



D6.1 IN2CCAM Public Engagement Strategy

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CCAM eco-system**

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ABBREVIATIONS AND ACRONYMS

Abbreviation	Meaning
C-ITS	Cooperative Intelligent Transport Systems
CCAM	Cooperative, connected and automated mobility
DoA	Description of Action
GDPR	General Data Protection Regulation
IN2CCAM	Enhancing Integration and Interoperability of the CCAM ecosystem
KPIs	Key Performance Indicators
ITS	Intelligent Transport Systems
LL	Living Lab
LoS	Letter of Support
MaaS	Mobility as a Service
PC	Project Coordinator
PES	Public Engagement Strategy
PP	Project Partner
WP	Work Package

1 EXECUTIVE SUMMARY

This Deliverable delineates the Public Engagement Strategy within the IN2CCAM project, a ground-breaking initiative aiming to advance the deployment of Connected Cooperative and Automated Mobility systems across Europe. The PES is pivotal for fostering an inclusive and collaborative environment, allowing stakeholders to make substantial contributions to project actions. This guide outlines a four-step process for stakeholder engagement, namely engagement planning, stakeholder mapping, coordinated engagement preparation, and engagement review and improvement.

This Deliverable provides a critical resource for project partners, especially Work Package and Task leaders, offering guidelines for engaging with stakeholders and reporting outcomes. It emphasizes the need for early engagement, while also considering involvement at different project stages. The stakeholder engagement is based on a robust framework that ensures the right stakeholders are involved at the right time in the most effective manner. This process is designed to promote transparent, meaningful stakeholder engagement that aligns with the project's goals and addresses stakeholder concerns.

A preliminary stakeholder analysis has been conducted, categorizing stakeholders based on their influence and interest. This early analysis highlights the need for custom engagement strategies. Dynamically updating the stakeholder register and Power/Interest grids will be done throughout the project. However, the results will be continually updated, with a final report on the outcomes of engagement activities to be attached to D6.2, wherever relevant.

Notably, the results of the stakeholder analysis conducted so far reveal significant insights about the most appropriate stakeholder engagement approach in each living lab. Based on their power and interest, stakeholders have been categorized to inform tailored engagement strategies; for example, stakeholders such as Bari, Quadrilatero, Tampere, Trikala, Turin, and Vigo require varying engagement approaches from monitoring to closely managed.

2 INTRODUCTION

2.1 Project description

IN2CCAM (Enhancing Integration and Interoperability of the CCAM eco-system) is an Innovation Action funded by the European Commission's Horizon Europe 2021-2027 Programme that aims to accelerate the implementation and uptake of innovative CCAM (Connected Cooperative and Automated Mobility) technologies and systems for passengers and goods.

The goal is to provide benefits to all citizens by implementing a full integration of CCAM services in the transport system. The main expected positive impacts for society are: i) safety; ii) environment; iii) inclusiveness. To fulfil these objectives, IN2CCAM relies on the implementation and integration of enhanced physical, digital, and operational infrastructures to enrich CCAM services and enhance safety and traffic efficiency in 4 Living Labs (LLs), namely Tampere (Finland), Trikala (Greece), Turin (Italy) and Vigo (Spain); two Follower LLs (i.e., Bari (Italy) and Quadrilatero (Portugal)) will also be assisting the design and validation processes with novel approaches and data assessed using simulation tests.

Within IN2CCAM, Work Package (WP) 6 aims to develop an evidence-based governance framework, business models, policy and regulatory recommendations for the widespread adoption of IN2CCAM innovation, maximising the exploitation potential and sustainability of IN2CCAM project results. Within WP6, Task 6.1 (CCAM ecosystem building and involvement) is structured upon achieving two main outputs, namely:

- **A Public Engagement Strategy (PES)**, which defines the project's approach to engaging with project stakeholders detailing objectives, key target groups, channels, and tools for engagement, timeline, and roles of partners, based on an international stakeholder database to be updated throughout the project lifespan. This first output will be reported in this Deliverable.
- **A Roadmap to scalability and replicability**, which is an evidence-based stakeholder-informed roadmap to overcoming barriers and concerns toward the scale-up and replicability of the IN2CCAM's CCAM-driven traffic and fleet management solutions throughout Europe. Drawing on key results from Task 2.1 and Task 2.2, this second output will represent a knowledge basis informing the co-design of multi-stakeholder governance models in Task 6.2.

2.2 Purpose of the Deliverable & intended audience

Future road-based mobility systems are expected to be heavily dependent on automation and connectivity throughout the whole chain of road infrastructures and services. In a scenario where connected and automated vehicles will ride alongside conventional cars, behavioural change and users' uptake are among the main challenges that the transportation sector will face. Within such a context, it is imperative to engage different stakeholders to make sure that all voices and opinions are heard and that resulting policy-making decisions are responsive to the stakeholders' needs.

This Deliverable will outline a dedicated PES, a project-level guide defining the overall project's local, national, and European approach to engaging with project stakeholders, that ensures an inclusive and collaborative implementation of key IN2CCAM project activities; while targeting Consortium partners responsible for executing tasks and activities needing specific stakeholder inputs, the PES has a twofold purpose, namely 1) to ensure a harmonised and transparent process that allows for effective contribution from a wide range of stakeholder groups to the project activities; 2) to provide all WP leaders with a centralised approach and standardised rules for contacting and engaging stakeholders as well as for reporting engagement outcomes and establishing further and more targeted engagement initiatives.

2.3 Structure of the Deliverable & relationships with other WPs

This Deliverable is a strategic document providing Project Partners (PPs) – particularly WP leaders and Task leaders – with a consistent approach, guidelines and ground rules for approaching stakeholders and reporting engagement outcomes as well as keeping track of the co-participatory processes fostered by IN2CCAM activities, particularly in e.g., WP4, WP5, and WP6.

Chapter 3 outlines the agreed framework methodology for engaging with project stakeholders; subsequently, the design of the engagement plan explaining the key strategic steps and defining the preliminary scope of stakeholder contributions and associated potential engagement channels are depicted in chapter 4. Chapter 5 reports the findings of a preliminary stakeholder mapping and analysis, based on LL stakeholders identified by the LL teams, aiming to define the most appropriate engagement methods for diverse stakeholder clusters; lastly, Chapter 6 sets out key rules and suggested practices for conducting engagement initiatives and reporting outcomes as well as for identifying improvements to the adopted engagement strategy.

3 FRAMEWORK METHODOLOGY

This Section illustrates the overarching methodology deployed in Task 6.1 to define the PES, adapted from (Manoochehri et al. 2020).

Upon reviewing a number of stakeholder engagement methodologies (Bourne, 2005; Hao Wang, 2021), it became evident that the four-step methodology outlined in (Manoochehri et al. 2020) is highly applicable to multifaceted projects like IN2CCAM. This approach effectively manages numerous and heterogeneous stakeholder groups, ensuring robust, efficient, and dynamic public engagement strategies.

As established earlier, the purpose of the PES is to ensure a harmonised and transparent process that allows for effective contribution from a wide range of stakeholder groups and to provide all WPs with a centralised approach for identifying, mapping, and structuring the stakeholder data as well as standardised rules for contacting and engaging with stakeholders.

The methodology consists of a four-step process, including engagement planning; stakeholder mapping and analysis; preparation and rules for coordinated engagement; and review, reporting and improving engagement initiatives.

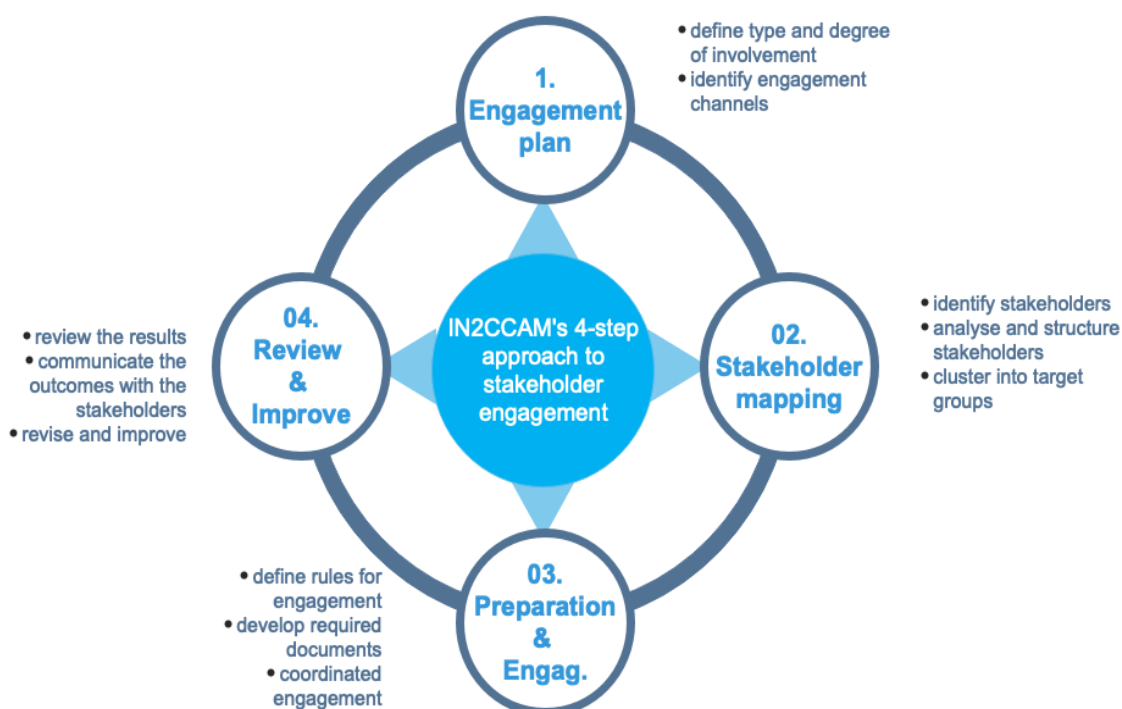


Figure 1: IN2CCAM's four-step approach to stakeholder engagement

During the first phase, two main actions were carried out to design the Engagement Plan. Firstly, the scope of stakeholder's contributions to the IN2CCAM planned tasks within WPs

from WP2 to WP7 was devised based on a concise survey administered to WP leaders; moreover, preliminary engagement channels (i.e., a diverse set of physical and virtual events) for gathering stakeholder inputs were identified to orchestrate stakeholder participation in consultations and mutual learning processes.

The second phase involves the mapping and clustering of stakeholders, according to their expertise, interests and potential contributions to the project, to strategize, target and prioritise engagement actions. To accomplish this, a stakeholder register was created and collaboratively populated by PPs (specifically LL teams), thus resulting in an extremely valuable contact basis that will enrich and accrue value for project activities. Such a register will be serving as a central point of reference for all stakeholder data and interactions, and it will be continuously updated throughout the project lifecycle.

The third phase consisted in defining standard rules for engagement, reporting and communication in a way to avoid overlapping and make the best use of stakeholders' time. A centralised stakeholder engagement will ensure that stakeholders are involved in a focused and efficient manner, with mutual benefits, and ensure that the project follows relevant privacy policies and ethics in personal data management. Ground rules were defined in several areas; firstly, a standardised process for establishing first contact with stakeholders was established, e.g., a Letter of Support (LoS) defining the scope of stakeholder contribution, level of engagement and expected benefits; secondly, compliance with the General Data Protection Regulation (GDPR) and ethical issues were ensured when inviting stakeholder to join the project register.

The last methodological step addresses the process of reporting, reviewing and improvement of engagement outcomes; areas of improvement can be identified by correlating goals and strategies with stakeholder feedback and achieved project results. Project results and achievements will be communicated back to stakeholders to strengthen the IN2CCAM's stakeholder community; further engagement initiatives, within the scope of specific WPs and tasks, will be organised based on such outcomes as well as on insights deriving from an updated stakeholder cluster analysis as the IN2CCAM community increases over time.

4 DESIGN OF ENGAGEMENT PLAN

4.1 Theoretical background

Sustainability relies on changing users' habits. In a scenario where people's behaviour remains unchanged, even the most ground-breaking innovation would be rendered futile. Particularly in previously funded projects, stakeholders are engaged to represent interests in individuals, groups, or organizations, as they possess the ability to create value within these domains.

Stakeholder engagement is a strategic process that involves interacting with stakeholders to gather information about shared interests, preferences, and the potential for joint actions. Effectively managing this involvement is a key factor for project success and an essential component of project management since the project relies on stakeholders' active participation to respond to the project outputs and benefits. Nevertheless, the goal of stakeholder participation is the proper dissemination to the public and end users.

Stakeholders are individuals who are influenced by or may influence the actions of others. Engaging stakeholders, regardless of their identity, is crucial because they can influence actions and can either hinder or contribute to the project's success. During the identification process, it is vital to consider the individual stakeholder's value and their influence through several activities and information exchange since stakeholders have the real potential to enhance project outcomes and promote replicability. Previous research (Curtis, 2017) highlighted several benefits associated with involving key actors including:

- Identify potential conflicts and risks for implementation;
- Identify potential competition to avoid market collisions;
- Understand the needs of the end user in advance;
- Conceive new business models related to partner needs;
- Simplify the innovation implementation process;
- Collaborate to speed up the regulatory process to enable new experimentation.

Notably, the process of involving and communicating with stakeholders involves multiple dimensions, spanning actual engagement, management, and communication.

An engagement process is a strategic approach employed by the IN2CCAM project to effectively communicate its values, arising from concrete LL results and based on fruitful interactions with key contributing stakeholders. These results must be representative, transparent, accessible, responsive, and accountable. It is only through the establishment of mutually beneficial relationships that the project can be deemed sustainable (Franklin, 2020).

According to (MMPI, 2021), the management, instead, can be defined as: "systematic identification, mapping, analysis, planning and implementation of actions designed to engage with stakeholders", since engagement is a practice of influencing a wide range of outcomes through consultation, communication, negotiation, compromise, and the development of a relationship with stakeholders (Dolfing, 2018).

Effective communication also plays a pivotal role in the achievement of project outcomes, considering that 80% of Project Management is known to be attributed to communication. Additionally, a study conducted in 2015 by Project Management Institute, revealed that organizations characterized as "effective communicators" achieved their project goals in 80% of cases, in contrast to only 52% in organizations considered "minimally effective communicators" (Project Management Practitioners, 2020). Therefore, engaging stakeholders and maintaining strong relationships with them are vital components as correct communication significantly contributes to keeping them engaged, interested, and aligned with project objectives.

4.2 Scope of IN2CCAM stakeholder engagement

The first methodological step in the design of the engagement plan involved the definition of expected stakeholder contributions to the implementation of WP tasks and activities; WP leaders were consulted to determine the type and degree of involvement in different WPs.

The type of stakeholder involvement was broken down into three main types (Manoochehri et al. 2020):

- Informative participation, whereby stakeholders will be informed about the decisions, progress, status, and results of the project.
- Consultative participation, whereby stakeholders will be included in the decision-making and planning process, i.e., stakeholders can influence the content and direction of the project by bringing information, opinions, and ideas.
- Collaborative participation, whereby stakeholders will be directly involved in the co-creation of knowledge (e.g., through participation in the online engagement of webinars, seminars, peer-learning, and LL stakeholder meetings).

The degree or scope of stakeholder contribution to the IN2CCAM activities, depicted at the WP level (and in accordance with the project work plan outlined in the Description of Action (DoA)) are described in **Error! Reference source not found.**, where these have also been provided by type of involvement.

Table 1 Scope of potential stakeholder contribution to the IN2CCAM activities

WP #	Informative (Knowledge Sharing)	Consultative (Knowledge Use)	Collaborative (Mutual-Learning and Co-Creation)
WP 2		<p>Passenger groups, industrial stakeholders (CCAM developers and manufacturers) and CCAM system operators will provide their feedback in relevant questionnaires and interviews regarding user needs, user acceptance and technical feedback over the LL demonstrations. There will be 3 phases during which those questionnaires will be provided. Before, during and after each LL demonstration. It is planned that at least 500 users, 20 authorities, and 50 industrial stakeholders, out of which many will be external audiences, will participate in the surveys.</p>	
WP 3	User associations, citizens, the CCAM industry, other cities and national administrations may share results from previous or similar experiences testing CCAM solutions and, at the	<p>City Authorities provide advice on regulations, policies, legal framework and management strategies (with traffic and fleet management) CCAM deployment should be based on.</p>	<p>City Authorities make their physical and digital infrastructure available to be used and adapted for LL deployment and testing.</p> <p>Traffic Operators bring key expertise and make tools available to support CCAM</p>

	<p>same time, they are the target audience of the results.</p>	<p>National Traffic Authorities advise on legal framework and authorization for CCAM testing.</p> <p>Public Transport Operators provide viewpoints and feedback on the potential feasibility of CCAM-based passenger services under conditions defined as part of use case testing, as well as on the proposed coordinated strategies with traffic and fleet management.</p>	<p>services based on the traffic system data and equipment.</p> <p>C-ITS Industry Partners provide hardware, software, and background needed to enable the development and deployment of new innovative CCAM services, focusing both on infrastructure and vehicle connectivity.</p> <p>Vehicles and fleet providers offer their Connected and Automated Vehicles and their onboard technology to contribute to the development and test of use cases.</p>
WP 4			<p>A diverse set of stakeholder organisation will be involved in the LL demonstrations to conduct shared mobility operations. Each LL will have a responsible partner to form and manage a network of local stakeholders to conduct the demonstrations.</p>
WP 5		<p>WP5 participants will establish online questionnaires, surveys, and semi-structured interviews to collect qualitative data for acceptance indicators. This WP will ensure that the assessment is transparent and provides</p>	<p>This WP will involve multiple participants from WP5 to develop a methodology and framework for impact assessment. This WP considers participants from different organizations and backgrounds who will work together to establish the</p>

		a comprehensive evaluation of the solutions from LL.	methodology for impact assessment, which will include scenarios to be evaluated and KPIs. Participants will collaborate to define the format, sample sizes to get results, and the weights and KPIs (preliminarily defined in Task 2.2 and subject to changes based on upcoming interactions with LLs) for evaluating the impacts in the CCAM ecosystem . The approach will ensure that the methodology is comprehensive and meets the requirements. Participants will also use simulation and digital twin models to avoid duplication of work.
WP 6		1 expert validation workshop with European and Internationally renowned cities and industry representatives on designed governance models to be carried out within the scope of Task 6.2.	4 ideas generation workshops (for transition roadmaps to uptake) with LL stakeholders and IN2CCAM Community on topics linked to scaling up and replicability will be conducted within the scope of Task 6.1 1 scenario-building workshop with LL partners & stakeholders to design governance models will be carried out within the scope of Task 6.2

WP 7	Stakeholders are engaged to optimize the dissemination of project activities, events, and results on various online platforms, including Twitter , LinkedIn , and the project website , to effectively engage all stakeholders.		Participation of stakeholders in Special Interest Sessions during international conferences such as ITS Congresses is envisaged. It is also expected to coordinate and support technical workshops and demonstrations to the relevant stakeholders and deliver presentations tailored to the needs of stakeholders within the partner networks.
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Subsequently, the identification of possible engagement channels through which stakeholder contributions will be gathered was performed as part of the second step of the engagement plan design. A range of events was proposed at the application stage, while others may naturally be needed as part of WP execution plans. Such events are notably an opportunity for generating content and creating live networking and mutual benefits, and can be distinguished in physical and digital events (i.e., remotely attended), namely:

- Thematic seminars and workshops;
- LL stakeholder meetings;
- Governance scenario building workshop;
- Expert validation workshop;
- Expert interviews;
- LL stakeholder meetings;
- Ideas generation workshop;
- Data gathering and knowledge sharing.

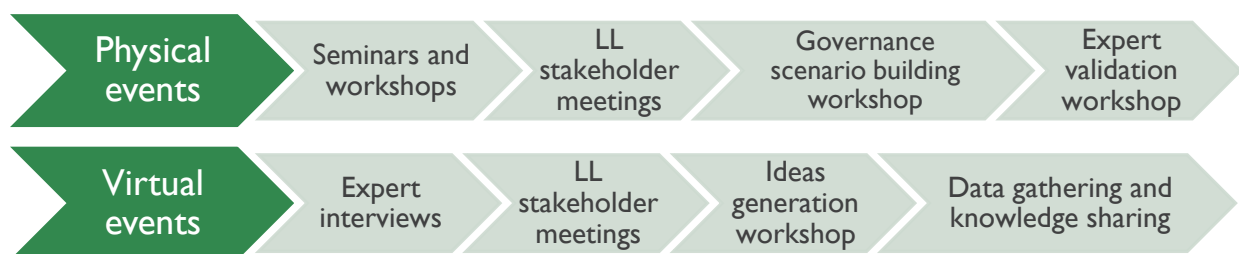


Figure 2: Typical IN2CCAM's engagement channels

It should be highlighted that the inbound contributions from key stakeholders can occur through thematic seminars or workshops, expert interviews as well as data gathering and knowledge-sharing initiatives; typically, these are aimed at gathering specific content to inform the development of key project outputs (e.g., milestones and deliverables). On the other hand, a range of both physical and virtual exchanges are specifically needed within the scope of WP4 (LL stakeholder meetings) and WP6 (ideas generation workshops, governance scenario-building workshops, expert validation workshops).

Throughout the project lifecycle, the exact stakeholder contributions required under the different WPs, the specific engagement channels and activity/event timelines will be defined by partners responsible for the associated WPs and Tasks and will be communicated timely to the WP6 leader and to the Project Coordinator (PC) in order to keep track of engagement outcomes and adopt potential mitigation actions in the stakeholder engagement process.

5 STAKEHOLDER MAPPING

5.1 Stakeholder identification

IN2CCAM is a project designed to be heavily reliant on stakeholder inputs to ensure an inclusive approach to the development and EU-wide uptake of CCAM-based services for fleet and traffic management.

In this context, stakeholder mapping plays a crucial importance; as the visual process of depicting all potential external stakeholders on a single map according to pre-set criteria, it is mainly a tool for internal evaluation which helps to manage the awareness about the existing stakeholders, mandatory for future result exploitation. Stakeholder mapping and further analysis will facilitate both the selection of the most appropriate stakeholders to engage and the relative engagement method, thus aiming to increase the potential for successful project implementation.

Although the primary benefit of a stakeholder map is to provide a visual representation of various organisations that can influence a project and how they are connected, it also helps on focusing on those who will benefit the most from the project results and achievements and/or who could potentially exploit them (Curtis, 2017).

To be able to map stakeholders, partners' inputs were needed to identify a preliminary suitable stakeholder basis according to project scope and considering the following clusters:

- Industry organisations;
- Institutions;
- Scientific and research communities;
- Society and policymakers;
- Standardisation and homologation bodies.

Subsequently, a project-level effort was carried out to build a project-level stakeholder register which will be continuously updated throughout the project lifecycle; significant efforts were particularly taken by LL teams in identifying organisations who may have a different stake in the LL implementations. Subsequently, the effort will be expanded to cover stakeholder organisation outside the IN2CCAM's partner contact networks.

The stakeholder identification process involved the signing of the LoS, mandatory for all stakeholder representatives contacted, and the inclusion of stakeholder information into the IN2CCAM's stakeholder register.

Although all PPs contribute to identifying new external stakeholders, TTS Italia assumed responsibility for managing the entire process; this includes receiving inputs (e.g., qualifying stakeholder expertise and areas of interest), overseeing and managing the stakeholder register, and checking the proper completion of LoS submitted and associated stakeholder's information. For transparency and reporting purposes, all signed LoSs are uploaded to the project repository.

The LoS briefs invited stakeholders on key project goals and expected outcomes and define possible collaboration methods. According to the LoS, these will consist in:

- Supporting project efforts to understand the operation/challenges/requirements specific to organisations in the interconnected domain of CCCAM traffic & fleet management;
- Participating and contributing to the extent possible to meetings with the project consortium, also in the form of workshops, focus groups, or similar;
- Giving feedback on the project direction and proposed solutions, their feasibility, and desirability from a stakeholder's perspective;
- Where possible and appropriate, explore the validity of key project recommendations.

Through the LoS, stakeholders are informed about the privacy practices regarding data. While identifying and contacting external organisations, the IN2CCAM project will comply with privacy regulations when treating data (GDPR rules) which will be anonymised in the stakeholder register and only used for research purposes. Overall, the required data pertains specifically to the organization and not to individual respondents.

To adopt a harmonised approach in the stakeholder identification process, in agreement with the PC, partners performed/will be performing the following steps for the creation/update of the stakeholder register:

- Partners invite their contacts to become IN2CCAM stakeholders asking to sign the LoS in case of interest;
- Stakeholders sign the LoS;
- Upon receiving the signed LoS, partners upload the LoS to the IN2CCAM project repository and fill the IN2CCAM's stakeholder register with stakeholder information.

A copy of the LoS template is included in Annex 1 for information. This overall process leading to stakeholder identification (e.g., involving the use of LoS and way of filling stakeholders' contact details in the register) will be carried out until project completion.

In the stakeholder register, each stakeholder is typically profiled with a range of information or variables that will help project managers better understand and manage their expectations, needs, and potential impacts on the project, that identifies and classifies all individuals, groups, or entities that have a stake or interest in the project. It provides a comprehensive

record of stakeholder organizations, their type, geographical location, inviting partner, their classification as per the defined target groups in the project proposal, their areas of expertise, and their areas of interest related to IN2CCAM thematic areas. It also provides additional details on their thematic interests and the official website URL of the stakeholder organization. This register aids in planning stakeholder engagement strategies by understanding stakeholders' interests, influences, and potential impact on the project.

The variables represented in a stakeholder register are:

- **Organization Name:** this would be the official name of the stakeholder organisation;
- **Organization Type:** this could refer to whether the organisation is a private- or public-sector organisation. Understanding the type of organization can provide context about the stakeholder's perspective and motivations;
- **Country:** this represents the country where the stakeholder's organization is based or operates primarily; this is important for understanding possible cultural, political, and regulatory contexts;
- **Partner Inviting Stakeholder:** this refers to the IN2CCAM partner that invited or brought the stakeholder into the project. It could be useful for understanding the stakeholder's connection to the project or for resolving any potential issues;
- **Target Group:** This category would group stakeholders as per the definitions given in the project proposal. Notably, key target groups include "Institutions", "Industry", "Society & Policy Makers", "Scientific and research community" "Standardisation and homologation bodies", are defined as below:
 - **Industries:** Fleet and traffic management; Intermodal transport operators (intermodal service level), OEM, Service providers, Automotive Industry, CCAM developers, and manufacturers.
 - **Institutions:** Policy and decision-makers at European, national, or regional level; local, regional, and national public authorities; standardisation bodies; national or regional funding bodies.
 - **Scientific and research community:** Academic and research institutions to integrate innovative technologies for future applications, cross-fertilization, and transfer of results to follow-up initiatives (acceptance, usability, and impact assessment as well as take-up aspects).
 - **Society and Policymakers:** in the field of environmental protection, Transport, Logistics, and future mobility; scientists as well as Engineers in the fields of process digitalisation, automation, control, and robotics; user groups; end user associations.
 - **Standardisation and homologation bodies:** Improving or establishing new standards to enhance the safety, interoperability, and reliability of CCAM.
- **Areas of Expertise:** this indicates the specific skills, knowledge, or areas that the stakeholder is proficient in. This information can be useful in understanding how the stakeholder might contribute to the project or influence its outcomes;

- **IN2CCAM Thematic Areas of Interest to Stakeholders:** IN2CCAM project might have different thematic areas, and stakeholders could have an interest in one or more of these areas. Identifying these areas of interest can help in tailoring communications and engagement strategies for the stakeholders. Possible values for this variable are: “Harmonisation and Interoperability”, “Integrated Mobility Services”, “Mobility network load balancing approaches - Route and Delivery optimisation”, “Demonstration & Validation of IN2CCAM solutions”, “Governance for Integrated CCAM - Fleet & Traffic Management”, “Other”;
- **Additional info on ‘Thematic Areas of Interest’:** this could include more detailed information on why the stakeholder is interested in the specific thematic areas, or how they might contribute or influence those areas;
- **URL (organization website):** this would be the website of the organisation that the stakeholder represents. It can provide additional information about the organisation and its activities, which can be useful for further understanding the stakeholder's context and perspective.

The stakeholder register is a living document and should be updated regularly as more information becomes available or as the stakeholder relationships evolve.

Notably, whilst the stakeholder register has been so far developed to include mainly the representative organisations of LL contexts, an effort is currently being taken to involve additional external stakeholders in the IN2CCAM's activities; to this aim, an EU-wide stakeholder registration form has recently been planned to be disseminated through the EC' EU survey tool (and duly posted on the project website and social media channels in synergy with WP7 leader) in order to expand the engagement outreach and ensure that the project receives inputs from a wider stakeholder community.

During the first eight months of IN2CCAM, a total of 108 potential stakeholders was collaboratively identified to date by PPs; however, the remainder of this chapter presents the findings of the stakeholder analysis specifically conducted for the LL contexts; to ensure consistency purposes in this deliverable and provide a preliminary glimpse into the best actors to be involved in critical project activities (e.g., trials and governance model design for the IN2CCAM's LL cities), such analysis will be thoroughly updated, and reported in D6.2 whenever appropriate, to include external stakeholders as more stakeholders are added to the project register.

5.2 Stakeholder mapping: the methodology

Alongside the various updates of the stakeholder register, mapping and cluster analysis will be also conducted, as the second step of the engagement methodology, using the power-interest diagram shown in Figure 3, which aims to assess the level of influence that stakeholders have in contributing and exploiting project results.

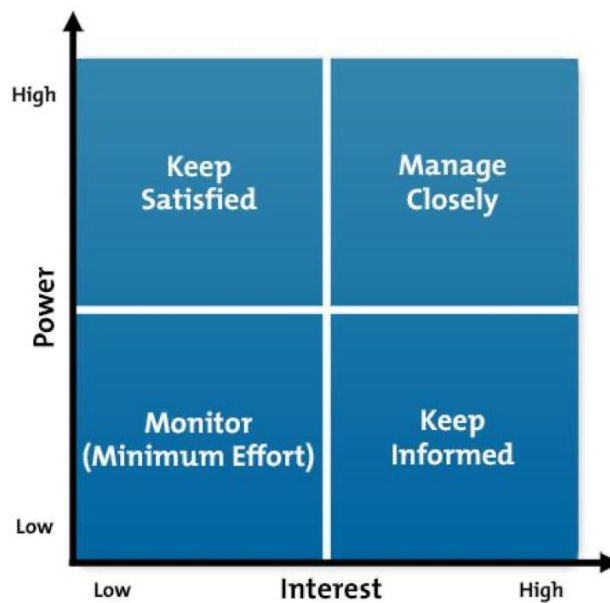


Figure 3: Power-Interest grid

According to previous literature (Ackermann and Eden 2011), this diagram will be used in defining stakeholder clusters and understanding the possible linking actions between issues and criteria in a more efficient way.

The Power represents the stakeholders' influence in international, national or regional decision-making processes, their ability to disseminate, and their potential to engage key individual stakeholders; it is based on both the ability to shape the discourse and generate action, as well as expertise. Whilst the Interest criterion represents the relevance of stakeholder activity to the topic and the likeliness to engage; it is based on the thematic areas of interest to stakeholders. Based on their scores, the identified stakeholder will be sorted into one of the four quadrants, characterising different positioning associated with diverse engagement methods as defined in Although many stakeholders may share the same ranking, further and more in-depth analysis will concentrate on determining the most important stakeholders within each quadrant. Furthermore, when ranking the relative importance of stakeholders, it will be essential to consider those who are involved in delivering CCAM projects and initiatives, as this will be a fundamental aspect of the analysis.

Table 2.

Although many stakeholders may share the same ranking, further and more in-depth analysis will concentrate on determining the most important stakeholders within each quadrant. Furthermore, when ranking the relative importance of stakeholders, it will be essential to consider those who are involved in delivering CCAM projects and initiatives, as this will be a fundamental aspect of the analysis.

Table 2: Engagement strategies according to Power-Interest scores

Power / Interest score	Engagement method	Definition of efforts required
Low/Low	Monitor	Dissemination and communication activities have only the purpose to try to increase interest levels.
Low/High	Keep Informed	Communication and information activities will be stronger, and the stakeholder will be adequately briefed on objectives and progress.
High/Low	Keep Satisfied	Stakeholders that require more efforts to be engaged. The strategy of the actions is to set to increase their interest level from low to high.
High/High	Manage Closely	Key players. These stakeholders require regular consultation, due to their influence on the governance changes process, vital to the project's success and for the result exploitation.

5.3 Findings of stakeholder mapping

The methodology for mapping stakeholders, in the context of power and interest, is a systematic approach to categorize stakeholders based on their ability to influence the project (power) and their level of concern about the project's outcomes (interest). This process typically involves four main steps as outlined in Figure 4.

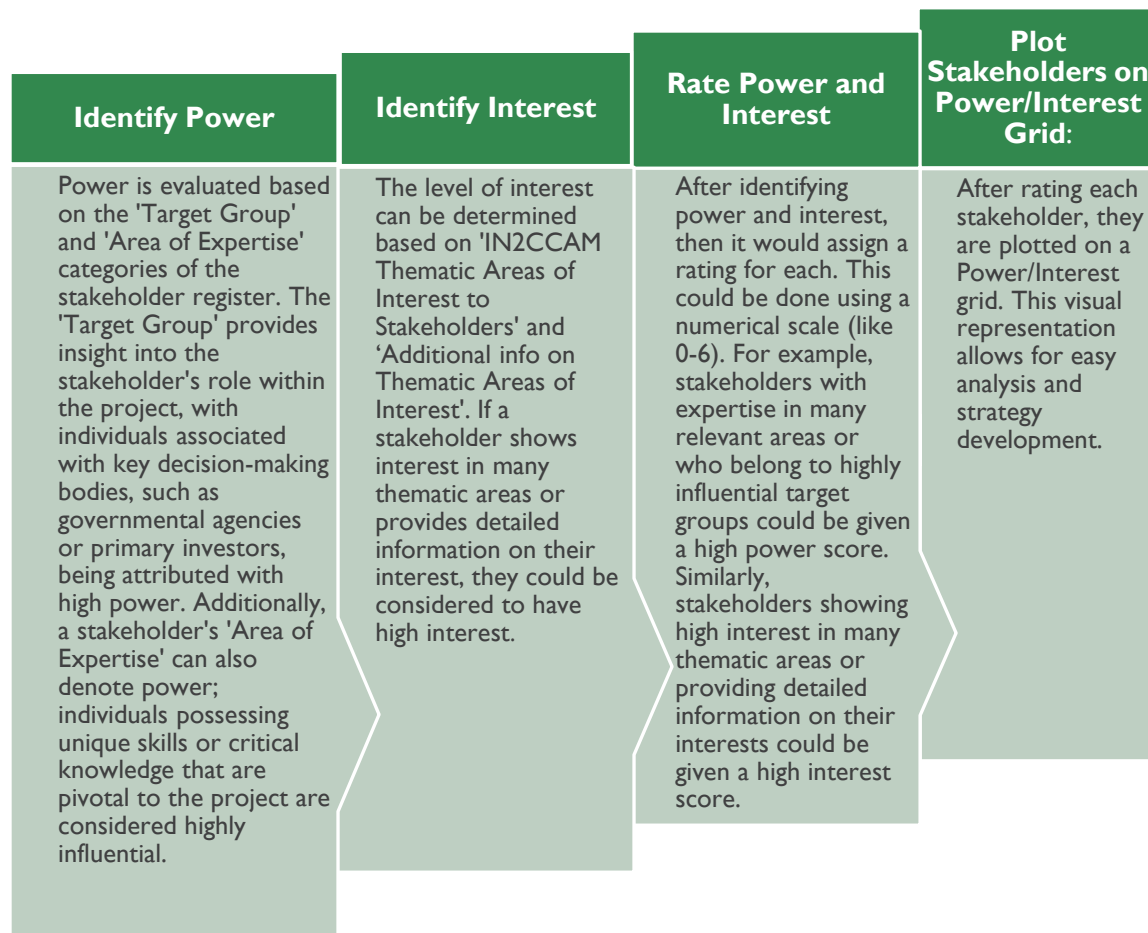


Figure 4: IN2CCAM's stakeholder mapping methodology

After scoring stakeholders based on their power and interest levels, it will likely have a graphical depiction of stakeholders. It can analyse the chart and create specific engagement strategies for each quadrant of stakeholders. The Power/Interest grid allows for tailored stakeholder engagement strategies.

The grid usually results in four quadrants; Figure 5 shows typical examples of the stakeholder analysis output conducted for the sites of Bari (left side) and Tampere (right side), whereas a graphical commentary of results is provided in Figure 6 to further interpret results obtained for Tampere, revealing various stakeholder categories.

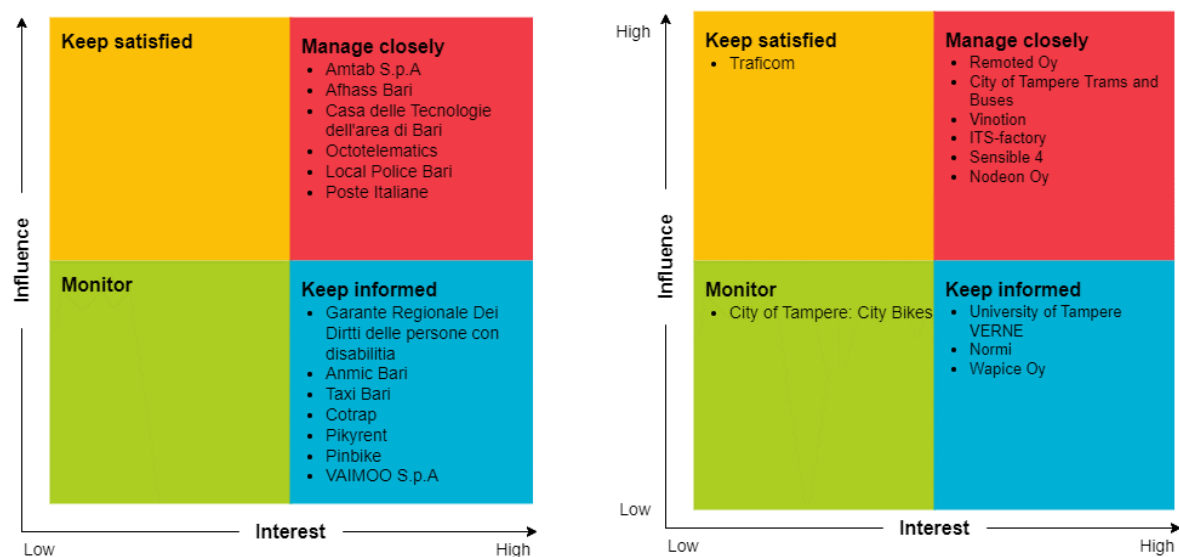


Figure 5: Example stakeholder analysis results for Bari (left side) and Tampere (right side)

<p>High Power, Low Interest Stakeholders:</p> <p>Traficom, with its expertise in the national road authority domain and specific proficiency in Governance for Integrated CCAM as well as Fleet and Traffic Management, holds a significant position in the "Keep Satisfied" quadrant. They possess substantial influence over the project, given their potential impact on project aspects related to road and traffic management. However, despite Traficom's interest in the project being relatively low, the engagement strategy should involve keeping them satisfied by providing pertinent updates and incorporating them in relevant decision-making processes. It is crucial to address their queries promptly, ensuring they feel informed and valued.</p>	<p>High Power, High Interest Stakeholders:</p> <p>Remoted Oy, a significant player in the field of CCAM, falls into the "Manage Closely" quadrant. Their expertise in vehicle connectivity and automation gives them considerable influence over the project. Interest in project developments that could impact their operational and strategic objectives signals high levels of engagement. As a result, Remoted Oy, being a high power, high interest stakeholder, demands active involvement in the project, frequent updates, and prompt attention to their needs and concerns. Managing this relationship effectively is pivotal for the project's success. Regular engagement and clear communication with them can help align their objectives with the project's goals and ensure their continued support and collaboration.</p>
<p>Low Power, Low Interest Stakeholders:</p> <p>The City of Tampere, renowned for its proficiency as a bike-sharing provider via its City Bikes initiative, is categorized in the "Monitor" quadrant as a stakeholder in the IN2CCAM project. Despite their expertise in the bike-sharing sector, their influence and interest in the project are quite limited. Their areas of concern, while pertinent, do not align closely with the project's primary objectives. As such, the engagement strategy for The City of Tampere should entail keeping them informed about significant project developments, particularly those that might potentially impact their bike-sharing operations. However, there is no need for extensive resources to be committed to regular, detailed communication, given their low power and interest levels.</p>	<p>Low Power, High Interest Stakeholders:</p> <p>University of Tampere VERNE, skilled in user research, falls into the "Keep Informed" quadrant of stakeholder analysis. Despite their limited direct involvement and power, their valuable research insights make them a high-interest stakeholder. Given their strong alignment with the project's goals, regular updates on project progression are crucial to maintain their support. This strategy not only keeps them engaged but also helps in aligning the project's developments with their research interests, fostering a cohesive project environment. Nevertheless, they should be taken with overwhelm with information, keeping in line with their high level of interest.</p>

Figure 6: Results commentary for Tampere stakeholder analysis

Whilst this description of results and resulting engagement strategies are based on the stakeholder register data, it should also be highlighted that stakeholder rankings are not intended to be static; the stakeholder register and the Power/Interest grid should be dynamically updated regularly throughout the project, based on the addition of further stakeholders and evolution in the stakeholders' daily business operations.

In the remainder of this section, the outcomes of stakeholder mapping and analysis are shown for the four Lead LLs (Tampere (Finland), Trikala (Greece), Turin (Italy), and Vigo (Spain)), and for the two Follower sites (Bari (Italy) and Quadrilatero (Portugal)).

It is particularly noteworthy that such LL's stakeholder mapping results were based on scores assigned by TTS' analysts, which were duly validated by the most relevant representatives of LLs with valuable knowledge on local transport conditions and stakeholder ecosystems. A similar exercise will be performed when additional stakeholders, either representing the LL context or beyond, are added to the IN2CCAM's stakeholder community. Final consolidated results of the analysis considering the full IN2CCAM's stakeholder community will be reported in D6.2, particularly if within its scope.

5.3.1 Bari

Stakeholders who have low influence on a project but a high level of interest in it should be kept informed because, while they may not have the power to significantly influence the project's outcome, they are likely to be concerned about its progress and could become influential. Figure 7 illustrates that Anmic Bari, Cotrap, Garante Regionale dei Diritti delle Persone con Disabilità, Pikyrent, Pin Bike, Taxi Bari and Vaimoo Spa are identified as stakeholders who need to be kept informed about the progress of the project.

Stakeholders in the "Manage Closely" quadrant are those who have both a high level of interest in the project and the ability to greatly influence its outcomes; as such, it is crucial to manage relationships with these stakeholders very closely. In the context of the project, Afhass Bari, Amtab SpA, Casa delle Tecnologie dell'Area di Bari, Local Police in Bari, Octolematics and Poste Italiane are identified as key stakeholders that should be closely engaged and managed.

Afhass Bari, Amtab SpA, Casa delle Tecnologie dell'Area di Bari and Octolematics are all important stakeholders due to their high interest in the project and their potential to significantly impact its direction and success; their inputs and participation can greatly influence the outcomes and implementation of the project.

Additionally, the involvement of Local Police in Bari is crucial despite a hypothetical technological gap; their cooperation and support are essential for the project's success, as they possess valuable insights and expertise in managing security and law enforcement matters in the local context.

Furthermore, Poste Italiane, being one of the biggest postal delivery service in the country, is coherent with the project's goals and local use case to be implemented in the follower city of Bari; their involvement can provide significant benefits in terms of operations, resources, and network capabilities, thereby contributing to the project's overall success.

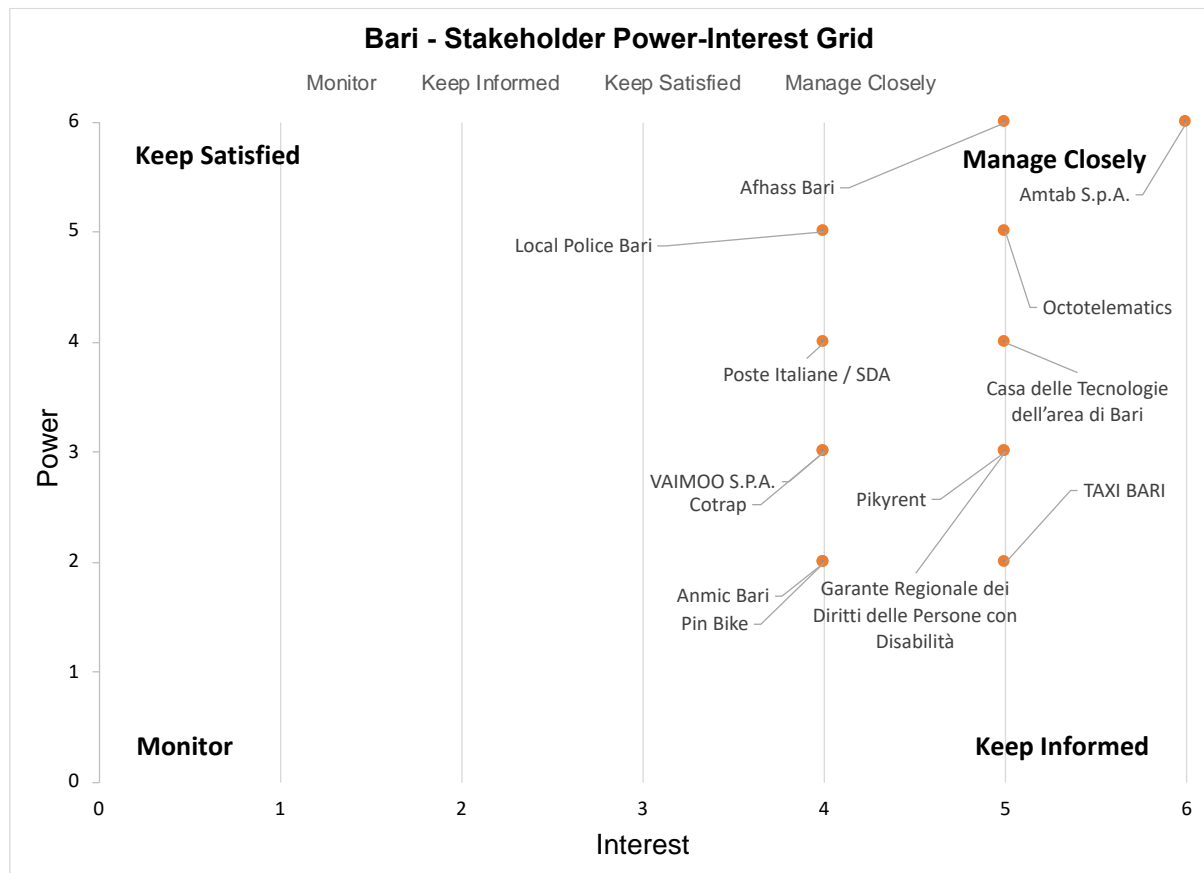


Figure 7: Bari Power-Interest grid

5.3.2 Quadrilatero

The Intermunicipal Community of Ave, Intermunicipal Community of Cávado, Municipality of Barcelos and Municipality of Vila Nova de Famalicão fall into the "Keep Satisfied" quadrant. As shown in the Figure 8, given their power based on political responsibility, financial resources, skills and expertise, it is essential to adjust the level of engagement according to their varying interest levels, particularly regarding the IN2CCAM project activities.

A number of stakeholder representatives from Quadrilatero LL are categorized under the "Manage Closely" designation, indicating a substantial degree of engagement and vested interest in the progression and outcomes of the project. The recommended strategic approach for this category involves consistent and meaningful engagement.

The Associação de Municípios de Fins Específicos Quadrilátero Urbano and the Institute for Mobility and Transport exhibit a high level of interest in the project. They are actively engaged stakeholders who can significantly influence the project's direction and outcomes; thus, it is crucial to closely manage the relationship with them, ensuring their perspectives are heard, and involving them in key decision-making processes.

On the other hand, the Municipality of Braga and Municipality of Guimaraes show relatively lower levels of interest in the IN2CCAM project. While they still possess power and influence, their engagement may require less intensive management; however, it is still important to maintain regular communication and keep them informed about project progress and outcomes.

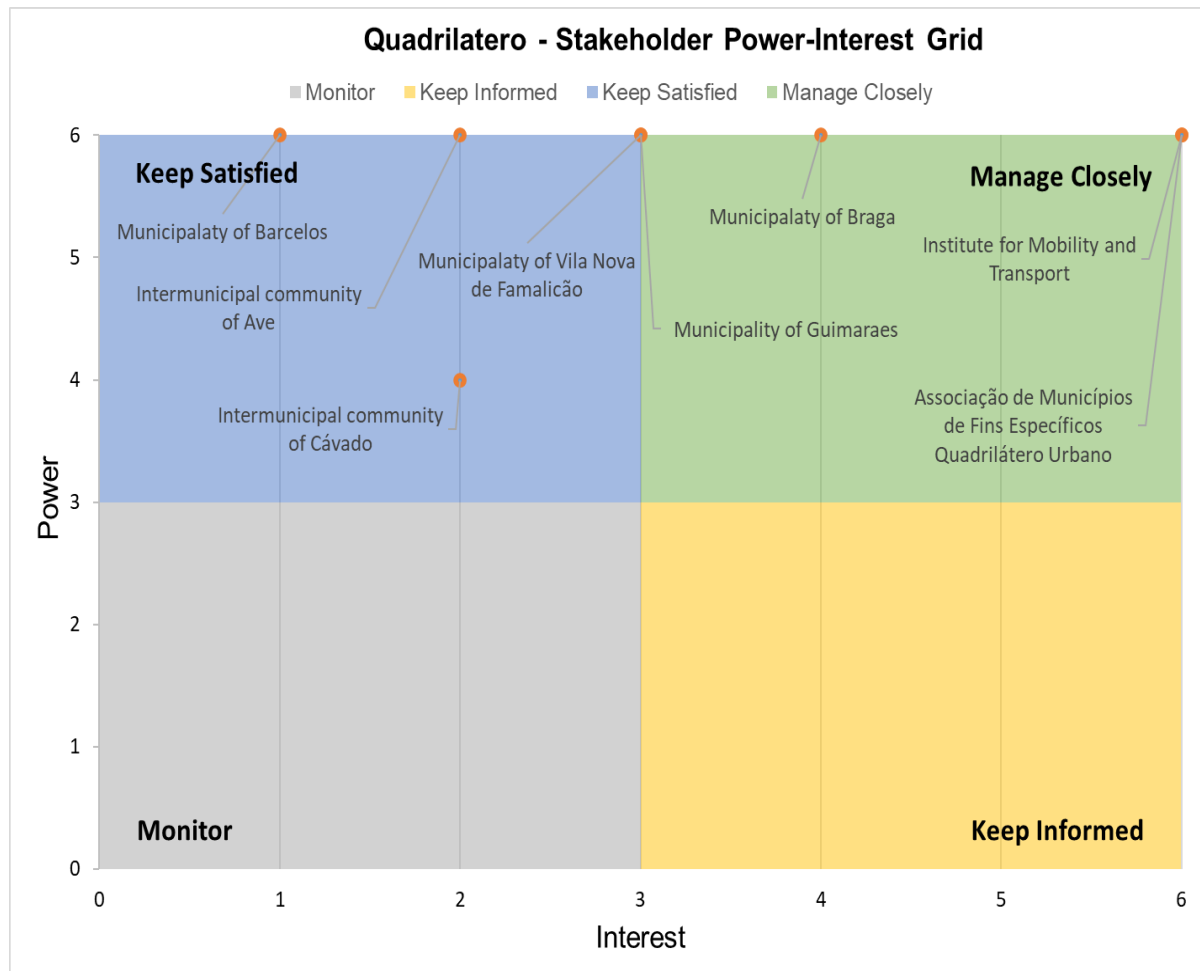


Figure 8: Quadrilatero Power-Interest grid

5.3.3 Tampere

The City of Tampere, with its expertise in being a bike-sharing provider through its City Bikes department, falls into the "Monitor" quadrant of the stakeholder mapping.

In the context of the IN2CCAM project, several stakeholders with unique areas of expertise are categorized in the "Keep Informed" quadrant. The University of Tampere VERNE specializes in user research, Wapice Ltd is proficient in developing and integrating Intelligent Transportation System (ITS) solutions, and Normi possesses expertise in Cooperative Intelligent Transport Systems (C-ITS).

While not directly involved in the project's execution, the University of Tampere provides valuable insights and research related to societal and ethical dimensions of connected and automated mobility. Ensuring regular updates on the project's progress and discoveries is vital for these stakeholders since it aids in aligning the project's developments with their respective operational and research interests, fostering a well-informed, cohesive project environment.

Traficom's areas of expertise lie within the realm of the national road authority, specifically in the domain of Governance for Integrated CCAM as well as Fleet and Traffic Management. Their proficiency in these fields positions them favourably within the "Keep Satisfied" quadrant. By leveraging their comprehensive knowledge and skills, Traficom excels in satisfying the needs and expectations of stakeholders in these critical areas.

The City of Tampere, represented by its Trams and Buses, has its area of expertise in managing local public transport; ITS-Factory's expertise lies in managing the local traffic ecosystem; Nodeon Oy is proficient in C-ITS; Remoted Oy is a crucial player as a CCAM operator; Sensible 4 specializes in CCAM software. All these stakeholders hold key positions and are categorized in the "Manage Closely" section due to their substantial influence and interest, as indicated in Figure 9.

ITS-Factory and Nodeon Oy bring to the table their proficiency in ITS and emerging technologies; Remoted Oy, with its expertise in vehicle connectivity and automation, shows keen interest in project developments that may affect their operational and strategic objectives; Sensible 4 focuses on the integration of CCAM tools into the transportation system. Regular interaction and transparent communication with these stakeholders are critical for their active engagement and backing in the project. It is therefore imperative to keep them closely involved in the project's developments to ensure that their expertise is fully leveraged, and their concerns and interests are duly addressed.

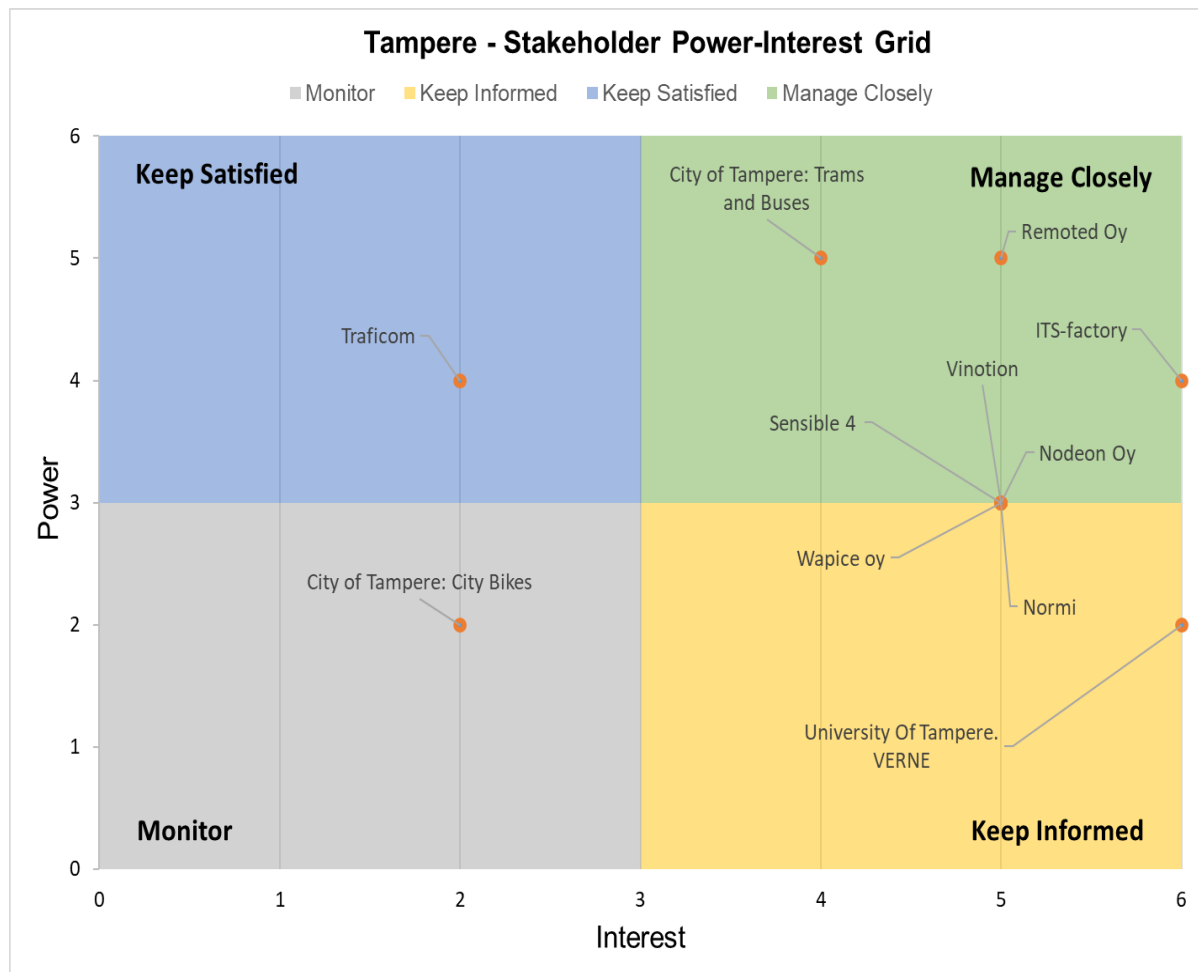


Figure 9: Tampere Power-Interest grid

5.3.4 Trikala

All stakeholder representatives from Trikala LL fall under the positive semi-layer characterised by medium to high interest.

The RadioTaxi Association of Trikala, a private transport service, stands as a significant stakeholder in the IN2CCAM project; being another prominent stakeholder, the University of Thessaly - Department of Physical Education and Sports Science is an educational institution that provides research insights and understanding of the societal and health impacts of mobility and transportation.

In the telecommunications field, Vodafone is a key participant with their interest being related to mobility network load balancing approaches and route and delivery optimization; Siemens Mobility S.r.l is another notable stakeholder with expertise in Mobility as a Service (MaaS) Integration; Eur.Elec Ltd has a specific skill set in the development and integration of ITS solutions and Dotsoft plays a crucial role with its interest in Integrated Mobility Services. These

stakeholders find their place in the "Keep Informed" quadrant for the IN2CCAM project, as illustrated in Figure 10; their involvement, while not as direct, is still crucial for the project's overall success since keeping these stakeholders informed ensures their needs are considered, fostering a cohesive and well-informed project environment.

Astiko Ktel' (Urban Buses S.A. of Trikala), the Intercity Bus Authority, the Hellenic Ministry of Transport, the Municipality of Trikala, along with the Region of Thessaly and the Municipal Police of Trikala are key players in the IN2CCAM project, which are grouped into the "Manage Closely" category due to their significant roles in the mobility sector.

Astiko Ktel' and the Urban Bus Authority, both providers of public transport, are focused on improving service efficiency, enhancing passenger experience and promoting transport integration; the Intercity Bus Authority, tasked with managing longer-distance transport, concentrates on how the project can facilitate a seamless connection between intercity and urban transport systems; the Municipality, as the local authority, is instrumental in urban planning and ensuring the project aligns with local regulations and fosters urban growth. Maintaining regular and effective communication with these stakeholders is essential to keep the project on track and responsive to their specific needs and concerns since it ensures that all aspects of the project are aligned with their unique expectations and goals, fostering a collaborative and harmonious relationship that benefits all parties.

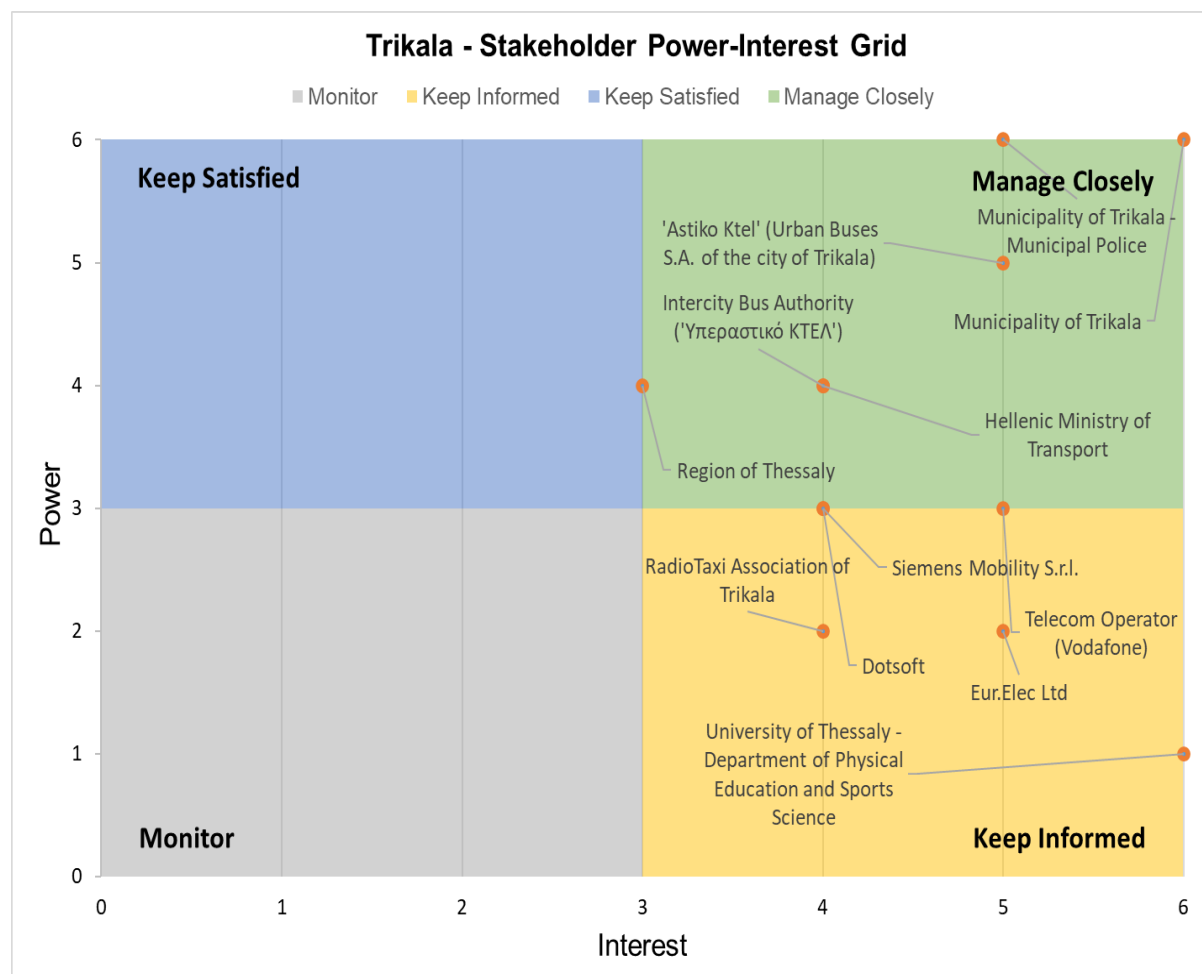


Figure 10: Trikala Power-Interest grid

5.3.5 Turin

A total of 18 stakeholders have so far confirmed their interest in the IN2CCAM project, however according to several peer-to-peer interactions, more stakeholders are expected to join the IN2CCAM community (Figure 11).

Notably, among them, Cecom, Gruppo IREN S.p.A. and WeTaxi S.r.l, fall into the "Monitor" quadrant, which implies that these stakeholders have low power and low interest in the project and potentially reflecting the fact that their diverse operations span multiple sectors.

While Cecom is known for its work in the automotive industry, Gruppo IREN S.p.A. operates across sectors such as electricity, gas, district heating, integrated water and environmental services; on the other hand, WeTaxi S.r.l provides a digital platform for taxi services. Given these wide-ranging areas of operation, it is possible that not all stakeholders will have interest or influence in all areas. For these stakeholders, engagement strategies will primarily focus on monitoring their activities and maintaining sufficient communication to ensure that their interest levels increase over time. These organisations, despite currently having low interest and power, could potentially develop more significant involvement in the project over time, which would warrant a change in the adopted engagement strategy.

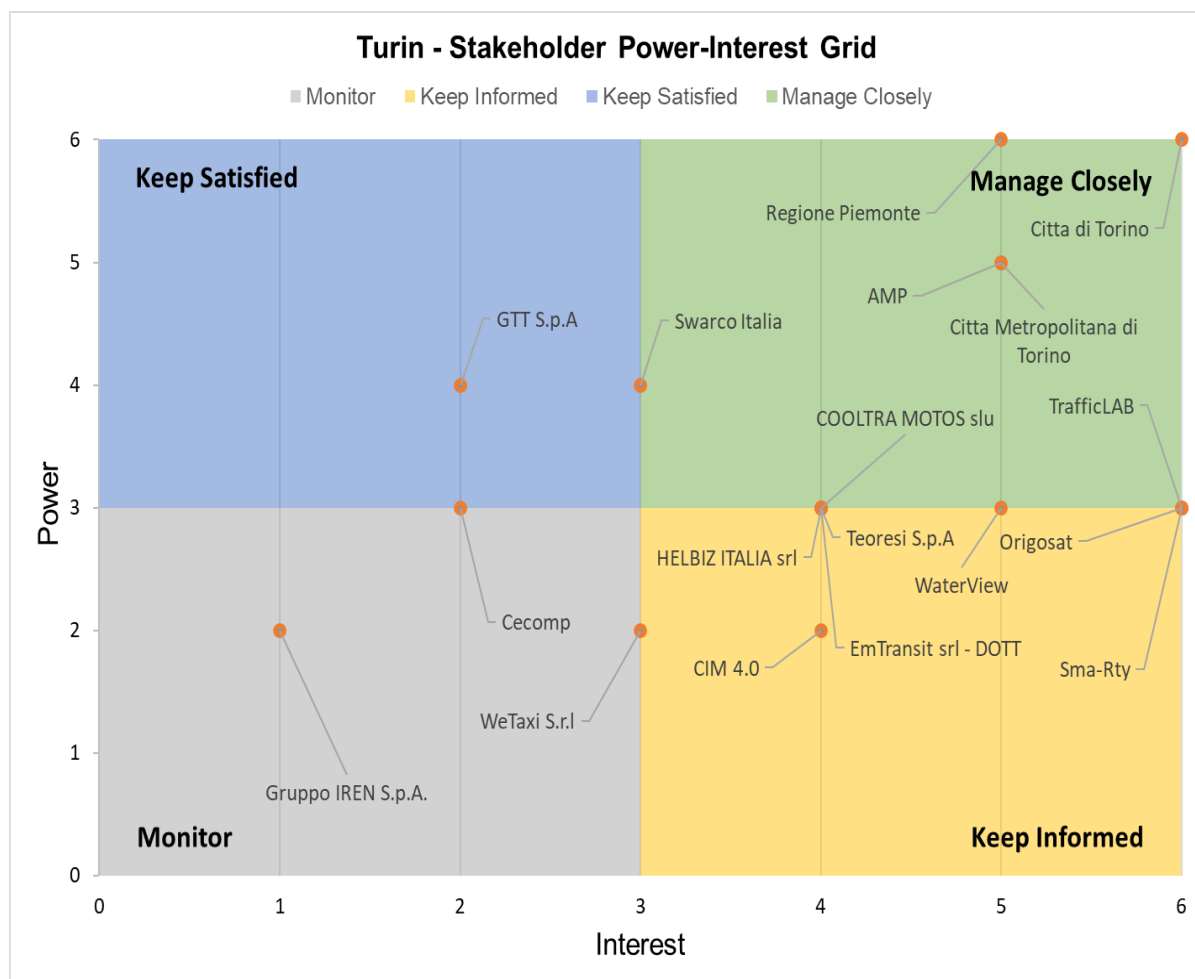


Figure 11: Turin Power-Interest grid

EmTransit srl – DOTT and Helbiz Italia srl, operating in the sharing mobility sector, fall into the "Keep Informed" quadrant through stakeholder mapping analysis; this suggests they have high interest but low power within this area; their interest derives from the direct impact of their developments within the "Integrated Mobility Services" IN2CCAM's thematic area of interest; their low power could be due to their roles as service providers, lacking significant influence over decision-making or regulations within the IN2CCAM thematic area. Therefore, it is crucial to keep them informed about progress and changes in the thematic area to ensure their continued engagement and adaptation of their strategies in the sharing mobility sector.

Additional stakeholders (including CIM 4.0; Origosat, a Satellite anti-spoofing technologies; Sma-Rty; Teoresi S.p.A and WaterView, a weather and environmental video-analysis company) also fall into the "Keep Informed" quadrant of the stakeholder mapping analysis, with their primary interest being in "Demonstration & Validation of IN2CCAM solutions"; this suggests they have high interest but low influence over this project. Their interest stems from their professional roles and potential impacts on their work or constituents, while their lack of power may be due to their roles as individual experts, industry participants, or institutional bodies without direct decision-making influence over IN2CCAM. Thus, maintaining effective

communication with these stakeholders about progress and changes in the thematic area is vital for their continued engagement and contribution.

GTT S.p.A., which operates the public transportation services in Turin, falls into the "Keep Satisfied" quadrant of the stakeholder mapping analysis, which suggests that while GTT S.p.A. has high power due to its control over public transportation services, its interest in the IN2CCAM project might be relatively lower. Despite the lower interest, their significant power necessitates maintaining their satisfaction; this could involve regular communication about the progress of the IN2CCAM project.

It should be noted that AMP (mobility agency for the metropolitan city of Turin), Città di Torino and Swarco Italia are key stakeholders in the IN2CCAM project, occupying the "Manage Closely" quadrant due to their high interest and power in the mobility industry since they significantly influence public policy decisions, regulations and societal mobility trends. Similarly, equally important stakeholders include Città Metropolitana di Torino, COOLTRA MOTOS slu, Regione Piemonte and TrafficLab. Such entities have various roles in regional mobility planning, sustainable solutions development, traffic analysis and city-wide mobility policy implementation; their interest and influence make their input essential to the successful implementation of the IN2CCAM solutions, therefore, fostering relationships, communication, and cooperation with these stakeholders is crucial.

5.3.6 Vigo

With regard to Vigo stakeholders, Stellantis Vigo, a vehicle manufacturer, fall into the "Keep Informed" quadrant in stakeholder mapping analysis reporting interest within the IN2CCAM thematic area of "Harmonisation and Interoperability". While their lower power may result from their role as individual company without significant decision-making influence over the above mentioned broad thematic areas, it is crucial to keep these stakeholders informed about developments to enable them to align their operations with sector trends and maintain competitiveness.

Moreover, Universidade de Vigo, Gradiant, and Veovisión, with respective expertise in Industrial Engineering, AI and Telecommunications, and video-based AI equipment provision, also fall into the "Keep Informed" quadrant of stakeholder mapping analysis. Their interest is driven by the potential impact of IN2CCAM solutions on their fields, while their lower power could be due to their roles as individual organizations without significant decision-making influence over the thematic area; therefore, it is vital to keep these stakeholders updated about the progress of IN2CCAM solutions, enabling them to align their strategies with these developments and maintain their competitiveness.

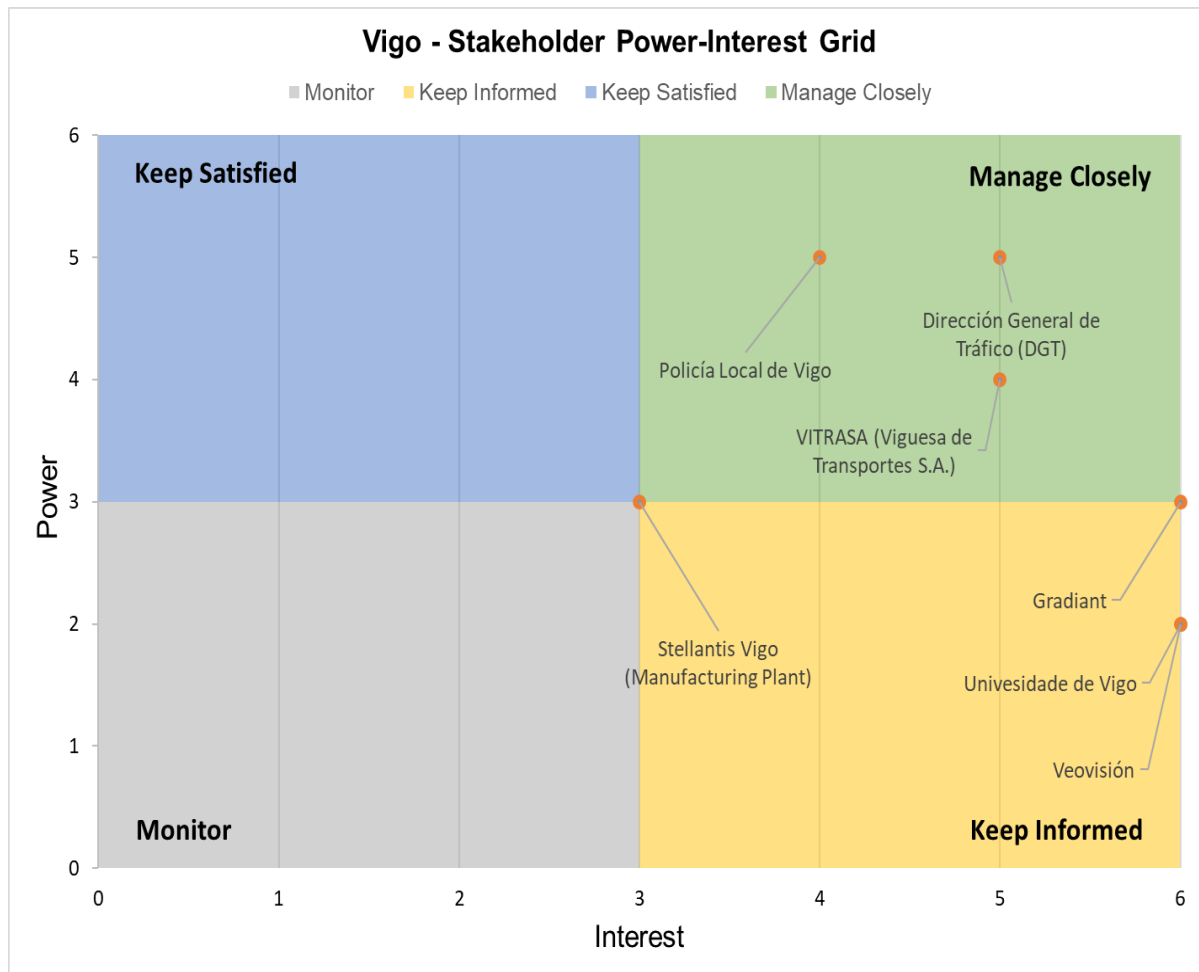


Figure 12: Vigo Power-Interest grid.

The Dirección General de Tráfico (DGT), Policía Local de Vigo, which oversees mobility, safety and security in Vigo and VITRASA, a passenger transport company fall into the "Manage Closely" quadrant in stakeholder mapping analysis reporting interests within the IN2CCAM's thematic areas of "Integrated Mobility Services" and "Governance for Integrated CCAM - Fleet & Traffic Management".

Their interest is due to the direct impact that changes in fleet and traffic management could have on their operations, while their power arises from their roles in policymaking and enforcement within their respective jurisdictions. Therefore, it is vital to closely manage these stakeholders by maintaining strong relationships, involving them in decision-making processes, and regularly communicating with them for the successful implementation of the IN2CCAM thematic area.

6 GUIDELINES FOR COORDINATED ENGAGEMENT

6.0 Stakeholder engagement planning

Notably, it is not possible to arrange a one-size-fits-all engagement plan. Therefore, partners will be encouraged to consider the following five specific key guiding questions when defining efficient stakeholder engagement processes (Führer, 2019):

1. The first key question to address is "**Who?**"
Although the answer may appear simple, e.g., to engage all possible stakeholders, this question includes many different aspects that need to be considered before starting the engagement process. It is advisable to start with the complete identification and analysis of those stakeholders deeply interested in the project and then proceed to plan their involvement.
2. The next pillar is "**What?**", which introduces the consequent question "What activities are we planning to achieve the result?".
To answer this question, it is necessary to establish the objectives and expectations of involvement, as well as a set of indicators to measure them.
3. Another fundamental aspect is the timing of the engagement: "**When?**".
This question leads to the widespread opinion that the earlier one engages, the better for the project results. However, while starting involvement at an early stage will provide the opportunity to make experts and non-experts aware of the project activities, starting at a late stage allows citizens to be actively involved when experiments and activities are already underway and established.
4. The key question "**Where?**" refers to the involvement of stakeholders in each area of implementation. When stakeholder involvement is carried out for project activities, it is necessary to consider the specific circumstances of the locations where the activities will take place.
5. Last, but not least, the key question to be addressed is "**How?**".
This is probably the broadest question, as it encompasses many different aspects that must be considered before starting stakeholder engagement. First, it refers to how to engage stakeholders, i.e., the wide range of methods and tools that can be used to engage them. It also refers to how involvement is successful, i.e., the potential challenges that need to be considered and the legitimacy of involvement.

Table 3 outlines key guidelines for addressing the above questions when a need to engage stakeholders arises to properly execute project activities under the different tasks and WPs.

Table 3: IN2CCAM's guiding engagement planning framework

Item	Question	Suggested practice
Who	Which stakeholders	The most appropriate stakeholders to engage will depend on the specific tasks and activities for which contributions are sought. Stakeholders should be identified starting from the Power-Interest grids depicted in section 5.3 and contacts sourced from the developed IN2CCAM's stakeholder register (i.e., ideally only stakeholders who shared their expression of interest through the signed LoS should be involved).
What	Which contributions are expected from stakeholders?	The content and format of the exact contributions are outlined in Table 1, however, additional scoping elements may be defined in due course as part of project implementation by the responsible partners.
When	Timing of engagement	Ideally, stakeholders should be kept informed throughout the project lifecycle about IN2CCAM's progress and achievements, so that their interest in project implementation and willingness to cooperate is increased. The exact timing for organising engagement initiatives and gathering stakeholder contributions are however the responsibility of partners in charge of specific task execution.
Where	Topic areas of contributions	The preliminary scope of stakeholder contribution is outlined in section 4.2, however, stakeholders' inputs relating to additional topics and the associated logistics to gather such information should be arranged by responsible partners in due course and communicated on time to the WP6 leader and PC.
How	Which engagement channels	The most appropriate engagement strategies should be based on the stakeholder analysis results depicted in chapter 5 (i.e., quadrants of Power-Interest grids). The recommended engagement channels to be used are outlined in Figure 2, however, additional tools and methods can be defined according to specific needs arising during WP and task implementation.

6.1 Review and improvement

As mentioned earlier, throughout the project lifecycle the exact stakeholder contributions required under the different WPs, the engagement channels, and activity/event timelines must be defined by partners responsible for project implementation and communicated to the WP6 leader and the PC.

To sum up, the overall engagement planning process involves the following steps:

- Responsible partners for WP or task execution define the scope of stakeholder contribution and the engagement channels in accordance with the DoA and the specific needs arising during project implementation;
- Responsible partners identify stakeholders starting from contacts gathered in the IN2CCAM's stakeholder register and based on the Power-Interest grids, which will be continuously updated throughout the project lifecycle; such grids, as noted earlier, also assist in defining the engagement method to be pursued for a given stakeholder, also beyond the timing of gathering stakeholder contributions in order to increase their interest and willingness to cooperate as IN2CCAM progresses;
- The outcomes of the above points (i.e., the scoping elements, channels, and identified stakeholders) are communicated to the WP6 leader and PC two weeks in advance of conducting the engagement initiative;
- The outcomes of the engagement activity are briefly recorded and reported by relevant partners using the designed IN2CCAM's stakeholder involvement tracker and, additionally, by providing the WP6 leader and the PC with the written findings and outcome of the engagement initiative implemented.

The stakeholder involvement tracker is structured in the following variables:

- Identification number of the engagement activity
- Name of stakeholder organisation to engage
- WP, Task or activities for which stakeholder inputs are sought
- Engagement event, that is the channel used for gathering stakeholder input
- Description of the engagement topic
- Key contributions received from stakeholders
- Project output to feed (e.g., milestone or deliverable) showing stakeholders' tangible contributions to achieving quality output.

This tool will be compiled throughout the project, being populated as soon as the outcomes of engagement initiatives become available. A fully detailed copy of the fully compiled tracker, along with stakeholder analysis updates and findings of key project-level engagement outcomes will be attached to D6.2, whenever the engagement initiatives accord with the scope of such deliverable.

It is recommended that partners assign priority to resource allocation and engagement efforts toward stakeholders situated in the quadrant labelled as “Manage Closely”. Furthermore, the stakeholders with a “Keep Satisfied” starting position will be encouraged to heighten their levels of interest; it is recognized that the influence wielded by these stakeholders can significantly contribute to the eventual success of activities and demonstrations occurring in the project.

Moreover, in the framework of the LL demonstrations, critical stakeholders from both public and private sectors should receive invitations to attend the Kick-Off meetings; this forum will serve as a platform to raise awareness among the “Keep Satisfied” organisations, ultimately generating interest in the project.

Nonetheless, solicitation of the active involvement of stakeholders in the “Monitor” and “Keep Informed” quadrants ought to be reserved for instances where a new need arises (e.g., a change in company focus) or when sufficient resources are available.

The establishment of Key Performance Indicators (KPIs) is crucial for overseeing the relative levels of “achievement” within the context of the engagement. Incorporating these elements into the stakeholder engagement strategy is highly encouraged for facilitating the allocation of resources and prioritization of activities. A range of benefits is indeed expected to be achieved through an efficient engagement process, namely:

- The formulation of strategic alliances with market competitors can be an effective approach to circumvent direct competition in the realm of service delivery;
- The sharing of resources and expertise by stakeholders aim at facilitating the design and execution of a project endeavour;
- The number of stakeholders being maintained at a level of satisfaction has undergone a transition towards being monitored more closely as a consequence of heightened attention thanks to the engagement initiatives.
- The quantification of engagement activities/events that were conducted and the collection of associated feedback.

7 CONCLUSION

The PES for the IN2CCAM project plays a critical role in accelerating the adoption of innovative CCAM technologies and systems across Europe. The strategy aims to bring about a harmonised and transparent approach to stakeholder engagement, fostering a collaborative and inclusive environment where stakeholders can contribute effectively. By employing a four-step methodology - engagement planning, stakeholder mapping and analysis, coordinated engagement preparation, and the review and enhancement of engagement initiatives - the project ensures that its interaction with stakeholders is organised, meaningful and open to continuous improvement.

As a vital element of the project, stakeholder engagement is guided by key principles; these include identifying stakeholders based on their power and interest levels, the timing of engagement, specific areas of contribution and the most effective engagement methods. The preliminary stakeholder analysis allowed identifying varying levels of influence and interest among stakeholders, which in turn will support tailored engagement strategies effectively.

With these insights, the right stakeholders can be involved at the right time and in the right way, while prioritising early engagement and maintaining this connection at various stages of the project; this approach ensures that stakeholders' interests and concerns are promptly addressed, and their expertise is harnessed for the successful progression of the project.

Outcomes of the stakeholder analysis conducted for the IN2CCAM project offer valuable insights into the stakeholders involved (or soon to be) in each LL. This study categorises such stakeholders based on their level of power and interest, which provides the foundation for tailored engagement strategies.

To summarise findings on stakeholder engagement across different living labs, in Bari, key stakeholders for the project include Afhass Bari, Amtab SpA, Casa delle Tecnologie dell'Area di Bari and Octolematics due to their substantial influence and high interest, while the Local Police provide crucial law enforcement insights. Finally, Poste Italiane's alignment with project goals further strengthens operational capabilities, thus contributing greatly to the project's success.

For Quadrilatero, key stakeholders include the Associação de Municípios Quadrilátero Urbano and the Institute for Mobility & Transport requiring substantial engagement due to their high influence. Moreover, the Intermunicipal Community of Ave, Intermunicipal Community of Cávado, the Municipality of Barcelos and the Municipality of Vila Nova de Famalicão, although varying in interest levels, are crucial due to their significant resources and influence.

Regarding Tampere LL, the City of Tampere (Trams and Buses), ITS-Factory, Nodeon Oy, Remoted Oy and Sensible 4 emerge as the most crucial stakeholders due to their high

influence and significant interest, mandating close management and engagement. Traficom, with expertise in governance for Integrated CCAM, falls into the "Keep Satisfied" quadrant, necessitating careful attention to their needs. Finally, the University of Tampere VERNE, Normi and Wapice Ltd, classified in the "Keep Informed" category, provide distinct expertise and should receive regular project updates.

In Trikala, crucial stakeholders with respect to IN2CCAM project include the Astiko Ktel', the Intercity Bus Authority, the Hellenic Ministry of Transport, the Municipal Police of Trikala, the Municipality of Trikala and the Region of Thessaly, due to their substantial roles within the mobility sector. Additionally, Dotsoft, Eur.Elec Ltd, the RadioTaxi Association of Trikala, Siemens Mobility S.r.l., the University of Thessaly and Vodafone bring significant expertise and interest, and thus, require regular project updates.

For Turin, AMP, Città di Torino and Swarco Italia occupy the "Manage Closely" quadrant due to their significant roles in public mobility; GTT S.p.A., which operates public transportation services in Turin, falls in the "Keep Satisfied" quadrant due to its substantial power; CIM 4.0, EmTransit srl – DOTT, Helbiz Italia srl, Origosat, Sma-Rty, Teoresi S.p.A and WaterView, despite their low influence, are important entities with high interest and their engagement and updates could provide valuable insights for the IN2CCAM project.

In Vigo, Stellantis Vigo and Universidade de Vigo are key stakeholders due to their high interest in the "Harmonisation and Interoperability" thematic area, requiring regular updates. Equally vital are the Dirección General de Tráfico (DGT), Policía Local de Vigo and VITRASA, who, owing to their powerful positions in "Governance for Integrated CCAM", demand close management and constant engagement for the successful implementation of the project's objectives.

Notably, these insights on the diverse range of stakeholders across the different LLs of the IN2CCAM project will inform targeted engagement strategies, contributing to the effective implementation of the project's objectives.

Finally, the stakeholder register and Power/Interest grids will be dynamically updated throughout the project and the engagement activities will be continuously monitored and adjusted for optimal results. All outcomes from these activities will be logged and reported in D6.2 (if aligned with its scope). Additionally, the stakeholder involvement tracker serves as an evolving record of our stakeholder engagement, facilitating the reporting and improvement of engagement activities, stakeholder analysis updates and significant project-level engagement outcomes.

The comprehensive stakeholder engagement management approach outlined in this deliverable, if co-implemented timely and responsibly by project partners, will contribute to the overall success and impact of the project, ensuring its relevance, value and capability to meet the set objectives.

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9 ANNEX 1: LETTER OF SUPPORT

1 PROJECT INFORMATION SHEET

Call identifier: Horizon-CL5-2022-D6-01

Topic: Horizon-CL5-2022-D6-01-04 "Integrate CCAM services in fleet and traffic management systems (CCAM Partnership)"

EC funding: 4.979.626.00 €

Duration: November 2022– October 2025

Consortium: 21 partners, 10 Countries

Demonstrators: Tampere (Finland), Trikala (Greece), Turin (Italy), Vigo (Spain), Bari (Italy) and Quadrilatero (Portugal)

IN2CCAM consortium intends:

- ☐ develop, implement and demonstrate innovative services for connected and automated vehicles, infrastructures and users
- ☐ accelerate the implementation of innovative CCAM technologies and systems for passengers and goods
- ☐ providing benefits to all citizens by implementing a full integration of CCAM services in the transport system.

Impacts for society:

- i. safety (i.e., reducing the number of road accidents caused by human error);
- ii. environment (i.e., reducing transport emissions and congestion by smoothening traffic flow and avoiding unnecessary trips);
- iii. inclusiveness (i.e., ensuring inclusive mobility and good access for all).

The approach is based on the implementation and integration of enhanced Physical, Digital and Operational Infrastructures to enrich CCAM services and increase safety and traffic efficiency.

The proposed actions will help to develop new mobility concepts for passengers and goods leading to healthier, safer, more accessible, sustainable, cost-effective and demand-responsive transport everywhere.

2 LETTER OF SUPPORT

[DATE]

[Details of partner organisation inviting the stakeholder]

According to the objective of the Horizon Europe 2021–2027 framework program, the IN2CCAM project intends to hasten the adoption of cutting-edge technology to enable the use of autonomous vehicles for the transportation of people and goods. Without a driver, autonomous cars, buses, and trucks will be able to correct human errors, which will have a significant impact on society in terms of safety (i.e., a decline in the number of road accidents caused by human error); the environment (i.e., a decrease in transport emissions and congestion by facilitating the flow of traffic and avoiding unnecessary travel); and inclusiveness (i.e. ensuring inclusive mobility and good access for all as elderly or disabled people physical problems).

A group of physical, digital, and operational solutions will be developed by 21 partners from 9 different European countries and deployed in 6 pilot cities: Tampere (Finland), Trikala (Greece), Turin (Italy), Vigo (Spain), Bari (Italy), and Quadriatero (Portugal).

The support of [Your organisation] will consist of the following, whenever possible:

- ☐ Support our efforts to understand the operation/challenges/requirements specific to organisations in the interconnected domain of CCCAM (Cooperative, Connected and Automated Mobility)-traffic & fleet management
- ☐ Participate and contribute to the extent possible to meetings with the project consortium, also in the form of workshops, focus groups or similar
- ☐ Give feedback on the project direction and proposed solutions, their feasibility and desirability from your perspective as a stakeholder
- ☐ Where possible and appropriate, explore the validity of recommendations.

The Consortium will cover the cost (travel, accommodation and subsistence) for your potential participation in face-to-face meetings.

We inform that any data collected throughout the consultation process will be treated in accordance with privacy regulations (GDPR 2016/679) and will be anonymised and only used for research purposes.

Yours Sincerely,

Name of Signee:

Position:

Signature:

Date: