and 12 stakeholders respectively. Countries like Germany, Italy, and Portugal, present the same number of stakeholders with a total of 10. The additional countries identified all present a total of lower than 10 stakeholders and have been aggregated into the 'other' category, accounting for a total of 39 stakeholders.

This demonstrates the possibility for great outreach on the results of the E-OILÉ project and gathering of different perspectives on how sustainability concerns are seen across different regions. Additionally, it can provide the possibility to share insight on legislation and market standards on the adoption of plastic alternatives. Through meaningful interactions with the different stakeholders, there is a great possibility of growth of stakeholder numbers.



4. Engagement activities

Engagement activities are the last procedures to consider in the involvement of stakeholder in the E-OILÉ project. They are tailored depending on the stakeholder category, type, and profile. Well defined engagement activities can help guide the communication strategies into more effective outcomes and guarantee a standard in the way stakeholders are involved. While it is important to map profiles and collect contacts, the way in which the project communicates with its stakeholders will determine most of the interactions and reap the benefits of effective stakeholder engagement.

In this section, the means of communication and participation of stakeholders in the project will be detailed, considering the importance of involving project partners and their respective activities. The information shared with stakeholders by the technical partners will help foster an ecosystem of participation and interest in the E-OILÉ project.

4.1 Means of communication

As detailed in section 2.1 of the deliverable, HOL has collected multiple stakeholders contacts with the help of project partners. Not only was it possible to identify different sectors and classify them, but the secondary goal was also to collect email contacts. This step was secondary as it was non mandatory, it is justified by the right to privacy of the stakeholder itself. Additionally, many of the entities identified have specific contacts and communication channels readily available in official websites, newsletters, and social media platforms.

The first contact with stakeholders will be made through these channels (email & social media) by a standardised template explaining the core of the E-OILÉ project. In this message, the stakeholder will be invited to follow the project's social media and manifest their interest in further participating in project activities. An example has been included in Annex 1.

It is important that the template is tailored depending on the stakeholder profile, demonstrating understanding of their sector. Additionally, further alterations can be made as the project progresses to include relevant information about the project.

In the case of stakeholders whose contacts are difficult to gather, support from project partners may be requested. In many cases, there might be a previous contact made between the partner and the stakeholder, which may heighten trust and interest in project activities. Interested stakeholders will then be invited to participate in project activities. In the case of surveys, questionnaires and focus groups, a consent form will be prepared. This will ensure ethical data gathering, safeguarding both the stakeholders and project partners dependent on the information.



Social media channels managed under T 6.1 play a relevant role in the stakeholder engagement activities. Through meaningful communication, social media strategies employed in the project can attract stakeholders which have yet to be identified. In this sense, stakeholders and project's social media are highly interdependent in their interactions and progression.

4.2 Future activities and participation

In the E-OILÉ project, stakeholders will work and participate closely in project activities, ensuring an active engagement by external experts and the general public. In this section, strategies regarding activities to apply in the project will be explored. It should be noted that the involvement of stakeholders in E-OILÉ will impact the project outcomes, its success and outreach in its own eco-system. For these reasons, well-structured strategies will provide the project with a foundation on the engagement of stakeholder groups.

As per T6.2 different strategies are allocated to different stakeholder groups according to their level of influence previously established in section 3.2. The strategies identified in T6.2 are as follows:

White papers – In the context of research these are defined as guides or reports that address issues and present solutions. White papers often serve the purpose of educating audiences and aid in conscious decision making. These differ from academic journals, as there isn't a need of validation from a third entity [10]. In the case of E-OILÉ, white papers will be developed in collaboration with technical experts from Work Package (WP) 1 and WP4. These project partners will offer insights on the current concerns surrounding monodose packaging and how project development aims to tackle them. Emphasis should be made to application of the Safe and Sustainable by Design (SSbD) framework and End-of-Life (EoL) strategies in project development. These documents must be publicly available on the project website and advertised on social media. Additionally, it can act as a catalyst for development of scientific papers or conference posters. The target stakeholders of these activities will be Manufacturing Industry, Policy Makers and Government Agencies, Research Centres & Higher Education.

Social Media Posts – This strategy is a focal point on the dissemination of the whole project. It will act as a mechanism to share project goals, objectives, and achievements. In many cases, it is the space where most stakeholders and civil society will engage with the project on a regular basis. Thus, its continuous update is essential to keep audiences engaged. The strategy and management of this communication channel has been thoroughly explored in Deliverable 6.1 and efforts will be led by ILSI. During the project's lifetime, HOL will provide feedback towards the development of posts specific to each



one of the stakeholder groups identified. A minimum of 5 posts (1 per stakeholder group) to be published by ILSI in the project's social media channels. This strategy has the intention of showcasing the importance of participation of each stakeholder group, with the aim of gathering additional contacts to the ones previously identified. These activities will be targeted at all stakeholder groups identified in the project.

General Survey – The main goal of this action is to gather stakeholder experience with and perception on the different types of packaging. It will allow for a complete understanding on the user and consumer experience with monodose packaging. The survey will be constructed in collaboration with project use cases to align objectives and guarantee that multiple factors are considered. Through the application of this survey, it can serve as a feedback mechanism to project developers on packaging features. The data collected will be disaggregated into different social demographics to ensure the inclusion of various perspectives from different kinds of consumers. The target stakeholders of the survey will be the HoReCa sector and Civil Society.

Focus groups – This strategy will complement the use of surveys but will act in more depth. Focus groups can provide more qualitative and descriptive insights compared to surveys [11]. For this reason, the data gathered can heighten the level of detail provided by the consumer, hereby aiding project developers in their research activities. The individuals involved in focus groups must be as diverse, in demographic terms, as those involved in the survey. By doing so, the data collected can be as truthful to general population as possible and guarantee the inclusion of different social perspectives on the use of packaging. Elaborated and applied in T5.3, the sensory testing activities will be complemented by focus groups interactions to evaluate pre and post contact with the product. Since the task runs at a more advanced stage of the project (M40-M45), focus groups activities will be essential in the validation stage of product innovation. This will highly emphasize product social acceptance and facilitate its adoption in the market. The target stakeholders of these activities will be the HoReCa sector and Civil Society.

Sales Data – The study of sales data will be applied as a secondary data source to complement the data gathered from the survey and focus groups. It is relevant to analyse the correlation between different types of packaging materials used and their market performance in relation to sales and consumer satisfaction. While it is paramount to collect primary data, secondary data sources can serve as a baseline of comparison. Additionally, the way certain products perform in the market, can help determine the success of similar products or the success of material replacement. This will provide a wider view on the current state of the monodose packaging market.

Workshop 1 – Will focus on engaging citizens in a co-creation process with the goal of raising awareness about the importance of sustainability. The contents of the event will



also touch on the influence of individual choices on environmental outcomes. Participants will receive accessible and transparent information on the sustainability of different food packaging options, including various alternative monodose packaging solutions. In collaboration with CNTA, the workshop will feedback on perceptions of sustainability-related labels and claims. The insights collected contribute directly to the design and communication strategy of the biodegradable packaging. This will ensure consideration for end-user preferences. The first workshop will be held in M12 of the project and aimed at all stakeholder groups.

Workshop 2 - Will serve to share findings, showcase developed packaging solutions, and further encourage environmentally conscious behaviour among citizens. This event will highlight the role of consumer choice in driving sustainability and will provide updated information on the environmental performance of the newly developed monodose packaging. The workshop will also address generational perspectives (from Gen Z, Gen X, and Baby Boomers) regarding innovative packaging formats, helping to tailor messages that resonate across different demographics. The event will help in the dissemination of project outcomes to the general public in a digestible manner. It will provide a great opportunity to share visions on sustainability. The second workshop, to be held in the final year of the project and should target all project stakeholder groups.

Since the project includes multiple stages of development and activities, it will necessitate the involvement of different partners. The table below (Table 2) provides a visual representation of the activities previously mentioned, their target stakeholder, partners involved and period of action.

Table 2. Division of stakeholder activities and events by partner and period

Activity	Stakeholder Group	Responsible	Partner	Period
White papers	Manufacturing Industry, Policy Makers and Government Agencies, Research Centres & Higher Education	HOL	ITENE, GAIK, DTI	M18 – M48
Social Media Posts	All	ILSI	HOL	M10 – M48
General Survey	HoReCa sector and Civil Society	HOL	UGR, CTL, PROP, MYR, AHA	M18
Focus Groups	HoReCa sector and Civil Society	HOL	CNTA	M18 – M45
Workshop 1	All	HOL	All	M12
Workshop 2	All	HOL	CNTA	M45
Webinar	HoReCa sector	ILSI	ALL	M18- M48



In general, all six activities mentioned will cover the project in its entirety and contribute to successful dissemination of E-OILÉ. It will guarantee that all stakeholders are involved at different levels of the project according to their expertise. The variety of strategies will also help in the maintenance of engagement throughout the project's lifetime, together with the contributions of different partners.

4.3 Stakeholder updates

The strategy employed to identify stakeholders together with partners currently acts as a live document. This means it can be updated throughout the project's lifetime with additional contributions. A revision will be done at each reporting period to register any increases in the identification of stakeholders through this mean.

Despite this, informal ways of gathering stakeholders must also be registered and monitored continuously. This will be done with the construction of a monitoring template registering every stakeholder type and interaction made. It must account for outreach made through social media, clustering activities, networking events, and conferences. The responsibility of updating this template will be shared between all partners and monitored by HOL, who will request information on relevant contacts made following partner participation of the listed events.

Additionally, the contributions from Sub-Task 7.1.1 will provide meaningful insight into the value-chain actors related to the project. This may increase the number of stakeholders identified across different sectors and contribute to additional participation in engagement activities.



5. Conclusion

The E-OILÉ project aims to bring novel solutions to monodose plastic packaging that currently pose health and sustainability risks. The topic of plastic pollution has been a topic of increased concern among the general population for the past few years [11]. When presenting solutions for problems that affect the public and may ease concerns, it is important to guarantee close engagement and communication with relevant communities.

This deliverable has presented a great overview on the identification of 5 different stakeholder groups that may influence the project and should be kept in close contact with. In a collaborative effort with project partners, HOL presented a stakeholder mapping template that allowed for 104 potential stakeholders to be identified. At an early stage of project development, this number is a great basis to outline engagement activities and foster future collaborations.

For the remaining time of the project, multiple activities have been drawn out with different objectives and target stakeholders. Together, the engagement activities will capture the attention of stakeholders, gather valuable insights about the perception of E-OILÉ innovations, create awareness on sustainability issues, and disseminate scientific findings. To guarantee the success of planned activities, multiple partners will collaborate in the conceptualisation and implementation of the strategies. This process will ensure feasibility and connection between project activities, facilitating the accurate communication of E-OILÉ advancements.

Finally, for the sustainable growth of stakeholder numbers, a monitoring process has been established. This will account for the continuous update of stakeholders, evaluating the level of participation and interest in engagement activities. Overall, the activities detailed in this deliverable will allow to bridge the gap between research, industries, and civil society.



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Annexes



Dear [name of stakeholder],

My name is [partner name] and I am reaching out to invite you to join the group of stakeholders of the E-OILÉ project coordinated by GAIKER under Horizon Europe (HORIZON-CL4-2024-RESILIENCE-01-35).

E-OILÉ aims to develop near-market biodegradable packaging solutions monodose packaging of oily product using novel biopolyesters and polysaccharides. The ecodesigned biodegradable monomaterials and coatings will follow the SSbD (Safeguarding Sustainability by Design) framework.

The group of stakeholders will be the core of the project success and we are constructing a diverse group of experts from various sectors. Your expertise in [input stakeholder expertise] makes you an invaluable asset to the diverse group of stakeholders that will drive the success of this vital initiative.

As a stakeholder you are invited to:

- *Participate in project events*
- *Follow our social media – LinkedIn, Twitter, Website*
- *Subscribe to our newsletter - Link*
- *Participate in surveys, interviews, and focus groups*

We are confident that your insights will greatly enhance our efforts, and we would be delighted to discuss this opportunity further.

If this invitation aligns with your interests and availability, please reply to this email so you can be a part of our future contacts and activities. If you believe this matter is better suited for a colleague within your organization, we kindly ask you to direct us to the concern person.

Please let us know your interest at your earliest convenience. We look forward to your response.

Best regards

Annex 1. Draft of an email template towards potential stakeholders