

BIOMAPE

Biomethane Market Acceleration and Uptake in Europe

D4.1 | Methodological framework on biomethane social acceptability

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BIOMAPE in a nutshell

The European Union's ambition to achieve climate neutrality and enhance energy security depends on the accelerated deployment of renewable energy solutions that are technologically mature, economically viable and socially accepted. Biomethane is increasingly recognised as a strategic renewable energy carrier, capable of delivering immediate greenhouse gas emission reductions, advancing circular economy pathways, strengthening rural development and enhancing energy system resilience.

Despite its strong potential, **biomethane deployment across Europe remains uneven**. National policy frameworks vary considerably, market instruments are not always interoperable, and cross-border trade of biomethane certificates remains limited. At the same time, social acceptance challenges can delay or hinder project development, particularly where communities lack transparent information and meaningful participation opportunities.

BIOMAPE (BIOMethane Market Acceleration and UPTake in Europe) responds to these challenges by accelerating the production and use of biomethane across Europe, fostering market development and supporting the EU's energy transition. The project brings together research organisations, industry associations, registry operators, market actors, public authorities and civil society representatives to address technical, regulatory and social barriers in a holistic and integrated manner.

The project is structured around four interconnected pillars: (i) a multi-level geographical dimension addressing local, national and EU-level challenges; (ii) social acceptance, placing citizens and communities at the centre of the transition; (iii) a policy dimension supporting coherent and effective biomethane market development; and (iv) comprehensive support and transferability, ensuring scalability and long-term impact. These pillars are underpinned by multistakeholder and multidisciplinary approaches as cross-cutting themes, ensuring robust stakeholder engagement and the integration of diverse expertise at every stage.

Operationally, BIOMAPE is organised into three main activity packages: Biomethane Certificates and Cross-border Trade; Biomethane Policy and Market Development; and Biomethane Social Acceptability. Over its three-year duration, the project will support the creation and strengthening of biomethane registries for certificate management in five countries (Hungary, Serbia, Slovenia, Portugal and Ukraine), facilitating transparent and efficient cross-border trade. It will further contribute to improving and harmonising biomethane policies, with the objective of increasing the share of renewable energy in final energy consumption by 2030 and beyond.

A strong focus on stakeholder engagement will include participatory activities such as workshops, site visits and the establishment of Biomethane Social Acceptability Groups in eight countries (Austria, Hungary, Ireland, Serbia, Slovenia, Portugal, Ukraine and the United Kingdom of Great Britain and Northern Ireland). These actions will address public concerns, improve community acceptance of biomethane technologies and foster inclusive governance models.



By strengthening market mechanisms, enhancing policy coherence and promoting social acceptance, BIOMAPE will lay the groundwork for a robust and transparent biomethane market across Europe, while fostering international cooperation and knowledge transfer within and beyond Europe.

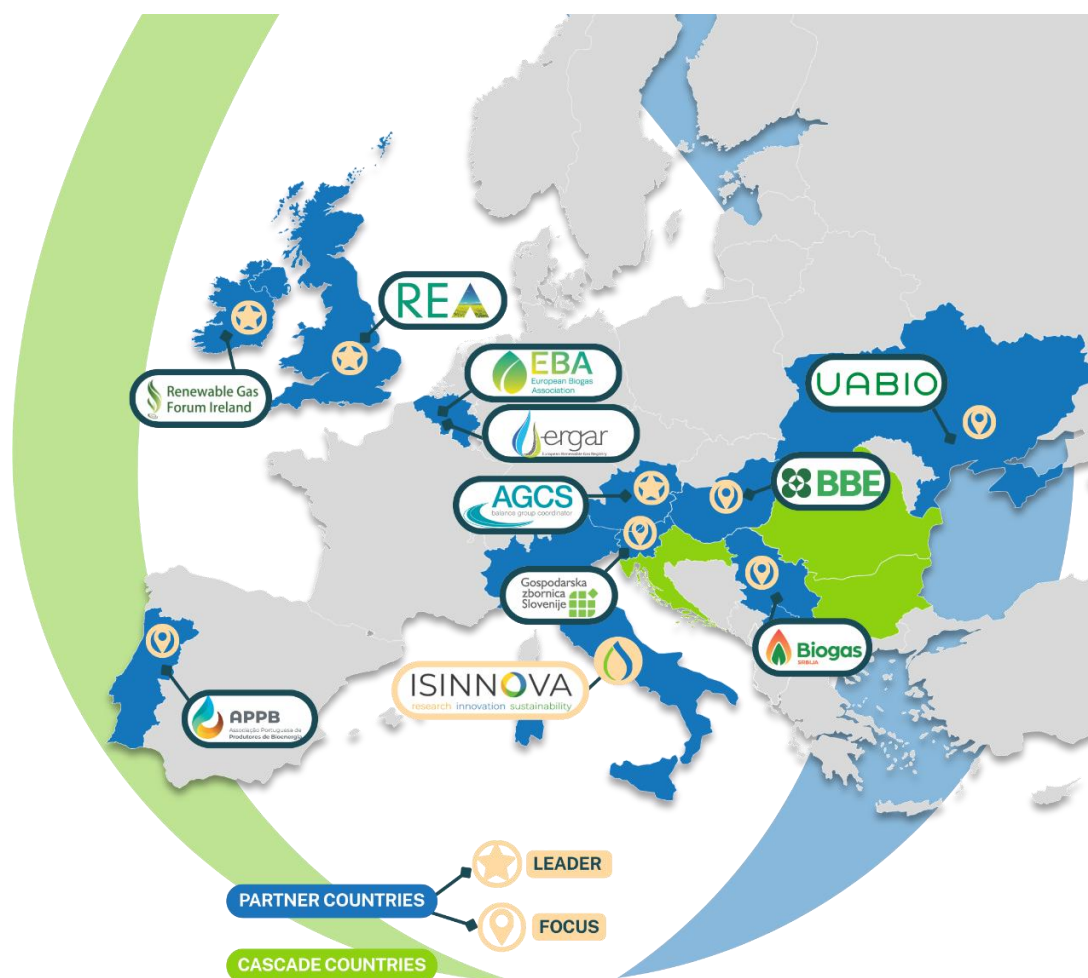


Figure 1: BIOMAPE consortium

Introduction

This document intends to provide a methodology for the preparation and deployment of concrete case studies on social acceptability of biomethane facilities and installations in each project country (AT, HU, IE, PT, SI, SR UA, and UK).

In this sense, it will support and accompany the process for the establishment of Biomethane Social Acceptability Groups (**BSAG**) in each project country, with procedures for the identification and selection of relevant stakeholders, their mapping, and their effective involvement.

Moreover, it will provide guidelines for the organisation and format of the different activities to be carried out during the project, in particular participatory workshops, site visits, surveys and interviews, as well as questionnaires assessing initial and final levels of social acceptability, alongside dissemination and communication channels (including, e.g., videos).

A comprehensive picture of the activities in the framework of the entire WP4 and its outcomes and deliverables is shown below.

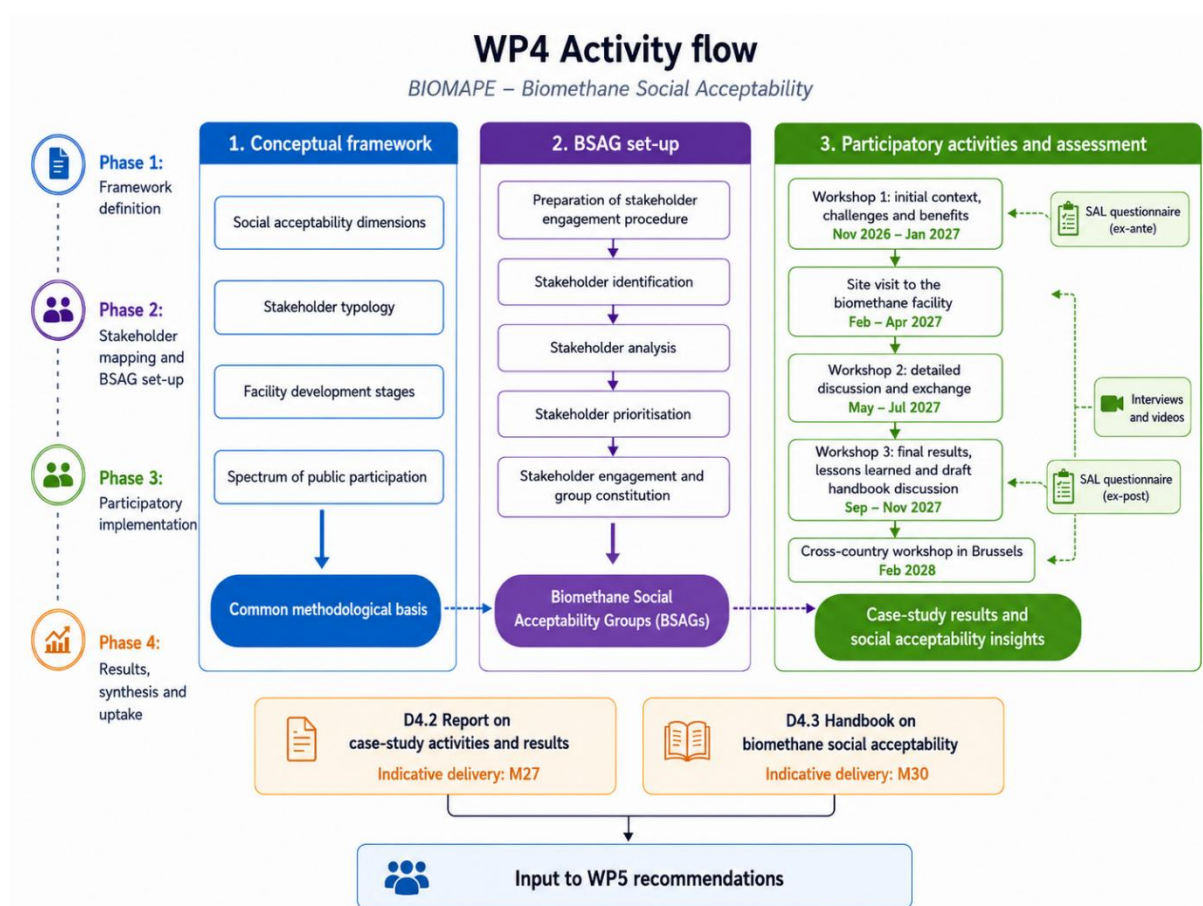


Figure 2: WP4 Activity Flow

The current document consists of three different sections.

The first section examines, consolidates and provides an overview of key concepts, determinants, and variables related to social acceptability (e.g., trust, justice, site issues, spectrum of participation, etc.) and the activities to be undertaken, namely the participatory workshops in each country above.

The second section provides guidelines to prepare for the effective set-up of the Biomethane Social Acceptability Groups (BSAG), with the involvement of several stakeholders. It includes procedures for:

- the identification and selection of the appropriate stakeholders;
- stakeholders' mapping;
- the effective involvement of the selected stakeholders.

The third section provides guidelines for the effective organization of the activities that will be conducted during the project on social acceptability.

1. Concepts and activities

The present section analyses, consolidates and provides an overview of key concepts, determinants, and variables related to social acceptability.

They are organised around some categories:

- 1) Dimensions of **social acceptance**
- 2) Typology of **stakeholders**
- 3) **Stages** of facility/installation development
- 4) **Spectrum** of public participation

1) Social Acceptance

It can be defined as “a favourable or positive response (including intention, behaviour and where appropriate use) relating to a proposed or in situ technology or socio-technical system, by members of a given social unit (country or region, community or town and household, organization)”.¹ Criticalities often include issues related to traffic, odour, noise, dust, exhaust gases exposure, property depreciation, distrust, health, and landscape. Initial research on the concept², and further studies have contributed to consolidate the concept.³ Building on that, in BIOMAPE, social acceptability is treated as a multidimensional construct composed of three overarching domains⁴:

A. Governance acceptance

It refers to the level of trust in institutions, decision-making processes and project developers responsible for biomethane deployment. It captures whether governance structures are perceived as transparent, credible and fair.

B. Community acceptance

It concerns the collective perception within the local community regarding the balance between benefits and potential impacts associated with biomethane facilities. It reflects whether the project is considered socially beneficial and locally tolerable.

C. Personal acceptance

It relates to the individual attitudes of stakeholders and citizens towards biomethane technologies, including their willingness to support or endorse the deployment of such facilities in their own territory.

¹ J. Gaede and I. H. Rowlands; Visualizing Social Acceptance Research a Bibliometric Review of the Social Acceptance Literature for Energy Technology and Fuels. *Energy Research & Social Science*, Volume 40 (p.142-158).

² Carlman, I., 1982. Wind energy potential in Sweden: the importance of non-technical factors. In: Fourth International Symposium on Wind Energy Systems. September 21–24, 1982, Stockholm, pp. 335–348; Carlman, I., 1984. The views of politicians and decision-makers on planning for the use of wind power in Sweden. In: European Wind Energy Conference, 22–36 October 1984, Hamburg, pp. 339–343.

³ Wüstenhagen, R., Wolsink, M., & Bürer, M. J. (2007). Social acceptance of renewable energy innovation: An introduction to the concept. *Energy Policy*, 35(5), 2683-2691.

⁴ BIOMAPE D5.1 (Project Evaluation Plan), <https://www.biomape.eu/wp-content/uploads/2026/05/BIOMAPE-D5.1.pdf>

2) Categories of stakeholders

Community stakeholders to be involved in the frame of social acceptance generally fall into one of the following categories⁵, as indicated below:

- **Supporters:** those that are generally favorable to its development;
- **Potential beneficiaries:** those who want to benefit in some way once a development is operational;
- **Neutral:** those who are indifferent, unaware, unaffected or genuinely undecided;
- **Opponents:** those not in favor, and who may continue to dislike, or acquire dislike, a project, once it is operational (that could be distinguished between NYMBY or NYABY effect⁶).

3) Stages of facility/installation development

There are mainly three stages around which to organise stakeholder's engagement⁷, as indicated below:

- **Project planning:** including pre-application engagement in order to refine proposals intended to be submitted to planning, and engagement post-submission of the planning application (site selection is likely to have taken place before community engagement begins)
- **Construction:** including engagement prior to and throughout the construction period, with critical aspects to consider (like traffic, delays, mitigation measures, unforeseen events, etc.).
- **Ongoing operation:** maintaining an ongoing relationship during the operational life of the facility/installation

4) Spectrum of Public Participation

IAP2's Spectrum of Public Participation⁸ is designed to assist with the selection of the level of participation that defines the public's role in any public participation process, as indicated below:

- **Information:** aims to provide the public and stakeholders with reliable information, which helps them to understand the problems, opportunities and alternative solutions (example technique: websites);
- **Consultation:** the goal is to obtain feedback from the public and stakeholders on analysis, alternatives and decisions (e.g., via public meetings). With the promise to consider the input received and to return feedback as to how that input influenced the decision;
- **Involvement:** it works directly with the public and stakeholders during the decision-making process, aiming to understand and consider their input adequately throughout the process (e.g., via workshops);

⁵ https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://files.bregroup.com/bre-co-uk-file-library-copy/filelibrary/pdf/Brochures/BRE-NSC_Good-Practice-Guide.pdf&ved=2ahUKewjV3unxxuaVAXUH_rslHfZiILgQFnoECBcQAQ&usq=AOvVaw3CKADaaHGR1DxysMPDxnW_X

⁶ "Not In My Back Yard" (NIMBY) and "Not In Anyone's Back Yard" (NYABY).

⁷ See note 5 above.

⁸ <https://www.iap2.org/page/pillars>

- **Collaboration:** partners with the public and stakeholders in every aspect of decision making, including development from the alternatives to the identification of the preferred solution (e.g., via advisory committees);
- **Empowerment:** final decision-making power is in the hands of the public and stakeholders, with the promise to implement what is decided by them (e.g., via citizen juries).



2. Set-up of the biomethane working groups

The section below contains suggested procedures and practices to proceed with an appropriate identification of the stakeholders involved in the Biomethane Social Acceptability Groups (BSAG). By the way, each leader of the BSAG will adjust it according to eventual country requirements, specificities and contexts.

Among the Work Packages, WP4 has the strongest personal-data and ethics dimension, since it involves participatory activities with stakeholders and may generate data that qualify as personal data depending on the context and level of identifiability.

In particular, there will be stakeholder mapping materials, participant lists, workshop records, attendance records for in-person engagement activities, interview material, survey and questionnaire responses, SAL-related assessment outputs.

Accordingly, special care will therefore be required regarding informed consent, data minimisation, anonymisation or pseudonymisation, and controlled access (as specified in D1.2, BIOMAPE Data Management Plan⁹).

2.1 Preparation of the procedure for the identification of stakeholders

The preparation of the procedure for the organization and constitution of the biomethane working groups is considered as one of the most crucial parameters for the success of this activity.

The first step includes the specification of the necessary definitions. More in detail, as stakeholder, it can be considered everyone who has specific knowledge about the examined project or initiative. The stakeholders have a relation and are motivated by the specific project or initiative aiming at their improvement and their successful implementation.

The involvement of the stakeholders can be either direct with their contribution to the fulfillment of the target or indirect with the provision of information regarding the project or the initiative.

The stakeholders' management procedure can be considered as a planned procedure in order to engage stakeholders effectively targeting the improvement or success of the project or the initiative.

The stakeholders' management procedure can be characterized as efficient in the case that it combines both of the necessary planning and communication initiatives. To this direction, it is crucial to identify and plan the most cost-effective stakeholders' engagement activities, which can lead to the maximization of the triggered impacts on the defined strategy and operations.

⁹ BIOMAPE D1.1 (Data Management Plan), <https://www.biomape.eu/wp-content/uploads/2026/05/BIOMAPE-D1.2.pdf>

In the beginning, it is vital to realize and clarify the objectives of the stakeholders' engagement. The entity responsible for the activities must set the objective and the level of ambition during the establishment of this procedure. This can be achieved taking into consideration any available best practices and lessons learnt in order to establish the objectives more efficiently. It is vital to specify the reasons and the targets regarding the engagement of the stakeholders. The clear understanding of what is being evaluated will facilitate all the procedure of the stakeholders' engagement.

A thorough and in-depth understanding of the project will ensure that the planned procedure involves a wide range of stakeholders' perspectives and experiences. This procedure requires the precise specification of the priorities in engaging stakeholders at this phase, while the establishment of the scope and objectives of this stakeholder's engagement will lead to the specification of the necessary boundaries.

Finally, it is important to realize initially the stakeholders' motivations in order to facilitate their involvement in this procedure. As well as examine and understand the potential stakeholders' expectations and motivations because this can be proved crucial for their final participation and effective contribution.

2.2 Stakeholders' mapping

The second step to set up a BSAG is the stakeholders' mapping. It will lead to a list of stakeholders integrating the most important perspectives of the analysis.

The stakeholders' mapping consists of the following three phases:

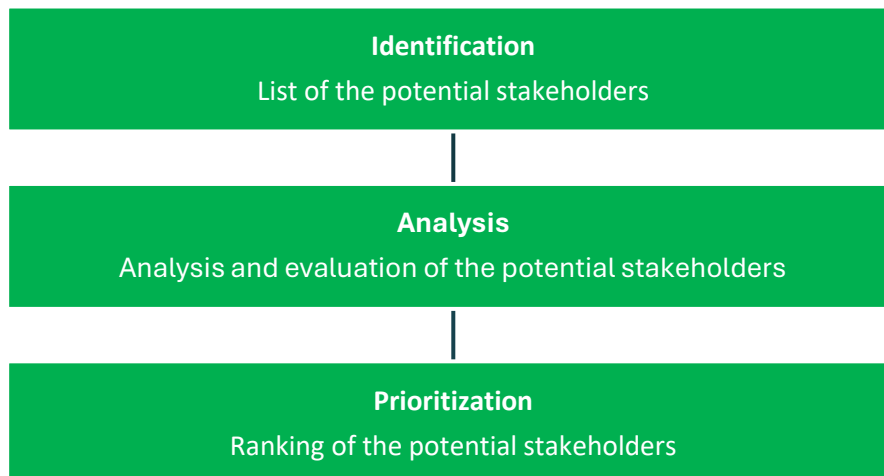


Figure 3: The implemented phases of the procedure for the stakeholders' mapping

2.1.1 Identification

The first task of stakeholders' mapping is the preliminary identification of the stakeholders. The already clarified description of the project or the initiative will help the implementation of this task including the established targets. These goals will contribute to the effective depiction of the required characteristics of the stakeholders and the identification of which types of stakeholders are required.

It is relevant to realize that stakeholders must have specific roles during their engagement. Therefore, an initial categorization can be performed according to their roles and the level of involvement. The role is crucial because some stakeholders' roles are more influential and significant than others.

An initial identification of the stakeholders can be performed taking into account the following classification of the stakeholders:

- I. The stakeholders, who absolutely agree, participate actively and have a direct relation with the project examined or initiative.
- II. The stakeholders, who agree but do not have a direct relation with the project examined or initiative.
- III. The stakeholders, who do not have a specific opinion about the success or failure of the project examined or initiative.
- IV. The stakeholders, who hinder the successful implementation of the project examined or initiative.

The stakeholders will be identified from all the potential stakeholders' groups. Indicatively, the initial list of stakeholders may include the following groups:

- Central government authorities
- Regional government authorities
- Local government authorities
- Energy authorities
- Transmission System Operators (TSOs)
- Distribution System Operators (DSOs)
- Energy Suppliers
- Universities
- Research centers & institutions
- NGO
- Consultancy firms
- Regional development & financing parties
- Standardization bodies
- Agricultural associations
- Technical & trade associations
- Experts (incl. sellers & installers)
- Media
- Consumers associations

A crucial point is the fact that the procedure of the stakeholders' mapping is a dynamic procedure, and it can lead to the continuous changes of the selected stakeholders.

Another important issue is that the procedure depends on the knowledge of the participating stakeholders. It is essential to identify any stakeholder who may have specific knowledge about or perspective on the examined project or initiative. The result should be a list of stakeholders without screening and limitations, including everyone who has an interest in the examined project or initiative.

Some indicative questions, which will help with the successful identification of the stakeholders, can be the following:

- Do the stakeholders have significant expertise in the related field of the examined project or initiative?
- Do the stakeholders represent diverse perspectives and/or experiences?
- Can the stakeholders raise crucial questions contributing to the improvement and success of the examined project or initiative?
- Are the stakeholders responsible for the implementation of examined project or initiative?
- Do the stakeholders have the power to influence the current status of implementation?
- Do the stakeholders want to benefit the project or initiative in order to reach the predefined goals?
- Can the stakeholders be considered as proponents of evaluation and are capable of supporting the implementation of examined project or initiative?
- Can the stakeholders delay or stop the examined project or initiative?
- Can the stakeholders be excluded from the potential engagement?
- Does the official decision-making authority be included into the selected stakeholders?
- Do the stakeholders have the power to implement the agreed solution?
- Can the stakeholders be affected by the outcome of the project or the initiative?

The definition of the above-mentioned questions may enhance significantly the procedure for the effective identification of the participating stakeholders.

Some recommendations for the identification of the stakeholders can include:

- ✓ To take into account any potential best practices and lessons learnt from past and ongoing engagement procedures in your country.
- ✓ To try to be open-minded and to consider potential stakeholders taking into consideration the evolution of the energy sector in the near future, the identification of new markets and technologies, the adoption of new regulations and legislation, etc.
- ✓ To reassure a wide variety of stakeholders having in mind the objectives of the project examined or initiative. The centrality of the stakeholders in the project or the initiative is essential. It is important not to select only decision-makers, but the aim is a balanced selection of representatives including societal organizations, public bodies, private sector representatives, scientific experts etc.

- ✓ To think strategically and politically about the selected stakeholders so as to avoid problems during the constitution of the working groups. It is important to keep in mind that a single group might have specific interests and expectations, while several groups might have completely different. Try to avoid a situation with many stakeholders who care about some interests and expectations and a limited number who care about other ones. It will be difficult to balance these contradictory interests and expectations.

2.2.2 Analysing

After the step of the stakeholders' identification, characteristics and profiles should be analyzed in order to select the most appropriate of them for the constitution of the BSAG.

It is important to bear in mind that different stakeholders may have completely different levels of interest and influence for the examined project or initiative. Nevertheless, as previously mentioned, the stakeholders should represent a mix of perspectives, experiences and roles related to the project or initiative.

Within this framework, a procedure for the effective selection of stakeholders should be developed through the establishment of specific criteria.

The proposed approach, which is described below, is the completion of the stakeholders' engagement matrix. It can be used as the tool for the effective analysis of the identified stakeholders.

The stakeholders' engagement matrix provides an overview of the most crucial characteristics for each potential stakeholder separately. The profile of the potential stakeholders will help to map and assess them, taking into account the most important features.

The proposed approach targets the qualitative assessment of specific stakeholders' components such as their degree of expertise, their willingness for participation and the overall impact, which is expected to be triggered by their involvement.

The selected criteria, which must be evaluated, are described briefly below.

- I. **Capacity:** Evaluate the resource capacity of each stakeholder taking into consideration their knowledge, expertise and technical capabilities.
- II. **Willingness:** Evaluate stakeholders' availability and willingness for participation.
- III. **Power:** Evaluate stakeholders' role in the decision-making procedure, which is essential for the elaboration of visions and roadmaps for biomethane.
- IV. **Influence:** Evaluate the number and the quality of stakeholders' connections, which can influence all the parties involved during the elaboration of visions and roadmaps for biomethane.
- V. **Necessity:** Evaluate stakeholders' necessity for inclusion or exclusion from this engagement procedure.

All the above criteria will be assessed utilizing the following scale:

1: Low, 2: Medium, 3: High

It should be mentioned that additional criteria can be added for analysis taking into consideration the characteristics of each country and the peculiarities of the energy sector.

Table 1 is a sample of the stakeholders' engagement matrix for the selected criteria and the initial categorization of the stakeholders.

2.2.3 Prioritizing

The final step of the stakeholders' mapping is the prioritization process, which aims at the sorting of the identified and analyzed stakeholders.

The total score of a stakeholder "i" can be calculated from the following equation:

$$\text{Total Score}_i = \text{Score}_{i, \text{Capacity}} + \text{Score}_{i, \text{Willingness}} + \text{Score}_{i, \text{Power}} + \text{Score}_{i, \text{Influence}} + \text{Score}_{i, \text{Necessity}}$$

The evaluation of the stakeholders can be carried out according to the following classification criteria:

1. If the score is higher than 10 then the specific stakeholder can be characterized as "Very important stakeholder".
2. If the score is between 6 and 10 then the specific stakeholder can be characterized "Important stakeholder".
3. If the score is lower than 6 then the specific stakeholder can be characterized "Non-important stakeholder".

For example, if a stakeholder has been evaluated with the following scores:

Score_{Capacity} = 2, Score_{Willingness} = 2, Score_{Power} = 3, Score_{Influence} = 3, Score_{Necessity} = 1, then, the total score can be calculated with the following equation: $2 + 2 + 3 + 3 + 1 = 11$

Therefore, taking into consideration the above classification criteria, the stakeholder will be assessed as "Very Important Stakeholder".

It is important to select the most effective stakeholders according to the established criteria.

After the prioritization of the stakeholders, leaders of BSAG should examine the obtained ranking and assess if the relevant stakeholders are capable of achieving the objectives of the examined project or initiative.

Finally, **it is important to keep this part of the procedure as confidential**, because stakeholders could be discomposed if they are aware that their respective scores do not result in high-priority-stakeholders in comparison with other ones.

Table 1: Stakeholders' engagement matrix

Category	Name of the stakeholder	Capacity	Willingness	Power	Influence	Necessity
<i>Central government authorities</i>	1.					
	2.					
	3.					
<i>Regional government authorities</i>	1.					
	2.					
	3.					
<i>Local government authorities</i>	1.					
	2.					
	3.					
<i>Energy authorities</i>	1.					
	2.					
	3.					
<i>Universities</i>	1.					
	2.					
	3.					
<i>Research centers & institutions</i>	1.					
	2.					
	3.					
<i>NGOs</i>	1.					
	2.					
	3.					
<i>Consultancy firms</i>	1.					
	2.					
	3.					
	2.					
	3.					
<i>Regional development & financing parties</i>						

Category	Name of the stakeholder	Capacity	Willingness	Power	Influence	Necessity
<i>Standardization bodies</i>						
<i>Agricultural associations</i>						
<i>Technical & trade associations</i>						
<i>Experts (incl. sellers & installers)</i>						
<i>Consumers associations</i>						
<i>Media</i>						
<i>Other (please specify)</i>						

2.3 Preparation for the engagement of the stakeholders

After the selection of the stakeholders, focus should be on the necessary actions to approach them.

Some simple recommendations include:

- ✓ To reassure that the size of the group is manageable. The constitution of the collaborative group must be done identifying the optimum size of members in order to facilitate the effective participation and communication of the stakeholders. The optimum size of the working group is between 15 and 20 members.
- ✓ To clarify and present the project and the workshops objectives to the stakeholders. In this sense, ISINNOVA will prepare a letter to be circulated to stakeholders to explain the purpose and the expected outcomes of these activities. It is crucial to be clear about their involvement and the type of their contribution during the entire program of activities: attendance at workshops, provision of ideas and input during them, participation to the site visits, etc. The aims of the engagement procedure, the necessary outcomes and the detailed plan should be determined and presented at each stage. To this direction, it will be beneficial to send them and disseminate material and information regarding the project.

3. Organisation of participatory activities on social acceptability

Participatory activities are organised around workshops and site visits, the SAL (Social Acceptability Level) questionnaires, and interviews and videos.

3.1 Conceptual organization of the workshops and site visits

This section provides homogeneous and comparable data and information from all the countries involved for the organization of the participatory process around the case studies leading to the definition of common results within the framework of the project.

In particular, it is based on:

- **3** workshops in each of the 8 BIOMAPE countries, for a total of **24**
- **1** site visit in each BIOMAPE Country, for a total of **8**.

Supporting instructions and suggestions from procedural point of view for the efficient facilitation and conduction of the workshops are provided in Annex I.

3.1.1 Specifications for workshops and site visits

All the implemented BSAG activities should have common objectives for all the countries involved. The participatory activities will be generally structured as follows:

Step	Purpose	Indicative Month
Step 1	Initial workshop presenting the BIOMAPE project, the activities planned within the case study and the facility/installation under investigation, including an initial identification of challenges and benefits.	Between November 2026 and January 2027 at the latest in all countries
Step 2	Site visit to the case study facility /installation, allowing stakeholders to gain first-hand experience and to have a direct and concrete overview of the plant.	Between February and April 2027 at the latest in all countries
Step 3	Technical workshop conducting a detailed analysis of the challenges and benefits identified in the first workshop, with the aim of improving social acceptability.	Between May and July 2027 at the latest in all countries
Step 4	Final workshop presenting and consolidating the case study results and discussing the draft Handbook on biomethane social acceptability.	Between September and November 2027 at the latest in all countries
Step 5	Cross-country workshop in Brussels to bring together a representative stakeholder from each case study (along with project partners), facilitating the exchange of results and lessons learned across them.	February 2028

After each activity in all the different countries, ISINNOVA (as responsible for the BIOMAPE project of this activity stream) will send a more detailed set of objectives to the BSAG leaders to consolidate what initially planned, taking into account the outcomes of the previous workshops. This set of objectives will be then discussed by the BSAG leaders, in accordance with their specific requirements, so to achieve a common agreement on the workshops' goals.

After the finalization of the objectives, the agenda of the workshops will be developed facilitating the effective fulfilment of the established objectives.

ISINNOVA will support this task by providing a general agenda for every round of WS that could be properly adjusted according to the country needs, but still keeping the basics of the original structure to allow homogenous contents among countries.

An indicative proposal on agenda format related to the Workshops of Step 1 is provided in Annex II.

Site visits to the case study facility /installation for biomethane production require safety measures for visitors. Health & safety measures are particularly required for the case study and site visits planned in Ukraine, due to the current context and situation. In particular, definition of go/no-go criteria for them in Ukraine, based on updated security information, local partner assessment, institutional permissions and applicable safety protocols.

The leaders of the BSAG are responsible for the implementation of the necessary contingency actions to either motivate the stakeholders to participate in activities above or to substitute them with others more available for involvement.

Firstly, the leaders of the BSAGs should identify the reasons for their unwillingness to participate and should try to persuade them.

Secondly, they can substitute them with other stakeholders utilizing the outcome of the methodology for the mapping of the stakeholders for the constitution of the BSAGs.

Finally, they have the opportunity to ask the technical support from ISINNOVA in order to confront any emerging problems.

3.1.2 Common template for the workshops' minutes

ISINNOVA developed the sample of the template for the provision of the workshops' minutes (see Annex III). All the BSAGs leaders should provide the necessary information as required by the template of the minutes.

The template of the minutes for each workshop separately will be finalized after the specification of the objectives and the creation of the agenda.

The leaders of the BSAGs will send the minutes to the participants for comments and proposals. After the finalization of the minutes, they will send them (in English) to ISINNOVA for each implemented workshop.

3.1.3 Evaluation forms

ISINNOVA developed evaluation forms for workshops (see Annex IV) to be handed out to participants and to be submitted to ISINNOVA.

The evaluation forms will target to evaluate using qualitative scales all the examined fields of the workshop emphasizing mainly on:

- The clarity of the presentation regarding the objectives of the workshop.
- The overall organization of the workshop.
- The effectiveness of the implemented activities and the distributed material.
- The contents of the workshop regarding their relevance and interest with the initially specified objectives.
- The outcomes of the workshop.

The finalization of the evaluation forms can be adapted after the specification of the objectives and the constitution of the agenda of each workshop.

The completion of the evaluation forms should be made in English. Nevertheless, the leaders of the BSAGs can translate the forms into their national language in the case that they want to facilitate the implementation of the workshops.

3.2 Questionnaires to assess the Social Acceptability Level (SAL)

As specified in D5.1 (Project Evaluation Plan)¹⁰, the impact of WP4 participatory activities will be assessed on stakeholder perceptions over time. To this end, BIOMAPE applies the Social Acceptability Level (SAL) methodology developed by ISINNOVA as WP4 Leader.

It is based a structured multidimensional approach based on the three core dimensions defined in section 1 above: Governance Acceptance (GA), Community Acceptance (CA), and Personal Acceptance (PA).

The overall Social Acceptability Level is calculated as the average of these three dimensions:

$$SAL = \frac{GA + CA + PA}{3}$$

¹⁰ See note 4 above.

Data will be collected through structured questionnaires administered primarily to the members of the Biomethane Social Acceptability Groups (BSAG) established under WP4, and - where relevant - to other local stakeholders engaged through WP4 activities.

Questionnaires will be administered to BSAG members at two key moments in order to capture perception changes over time and assess the effect of WP4 participatory and engagement actions:

- **Ex-ante:** before the implementation of participatory and engagement activities;
- **Ex-post:** after the completion of workshops, site visits, interviews and communication activities.

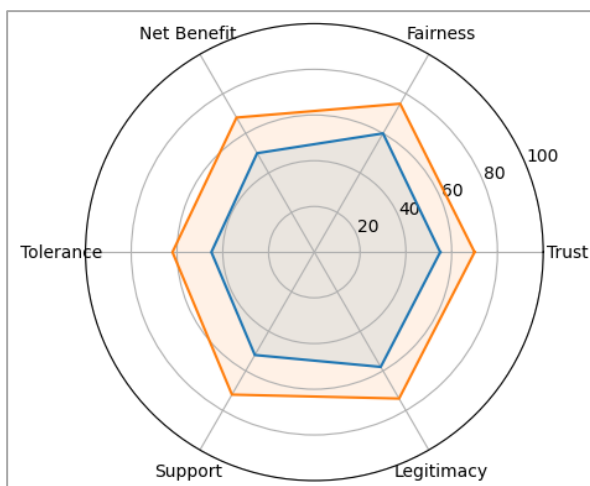


Figure 4: Example of SAL radar chart of BIOMAPE

The **Increase in Social Acceptability Level** will be calculated as:

$$SAL\ Increase = SAL_{post} - SAL_{ante}$$

Results will be visualised through radar charts to provide an immediate graphical representation of changes across the six indicators and their three underlying dimensions.

This visual evidence supports a rapid, comparative interpretation of results across case study countries and helps prioritise follow-up engagement actions where acceptance barriers persist. Ultimately, it strengthens BIOMAPE's ability to translate stakeholder feedback into targeted recommendations and actionable lessons for WP5 (Project Evaluation and Policy Recommendations).

3.3 Interviews and videos

According to D6.1 (BIOMAPE DEC Plan¹¹), after an **introductory video**, BIOMAPE will produce **2** additional videos over the course of the project, also involving local stakeholders participating in WP4 activities. These will provide an evolving overview of the project's progress and will feature:

- Annual summaries of project progress and key achievements.
- Major milestones, including deliverables, events, field activities, and technical developments.
- Country-specific insights, showcasing examples of progress, best practices, case studies, and contributions from stakeholders in each partner country.

¹¹ https://www.biomape.eu/wp-content/uploads/2026/05/D6.1_BIOMAPE-DEC-Plan.pdf

- National contexts relevant to project objectives: environmental, industrial, socio-economic (if relevant).
- Local stakeholders, such as researchers, community groups, and public authorities actively contributing to project outcomes (if relevant).
- Demonstrations of practices or case studies, illustrating sustainable biomethane production, circular processes, or pilot activities across countries (if relevant).
- Country-level challenges and opportunities, including innovation pathways and policy perspectives (if relevant).



Annex I: Functioning of the workshops

The workshops consist of two distinct phases, namely the organization and the implementation phases.

1. Organization phase

The first step during the organization phase of the workshop is the initial planning of a workplan. The main aspects, which must be elaborated within the developed workplan, must include the following issues:

- ✓ The necessary preparatory steps and tasks.
- ✓ The required time for the implementation of the previously specified steps and tasks.
- ✓ The roles of the different persons:
 - **The moderator**, who is responsible for the direction, guidance and facilitation of all the implemented procedures. The moderator will present the necessary steps for the conduction of the workshop, he/she will coordinate them, and he/she will summarize the obtained outcomes.
 - **The rapporteur**, who will observe the discussion having as target to summarize the main ideas identifying the main barriers, presenting the proposed solutions and approaches in order to overcome them and highlighting the main points of agreement and disagreement.
 - **The rest of participants**, who are requested to participate actively in the discussion through questions, comments, examples, ideas and disagreements to benefit the discussion with their accumulated experience in the specific field.
- ✓ The deadline, which must be specified for the fulfillment of each activity separately.
- ✓ The analysis of the importance of each activity and the identification of the most crucial of them.
- ✓ The development of a plan for the confrontation of potential unexpected issues and problems.
- ✓ The establishment of a detailed timetable.

The next step includes the selection of the place where the workshop will be implemented. The workshop place must:

- ✓ Have the appropriate technical infrastructure, such as power sockets, audiovisual equipment (projectors, videos, microphones), internet access, etc.
- ✓ Be close to the accommodation of the participants.
- ✓ Be easily accessible, preferably by public means of transport.
- ✓ Be quiet, have sufficient space, appropriate lighting, air circulation and temperature conditions.
- ✓ Have flexible and comfortable chairs and tables.

From logistic point of view, every participant should have the opportunity to see each other and the screens easily, while the creation of a sense of hierarchy among the participants will be avoided. Moreover, the tables must be sufficiently far apart.

The participants should be kept concentrating on presenting the material provided in different ways. Many studies show that the participants respond positively to a variety of activities and materials. In this sense, different methods of learning can lead to completely different results. Specifically, some people prefer to obtain new information through their eyes, while others

through their ears. Other people prefer to deal with the details of an idea, others with the overall concept. As a result, activities should vary in workshop so as to increase the possibilities to create a more effective learning environment for each participant.

When preparing presentation and any material, it is suggested to utilize the appropriate colors, easy-to-read charts and graphs.

Moreover, it should be avoided providing too much information on each slide giving the participants the opportunity to keep track of this easily. Regarding the duration of the presentation, it should not exceed half an hour, otherwise attention of participants starts to decrease.

A registration procedure for the participants and name tags for each participant separately should also be prepared.

It should not be forgotten to bring all the necessary material such as pencils and paper, copies of the printed material, easels, newsprint and markers for highlighting ideas and comments, the agenda of the workshop, the list of the workshop and the presentation of the objectives.

One week before the conduction of the workshop participants should be contacted in order to inform them about the final program and to confirm the final information about the workshop.

Before the opening of the workshop:

- ✓ Visit and check the place where the workshop will be implemented, according to the initial arrangements.
- ✓ Reconfirm the availability of rooms for the participants.
- ✓ Provide the workshop's agenda and confirm the schedule and the arrangements for the food and coffee provided.

2. Implementation phase

The implementation phase of the workshop consists of three different steps:

- ✓ *Introduction of the workshop*, which refers to the period from the arrival of the participants to the beginning of the main presentation and activities.
- ✓ *Conduction of the workshop*, which involves the main presentation and activities.
- ✓ *Closure of the workshop*, which includes the summary, the evaluation and the ending.

Introduction

During the introduction of the workshop, it is recommended to arrive at least half an hour before the beginning of the workshop and check that all the arrangements are compliant with your planning.

Then, the first step is to gather the participants according to the agenda welcoming them and give them a name tag when each participant completes registration. After the registration of the last participant, the final participant list should be printed to have a complete overview of the participants.

When the workshop starts, the main steps are:

- Introduction of the moderator, the rapporteur and the participants pinpointing their role.
- Presentation of the outline and the agenda of the workshop.
- Analysis of the objectives and the activities of the workshop.
- Establishment of the agreements for the conduction of the workshop.

Agreements and rules of the workshop must be specified, which will help to run and conduct the workshop smoothly. Some issues regarding arrangements can be the following:

- Start and end of the workshop on time.
- Equal opportunity to everyone for participation.
- Confidentiality regarding the participants' attitudes and statements.
- Respect the break times.
- Turn off mobile telephones.

Conduction

During the conduction of the workshop the role of the moderator is considered crucial. Among suggestions to be followed:

- To create a friendly atmosphere and help participants to feel comfortable.
- To be creative and utilize humor in order to make your activities more entertaining.
- To be enthusiastic, motivating the participants for a more effective involvement.
- To appreciate participants' contributions and statements.
- To encourage any input, feedback and proposals.
- To motivate the participants to solve the problems immediately.
- To request ideas and feedback avoiding monologues.
- To wait the participants to respond firstly before your statement.
- To provide the necessary information and positive feedback.
- To try to explain any misunderstanding.
- To try not to judge or criticize.
- To respect the right of each member for participation and remember that every opinion counts.
- Questioning is an effective technique in order to present information and to provide answers. Prefer open-ended questions.
- To Talk slow and calm.
- To try to look at participants when speaking to them and when they speak as well.
- To not ignore a difficult situation. Remember that it is responsibility of the leaders to handle and diffuse a difficult situation.
- To let the group decide if the discussion for a specific issue must continue or not.
- To use non-verbal responses to acknowledge participants' remarks.
- To share own ideas and thoughts.
- To let the group know the discussion is also beneficial for him/her.
- To reassure that the participants listen carefully to each other.
- To develop and respect the agreements.
- To review the techniques for handling difficult people or situations.
- To keep track of time. Try to avoid unnecessary deviations from the timetable of the agenda.
- To allow adequate time for reflection and discussion.
- Active listening is considered as a key facilitation skill.
- To be open-minded to different feedback and ideas.
- Summarizing or repeating what the participants say.
- To be aware of similarities and differences among the ideas of the participants.

- If the number of participants is relatively high, they should be split into smaller groups for the implementation of the activities. Then, separate ideas and remarks can be gathered and as inputs for discussion to the whole group of participants.
- In the case that skeptical participants about the subject of the workshop exist to try to examine their expectations.

Closure

In the final phase of the workshop, suggestions to be followed are:

- To summarize the main findings of the workshop.
- To give the opportunity to the participants to react to the outcomes obtained. This can be achieved either with a formal procedure or through some simple questions.
- To provide the opportunity to the participants to sum up.
- To revisit the agenda to identify any issues possibly forgotten to deal with during the conduction of the workshop.
- Depending on participants' interest, any additional material on the issues discussed or on points forgotten to cover can be sent.
- To identify how the participants' expectations will be differentiated after the conduction of the workshop.
- To collect the evaluation forms ensuring that every participant has evaluated the implemented workshop and provided his comments.
- To create the necessary photographic record from the workshop.
- In the case that of promising to send any additional material to the participants, it should do it as soon as possible.
- To send to the participants any summary notes or feedback, so as to maintain their interest at high level until the next workshop.
- To circulate the minutes of the workshop as soon as possible and give them the opportunity to comment on these.

Last, but not least, the preliminary planning of the next workshop must begin after the fulfillment of the previous one in order to improve the eventual weaknesses identified and recorded.

Annex II: Sample of the minutes

Minutes of the CGC's workshop

I. Date:

II. Venue:

III. Start time:

IV. Time of adjournment:

IV. List of participants:

Name	Organization	email
1		
2		
3		
...		
n		

V. Discussion about minutes of previous workshop (short presentation and approval):

VI. Agenda:

VII. Objectives:

Objective 1

Objective 2

...

Objective n

VIII. Discussion about each objective

Objective 1

- Discussed issues
- Actions taken
- Distributed material
- Decisions made

Objective 2

- Discussed issues
- Actions taken
- Distributed material
- Decisions made

...

Objective n

- Discussed issues
- Actions taken
- Distributed material
- Decisions made

IX. Short summary of the workshop: Record of main discussed issues, actions taken, and decisions made for each objective and each point of the agenda separately.

X. Conclusions

XI. Suggestions and open issues for the next workshop

XII. Planned actions and required input until the next workshop

XIII. Preliminary arrangements for the next workshop

Date:

Place:

Start time:



Annex III Agenda of the workshop

An indicative agenda of the workshops related to Step 1 is reported below.

Time	Topic
09:30 - 09:45	Welcome & Introduction to Workshop
09:45 – 10:00	The BIOMAPE project & Participatory workshops
10:00 – 10:30	Case study Presentation
10:30 – 11:30	Identification of challenges and benefits
11:30 – 12:00	Coffee break
12:00 – 12:30	Wrap-up and discussion
12:30 – 13:00	Conclusions & next steps
13:00	Lunch

Annex IV Evaluation Forms

Here below an example of the evaluation forms to be circulated and returned during each workshop and site visit of section 3 above (to be tailor according to each country requirements)

In order to assess and improve the quality of the BIOMAPE workshop we would like to know your opinion on a range of aspects relating to the workshop held in [name of the city] on [date].

Thank you for your time and support!

I) Were you overall satisfied with the program of the workshop?

☐ Yes

☐ No

If no, please explain why not (what was missing, what was the problem, etc.)

II) Please indicate and/or comment on your overall satisfaction with the presentations (if you want, you can also specify)

	Excellent	Good	Adequate	Poor	Very Poor

III) Please indicate and/or comment on your overall satisfaction with the discussions of the presentations (if you want, you can also specify)

	Excellent	Good	Adequate	Poor	Very Poor

IV) Was the information received helpful for your future work within/outside the project?

☐ Yes, very helpful

☐ Relatively helpful

☐ Not helpful at all

If not helpful, please explain why not – have you any suggestions?

V) Are there any specific topics or issues that in your opinion should have been discussed at the workshop, but were not?

☐ Yes

☐ No

If yes, please specify which

VI) Are you overall satisfied with this workshop?

☐ Yes

☐ No

If no, please explain why

VII) Do you have any general, overall comments on the improvement of the workshop?

☐ Yes

☐ No

If yes, please specify which

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