

Deliverable 3.2

Evaluation of engagement and data collection strategies



Funded by
the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101064988.

Version number:	1.0
Main author:	Giacomo Cantini, Anna Rita Graziani, Letizia Fontanesi, Giulia Renzi (UNIMORE)
Dissemination level:	PU- Public
Internal Reviewers:	Maren Link, Stephanie Kessler (City of Hamburg), Silvia Gaggi (ISINNOVA)
Lead contractor:	UNIMORE
Due date:	31/12/2024
Delivery date:	29/12/2024

Version history			
Version	Date	Main author	Summary of changes
0.1	15/05/2024	Giacomo Cantini	ToC draft
0.2	26/10/2024	Giacomo Cantini	ToC revised and first draft of contents
0.3	04/11/2024	Giacomo Cantini	ToC final definition and second draft of contents
0.4	05/12/2024	Giacomo Cantini; Letizia Fontanesi; Anna Rita Graziani	Chapter 2, 3, 4 and 5 contents
0.5	11/12/2024	Giacomo Cantini; Giulia Renzi	Definition of draft version for peer review
0.6	19/12/2024	Silvia Gaggi, Maren Link, Stephanie Kessler	Peer review
0.7	23/12/2024	Giacomo Cantini	Integration of reviewers' comments
1.0	29/12/2024	Giulia Renzi, Andrew Winder	Final quality check and submission

Legal disclaimer

Funded by the European Union. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

This document and its content are the property of the SINFONICA Consortium. All rights relevant to this document are determined by the applicable laws. Access to this document does not grant any right or license on the document or its contents. SINFONICA partners may use this document in conformity with the SINFONICA Consortium Grant Agreement provisions.

Executive Summary

This document evaluates the participatory approach implemented in the SINFONICA project, focusing on the processes and methodologies used to engage stakeholders across four Groups of Interest (GOI): Trikala (Greece), Hamburg (Germany), Noord-Brabant (The Netherlands), and West Midlands (United Kingdom). The evaluation assesses the effectiveness of the participatory process across three key phases: Design and Planning, Implementation, and Results and Impacts.

In the Design and Planning phase, the participatory framework was positively received for its inclusivity, coherence, and feasibility. Feedback from the GOI emphasized the alignment of objectives with stakeholder needs and the clarity of the guidelines, which fostered a sense of ownership among participants. However, some GOI expressed a need for more time to adequately prepare and conduct activities, such as focus groups and interviews. Despite these challenges, the foundational elements of the participatory approach were successfully established, creating a solid basis for the following phases.

The Implementation phase demonstrated the adaptability and inclusivity of the participatory strategies. Tailored methodologies addressed the diverse needs of participants, including vulnerable groups, and created synergies with local initiatives. Feedback mechanisms enabled iterative improvements, enhancing the quality of engagement over successive rounds. However, challenges in maintaining participant engagement and ensuring clear communication about the process and outcomes were noted, particularly in Noord-Brabant. Addressing these gaps remains essential for future participatory efforts.

In the Results and Impacts phase, the participatory approach achieved significant outcomes, such as fostering trust, empowerment, and inclusivity. GOI representatives reported increased awareness of Cooperative, Connected, and Automated Mobility (CCAM) technologies and a sense that their contributions were valued. The evaluation also identified key lessons learned, including the importance of clear communication strategies, robust feedback loops, and targeted efforts to engage underrepresented groups. Recommendations emphasize the need for transparent communication of outcomes, tailored engagement strategies, and the integration of participatory methods into broader governance structures to foster a participative political culture.

In conclusion, the SINFONICA participatory approach demonstrated its potential to address complex mobility challenges through inclusive and user-centred methodologies. While the process successfully fostered collaboration and delivered meaningful outcomes, addressing identified shortcomings—such as improved return mechanisms, and deeper integration of feedback—will further strengthen the approach. These findings offer valuable insights for advancing equitable, sustainable mobility solutions and setting benchmarks for future participatory processes in CCAM initiatives.

Contents

ABBREVIATIONS	5
1. INTRODUCTION.....	6
1.1 PURPOSE OF THIS DOCUMENT	6
1.2 STRUCTURE OF THE REPORT	7
1.3 SCOPE OF THE DELIVERABLE AND RELATIONS WITH OTHER WPs AND TASKS OF THE PROJECT	8
1.4 INTENDED AUDIENCE	9
2. PARTICIPATORY PROCESS EVALUATION FRAMEWORK	10
2.1 THE IMPORTANCE OF A PARTICIPATORY APPROACH IN MOBILITY PROJECTS	10
2.2 OBJECT OF THE EVALUATION	13
2.3 DEFINITION OF THE EVALUATION FRAMEWORK	16
2.3.1 <i>Phase 1: Design and Planning</i>	20
2.3.2 <i>Phase 2: Implementation</i>	22
2.3.3 <i>Phase 3: Results & Impacts</i>	23
3. FEEDBACK COLLECTION METHODOLOGIES AND PARTICIPATORY APPROACH EVALUATION	25
3.1 DESCRIPTION OF FEEDBACK COLLECTION METHODOLOGIES	25
3.1.1 <i>Bilateral meetings</i>	25
3.1.2 <i>Collective brainstorming session</i>	25
3.1.3 <i>Questionnaire</i>	26
3.2 ROUNDS OF EVALUATION AND FEEDBACK ANALYSIS METHODOLOGY	26
3.3 DATA MANAGEMENT AND PRIVACY CONSIDERATIONS.....	27
4. EVALUATION OF THE SINFONICA PARTICIPATORY APPROACH.....	29
4.1 ANALYSIS OF NUMBERS REACHED	29
4.2 RESULTS OF THE EVALUATION PHASES	30
4.2.1 <i>Evaluation Phase 1: Design & Planning</i>	30
4.2.2 <i>Evaluation Phase 2: Implementation</i>	33
4.2.3 <i>Evaluation Phase 3: Results & Impact</i>	38
4.3 GOI REPRESENTATIVES’ FEEDBACK AND SUCCESS STORIES	40
4.4 CHALLENGES AND LESSONS LEARNED.....	41
4.5 RECOMMENDATIONS	43
5. CONCLUSIONS	46
6. REFERENCES.....	48
7. APPENDICES.....	48
7.1 ANNEX 1 - EVALUATION BILATERAL MEETINGS (ROUND 1).....	48
7.2 ANNEX 2 - QUESTIONNAIRE (ROUND 2).....	57
7.3 ANNEX 3 – COLLECTIVE BRAINSTORMING SESSION’S GUIDELINES (ROUND 2)	60
7.4 ANNEX 4- EVALUATION BILATERAL MEETINGS (ROUND 3)	62

List of figures

Figure 1: Overview of SINFONICA participatory approach implemented in the engagement phase	14
Figure 2: Overview of the objectives of the SINFONICA participatory approach	16
Figure 3: Combined SWOT analysis from the GOI	42

List of tables

Table 1: Evaluation criteria, variables and related study questions for each of the phases to be evaluated	17
Table 2: Summary of the participatory sessions - interviews, focus groups, and workshop - conducted across the four GOI during the three rounds of engagement strategies	29

Abbreviations

CAV	Connected and Automated Vehicle
CCAM	Cooperative, Connected, and Automated Mobility
EU	European Union
EU-CEM	European Common Evaluation Methodology
GDPR	General Data Protection Regulation
GOI	Group of Interest
JRC	European Commission's Joint Research Centre
KPI	Key Performance Indicator
M	Mean value
NGO	Non-Governmental Organizations
PR	Participatory Research
SPSS	Statistical Package for the Social Sciences
WP	Work Package

1. Introduction

The SINFONICA project, part of the Horizon Europe programme, develops innovative strategies, methods, and tools to engage Cooperative, Connected, and Automated Mobility (CCAM) users, providers, and other stakeholders. Its goal is to gather their needs, concerns, and desires regarding CCAM and support, through a cooperative approach, the development of innovative solutions in the realm of public and shared road passenger transport that are inclusive and accessible, benefiting the entire population. The project prioritizes a participatory approach to tackle inclusivity and accessibility challenges, involving citizens, transport operators, public administrations, service providers, researchers, and vehicle and technology suppliers, with a special emphasis on individuals with mobility challenges.

The SINFONICA framework is based on a participatory approach designed for local and regional authorities and those interested in developing and deploying inclusive, equitable, and accessible CCAM solutions. This approach has been co-created and tested with the SINFONICA Groups of Interest (GOI) created in four locations across Europe: Trikala (Greece), Hamburg (Germany), the Province of Noord-Brabant (The Netherlands), and the metropolitan area of West Midlands (United Kingdom). In each local context, the GOI involve different categories of people with mobility challenges, citizens, and stakeholders. All in all, the project aims to collect and systematize knowledge on CCAM to co-create decision support tools for designers and decision-makers, promoting an inclusive, sustainable, and equitable deployment of CCAM solutions. At its core, SINFONICA consists of a wide community of actors across Europe, through which the project's activities are tested and evaluated, enabling the reuse and empowerment of the knowledge provided at the local level.

This deliverable presents the evaluation of the SINFONICA participatory process, focusing on its design, implementation, and impacts. Through detailed analysis, it provides insights into how effectively the approach addressed the project's inclusivity and accessibility objectives while engaging diverse stakeholders across the four GOI.

1.1 Purpose of this document

The aim of the deliverable is to present the results of the participatory approach evaluation process, that was included in Task 3.5: Monitoring and evaluation of the engagement and data collection activities in the four GOI. The goal of this task was to objectively monitor progress and evaluate the effectiveness of the engagement strategies (T2.1) and of the data collection methodologies (T2.2, T2.3) that have been implemented within the four GOI (T3.1, - T3.4). As foreseen in the Grant agreement, the Key Performance Indicators (KPIs) necessary to accurately monitor the actions and evaluate the results achieved are defined. The results of the activities of the T3.5, together with the final evaluation of the strategies and methodologies implemented by the four GOI constitute the present deliverable D3.2: Evaluation of engagement and data collection activities.

Carrying out the evaluation of the SINFONICA participatory approach involves a systematic assessment of how well the engagement strategies may foster communication, participation, and collaboration among stakeholders in each GOI, ensuring that their input is genuinely incorporated into the project. By closely tracking the performance of these strategies, the task aimed to identify strengths and weaknesses in the current approach, enabling continuous improvement and adaptation to the needs of diverse stakeholders. As for the SINFONICA engagement activities involving the four GOI, there were three rounds of feedback collection. At the end of each round the

performance and results obtained were analysed, proposing improvements to be implemented in the following round. Similarly, evaluating the data collection methodologies focused on ensuring that the information gathered from each GOI is accurate, relevant, and comprehensive. This included analysing the effectiveness of different tools, techniques, and channels used for data collection, assessing how well they capture the key metrics and indicators necessary for informed decision-making. It also involved verifying whether the data accurately reflects the perspectives, concerns, and expectations of the stakeholders in each group, ensuring that the collected information provides a reliable foundation for policy development and technological adjustments. By conducting this detailed evaluation, the task proposed best practices for stakeholder engagement and data collection within the CCAM sector. The aim was to ensure that the methodologies applied are not only scientifically sound but also practically effective in addressing the specific goals of each GOI. Moreover, the objective was to enhance the quality and the reliability of data, thereby supporting a more transparent, evidence-based decision-making process that aligns with the strategic goals of the project and the broader ambitions of CCAM deployment in Europe.

Therefore, the present report assesses the quality, reliability, and effectiveness of the participatory approach, to determine if it matches the intended objectives and if it adheres to the recalled standards of rigor and impartiality. The ultimate object of the present evaluation is to provide meaningful insights and support informed decision-making, as to improve the accuracy and impact of future assessments pertaining to approaches similar to SINFONICA's or inspired by it. It is evident that the evaluation of stakeholder engagement and data collection activities is crucial in the CCAM sector, particularly for the development and deployment of Connected and Automated Vehicles (CAVs), or CCAM vehicles. Involving a wide range of stakeholders—from automotive manufacturers, technology developers, and transport operators to policymakers, local authorities, and the general public—ensures that diverse needs, concerns, and expectations are thoroughly understood. This engagement is key to identifying potential challenges, such as privacy, safety, cybersecurity, and infrastructure readiness, which are central to the success of CAVs. Assessing how and if the SINFONICA participatory approach allows for this kind of inclusivity is at the core of the present study.

Stakeholder engagement and data-driven insights facilitate the alignment of technological innovation with public interest, ensuring that the deployment of CAVs is not only technologically feasible but also socially acceptable and economically viable. Engaging with the public early in the process helps to build trust, mitigate resistance, and improve the acceptance of automated vehicles, while giving local authorities the tools they need to manage the transition effectively. In the end, a well-structured evaluation process enables the CCAM sector to create policies that are not only reactive to current issues but also proactive in shaping the future of mobility, ensuring a safer, more efficient, and sustainable transportation system for all.

1.2 Structure of the report

To provide an in-depth evaluation of the SINFONICA participatory approach, the report is structured as follows:

- Chapter 1 provides an overview of the SINFONICA project, the purposes of the report, the audience to whom the document is directed, and a mention on the connection with the deliverables of other WPs and Tasks of the project.
- Chapter 2 describes the evaluation framework adopted in SINFONICA to objectively monitor progress and evaluate the effectiveness of the engagement strategies (T2.1) and the data

collection methodologies (T2.2, T2.3) implemented within the four GOI (T3.1, T3.2, T3.3, T3.4), identified according to the criteria outlined in T1.4 “Definition of the research groups and creation of interest”. It also provides a thorough definition of the SINFONICA evaluation framework, giving a detailed description of each phase it consists of.

- Chapter 3 outlines the methodology used to evaluate the participatory process in SINFONICA. The evaluation relied on a mixed-method approach, combining questionnaires, bilateral meetings with each GOI, and a collective brainstorming session, across three iterative rounds of feedback collection. Each method was tailored to assess key aspects of the process, including implementation, efficacy, efficiency, and impacts. The adaptive evaluation framework ensured that insights from each round informed the refinement of engagement strategies, providing a robust foundation for assessing and improving the inclusivity and effectiveness of the participatory approach.
- Chapter 4 presents a detailed analysis of the feedback collected at the end of the three data collection phases of the participatory approach to be evaluated: Design and Planning, Implementation, and Results and Impacts. It provides an in-depth examination of the findings for each criterion and variable, highlighting the achievements, challenges, and areas for improvement identified through the participatory process. The results are contextualized across the four GOI, offering comparative insights and emphasizing the inclusivity, adaptability, and overall effectiveness of the methodologies employed. Moreover, it reflects the lessons learned throughout the participatory process, drawing from feedback provided by GOI and evaluative findings. It synthesizes these insights into key recommendations for improving future participatory methodologies, with an emphasis on fostering inclusivity, clear communication, and effective stakeholder engagement. This chapter serves as a foundation for understanding the outcomes and their implications for properly evaluating the SINFONICA participatory approach.
- Chapter 5 presents the overall conclusions of the evaluation, summarizing the achievements of the SINFONICA participatory approach while addressing its shortcomings. It outlines actionable steps for refining participatory processes and highlights the potential for replicating the approach in similar projects, ensuring long-term relevance and impact.

1.3 Scope of the deliverable and relations with other WPs and Tasks of the project

The scope of the present document is to evaluate the SINFONICA participatory approach and engagement strategy applied within the SINFONICA project, as the final output of T3.5: “Monitoring and evaluation of the engagement and data collection activities in the four GOI” which was executed by UNIMORE.

While carrying on data collection activities in the GOI, monitoring activities were executed throughout the process and specific KPIs were identified to address the effectiveness of the engagement strategies (T2.1), and the data collection methodologies (T2.2, T2.3) that were implemented within the four GOI identified in T1.4 (T3.1 - T3.4).

D3.2 is in strict relation with the two outputs released after completion of T1.1: “Mobility needs and requirements of European citizens” and T1.4: “Definition of the research groups and creation of GOI”. Namely, they are respectively D1.1 “Mobility needs and requirements of European citizens”, which identifies relevant user groups for SINFONICA, and the Internal Report on Task 1.4, which

details the definition of research groups, and the creation of the GOI subsequently involved in the engagement activities in the four research sites (T3.1-T3.2-T3.3-T3.4).

Furthermore, it is remarkable to note the connection between D3.2 and T2.1 “Stakeholders’ engagement strategies” and T2.2 “Participatory methods to capture mobility needs and future expectations from CCAM”, and their related deliverables - D2.1 “Engagement guidance for CCAM solutions”, and D2.2 “Participatory methods to capture mobility needs and future expectations from CCAM process”. The latter outlines the participatory framework and methodologies developed by the SINFONICA project to capture mobility needs and future expectations for CCAM, which is indeed at the core of the present evaluation.

Lastly, D3.2 provides valuable insights to the delivery of D3.3 “Data analysis, enrichment, and systematization”, which will be submitted in January 2025 (M29) and supplied the templates for data collection to ensure information is reported in a uniform and easily comparable manner, and D3.1 “Report of activities in the GOI”, to be submitted in June 2025 (M34) describing the practical implementation of the participatory methodologies applied within the four GOI.

1.4 Intended Audience

The primary audience for D3.2 includes a diverse range of stakeholders with interest in the development and deployment of CCAM technologies. Policymakers and Regulators are particularly crucial, as this deliverable provides them with a comprehensive evaluation of the participatory approach, offering insights into its inclusivity, effectiveness, and impact. These findings can guide the development of policies and frameworks that ensure ethical, equitable, and sustainable integration of CCAM technologies into society. Similarly, Public Authorities and Transport Agencies can use the evaluation to refine engagement strategies and understand how participatory approaches can contribute to more inclusive urban planning and infrastructure investments tailored to automated mobility solutions.

For universities, research institutions, and think tanks, this deliverable serves as a critical resource for analysing the effectiveness of participatory frameworks and methodologies. It offers evidence-based insights to inform future research on co-creation approaches, participatory engagement, and the broader societal implications of CCAM technologies. This document aims to support ongoing innovation and collaboration in shaping user-centred and socially responsive mobility systems.

Additionally, Non-Governmental Organizations (NGOs) and Advocacy Groups focusing on social equity, environmental justice, and ethical governance can leverage the evaluation process to assess the inclusivity and impact of stakeholder engagement. The findings highlight how participatory processes address key concerns such as accessibility, equity, and sustainability, aligning with their broader missions to advocate for responsible and community-centred technological innovation.

By addressing the needs of these varied audiences, this deliverable supports informed decision-making and fosters collaboration toward a CCAM ecosystem that is safe, efficient, and reflective of societal priorities.

2. Participatory process evaluation framework

This chapter presents the evaluation framework developed to assess the participatory approach implemented in the SINFONICA project. It begins by discussing the importance of participatory approaches in mobility projects, emphasizing their role in ensuring inclusivity, building trust, and fostering collaboration among diverse stakeholders. This context highlights why such methodologies are critical for the successful deployment of CCAM solutions.

The chapter then outlines the object of the evaluation, focusing on the specific objectives and expected outcomes of the SINFONICA participatory approach. These elements provide the foundation for the framework, ensuring that the evaluation aligns with the project's broader goals of inclusivity, representation, and actionable impact.

Finally, the chapter details the definition of the evaluation framework, presenting the criteria, variables, and study questions that guide the assessment. This structured approach ensures a comprehensive analysis of the design, implementation, and impacts of the participatory process, offering valuable insights into its effectiveness and areas for improvement.

2.1 The importance of a participatory approach in mobility projects

In mobility projects, engagement strategies and participatory approaches are essential to bridge the gap between technological innovation and user acceptance. By actively involving end-users and stakeholders throughout the development process, these strategies help demystify new technologies, foster understanding, and build trust—key elements that drive public acceptance.

Participatory processes are an essential aspect of collaborative planning and decision-making processes, even though designing such processes effectively can be quite challenging, especially when it comes to autonomous vehicles or CAVs. The introduction of autonomous vehicles brings not only technological shifts but also societal and ethical questions, impacting on how individuals perceive and interact with these innovations. Engaging users in the co-creation process allows project teams to better understand public concerns, address specific needs, and ensure that the solutions developed are aligned with users' values and expectations.

By adopting this inclusive approach, the SINFONICA project wants to build a foundation of trust and transparency, ultimately easing the path for autonomous vehicle technology to be integrated smoothly into everyday mobility.

From this point of view, Participatory Research (PR) methods represent a transformative approach to conducting research, where the emphasis is on active engagement and collaboration with those directly affected by the issues under study, aiming for practical and actionable outcomes (Cargo & Mercer, 2008). PR emphasizes partnerships between researchers, stakeholders, community members, and individuals with firsthand experience, making them active collaborators in the research process (Jagosh et al., 2012). Unlike traditional research methods, which often position participants as passive subjects, participatory methods involve stakeholders, community members, and end-users as co-creators in the research process (Vaughn & Jacquez, 2020). Unlike traditional research designs, PR uses methods and tools that promote participatory and democratic engagement, shared decision-making, and mutual learning.

Likewise, the participatory approach developed with the SINFONICA project departs from the assumptions that in sustainable urban mobility planning, the functional urban areas need to be considered, and that citizen engagement is often enacted at the neighbourhood level. As illustrated



in D2.2 “Participatory methods to capture mobility needs and future expectations from CCAM process”, the SINFONICA framework adopted an overall bottom-up approach to capture the mobility needs of European citizens, with special attention to the needs of vulnerable users and under-researched groups. This process was facilitated by the establishment of the GOI in Trikala, Hamburg, Noord-Brabant province, and West Midlands metropolitan area. The participatory techniques—interviews, focus groups, and workshops—were developed collaboratively and iteratively refined based on feedback from the GOI. Citizens and stakeholders, representing different segments of the society, were directly engaged in a participative process which results feed the so-called Knowledge Map Explorer, an innovative tool able to exploit knowledge by providing practical guidelines and long-term recommendations (Deliverable 4.1 “SINFONICA Knowledge map creation and System Architecture specification” and Deliverable 4.2 “SINFONICA Knowledge Map Explorer Implementation”). The overall SINFONICA participatory approach is therefore based on a co-creation and co-definition process between the SINFONICA partners and the GOI. Such a strategy allowed that the representatives of all the identified categories of vulnerable users, citizens and various stakeholders, were selected to guarantee different perspectives and points of view at the geographical level, at the level of digital advancement, and finally at the level of experience and interactions with the CCAMs.

Involving citizens in the decision-making process responds to the increasing demand from the European Commission for capacity to support participatory and deliberative projects and policy at the EU level. This aligns with the view of the Competence Centre on Participatory and Deliberative Democracy, an initiative of the European Commission’s Joint Research Centre (JRC), which provides expertise and tools to design, implement, and evaluate participatory and deliberative processes. The Centre emphasizes the importance of translating citizen engagement into policy-relevant outputs, ensuring that public input directly informs and shapes decisions. By incorporating this perspective, the SINFONICA participatory approach builds on best practices and standards for inclusive and effective citizen involvement. This helps policymakers better understand citizens' expectations, fears, needs, and challenges, enabling the creation of more informed and responsive policies.

Indeed, in European mobility projects like SINFONICA, adopting a participatory approach to define needs and user requirements is crucial for creating inclusive, effective solutions that truly serve the diverse needs of a community. By actively involving a broad spectrum of stakeholders, including end-users, municipalities, mobility providers, and technology developers, participatory frameworks allow projects to incorporate insights from all sectors of society, ensuring that mobility solutions address real-world challenges and expectations. In this view, the participatory approach becomes the key to secure a sustainable future for any innovation to come, together with the promotion of good democracy practices.

Nevertheless, when it comes to evaluating these participatory processes, a significant gap exists considering that, to our knowledge, there were no prior examples pertaining to the mobility sector from previous EU-funded projects. In order to define the SINFONICA evaluation framework we therefore draw from a few valuable cases related to other sectors.

For instance, in the emerging fields of smart home and smart health technologies and services, the Living Innovation EU-funded project (<https://www.living-innovation.net>) paved the way on how to engage with Co-creation and Design thinking. In this project, “Co-creation” meant that companies and users worked together, and users had an active role in the innovation process. This participatory understanding of creating innovations proved to be quite groundbreaking as it differs clearly from the common industrial practice of designing for users, in which users are only seen as customers and future buyers of a product. The Liv-IN Toolkit (Kuhn et al., 2021) realized after completion of the

project, was used to propose ad hoc methods for multi-stakeholders' participation: it sheds lights on how to organize and structure an efficient workshop, underlining the key successful factors to be followed such as having a clear mandate, ensuring transparency (providing clear and barrier-free information to all participants), sustainable involvement, seriousness (it belongs to the key tasks of the facilitators to ensure that all participants are well informed about, and respect the seriousness of the co-creation process) and fairness (to guarantee that all participants have their say).

Moreover, as stated by CIVITAS in the Handbook "Involving Stakeholders: Toolkit on Organising Successful Consultations" (Auwerx et al., 2011), stakeholder consultation is increasingly becoming a legal requirement. In fact, there are many ways in which decision makers and practitioners can benefit from it: it improves the quality of decision making and make the whole process more democratic, it brings together different stakeholders with different opinions, it eliminates delays and reduces costs in the implementation phase, and it creates opportunities for stakeholders and decision makers to learn from each other by exchanging information and experiences.

Speaking of participatory approach in public policies design and definition, it is worth mentioning the Spanish province of Gipuzkoa, located in the Basque Country: according to their Foral Regulation 5/2018, "Citizen's participation must occupy a central place in the actions of public authorities, in the determination of public policies and in their execution and management, so that citizens can make a decisive contribution through the resources and procedures made available to them.". As in many other regions of Europe, guaranteeing citizen's participation in the shaping of public policies is therefore becoming a mandate for the *Dirección General de Participación Ciudadana*, who elaborated a guide (Diputación Foral de Gipuzkoa, 2019) on the participatory process evaluation to facilitate the technical management and monitoring of such processes and to delve into the constant improvement of it.

Finally, to develop the SINFONICA participatory approach evaluation framework, the Common Evaluation Methodology (EU-CEM) created within the FAME project was explored. The EU-CEM provided a comprehensive foundation for understanding the broader evaluation landscape in CCAM. In particular, it offered structured guidance on planning and conducting evaluations, which proved beneficial for situating the SINFONICA evaluation within the wider CCAM context. Additionally, representatives of the SINFONICA coordination team participated in the dedicated FAME summer school, which facilitated in-depth exposure to the principles and applications of EU-CEM. However, while EU-CEM excels in addressing technical and societal evaluations of CCAM, it does not specifically encompass the evaluation of participatory approaches, a cornerstone of SINFONICA's methodology. Despite this limitation, the insights gained from EU-CEM, and the FAME summer school enriched the team's understanding of CCAM evaluation frameworks, influencing the systematic structuring of SINFONICA's unique participatory evaluation strategy. These experiences underscored the importance of tailoring the framework to evaluate not only outcomes but also the processes that ensure inclusivity and responsiveness in participatory engagement.

The above-mentioned examples certainly inspired the SINFONICA Team in the definition of the SINFONICA Evaluation Framework, synthesising insights from various sources beyond the field of European mobility and leading to a unique tailored approach capable of measuring and refining the participatory methodologies designed to collect users' requirements and needs related to CCAM. It underscores the innovative nature of the SINFONICA Evaluation Framework which can fill the existing gap and highlights the importance of pioneering evaluation models which, in the absence of existing standards, play a critical role in setting benchmarks, establishing trust among stakeholders



by setting transparent, adaptable, and robust evaluation practices and guiding standard quality and performance assessment.

2.2 Object of the evaluation

Deliverable D3.2 is the final output of T3.5: “Monitoring and evaluation of the engagement and data collection activities in the four GOI”. As such, the goal of this task, led by UNIMORE, was to objectively monitor progress and evaluate the effectiveness of the engagement strategies (T2.1) and the data collection methodologies (T2.2, T2.3) that were implemented within four GOI (T3.1, T3.2, T3.3, T3.4). The evaluation focuses on the participatory process, which in the case of SINFONICA had exploratory purposes to discover the people's feelings and attitude toward CCAM with a specific focus on the needs and requirements of people with mobility challenges. In other contexts, the participatory process can lead to the design and the co-creation of a new CCAM service.

There were three rounds of engagement and data collection for each GOI: at the end of each round, the evaluation team analysed the performance and results obtained, proposing improvements to be implemented in the next round.

The objective of the present report is therefore to evaluate the SINFONICA participatory approach, whose core activities were realized through a co-creation and co-definition process between the SINFONICA partners, and the four mentioned GOI. In this respect, it is noticed that the specifics of what occurred during the activities realized with those GOI, as well as the results of the feedback received from citizens and stakeholders who were actively engaged in the related activities, are not the focus of this report, but will contribute to the project's final findings.

More in detail, the object of this investigation was to evaluate the success of the methods implemented according to the final output of T2.1 “Stakeholders’ engagement strategies” (D2.1), and the final output of T2.2 “Participatory methods to capture mobility needs and future expectations from CCAM” (D2.2), as means to engage citizens, stakeholders and future users towards co-creation and collection of the required information related to CCAM.

The SINFONICA engagement strategy has been designed to be iterative, and therefore made to be tested, evaluated, and refined in multiple cycles or “rounds”, to ensure its effectiveness. This iterative approach involved CCAM users (in the case of SINFONICA, the focus was on people with mobility challenges), stakeholders, and citizens from the four above mentioned areas. According to the SINFONICA vision, the active engagement of users and stakeholders shall help ensure the solutions to be developed are not only technically sound but also socially acceptable and beneficial to a wide range of individuals, particularly those who face challenges in accessing traditional public transport systems. To support this engagement strategy, various activities have been implemented to ensure comprehensive involvement and feedback from all stakeholders, such as large-scale surveys, interviews, focus groups and interactive workshops. A large-scale survey was circulated to gather population-level data on user factors affecting CCAM deployment, helping identify the needs, preferences, concerns of a broad demographic and future deployment of CCAM. A series of interviews with people with mobility challenges provided in-depth insights into specific issues and opportunities related to CCAM deployment. Specifically, 290 interviews were conducted across the four GOI. Alongside the strategies aimed at involving groups of people with mobility challenges, the participatory process established in SINFONICA also included the involvement of citizens' representatives in focus groups to better understand users’ needs, concerns, and expectations.

These focus groups have been conducted during the three rounds of engagement, following the guidelines provided by WP2. Finally, interactive workshops were held targeting stakeholders and experts in a collaborative environment, encouraging brainstorming, problem-solving, and co-creation of solutions. Based on the discussions within the co-creation framework, three workshops were planned in three rounds with involvement of previously defined groups.

- The first workshop was dedicated to a critical analysis of current mobility, examining the results from focus groups and semi-structured interviews. This stage helped identify obstacles and potential solutions for implementing CCAM.
- The second workshop explored the potential of CCAM to address mobility needs by discussing participants' expectations, desires, and concerns.
- The third and final workshop focused on collaboratively defining the requirements for deploying an inclusive, equitable, and accessible CCAM.

Evaluating this comprehensive engagement strategy, as pictured in figure 1, is at the core of the present analysis.

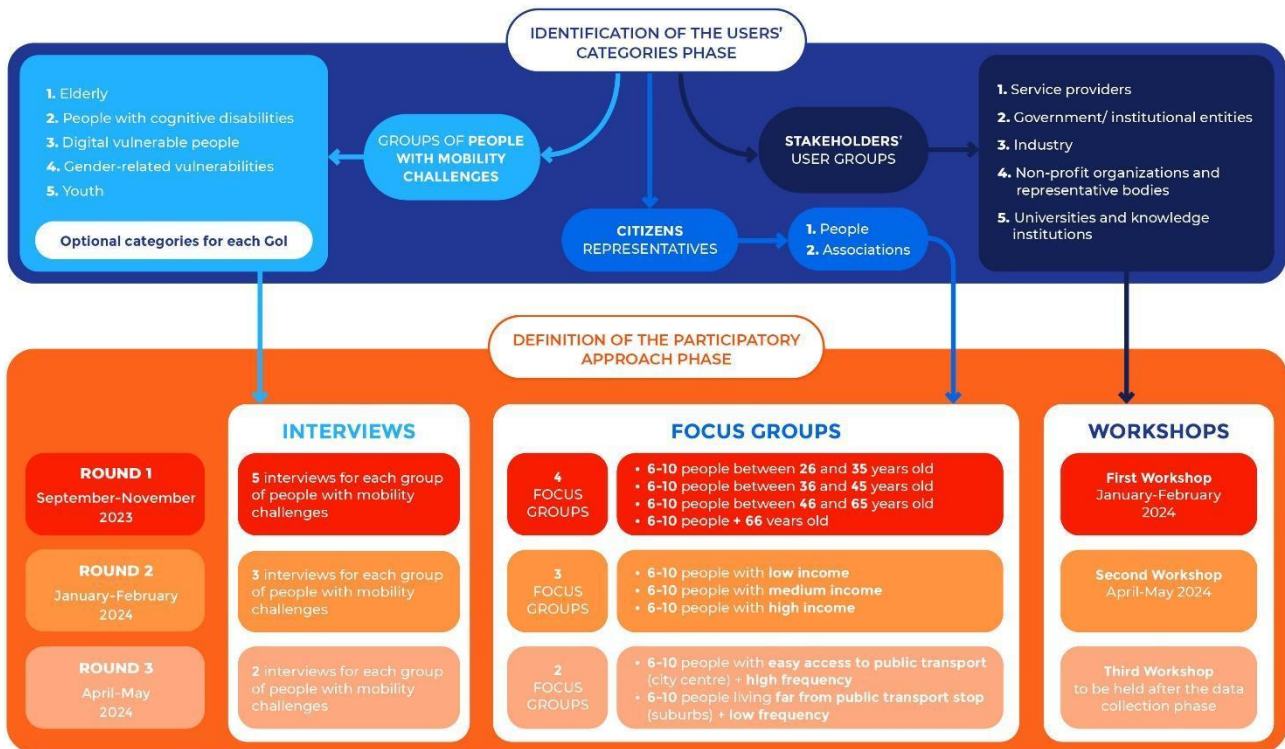


Figure 1: Overview of SINFONICA participatory approach implemented in the engagement phase

Having outlined the engagement strategies and data collection methodologies applied in the SINFONICA project, the next step involves presenting the objectives that guided the evaluation framework. These objectives reflect the values and priorities set during the participatory process and form the basis for assessing its effectiveness and impact. By aligning the evaluation objectives with the principles underpinning the participatory approach, we ensure a coherent link between the applied methods, the desired outcomes, and the criteria used to evaluate their success.

The evaluation framework is designed to assess how well the SINFONICA participatory process adhered to its core principles of collaboration, inclusivity, and human-centredness in addressing mobility challenges in the context of CCAM. This structured approach allows us to examine whether these values were effectively integrated into the participatory activities, enabling a thorough and

meaningful evaluation of the process and its outcomes. The evaluation framework is structured around three overarching objectives, each supported by specific goals:

1. **Ensure inclusivity:** The first objective emphasizes the importance of inclusivity and representation in the participatory process. This involves ensuring that diverse stakeholder groups, particularly vulnerable populations, are equitably represented and have their voices heard. By promoting social equity, the process seeks to address systemic disparities in mobility access and ensure that the solutions developed are inclusive for all. Additionally, this objective underpins a human-centric approach, prioritizing the lived experiences and needs of individuals as the foundation for mobility innovation.
2. **Gather diverse perspectives on mobility challenges:** The second objective aims to generate a comprehensive understanding of the community's mobility needs and preferences by actively engaging a wide array of stakeholders. By facilitating dialogue and collaboration, the approach enhances community engagement, creating a sense of ownership and partnership among participants. This objective also focuses on building trust and collaboration among stakeholders, fostering cooperative relationships that support the successful deployment of CCAM solutions.
3. **Co-identify and address unique mobility challenges:** The third objective focuses on identifying and addressing the distinct mobility challenges faced by specific segments of the population, such as the elderly, people with disabilities, and rural residents. This involves understanding the specificity of each local context and tailoring engagement strategies accordingly. At the same time, it aims to provide elements of replicability, ensuring that the lessons learned, and methods developed can be applied in other regions, making the approach both scalable and adaptable.

The participatory approach should be designed to achieve two primary outcomes, which align with the general and specific objectives:

- **Increase solution acceptance:** By involving stakeholders directly in the process, the approach fosters trust and transparency, which are critical for gaining public acceptance of CCAM technologies. This engagement ensures that solutions are not only technically feasible but also socially acceptable, enhancing their long-term viability.
- **Contribute to relevant and inclusive policy recommendations:** The insights gathered through the participatory process directly inform the creation of inclusive policy recommendations. These recommendations aim to address diverse mobility challenges effectively while promoting equity and inclusivity in mobility systems, supporting policymakers in designing regulations and frameworks that reflect the needs and aspirations of all citizens.

This structured and iterative approach is visually summarized in the following figure, which outlines the objectives and expected outcomes of the SINFONICA participatory methodology.

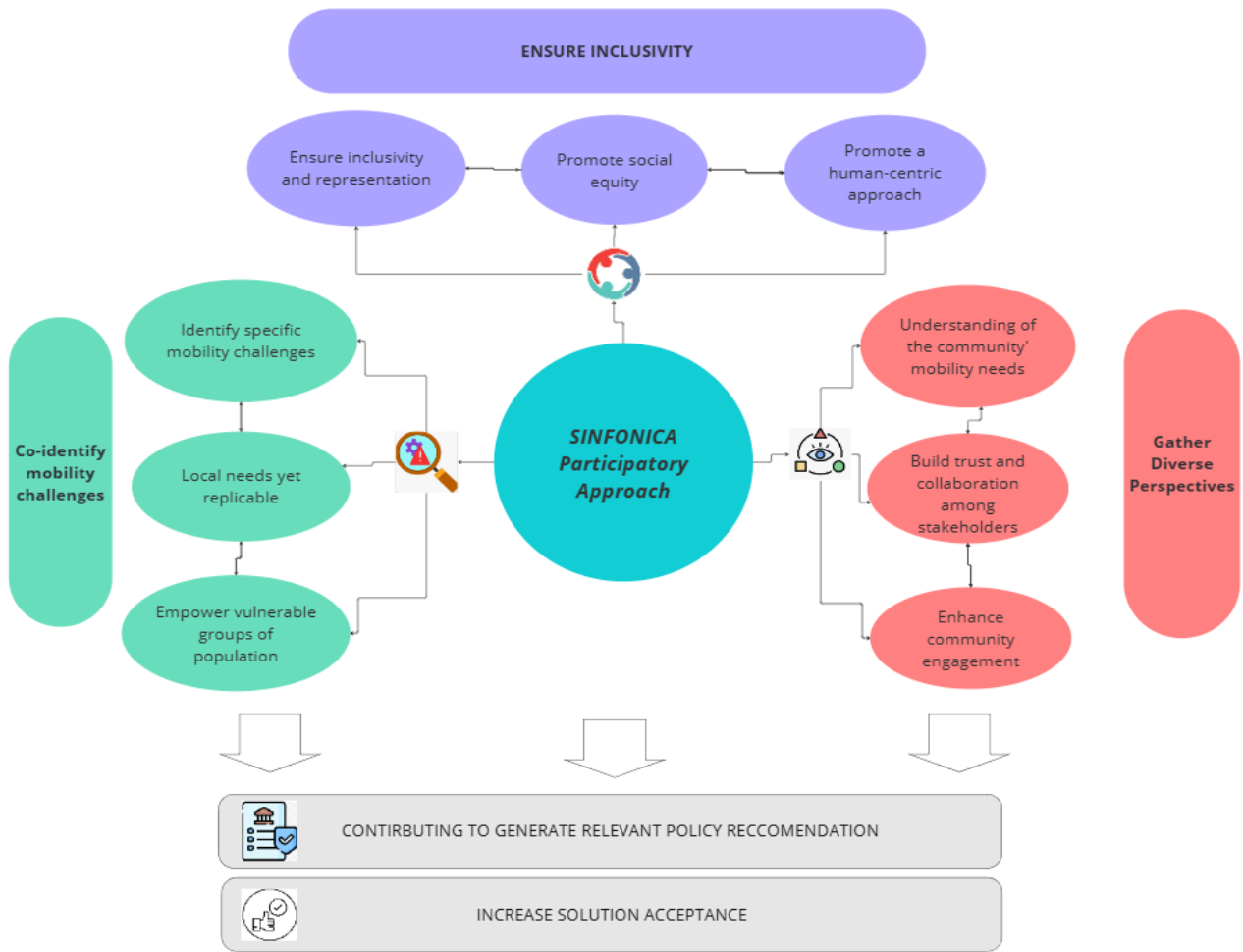


Figure 2: Overview of the objectives of the SINFONICA participatory approach

This structure forms the basis for the evaluation presented in this deliverable, with the subsequent chapter detailing the framework developed to assess its effectiveness, inclusivity, and impact.

2.3 Definition of the evaluation framework

The evaluation framework for the participatory process in SINFONICA is structured around three key phases, each designed to comprehensively assess the effectiveness, inclusivity, and impact of stakeholder engagement. The Design and Planning phase focuses on evaluating the foundational setup of the participatory process, examining the alignment of objectives, resource allocation, and the overall quality of the design. The Implementation phase assesses the actual rollout of the participatory activities, focusing on process quality, execution, and flexibility in adapting to participants’ needs. Finally, the Results and Impacts phase evaluates the outcomes of the process, measuring its effectiveness in meeting objectives, efficiency in resource use, and long-term impacts on trust, inclusivity, and stakeholder empowerment. Together, these phases provide a comprehensive framework to ensure the participatory process supports the project’s goals and delivers meaningful contributions to inclusive mobility solutions. In the following table the evaluation criteria, and related variables and study questions that guided the evaluation process are presented, according to each of these three phases.

Table 1: Evaluation criteria, variables and related study questions for each of the phases to be evaluated

Phase	Criteria	Variables	Study Questions
Design and Planning	Suitability	Suitability of objectives	To what extent were the objectives of SINFONICA interviews / focus groups / workshops coherent / inclusive / achievable?
		Rules of the game	To what extent was the scope of the participatory approach clear? To what extent were the guidelines for the interviews clear? To what extent were the guidelines for the focus groups clear? To what extent were the guidelines for the workshops clear?
		Return	To what extent were the engagement strategies clear in defining how to firstly get the participants engaged? To what extent were the engagement strategies clear in defining how to keep the participants engaged? To what extent were the engagement strategies clear in defining how to keep the participants informed about the results of the activities?
	Coherence	Coherence	Were the interviews / focus groups / workshops a good methodology to approach the defined target?
	Feasibility	Resources	Before starting the participatory approach process, did you have a clear idea of the resources needed to implement the activities?
		External dynamization resources	Did you use external resources (not directly involved in the SINFONICA project)? To what extent were the external resources compliant with the process requirements? Did you train the external resources with the SINFONICA guidelines / engagement strategies?
	Design quality	Leadership	To what extent are you satisfied with the support provided by WP1 & WP2 teams? Did your municipality count on previous or existing participatory dynamics?
		Diversity of participants	To what extent do you think all people and/or groups interested in the topic have been invited to participate, according to the specific needs of each GOI?

Phase	Criteria	Variables	Study Questions
			<p>Do you think that diversity of perspectives has been guaranteed in the identification of participants?</p> <p>Would you have wanted to add some additional specific categories? If yes, which ones?</p>
		Transparency	<p>Was access to the information regarding the participatory sessions easy?</p> <p>To what extent was the format of the disclosure of the information understandable for your target participants?</p> <p>To what extent was the privacy consent understandable for your target participants?</p>
		Methodological adaptation	<p>To what extent did you feel that your opinions were considered during the co-creation activities?</p> <p>To what extent did you feel that your remarks/comments were considered during the co-creation activities?</p> <p>Was the time foreseen for the co-creation of the GOI enough?</p> <p>Was the time foreseen for discussing the guidelines for the participatory approach enough?</p> <p>Was the time foreseen for discussing the engagement strategy enough?</p>
		Accessibility	<p>To what extent have obstacles or situations of inequality that impede participation been foreseen?</p> <p>To what extent have the proper resources required to manage them been planned?</p>
		Communication	<p>To what extent did you find useful the communication recommendations for the interviews / focus groups / workshops made available by the SINFONICA project?</p> <p>Which specific measures have been taken to ensure inclusive communication with all participants?</p>
		Training	<p>To what extent were the trainings online and in presence useful for conducting the interviews / focus groups / workshops?</p>

Phase	Criteria	Variables	Study Questions
Implementation	Process quality	Synergies with other processes	<p>Have you established synergies with other projects/activities in your territory through the SINFONICA participatory approaches?</p> <p>Did you have the possibility to increase / enhance / go deeper with the collaboration with other stakeholders during the rounds of participatory sessions?</p>
		Adaptation to participants' needs and agendas	<p>To what extent was it difficult to schedule the interviews/focus groups/workshops?</p> <p>Which measures did you consider to tailor the methodological guidelines to the specific needs of participants?</p>
		Dynamization	<p>Would you say that the atmosphere during the interviews / focus groups / workshops was nice?</p> <p>To what extent are you satisfied with the interviews / focus groups / workshops you have conducted?</p> <p>To what extent were you able to report all the opinions expressed during the focus groups and workshops?</p> <p>Which strategies did you use to facilitate participation?</p>
	Execution	Execution	<p>Did you manage to perform all the participatory sessions that were planned?</p> <p>To what extent was it difficult to schedule the interviews / focus groups / workshops?</p> <p>Did you have the need to change the protocol of interviews / focus groups / workshops?</p> <p>Was the time foreseen for the interviews / focus groups / workshops enough?</p> <p>During the interviews / focus groups / workshops: did you encounter any problem with resource allocation?</p>
	Flexibility	Flexibility	<p>To what extent did you feel that your remarks/comments were considered to adapt the guidelines for the following rounds of engagement strategies?</p>
	Efficacy	Achievement of objectives	<p>To what extent do you think the objectives of the participatory approach have been achieved?</p>

Phase	Criteria	Variables	Study Questions
Results and impacts		Engagement and quality of participation	How would you rate the level of engagement of participants during the interviews / focus groups / workshops?
		Accessibility	Did you ensure that the place where you conducted the interviews / focus groups / workshops was accessible to everyone? Did you encounter any gap in performing the interviews /focus groups / workshops (technological, linguistic, thematic)?
	Efficiency	Resource utilization	To what extent are you satisfied with the effort-benefit ratio of the interviews / focus groups / workshops: you have conducted?
	Impacts	Trust and collaboration building	Have you established a community / group of followers / network among stakeholders, citizens and local authorities? To what extent do you think you have expanded your knowledge and experience in engaging people and in participatory approaches?
		Participants' empowerment	In your opinion, to what extent participants and stakeholders felt empowered and perceive that their voices have influence on decisions? Do you think people know more about CCAM after the SINFONICA activities? How many participants in the GOI have expressed their intention to stay in contact with SINFONICA project after their participation (events, results' sharing, etc.)?
		Gender impact	To what extent do you think participants have increased their level of awareness and understanding of gender issues related to mobility services? To what extent do you think the specific views and opinions of women or LGBTQ+ community representatives have been expressed during the SINFONICA participatory sessions?

2.3.1 Phase 1: Design and Planning

The Design and Planning phase of the participatory approach establishes the foundation for the entire process by focusing on key criteria: suitability to align objectives with project and participant needs, coherence to ensure consistency between goals, resources, and timelines, and feasibility

through meticulous planning to guarantee inclusivity and transparency. This phase also incorporates design quality, which is influenced by variables such as leadership, transversality, transparency, diversity of participants, methodological adaptation, accessibility, communication, training, and evaluation. These variables collectively ensure that the design process is inclusive, adaptable, and responsive to the diverse needs and expectations of stakeholders, providing a robust framework for the subsequent phases of implementation and evaluation.

In detail, the evaluation criteria and variables for the Design and Planning phase are:

1. **Suitability:** For a successful participatory process, it is necessary for the promoting agent to clearly express what are the objectives and causes that motivate the implementation of the process, since it is the objective itself that gives meaning to participation: what we want to change and the reasons for it will condition the need or suitability of the process. The main variables are:
 - 1.1. Suitability of the objectives: The objectives of a participatory process must be set out in an explicit, clear, understandable and easy-to-understand manner. Consequently, the general objectives determine the object of the process, while the specific objectives take into consideration the following aspects: the scope of the experience, the steps that are to be taken and the aspects that are to be evaluated. At the same time, the specific objectives make it possible to make operational the principles that inspire participation and that make up its object, such as justice and inclusion.
 - 1.2. Rules of the game: All projects have limits, including participatory processes. These limits must be explicitly included, since they delimit the playing field of the participatory process. The scope of the process must be determined and what is (and what is not) the subject of the process. They must be communicated clearly.
 - 1.3. Return: The design of a participatory process must foresee a return on results and impacts, so that the participants know and validate the results and so that they get to know that the process has concluded. In addition, return is a basic exercise of transparency, which guarantees the legitimacy of the processes and that increases the confidence of citizens in the institutions and in European projects in this case.
2. **Coherence:** The objectives of the process, the scope of participation and the proposed methodology for its achievement must be correctly combined, since there must be no contradictions or overlaps between one and the other. After all, the methodology has to be adapted to the purpose of the process, taking into account the scope of the people involved.
3. **Feasibility:** For the proper development of the participatory process, the necessary resources must be foreseen and planned. Thus, they must be foreseen and adapted to the needs of the process, on the one hand, the time and material resources of the people who will promote the participatory activities, and, on the other, the experience of the external professional team that will dynamize the process, if it is the case.
4. **Design Quality:** assesses the effectiveness of the engagement strategies' design. It evaluates how well the strategies were planned and structured to ensure inclusivity, adaptability, and alignment with the project's objectives. This criterion considers key variables such as leadership, which examines the role of local participatory dynamics in shaping the process; diversity of participants, ensuring a wide range of perspectives are represented; and transparency, which focuses on the clarity and accessibility of information provided to participants. Additionally,

methodological adaptation is assessed to determine whether the approach was flexible enough to meet diverse stakeholder needs, while accessibility ensures that physical, technological, and informational barriers were addressed. Communication evaluates the effectiveness of information exchange, particularly with vulnerable groups, and training measures the preparation provided to GOI representatives and facilitators to ensure meaningful engagement. Together, these variables offer a comprehensive framework for analysing the quality of the design of the engagement strategies, ensuring they are equitable, effective, and responsive to stakeholder needs.

- 4.1. **Leadership:** Integration of the process with existing participatory dynamics in the research sites. Leadership plays a pivotal role in influencing design quality by setting a clear vision and fostering a collaborative environment, ensures inclusivity, transparency, and effective communication among stakeholders, driving alignment toward shared goals.
- 4.2. **Diversity of participants:** By incorporating varied perspectives, experiences, and needs into the process it is ensured that solutions are inclusive, equitable, and responsive to the concerns of all user groups. A diverse participant base fosters innovation and robust decision-making, leading to more comprehensive and adaptable mobility systems.
- 4.3. **Transparency:** It is crucial in fostering trust and accountability among stakeholders. It also ensures open communication, clear decision-making processes, and accessible sharing of information throughout the design phase. By enhancing mutual understanding, it supports equitable participation and strengthens the legitimacy of the resulting mobility solutions.
- 4.4. **Methodological adaptation:** It can significantly impact the design quality in participatory CCAM approaches by tailoring methods to fit diverse stakeholder needs and local contexts, enabling effective participation across different groups. It includes adapting the methodology according to the evaluation feedback between a round and the next one.
- 4.5. **Accessibility:** Guaranteeing that all participants can engage meaningfully, regardless of physical, technological, or informational barriers promotes inclusive participation. Allowing diverse voices to contribute to the process fosters equitable and representative mobility solutions.
- 4.6. **Communication:** Facilitating clear and effective communication with participants is essential for ensuring that information is accessible and inclusive, particularly for vulnerable groups such as the elderly or individuals with disabilities. This involves using appropriate language and formats tailored to participants' needs, making complex concepts understandable and fostering meaningful engagement. Effective communication not only ensures that feedback and concerns are accurately captured and integrated into the process but also builds trust, strengthens collaboration, and empowers participants to contribute actively to inclusive mobility solutions.
- 4.7. **Training:** Well-designed training programmes equip GOI representatives with the technical skills and understanding of CCAM systems, enabling them to provide informed input. This enhances the quality of feedback, leading to more effective and user-centred design outcomes.

2.3.2 Phase 2: Implementation

This phase evaluates the actual rollout of the participatory process, focusing on three main criteria: quality of the whole process, according to specific criteria, execution of activities and level of flexibility to adapt to the participants' needs. In detail, the Evaluation criteria and variables for the implementation phase are:

5. **Process quality:** High process quality ensures that the steps are taken efficiently, in a transparent and inclusive way. The evaluation assesses potential synergies with other participatory

initiatives, as well as the adaptation to participants' needs and agendas, the level of stakeholder empowerment, and the quality of the dynamization considering gender, diversity, language and emotional factors. Specifically, the process quality is influenced by the following variables:

- 5.1. Synergies with other processes: Synergies with other participatory processes and similar initiatives are important to enhance the efficiency and scalability of CCAM solutions and maximize the support for the long-term success of integrated mobility systems.
 - 5.2. Adaptation to participants' needs and agendas: To ensure the process remains inclusive and responsive by aligning with participants' priorities, schedules, and capacities, fosters sustained engagement and collaboration among participants. It leads to greater acceptance of new solutions.
 - 5.3. Dynamization: Promoting dynamism and interactive engagement among participants considering gender, diversity, language and emotional variables ensures sustained participation.
6. **Execution**: In this phase the focus is on the effective delivery of planned actions and solutions. The evaluation assesses the efficiency, timeliness, and fidelity of implementation against the original design and objectives, appraising the efficiency of resource allocation within the participatory process including time, budget, and personnel.
 7. **Flexibility**: It ensures that the process remains responsive to unforeseen challenges, feedback, and evolving contexts. The evaluation therefore measures such capacity of the process to adapt itself during the implementation phase.

2.3.3 Phase 3: Results & Impacts

The Results and Impacts phase represents the culmination of the participatory process, focusing on evaluating its overall effectiveness and long-term contributions. This phase assesses whether the objectives set during the Design and Planning phase were achieved and examines the broader impacts of the process on stakeholder trust, inclusivity, and collaborative culture. To ensure a comprehensive evaluation, specific criteria and their related variables will be presented, providing a detailed understanding of how the participatory process influenced outcomes and shaped the project's ability to deliver meaningful, user-centred mobility solutions. In detail, the Evaluation criteria and variables for the implementation phase are:

8. **Efficacy**: The Efficacy criterion evaluates the extent to which the participatory process achieved its intended objectives and adhered to the principles established during the planning phase. It focuses on measuring the effectiveness of the process in fulfilling its goals, ensuring inclusivity and accessibility, fostering meaningful stakeholder engagement, and delivering results that are both transparent and valuable to participants. To provide a comprehensive understanding, the related variables will be presented in detail:
 - 8.1. Achievement of objectives: This variable evaluates the extent to which the goals defined during the Design and Planning phase were met. It assesses whether the participatory process successfully addressed the intended needs and priorities of stakeholders.
 - 8.2. Engagement and quality of participation: This variable focuses on the depth and richness of stakeholder contributions. It evaluates whether participants were actively involved, all the voices were heard, their feedback was meaningful, and their input was effectively integrated into the process.

8.3. Accessibility: This variable assesses whether all participants could meaningfully engage in the process without facing barriers, including physical, digital, or informational obstacles. It ensures that the participatory process was equitable and inclusive.

9. Efficiency: It evaluates the extent to which the participatory process utilized resources effectively to achieve its objectives. It focuses on maximizing impact while optimizing the use of time, budget, and personnel. The related variable is:

9.1. Resource utilization: This variable examines how well resources were allocated and managed throughout the process. It assesses whether the inputs, such as funding, expertise, and time, were used judiciously to deliver meaningful outcomes and whether the process achieved its goals without unnecessary expenditures or delays.

10. Impacts: The Impacts criterion examines the long-term and transformative outcomes of the participatory process, focusing on three key variables that highlight its contribution to fostering trust, empowerment, and inclusivity.

10.1. Trust and collaboration building: Measures how the process developed trust among stakeholders and facilitated cooperative relationships, creating networks among stakeholders, public administrations, and citizens that support CCAM deployment.

10.2. Participants' empowerment: Examines how the process enhanced participants' skills, knowledge, and influence, particularly for marginalized groups, empowering them for future initiatives.

10.3. Gender impact: Focuses on whether gender perspectives were effectively included, ensuring solutions addressed the needs of diverse genders.

These variables collectively provide a framework for understanding the broader impacts of the participatory approach on societal structures and community resilience.

3. Feedback collection methodologies and participatory approach evaluation

The vision of SINFONICA is to develop functional, efficient, and innovative strategies, methods and tools to engage CCAM users, providers and other stakeholders (i.e. citizens, including vulnerable user groups, transport operators, public administrations, service providers, researchers, vehicle and technology suppliers) to collect, understand and structure in a manageable and exploitable way their needs, desires, and concerns related to CCAM.

3.1 Description of feedback collection methodologies

SINFONICA had an overall bottom-up approach to capture the mobility needs of European citizens, with special attention to the needs of vulnerable users and under-researched groups. As already mentioned, the whole process was facilitated by the establishment of four GOI in Trikala, Hamburg, Noord-Brabant province, and West Midlands metropolitan area and stakeholders' representation of different segments of the society were directly engaged.

To evaluate the effectiveness and inclusivity of the SINFONICA participatory approach, a mixed-method feedback collection strategy was employed, utilizing bilateral meetings with GOI, questionnaires and a collective brainstorming session. These methodologies were selected to capture a comprehensive range of perspectives and insights from the project partners involved in conducting the participatory methods allowing for a robust assessment of the engagement strategies across different stages of the project.

3.1.1 Bilateral meetings

Bilateral meetings with GOI served as a primary method for gathering in-depth, qualitative insights into individual experiences, perceptions, and concerns by allowing one-on-one discussions related to the SINFONICA participatory process. Conducted during the first and the last rounds of the evaluation, these meetings allowed for iterative refinement of the engagement guidelines, adapting to emerging needs and feedback from GOI. The semi-structured format of the meetings enabled a balance between guided inquiry and open-ended responses, encouraging GOI representatives to share personal insights that enriched the overall evaluation.

3.1.2 Collective brainstorming session

A collective brainstorming session with data collection leads from the four research sites was organized after the second round of data collection. This session was crucial for synthesizing experiences and revisiting the data collection guidelines, ultimately informing adjustments for the third and final round.

The session was held in Turin in March 2024 and provided a collaborative setting for discussions among project partners and GOI, fostering dialogue and interactive discussions that revealed shared experiences and collective attitudes toward the participatory process. The proposed structure of the session encouraged collaboration between participants, generating nuanced insights that complemented feedback gathered through the bilateral meetings conducted in the other evaluation rounds. This method encouraged dialogue on shared concerns, differing viewpoints, and potential solutions, offering a deeper understanding of group dynamics and common themes in the CCAM landscape.

3.1.3 Questionnaire

A questionnaire was deployed to gather quantitative data, in parallel with the implementation of the collective brainstorming session in the second round of evaluation. The questionnaire's structured format allowed for the analysis of trends and patterns, providing statistically significant insights that enabled the project team to identify trends and common sentiments, providing a foundation for comparing engagement outcomes across the different rounds of data collection.

3.2 Rounds of evaluation and feedback analysis methodology

As described in detail in D2.1 (Engagement guidance for CCAM solutions) and in the report of the activities in the four GOI that will be published as D3.1 (Report for activities in the groups of interest), the SINFONICA engagement strategy was structured around three rounds of data collection. The evaluation of the engagement strategy, accordingly, was designed to be implemented in three rounds, with each round serving as a feedback loop to enhance subsequent engagement activities:

First Round: The initial round of evaluation, critical for establishing baseline insights into the participatory approach's effectiveness, was implemented through bilateral meetings with all the responsible people for the engagement strategies in the different GOI. The evaluation of this round informed the refinement of guidelines for subsequent interviews, focus groups, and workshops, helping to align the methods with the diverse contexts of the four research sites. In the first round nine semi-structured bilateral meetings were conducted involving at least two members of the GOI. Participants were asked to evaluate different aspects of the first phase of the research. In particular, the questions focused on the suitability and the coherence of the methodology employed to gather information. Moreover, the questions concerned also the feasibility and the design quality of the interviews and focus groups. The quantitative data were analysed through statistical analyses (SPSS) whereas the qualitative data were analysed by the analyses of content.

Second Round: During the second round of evaluation activities, a collective brainstorming session was conducted with the data collection leads from each research site during the General Assembly of the SINFONICA project, held in Turin in March 2024. This in-person session included representatives from each GOI as well as other consortium members attending the General Assembly. It provided a valuable opportunity for collective reflection on the participatory process, enabling participants to assess the effectiveness of the revised guidelines and discuss challenges encountered during the first round. The session fostered collaborative dialogue and brainstorming, with discussions analysed through content analysis to extract significant insights.

In addition to the collective brainstorming session, a questionnaire was conducted with all GOI, yielding responses from five participants. This combined approach of brainstorming discussions and questionnaire feedback allowed for a comprehensive evaluation of the process, integrating both collective and individual perspectives. The insights gained were instrumental in readjusting the guidelines for the third round, ensuring that the engagement activities remained responsive and adaptive to stakeholder needs.

Third Round: The final round of feedback collection, informed by the results of bilateral meetings with all the GOI, aimed to validate the refined guidelines and assess the overall impact of the participatory process. The third round served as the culmination of the iterative approach, with the objective of finalizing an evaluation framework that could provide meaningful insights into the effectiveness, inclusivity, and participant satisfaction of the SINFONICA engagement strategy. In the third round of evaluation activities, again nine semi-structured bilateral meetings were conducted,

engaging at least two members from each GOI. These meetings focused on evaluating the implementation phase and the variables related to efficacy, efficiency, and impacts. Participants were asked to reflect on the quality of the implementation, the extent to which the participatory process met its objectives, and the efficiency of resource use during the activities. Additionally, the bilateral meetings explored the broader impacts of the process, including trust-building, participant empowerment, and contributions to create gender impacts.

Quantitative data from the meetings were analysed using statistical tools (SPSS Statistics), while qualitative insights were examined through content analysis to ensure a comprehensive understanding of the evaluation results. A general methodological remark for understanding the averages results that will be presented in the following chapter is that the general average does not correspond to the average of the groups, because there are at least two participants in the groups. So, the general average is about the average of all participants and then the average of the individual GOI is calculated.

Together, these methods ensure a holistic approach to understanding the complexities of stakeholder engagement and the future of automated mobility. This structured, iterative approach to feedback collection ensured that the evaluation of the participatory process remained flexible and responsive, enabling the SINFONICA team to continuously improve engagement strategies across different contexts and stakeholder groups. By refining methodologies at each stage, the project maximized the relevance and depth of data collected, fostering a participatory process that was both effective and adaptive to the evolving needs of the research sites and GOI.

3.3 Data Management and privacy considerations

Observing European law and General Data Protection Regulation (GDPR) is crucial when evaluating data from a participatory approach in the CCAM sector to ensure ethical standards and data privacy. Compliance with these regulations protects the personal data of participants, maintaining their trust and safeguarding their rights. It ensures that data collection, storage, and analysis are conducted transparently, with informed consent and clear purposes. Ethical adherence to EU standards prevents potential misuse of information and supports responsible research practices. This legal and ethical framework is fundamental for building public confidence in CCAM innovations and stakeholder engagement processes.

As such, the evaluation in D3.2 assessed the techniques employed to guarantee legal or ethical issues were handled properly, according to Section 5 (Ethics & Security) of the Grant Agreement and the information provided in D7.2 “Ethics and Data Management Plan”, as final output of Task 7.4 “Ethics Issues and Data Management” (Leader: ICCS). More specifically, D7.2 determines processes for handling all likely legal or ethical issues: for instance, it foresees the establishment of an Ethics & Privacy Board consisting of the Ethics & Privacy Officer at each testing location, the Tasks 3.1 – 3.4 leaders as Personal Data Protection Officers and the Project Coordinator, to address and discuss any ethical issues arising in the project resulting in project’s Periodic Management Reports. It also includes the following activities: the development of a data management plan outlining which data will be generated and how it will be managed during research and piloting; metadata, standards and quality assurance measures; plans for sharing data; copyright and Intellectual Property Rights IPR of data; data storage and back-up measures; data management roles and responsibilities as well as ensuring comparability and consistency of the collected data across the GOI; monitoring project activities (especially activities related to tenure of user-generated content)



Altogether, throughout its developments, the SINFONICA project needed to guarantee that the participatory approach strictly followed legal, ethical and security procedures dictated by national and EU regulations (GDPR), as well as social and ethical issues like privacy, human rights, gender, and cultural implications. It was also necessary to keep records of all potential ethical and security issues which arise as the GOI were running and prototypes evaluated.

The European Commission has made it very clear, through consistent communications, that Social Sciences and Humanities must be embedded in the project as an enabler of Responsible Research Innovation, which must be seen as a source of innovation with shaping and re-description power. Therefore, the evaluation of the SINFONICA participatory approach will also assess ethical issues by examining how equitably local voices are included in decision-making, considering data privacy and security concerns, ensuring that sensitive community information is protected. Additionally, it is also aimed at identifying potential power imbalances, ensuring that all stakeholders had equal influence without exploitation or marginalization.

4. Evaluation of the SINFONICA participatory approach

4.1 Analysis of numbers reached

The table below provides a comprehensive summary of the participatory sessions—interviews, focus groups, and workshops—conducted across the four GOI during the three rounds of engagement strategies implemented in the SINFONICA project. As previously stated, these sessions aimed to gather diverse perspectives on mobility challenges, ensuring inclusivity and representation while fostering dialogue and collaboration among stakeholders. The table reflects both the successes, and the contextual challenges faced by the GOI during the participatory process.

Table 2: Summary of the participatory sessions - interviews, focus groups, and workshop - conducted across the four GOI during the three rounds of engagement strategies

		Interviews		Focus Groups		Workshops	
		Promised	Achieved	Promised	Achieved	Promised	Achieved
Trikala	1° round	35	35	4	4	1	1
	2° round	21	21	3	3	1	1
	3° round	14	14	2	2	1	1
Noord Brabant	1° round	40	38	4	4	1	1
	2° round	24	24	3	2	1	1
	3° round	16	16	2	2	1	1
West Midlands	1° round	35	31	4	4	1	1
	2° round	21	22	3	3	1	1
	3° round	14	16	2	2	1	1
Hamburg	1° round	35	32	4	4	0	1
	2° round	21	20	3	1	1	1
	3° round	14	13	2	2	1	1

In general, the planned number of participatory sessions was successfully implemented, reflecting the adaptability of the engagement strategies. Most GOI achieved their targets across the three rounds, although some variations highlight the unique challenges encountered in different contexts.

In the West Midlands, while the number of interviews in the first round was below the initial target by four, these were successfully addressed during the second and third rounds. This highlights the flexibility of the engagement strategy in responding to early challenges and adjusting to ensure coverage over subsequent rounds.

In Hamburg, while most planned activities were completed, a small number of interviews remained outstanding. Recruitment challenges in a large metropolitan area, including the difficulty of engaging

participants within a dispersed population and busy urban schedules, presented specific obstacles that affected the total number of sessions conducted.

While the detailed evaluation of the effectiveness of these methodologies will be presented in the following sub-chapters, this summary provides a general understanding of the implementation outcomes.

4.2 Results of the evaluation phases

The results of the evaluation process provide a detailed assessment of the participatory approach employed in SINFONICA, structured around the three evaluated phases: Design and Planning, Implementation, and Results and Impacts. Each phase highlights different aspects of the process, offering insights into its strengths, challenges, and overall effectiveness.

The Design and Planning phase focuses on how well the participatory framework was conceptualized and structured, evaluating criteria such as inclusivity, coherence, feasibility, and design quality. This phase examines whether the foundational elements of the process aligned with the project's objectives and stakeholder needs.

The Implementation phase assesses the execution of the engagement strategies, including the quality of interactions, the flexibility of the methods, and the ability to adapt to participants' needs. It also considers how effectively the participatory activities facilitated collaboration and dialogue among diverse groups.

Finally, the Results and Impacts phase evaluates the outcomes of the participatory process, including its success in achieving the set objectives, fostering trust and collaboration, empowering participants, and generating broader societal impacts. These results provide a comprehensive understanding of the participatory approach's contribution to creating inclusive and effective mobility solutions.

The following sections present the findings for each phase, offering a holistic evaluation of the SINFONICA participatory process.

4.2.1 Evaluation Phase 1: Design & Planning

As presented in chapter 2, this phase includes four evaluation criteria: Suitability, Coherence, Feasibility and Design Quality.

The semi-structured bilateral meetings of the first round of evaluation were aimed at collecting quantitative and qualitative data to evaluate the participatory approach's effectiveness and to fix some possible problems in collecting the data of the second round. Nine members of the GOI (two from Trikala, two from Hamburg, two from West Midlands and three from Noord-Brabant) were interviewed between 11th and 19th December 2023. In order to have important insights on the participatory approach, participants were invited to think about their experience with the co-creation activities and with the interviews and the focus groups and to freely answer a set of questions. It was clearly stated that there were no right or wrong answers, but they were required to freely express their own attitudes and opinions. The bilateral meetings covered different aspects of the participatory approach, as reported in the table that summarizes the questions included. In the following section the different aspects and the results will be illustrated in detail. Quantitative items were measured on a 5-point scale (from 1 = not at all to 5 = to a great extent).

Suitability

Suitability of objectives: First, GOI representatives evaluated to what extent the objectives of the interviews and the focus groups were coherent, inclusive and achievable. Workshops were not included because in the first round of participatory sessions they were not included. We created two indexes (one related to the focus groups and one related to the interviews) of the suitability of objectives by averaging the three items. The scale used was from 1 (not at all) to 5 (to a great extent). The general mean values showed that participants positively evaluated the interviews (M = 3.98) and the focus group (M = 4.05) as means to reach the research goals. In particular, Trikala (interviews M = 4.67, focus groups M = 4.67) and West Midlands (interviews M = 4.00, focus groups M = 4.17) showed more positive evaluations than Hamburg (interview M = 3.42, focus group M = 3.50) and Noord-Brabant (interviews M = 3.67, focus groups M = 3.67). However, the analysis did not reveal a significant difference between the GOI.

Rules of the game: Second, participants rated to what extent the scope of the participatory approach, the guidelines for the interviews and the focus group were clear. In general, the members of the GOI considered the scope of the participatory approach to be clear (M = 4.50; Hamburg M = 5.00, Trikala M = 5.00, West Midlands M = 3.50 and Noord-Brabant M = 4.00) and the guidelines of the interviews (M = 4.31; Hamburg M = 4.50, Trikala M = 5.00, West Midlands M = 3.50 and Noord-Brabant M = 4.00) and the focus groups (M = 4.13; Hamburg M = 3.50, Trikala M = 5.00, West Midlands M = 3.50 and Noord-Brabant M = 4.00).

Return: Finally, members of the GOI evaluated to what extent the engagement strategies of research participants were clear. These evaluations of the GOI were less positive, in comparison with the other measures. In particular, they considered the strategies for contacting the participants (M = 3.75; Hamburg M = 5.00, Trikala M = 4.50 and Noord-Brabant M = 1.00), the strategies to keep participants engaged (M = 3.40; Hamburg M = 4.00; Trikala M = 4.50 West Midlands M = 3.00 and Noord-Brabant M = 1.00) and to keep them informed (M = 3.20; Hamburg M = 3.00; Trikala M = 4.50 West Midlands M = 3.00 and Noord-Brabant M = 1.00) not very clear and more complicated to follow. This aspect was strongly underlined by Noord-Brabant, and it will be commented more in detail in the conclusion chapter.

Coherence

The members of the GOI were asked to evaluate the coherence between the aims of the project and the methodology employed to collect the data. The 100% of the GOI considered the interviews, the focus groups and the workshops as the best methodology to approach the research target. In the comments, the members of the GOI considered the methodology employed useful and "the most logical approach to talk with the groups category we have chosen. Face to face discussions were also important and useful (Noord-Brabant participant). Moreover, this experience seemed to be positive for both the GOI and for the research participants. However, in some cases (e.g., the elderly) the GOI had to tailor the methodology to make the focus groups and the interviews easy to understand.

Feasibility

Resources: In this section the members of the GOI were invited to evaluate the resources necessary for the research activities. While Trikala and Hamburg had a clear idea of the resources needed to implement the activities (e.g., space, voucher, transport resources, personnel for conducting focus groups/interviews), West Midlands and Noord-Brabant were less prepared. However, during the

process they were able to create “the right team” (Noord-Brabant). West Midlands and Noord-Brabant used external resources to conduct the interviews and focus groups.

External resources: These resources were selected from existing suppliers the GOI employed in previous research activities and were trained with the SINFONICA guidelines and engagement strategies. According to the GOI the external suppliers were able to follow the guidelines and to comply with the process requirements (M = 4.67; Noord-Brabant M= 5 and West Midlands M = 4).

Design Quality

In this section members of GOI were asked to evaluate the design quality of the participatory approach, according to the different aspects considered in the evaluation framework.

Leadership: Members of the GOI were invited to indicate to what extent they were satisfied with the support provided by WP1 and WP2. They reported an overall high satisfaction (M = 4.71). This positive evaluation of the support was shared by all the GOI (Hamburg M = 4.50, Trikala M = 5.00, West Midlands M = 4.00 and Noord-Brabant M = 5.00). The GOI indicated if their municipality could count on previous or existing participatory dynamics. Except for Hamburg, the other municipalities and regions could count on previous or existing participatory approaches on the topic of CCAM.

Diversity of Participants. Second, the GOI evaluated the choice of the target groups. The results showed that all four GOI considered appropriate the choice of the groups/participants involved in the research topic. No differences emerged in the GOI (M = 4.33, Hamburg M = 4.50, Trikala M = 4.50, West Midlands M = 4.00 and Noord-Brabant M = 4.00). However, some indicated additional groups (i.e., tourists, people from different levels of rural area, neo mums). For all the GOI (100%) the diversity of perspectives had been guaranteed in the identification of participants.

Transparency: All the GOI were unanimous in considering the access to the information of the participatory approach easy and understandable. Moreover, Hamburg (M = 5.00), Trikala (M = 5.00) and West Midlands (M = 5.00) considered the format of the disclosure of the information understandable for their target participants. Noord-Brabant instead needed to change the format to make it more understandable. As concerns the material provided, the format of the disclosure of information was considered understandable by the participants (M = 5.00) while the privacy consent was considered more complex (M = 4.40). However, the GOI were able to manage the translation and made the document understandable for their target groups.

Methodological adaptation: This part of the interview focused on the active participation of the GOI in the implementation of the methodology. Specifically, they were asked to indicate to what extent they felt that their opinions and remarks were considered during the co-creation activities. Generally speaking, all the GOI felt that their opinions (M = 4.75) and remarks (M = 4.75) were taken in consideration during the co-creation activities. Moreover, 75% of the participants considered the time foreseen for the co-creation of the group of interests, for the discussion of the guidelines for the participatory approach and for the engagement strategy enough.

Accessibility: The GOI were required to evaluate to what extent obstacles or situations of inequality that could impede the participation have been foreseen during the co-creation approach. Overall members of the GOI indicated that the co-creation process considered the obstacles or the possible situation of inequality that could negatively influence the research participation (M = 4.29). This evaluation was shared by the different GOI (Hamburg M = 4.50, Trikala M = 4.50, West Midlands M = 4.00 and Noord-Brabant M = 4.00). Moreover, the members of the GOI indicated that the co-creation approach was able to identify and plan the proper resources to manage the possible



obstacles (M = 4.14; Hamburg M = 3.50, Trikala M = 4.50, West Midlands M = 4.50 and Noord-Brabant M = 4.00).

Communication: The GOI that conducted directly the interviews, and the focus groups (Trikala and Hamburg) were asked to evaluate to what extent the communication recommendations for the interviews and focus groups were useful. The communication recommendations for the interviews (M = 4.50; Hamburg M = 4.00, Trikala M = 5.00) and focus group (M = 4.50; Hamburg M = 4.00, Trikala M = 5.00) made available for the SINFONICA project were considered useful by the GOI.

Training: Also, the different forms of training (online and in presence in Reggio Emilia) for conducting the interviews and the focus groups were considered useful (interviews training M = 4.80; focus groups training M = 4.40).

In summary, the results showed that the participatory approach and the co-creation activities in this first phase were positively evaluated by the GOI. They felt actively involved in the construction of the methodology, with their opinions and remarks meaningfully considered throughout the process. Participants effectively managed the activities, either with their own resources or by leveraging external support, to achieve the desired outcomes. Feedback from the GOI underscored the inclusivity, coherence, and feasibility of the design and planning framework, with objectives well-aligned to stakeholder needs and the planning process effectively integrating diverse perspectives. Participants particularly appreciated the clarity of the guidelines and the opportunity to shape the methodology, which enhanced their sense of ownership. However, in some cases, GOI expressed a preference for additional time to carry out preparatory activities to further refine the process. Overall, the results indicate that the foundational elements of the participatory approach were successfully established, setting a strong groundwork for subsequent phases.

4.2.2 Evaluation Phase 2: Implementation

Process quality

The evaluation of the Process Quality variable was conducted through a primarily qualitative methodology, holding a collective brainstorming session in person during the SINFONICA General Assembly in Turin in March 2024 (see Annex 3). This session brought together representatives from all the GOI -Hamburg, West Midlands, Noord-Brabant, and Trikala—alongside other project partners. Leveraging the collaborative setting of the General Assembly, the collective brainstorming session provided a rich and nuanced perspective on the participatory processes employed in the project. Participants shared their reflections on the data collection activities and engagement strategies, offering valuable insights that spanned achievements, challenges, and future directions.

The collective brainstorming session yielded important findings related to the key process variables included in this evaluation criteria. Synergies with other processes emerged as a significant outcome, with collaboration enabling connections between SINFONICA and other participatory initiatives in the CCAM domain. For instance, in Hamburg, the participatory activities aligned with ongoing local projects, such as the “Metropolitan Model Region for Mobility” initiative, which focuses on digitalized and networked urban mobility systems. Similarly, Noord-Brabant leveraged insights from existing regional transport studies to complement the data gathered in SINFONICA. These synergies not only enriched the quality of discussions but also provided opportunities for knowledge exchange, fostering a more comprehensive understanding of CCAM challenges and solutions. These insights were shared also in the evaluation questionnaire, where the GOI indicated if this experience

has increased/enhanced the collaboration with other stakeholders during the 2nd round of participatory sessions. According to the GOI the workshops gave the possibility to increase and strengthen the relationships with the stakeholders and go deeper into local transport issues.

The process demonstrated notable adaptation to participants' needs and agendas, reflecting a commitment to inclusivity and flexibility. Methodologies were carefully tailored to align with the unique characteristics and preferences of each participant group, ensuring that the process remained accessible and meaningful. For instance, facilitators adjusted engagement strategies to account for time constraints, literacy levels, and digital exclusion, which were particularly relevant for vulnerable populations such as elderly participants in Trikala and digitally vulnerable groups in the West Midlands. The use of tailored approaches, such as on-the-ground recruitment in rural areas and simplified communication materials, was instrumental in ensuring broad participation.

In terms of dynamization, the participatory sessions were carefully managed to ensure a supportive and engaging environment. Participation was actively encouraged through balanced intervention times and an emphasis on emotional well-being and life experiences, ensuring that diverse perspectives were valued and incorporated. In Hamburg, for example, the sessions were designed to encourage open dialogue, with facilitators emphasizing the lived experiences of vulnerable groups to ground discussions in real-world contexts. Measures were also taken to highlight and address gender-specific inequalities, fostering a fair and inclusive dialogue. Participants noted that the sessions were effective, with a well-managed balance of perspectives, creating a positive atmosphere that facilitated constructive discussions. The use of accessible language and attention to diversity in representation further strengthened the dynamization of the sessions.

These findings underscore the adaptability and inclusivity of SINFONICA's participatory approach, demonstrating how tailored methodologies, synergistic collaboration, and dynamic facilitation can enhance stakeholder engagement and foster trust in CCAM solutions.

Apart from the evaluations shared on the variables considered, the discussion generated during the collective brainstorming session provided several valuable insights on the research that represents the core of SINFONICA project. One of the standout findings was the high level of public engagement observed across all GOI. Participants displayed curiosity and confidence in the technological capabilities of Cooperative, Connected, and Automated Mobility (CCAM). In Noord-Brabant, for example, younger participants exhibited significant technical awareness and enthusiasm, asking detailed questions about the implications and functionality of CCAM technologies. Similarly, in Trikala, participants expressed a blend of optimism and curiosity, although this was tempered by practical concerns, particularly among elderly individuals who prioritized safety and accessibility.

Inclusivity emerged as a defining strength of the participatory process, though its realization varied across regions. In West Midlands, efforts to engage people in rural areas highlighted the potential of CCAM to address longstanding mobility gaps, while in Hamburg, participants emphasized the importance of integrating CCAM with existing public transport networks to ensure accessibility for all, particularly vulnerable groups. These reflections were echoed in Noord-Brabant, where participants noted the potential for CCAM to serve as a tool for enhancing mobility in under-served areas. However, a common challenge in all regions was ensuring meaningful participation from individuals with cognitive disabilities, a group whose engagement required specialized strategies such as simplified language and partnerships with local organizations.

The discussions also revealed polarized attitudes toward CCAM, with participants in all GOI divided between optimism and scepticism. While some saw the potential for CCAM to revolutionize mobility, others expressed reservations rooted in privacy concerns, data security, and the perceived loss of

control over personal transportation choices. These divisions often reflected demographic and cultural differences. For instance, women across all GOI were more likely to voice concerns about on-board safety and the availability of accessible services, while men tended to dominate technical discussions. In Trikala and West Midlands, there were also signs of cultural resistance, particularly among participants who were accustomed to relying on private cars and viewed CCAM as impractical for their daily lives.

Despite these challenges, the iterative nature of the participatory process allowed for continuous improvement. Feedback from earlier rounds of data collection was instrumental in refining the guidelines for engagement, ensuring they were better tailored to the unique needs of each GOI. In Hamburg, for example, GOI representatives appreciated the collaborative atmosphere of focus groups, which fostered dialogue among diverse stakeholders and encouraged the sharing of experiences. Similarly, in Noord-Brabant, the engagement strategies evolved to address specific barriers, such as the lack of trust in public transport and the need for more accessible information about CCAM.

Across all regions, participants emphasized the importance of raising public awareness about CCAM. They stressed that education and communication were key to building trust and acceptance, particularly in addressing the fears and misconceptions that often accompany new technologies. This need was especially pronounced in West Midlands, where public scepticism about CCAM was linked to broader concerns about societal readiness for automation.

As the discussions concluded, participants highlighted the necessity of a gradual and inclusive approach to deploying CCAM technologies. They agreed that integrating CCAM with traditional mobility systems was crucial to ensuring accessibility and usability for all. In Trikala and Hamburg, there was a particular focus on harmonizing CCAM with existing public transport infrastructure, while Noord-Brabant participants stressed the importance of prioritizing rural areas to address mobility inequalities. Across all GOI, the idea of phasing the introduction of CCAM to build confidence and address barriers incrementally gained strong support. Ultimately, the collective session underscored the critical role of participatory methodologies in shaping CCAM solutions that are inclusive, practical, and responsive to the needs of diverse communities.

Execution

Table 2 detailed at the beginning of the chapter presents the numbers of participatory sessions implemented across the four GOI providing an overview of the interviews, focus groups, and workshops completed during each round of engagement. These sessions reflect the extensive efforts undertaken to ensure inclusivity and comprehensive data collection throughout the project. Detailed information about the number and nature of these participatory sessions, including their specific implementation in each GOI, will be thoroughly presented in Deliverable 3.1.

In a separate questionnaire (see Annex 2) participants indicated the problems they had during the research activities. In particular, they indicated if the time foreseen for the interviews, the focus groups and the workshops was enough. Regarding the interviews, West Midlands and Hamburg considered the time sufficient, while Trikala and Noord-Brabant needed more time. A different result emerged for the focus groups, all the GOI considered the time foreseen for organizing and conducting them to be sufficient. A similar result emerged for the workshops, in this case only West Midlands needed more time for organizing them. Members of the GOI rated on a 5-point scale (from 1 = not at all to 5 = to a great extent) to what extent it was difficult to schedule the interviews, the focus groups and the workshops. In general, the GOI indicated some difficulties in scheduling the

research activities: interviews (M = 2.80; West Midlands M = 3.00; Hamburg M = 3.50; Noord-Brabant M = 2.00 and Trikala M = 3.00), focus groups (M = 3.20; West Midlands M = 3.00; Hamburg M = 4.00; Noord-Brabant M = 2.00 and Trikala M = 3.00) and workshops (M = 2.75; West Midlands M = 3.00; Hamburg M = 2.00; Noord-Brabant M = 4.00 and Trikala M = 2.00). It seems that the focus group organization was more challenging than the other activities.

Concerning the need to change the protocol during the interviews and the workshops, all the GOI affirmed that they did not need to make any change. More problematic was the protocol of the interviews: for Noord-Brabant and Hamburg the way to report the data needed to be improved to report more detailed information.

The GOI reported that they did not encounter any significant gaps in conducting the interviews or focus groups. However, regarding the workshops, Noord-Brabant noted that the topic addressed was perceived as too broad. Additionally, all GOI indicated that they faced no issues with the allocation of resources required for the activities.

Flexibility

During the first round of evaluation bilateral meetings, the GOI provided valuable qualitative feedback highlighting both strengths and areas for improvement in the design and implementation of the engagement strategy. These remarks can be grouped into key themes aligned with the criteria of the evaluation framework: Efficacy, Implementation, and Accessibility.

Clarity and purpose of the engagement process (Efficacy)

GOI expressed uncertainty regarding the purpose and structure of the multiple rounds of evaluation. Participants were unclear about how their feedback would contribute to the project and whether there were tangible outcomes from their involvement. Additionally, there was confusion about the specific goals of interviews and focus groups, with some participants questioning why the same format was repeated across different rounds.

Depth and quality of engagement (Efficacy and Implementation)

Concerns were raised about the depth of the questions and the quality of insights being gathered. Some interview questions were perceived as too superficial, yielding only general responses that lacked actionable detail. Participants suggested focusing less on technical aspects and more on emotional and personal perspectives, which could provide richer data. The complexity of the language used in interviews also presented challenges, particularly for participants with varying levels of education or familiarity with CCAM concepts.

Flexibility and adaptability of methods (Implementation)

Focus groups were highlighted as needing a more flexible structure to accommodate diverse opinions and foster open dialogue. GOI noted that the format sometimes felt too rigid, resembling a questionnaire rather than a dynamic discussion. Participants also felt constrained by exercises that were overly complex or abstract, which limited engagement and inclusivity.

Inclusion of vulnerable groups (Accessibility)

Engaging digitally excluded participants and other vulnerable groups proved particularly challenging. The recruitment strategies used were not always effective in reaching these demographics, and the format of certain activities, such as online surveys, created additional barriers to participation. GOI emphasized the need for alternative approaches tailored to the specific needs of these groups.

To address these concerns and enhance the participatory process, several mitigation and adaptation actions were implemented for the second and third rounds of engagement strategies:

Improved communication and clarity

- A dedicated section was added to the Info Sheet for interviews and focus groups, clearly explaining how participants' feedback would be used and its role in shaping project outcomes.
- The purpose of each round was clarified, with distinct scopes outlined to ensure GOI members understood the progression and impact of their contributions.

Refinement of interview and focus group guidelines

Interview questions were simplified and made more conversational to reduce complexity and encourage natural responses.

- Certain questions were restructured as open-ended to allow participants to provide deeper insights into their experiences and expectations.
- Focus group guidelines were revised to emphasize dialogue over consensus-building, encouraging participants to freely express diverse perspectives without feeling pressured to agree on a single solution.

Enhanced accessibility and inclusivity

- Recruitment strategies were adapted to include more on-the-ground engagement, such as visiting local community centres and organizations, to reach digitally vulnerable participants.
- The use of visual aids and contextual examples was encouraged to make abstract concepts, like CCAM, more relatable and easier to discuss.
- Alternative incentives, such as vouchers and refreshments, were provided to make participation more appealing, particularly in locations where digital or financial exclusion was a barrier.

Focus on emotional and contextual relevance

- Interview and focus group formats were adjusted to prioritize emotional insights and lived experiences over purely technical discussions.
- Specific sets of questions were developed for subgroups, such as individuals working with or representing people with disabilities, to better capture their unique perspectives.

These adaptations for the second and third rounds reflect the project's commitment to continuous improvement and responsiveness to stakeholder feedback. By addressing the key issues raised in the first round, the SINFONICA participatory process aimed to enhance its inclusivity, depth, and overall effectiveness, ensuring that the voices of all GOI representatives were meaningfully integrated into the evaluation framework.

During the Implementation phase, the participatory approach was tested through a series of engagement activities that focused on inclusivity, flexibility, and process quality. The evaluation revealed that the GOI were effective in adapting strategies to the specific needs of diverse

participants, including vulnerable groups. Notable achievements included fostering synergies with existing local initiatives and enhancing collaboration among stakeholders. Challenges, such as engaging digitally excluded participants and addressing linguistic barriers, were mitigated through tailored recruitment and communication strategies. The iterative design ensured continuous improvement, as feedback from earlier rounds was effectively integrated to enhance the quality and inclusivity of the sessions. This phase demonstrated the approach's adaptability and commitment to dynamic stakeholder engagement.

4.2.3 Evaluation Phase 3: Results & Impact

The bilateral meetings of the third round of evaluation were aimed at collecting quantitative and qualitative data to evaluate the process of the participatory approach, the research methodology and the data obtained. Nine members of the GOI (two from Trikala, two from Hamburg, three from West Midlands and two from Noord-Brabant) were interviewed between 27th June and 15th July 2024. Most of the participants were the same in phase 1 and phase 2. As in phase 1, participants were invited to think about their experience with the co-creation activities and with the interviews and the focus groups and to freely answer a set of questions. It was clearly stated that there were no right or wrong answers, but they were required to freely express their own attitudes and opinions. The bilateral meetings covered different aspects of the participatory approach. In the following section the different aspects and the results will be illustrated in detail. Quantitative items were measured on a 5-point scale (from 1 = not at all to 5 = to a great extent).

Efficacy

Achievement of objectives of participatory process: Once the research activities (i.e., interviews, focus groups and workshops) were conducted and the data were gathered, the GOI were invited to think about their own experience and to evaluate the co-creation and the participatory approach. The GOI evaluated to what extent the objectives of the participatory approach were obtained in general (M = 4.42; West Midlands M = 5.00; Hamburg M = 3.75; Noord-Brabant M = 4.50 and Trikala M = 5.00) and on different dimensions.

According to the GOI the participatory framework was able to ensure inclusivity and representation of the target group (M = 4.14; West Midlands M = 4.00; Hamburg M = 3.50; Noord-Brabant M = 4.50 and Trikala M = 5.00), promote social equity (M = 4.14; West Midlands M = 4.00; Hamburg M = 4.50; Noord-Brabant M = 4.00 and Trikala M = 4.00). All the GOI reported high evaluations in particular West Midlands, Noord-Brabant and Trikala. Hamburg was less satisfied even if the evaluations were quite high.

Engagement and Quality of participation: Finally, the GOI rated quite high the level of engagement of participants during the interviews (M = 4.20; West Midlands M = 4.00; Hamburg M = 4.00; Noord-Brabant M = 5.00 and Trikala M = 4.00), the focus groups (M = 4.80; West Midlands M = 4.00; Hamburg M = 5.00; Noord-Brabant M = 5.00 and Trikala M = 5.00) and the workshops (M = 4.20; West Midlands M = 4.00; Hamburg M = 4.00; Noord-Brabant M = 4.00 and Trikala M = 5.00).

Accessibility: All the GOI were aware of the importance of the accessibility dimensions. They ensured that the place where they conducted the interviews, the focus group and the workshops was accessible to everyone. They did not find any relevant technological or technical problems. In some cases, they had to adapt the language complexity to their audience (e.g., the elderly or persons

with cognitive disabilities). One of the main problems they reported was that for some vulnerable groups (e.g. the elderly) CCAM technology was difficult to imagine.

Efficiency

Resource utilization: During the second round of evaluation the GOI were asked to evaluate to what extent they were satisfied with the effort-benefit ratio of the interviews, the focus groups and the workshops. The GOI considered positively the effort-benefit ratio of the interviews (M = 3.80, West Midlands = 3.00; Hamburg M = 4.00; Noord-Brabant M = 4.00 and Trikala M = 4.00) and the workshops (M = 3.80; West Midlands = 3.00; Hamburg M = 4.00; Noord-Brabant M = 4.00 and Trikala M = 4.00). The GOI were more critical on evaluating the effort-benefit ratio of the focus groups (M = 3.20; West Midlands = 2.00; Hamburg M = 3.00; Noord-Brabant M = 4.00 and Trikala M = 4.00).

The GOI were asked again during the third round of evaluation to define to what extent they were satisfied with the effort-benefit ratio of the interviews, the focus groups and the workshops. Hamburg, Noord-Brabant, and Trikala considered positively the effort-benefit ratio of the interviews (M = 3.76, Hamburg M = 3.00; Noord-Brabant M = 4.00 and Trikala M = 4.00) and focus groups (M = 4.00; Hamburg M = 4.00; Noord-Brabant M = 4.00 and Trikala M = 4.00). West Midlands did not express any opinion, as they were still waiting for the outcomes of the process. Regarding the workshops, the results showed a positive evaluation (M = 4.25; West Midlands M = 4.00; Hamburg M = 5.00; Noord-Brabant M = 4.00 and Trikala M = 4.00). Comparing these results with the ones of the second round of evaluation, the effort-benefit ratio of the interviews did not change, whereas the evaluation of the focus groups and the workshops positively improved.

Impacts

Trust and collaboration building: All the GOI declared that they were able to establish synergies with other projects and activities in their territory through the SINFONICA participatory approach and they were able to establish community/group of followers/network among stakeholders, citizens and local authorities. For Hamburg, Trikala and Noord-Brabant after this experience people improve their knowledge of CCAM technology.

All the GOI referred that this research experience expanded and improved their ability in engaging people (M = 4.14; Hamburg M = 4.50, Trikala M = 4.50, West Midlands M = 4.00 and Noord-Brabant M = 4.00) and their knowledge and skill in participatory approach (M = 4.38; Hamburg M = 4.50, Trikala M = 4.50, West Midlands M = 4.50 and Noord-Brabant M = 4.00). The GOI considered the participatory approach as means to identify specific mobility challenges (M = 4.57; West Midlands M = 4.00; Hamburg M = 4.50; Noord-Brabant M = 5.00 and Trikala M = 5.00), to help the understanding of the mobility needs and preferences of the community (M = 3.67; West Midlands M = 4.00; Hamburg M = 3.00; Noord-Brabant M = 4.00 and Trikala M = 4.00) and to increase CCAM services' understanding and acceptance in the population (M = 3.86; West Midlands M = 4.00; Hamburg M = 3.75; Noord-Brabant M = 3.75 and Trikala M = 4.00). Again, the results showed differences among the GOI: Hamburg was less satisfied even if the evaluation were higher than the midpoint.

Finally, the GOI evaluated to what extent this research experience expanded their own knowledge and experience in engaging people and participatory approaches. The results confirmed that the GOI considered the participatory approach an enriching experience (M = 4.50; West Midlands M = 5.00; Hamburg M = 4.50; Noord-Brabant M = 4.00 and Trikala M = 5.00).



Participants' empowerment: According to the GOI the participatory approach helped to promote a human-centric approach (M = 4.29; West Midlands M = 4.00; Hamburg M = 4.00; Noord-Brabant M = 4.50 and Trikala M = 5.00) and contributed to generate relevant policy recommendations (M = 4.50; West Midlands M = 4.50; Hamburg M = 5.00; Noord-Brabant M = 4.50 and Trikala M = 5.00).

When evaluating to what extent participants and stakeholders felt empowered and perceive that their voices have influence on decisions, the GOI gave more less positive evaluations (M = 3.67; West Midlands M = 3.00; Hamburg M = 3.50; Noord-Brabant M = 4.00 and Trikala M = 4.00).

For the GOI the participatory approach was able to enhance community engagement (M = 4.00; West Midlands M = 4.00; Hamburg M = 3.00; Noord-Brabant M = 5.00 and Trikala M = 4.00), to partially empower vulnerable groups of population (M = 3.93; West Midlands M = 3.50; Hamburg M = 3.25; Noord-Brabant M = 4.50 and Trikala M = 5.00) and to build trust and collaboration among stakeholders (M = 4.17; West Midlands M = 5.00; Hamburg M = 3.50; Noord-Brabant M = 4.50 and Trikala M = 4.00). In fact, they reported that many participants (from 50% to 90%) both citizens and stakeholders expressed their intention to stay in contact with the SINFONICA project after their participation (events, results' sharing, etc.).

Gender impact: With reference to the gender impact generated by the actions of the participatory process, some GOI were more satisfied than others. In particular, West Midland, Noord-Brabant and Hamburg underlined that the opinions of women or LGBTQ+ community representatives were openly and clearly expressed during the SINFONICA participatory sessions. In contrast, Trikala observed that participants were less willing to engage in discussions on gender perspectives on CCAM services.

The Results and Impacts phase provided a comprehensive assessment of the participatory approach's outcomes, revealing its efficacy in achieving key objectives such as fostering trust, empowering participants, and promoting inclusivity. Participants reported increased awareness of CCAM technologies and felt that their contributions were valued and integrated into the project. Despite these successes, there were variations in satisfaction levels among GOI, particularly regarding the perceived influence of participants' voices on decision-making. The approach was praised for its human-centric design and its ability to generate actionable insights and policy recommendations. Overall, the findings underscore the transformative potential of participatory methodologies in addressing complex mobility challenges while ensuring equitable and sustainable solutions.

4.3 GOI representatives' feedback and success stories

The participatory activities conducted across the four GOI —Hamburg, Trikala, West Midlands, and Noord-Brabant—demonstrated the value of tailored engagement strategies in fostering inclusivity, building trust, and generating meaningful dialogue about the future of CCAM. These activities highlighted the power of participatory approaches to not only collect valuable insights but also create emotional connections between stakeholders and the project.

In Noord-Brabant, outreach efforts took a highly localized and personal approach, with researchers meeting participants in informal settings such as libraries and community centres. These spaces encouraged open and relaxed conversations where participants felt comfortable voicing their concerns about existing public transport issues. For many, the discussions provided a rare opportunity to share frustrations about challenges like high ticket prices and discontinued bus routes

in rural areas. At the same time, participants expressed curiosity and cautious optimism about CCAM technologies, particularly self-driving buses, which they saw as a potential solution for underserved areas. These interactions reinforced a sense of agency among participants, as they felt their opinions were being genuinely considered by decision-makers.

Trikala's engagement strategy stood out for its emphasis on inclusivity and context-sensitive approaches to recruitment. The participatory process was carefully adapted to meet the needs of specific demographic groups, including elderly residents, rural populations, and individuals with mobility challenges. This approach ranged from organizing interviews at elderly centres to collaborating with local NGOs and youth councils. The emotional impact of these activities was significant: elderly participants often began interviews feeling anxious about their digital skills but soon grew eager to share their perspectives. Young participants, meanwhile, expressed a sense of pride and responsibility in contributing to discussions about public transportation improvements. Rural residents, initially sceptical, warmed to the process as they recognized the genuine interest shown in their mobility challenges, leading to thoughtful discussions about infrastructure and access.

In Hamburg, the participatory approach leveraged creative techniques to engage a diverse audience. Activities were often held in spaces designed to make participants feel valued, such as historic town halls and mobility workshops tailored to elderly and impaired individuals. These settings fostered a welcoming atmosphere, enabling participants to comfortably share their experiences. The interviews and focus groups revealed both the challenges faced by vulnerable groups and the potential of existing digital tools to improve inclusiveness in mobility. Despite some reservations about CCAM being abstract and disconnected from everyday life, participants appreciated the opportunity to voice their views in a supportive environment. The effort to make these discussions accessible and enjoyable, including providing catering, reinforced a positive perception of the process.

In the West Midlands, pre-existing networks and resources significantly facilitated engagement. By leveraging a database of residents who had participated in earlier surveys and conducting outreach at public transport hubs, the project efficiently recruited participants, including those who might otherwise have been difficult to engage. The participatory activities highlighted fluctuating attitudes toward CCAM, influenced by external factors such as media coverage. Nonetheless, many participants recognized the potential of CCAM to address longstanding transport challenges, such as unreliability and accessibility gaps. This recognition helped foster optimism about the role of CCAM in creating a more equitable transport system.

4.4 Challenges and lessons learned

While the participatory process achieved significant successes, it also encountered a range of challenges, reflecting the diverse contexts and demographics of the GOI.

One of the primary difficulties in Noord-Brabant was adapting standardized interview and focus group guidelines to local realities. Participants sometimes struggled to relate to questions that felt abstract or removed from their daily experiences, making it harder to draw direct comparisons across regions. Focus groups also revealed the complexities of managing group dynamics, as dominant voices occasionally overshadowed quieter participants, despite efforts to ensure balanced contributions.

In Trikala, the participatory process faced logistical challenges, compounded by external disruptions such as severe flooding in September 2023. These obstacles necessitated flexibility in scheduling and methodology. Recruiting elderly participants for online surveys also proved difficult, requiring in-

person visits to local centres to provide assistance. Despite these hurdles, the strong foundation of collaboration with local stakeholders and community networks helped sustain engagement.

Hamburg encountered unique challenges due to the abstract nature of CCAM concepts, which many participants found disconnected from their daily lives. Recruitment efforts were further complicated by the lack of an established network of citizens interested in mobility issues, requiring significant resources to reach potential participants. However, the city's robust public transport initiatives and its vision as a mobility model region created opportunities to link CCAM discussions to broader urban mobility goals.

In the West Midlands, participant attitudes were influenced by external factors, such as public scepticism surrounding transport technologies. Additionally, the polarizing nature of CCAM, with participants expressing either enthusiasm or mistrust, made it challenging to facilitate balanced discussions. These dynamics underscored the need for nuanced facilitation and adaptive methodologies.

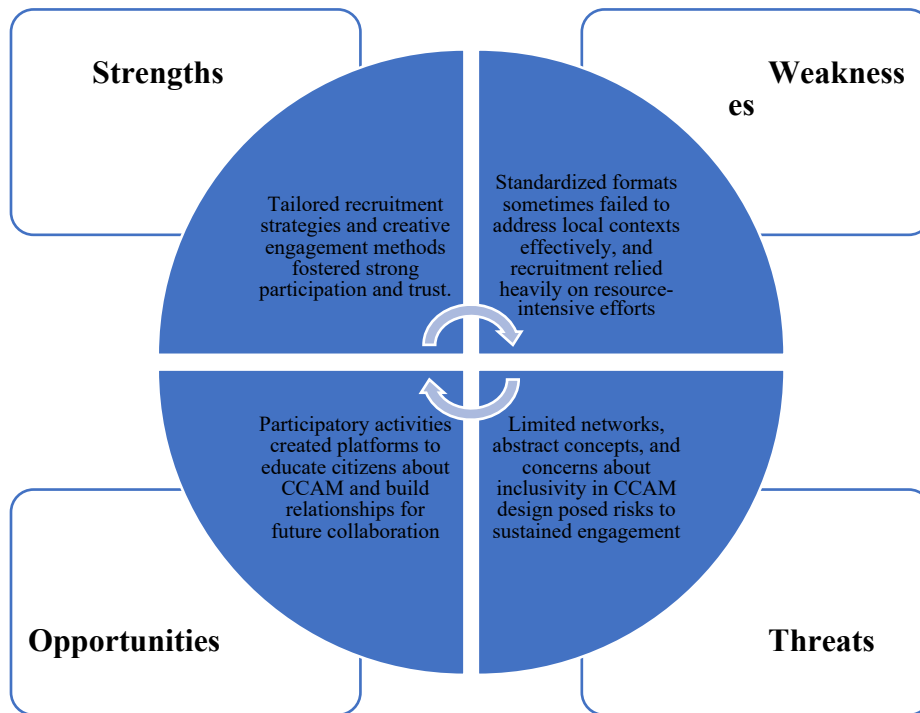


Figure 3: Combined SWOT analysis from the GOI

The SINFONICA project’s participatory approach across the four GOI yielded several key lessons that highlight both the strengths and areas for improvement in fostering inclusivity and engagement in mobility projects. Each lesson is enriched by the experiences of the GOI, offering practical insights for future participatory initiatives:

- Early engagement with community stakeholders: Engaging stakeholders early in the process was critical to building trust and ensuring their active involvement throughout the project. In Trikala, early collaboration with local councils, NGOs, and institutions like the university helped establish credibility and foster a sense of shared ownership. This approach not only legitimized the project but also created a supportive network that facilitated participant recruitment and engagement activities. Early engagement builds relationships that are essential for tackling unforeseen challenges, such as the logistical disruptions faced in Trikala

due to flooding. Establishing these connections in the initial stages of a project ensures a strong foundation for inclusive participation.

- **Tailored methodologies for local contexts:** The diversity of the GOI underscored the importance of adapting participatory methods to local contexts. In Noord-Brabant, informal settings such as libraries and community centres allowed participants to feel at ease, while in Hamburg, historic venues and mobility workshops attracted participants by creating a welcoming and engaging environment. Tailoring recruitment strategies and methodologies ensured that hard-to-reach groups, such as rural residents and digitally vulnerable individuals, were included. For instance, Trikala's targeted outreach to elderly centres and rural communities demonstrated how customized approaches can overcome barriers to participation. Tailored methods ensure that the participatory process resonates with the unique circumstances and needs of each community.
- **Flexibility and adaptability:** The ability to adapt methodologies and schedules was vital in responding to challenges. Trikala's experience with the flood demonstrated the importance of flexibility in logistical planning. Similarly, in Hamburg, adapting to the oversaturation of mobility topics required innovative approaches to recruitment, such as integrating participation with existing mobility workshops. Flexibility also played a role in addressing fluctuating public sentiment, as seen in the West Midlands, where external news stories about transport technologies influenced participant attitudes. An adaptive approach ensures that participatory processes remain effective even in dynamic and unpredictable circumstances.
- **Transparent communication:** Transparency in the participatory process is essential for fostering trust and encouraging continued engagement. Participants across all GOI valued clear communication about how their input would be used and how the project's outcomes would benefit their communities. In Noord-Brabant, informing participants about the application of their feedback reduced scepticism and enhanced their sense of contribution. Transparency also involved sharing progress and results, as demonstrated by the West Midlands' practice of engaging participants with updates and maintaining connections for future projects. A transparent approach not only builds trust but also reinforces the legitimacy of the process.
- **Tangible examples to bridge abstract concepts:** The abstract nature of CCAM posed challenges in engaging participants, particularly in Hamburg and the West Midlands. Providing tangible examples and real-world applications, such as the automated shuttle system in Trikala, helped participants relate to the concepts being discussed. Visual aids, simulations, and hands-on experiences make abstract topics more accessible, fostering richer and more meaningful discussions. These tools are particularly effective in bridging the gap between theoretical discussions and participants' lived experiences.

4.5 Recommendations

Building on the lessons learned from the SINFONICA participatory approach, several key recommendations can enhance inclusivity, effectiveness, and stakeholder satisfaction in future engagement processes. These recommendations emphasize not only practical strategies but also the importance of creating a meaningful and empowering experience for participants.

- **Start early and build relationships:** Engaging community stakeholders and local organizations early is crucial for establishing trust, credibility, and collaboration. Early engagement ensures that stakeholders have a sense of ownership in the process, which

increases their willingness to participate. It also allows for the co-creation of methodologies and the identification of specific needs and challenges within the community. Collaborating with local networks, as demonstrated in Trikala and Hamburg, can streamline recruitment and foster long-term partnerships.

- **Adapt to local contexts:** Tailoring recruitment strategies and engagement methods to reflect the unique characteristics of each community is essential. Recognizing cultural, geographical, and demographic differences ensures that participation is accessible and relevant. For example, Noord-Brabant's informal settings and Trikala's targeted outreach to specific groups illustrate how context-sensitive approaches can enhance inclusivity. Adapting formats also includes considering participants' schedules, mobility challenges, and communication preferences.
- **Remain flexible and responsive:** Participatory processes must be designed with adaptability in mind to address unforeseen challenges, such as logistical disruptions or shifts in public sentiment. Flexibility enables adjustments to recruitment strategies, timelines, and methodologies based on real-time feedback. This approach was particularly valuable in Trikala's response to a catastrophic flood and the West Midlands' efforts to navigate fluctuating public attitudes. A responsive process demonstrates respect for participants' circumstances and maintains engagement.
- **Communicate transparently:** Transparency fosters trust and accountability by ensuring participants understand the purpose of their involvement and how their contributions will be used. Clear communication about goals, methodologies, and outcomes builds credibility and encourages long-term engagement. Providing updates, as seen in the West Midlands, strengthens relationships and ensures participants feel their input is valued. Transparency should also include sharing results in accessible formats, reinforcing the impact of the participatory process.
- **Make abstract concepts relatable:** Addressing complex or unfamiliar topics, such as CCAM, requires innovative approaches to bridge the gap between abstract ideas and participants' everyday experiences. Tangible examples, such as Trikala's automated shuttle system, and tools like visual aids, videos, or simulations, can make discussions more engaging and comprehensible. Grounding conversations in relatable scenarios encourages participants to contribute more actively and provides richer insights.
- **Provide incentives and create welcoming environments:** Thoughtful planning of venues, catering, and incentives demonstrates respect for participants' time and effort. Accessible, comfortable spaces, like those used in Hamburg, create a welcoming atmosphere that encourages open dialogue. Incentives, such as gift cards or recognition of participants' contributions, further reinforce the value placed on their involvement.
- **Focus on long-term engagement:** Building lasting connections with participants through ongoing communication, follow-ups, and opportunities for future involvement creates a sense of continuity and deepens trust. Establishing a database of participants, as practiced in the West Midlands, can streamline future engagements and strengthen the community's role in shaping mobility innovations.
- **Foster inclusion through diverse channels:** Use a variety of communication and recruitment methods to reach underrepresented groups. Social media campaigns, in-person visits, and collaborations with local NGOs and councils ensure that even those with limited access to digital tools can participate. This diversity in outreach promotes equitable representation across demographics.



By implementing these recommendations, mobility projects can design participatory processes that are not only inclusive and effective but also empower communities to play an active role in shaping their mobility futures. The SINFONICA experience illustrates that with thoughtful planning, transparency, and adaptability, participatory approaches can create meaningful and impactful engagement, fostering trust and collaboration among all stakeholders.

5. Conclusions

The evaluation of the SINFONICA participatory approach across its three phases—Design and Planning, Implementation, and Results and Impacts—has revealed significant achievements, valuable lessons, and areas for improvement. Through robust engagement strategies, inclusive methodologies, and iterative refinement, the project successfully fostered stakeholder collaboration and advanced its goals of promoting equitable and user-centred mobility solutions. At the same time, the evaluation highlighted specific shortcomings that must be addressed to strengthen the participatory process further.

In the Design and Planning phase, the participatory framework was well-received for its inclusivity, coherence, and alignment with stakeholder needs. Participants valued the clarity of guidelines and their active role in shaping the process, which enhanced their sense of ownership. However, feedback from some GOI, particularly Noord-Brabant, indicated the need for more robust strategies for initial participant engagement and preparation. These gaps suggest that while the planning was effective, additional efforts are required to ensure seamless communication and participant readiness.

The Implementation phase demonstrated the adaptability and inclusivity of the engagement strategies. The iterative approach allowed for continuous refinement, enabling the participatory process to address diverse stakeholder needs, including those of vulnerable groups. Synergies with local initiatives enhanced the relevance and impact of the sessions, and tailored methodologies overcame logistical and linguistic barriers. Nevertheless, challenges in maintaining participant engagement and ensuring clear communication were noted. The strategies for keeping participants informed and engaged were perceived as less effective, highlighting a critical area for improvement in future participatory efforts.

In the Results and Impacts phase, the participatory approach delivered meaningful outcomes, fostering trust, empowerment, and inclusivity. Stakeholders reported increased awareness of CCAM technologies and expressed satisfaction with their ability to contribute to the process. However, some GOI expressed concerns about the clarity of how participants' feedback was integrated into decision-making and communicated back to them. This highlights the importance of strengthening feedback loops to ensure transparency and reinforce participants' trust in the process.

Feedback and success stories from the GOI highlighted the strengths of the participatory process, such as the collaborative atmosphere, the adaptability of methodologies, and the ability to address local mobility challenges. Lessons learned from the evaluation emphasized the importance of clear communication strategies, especially regarding the return of findings to participants (devolution), as well as the need for sustained efforts to engage marginalized groups and foster a participative political culture. Building trust and collaboration among stakeholders is essential for long-term engagement, yet this requires consistent feedback loops, greater transparency, and the inclusion of underrepresented voices.

The recommendations derived from this evaluation focus on enhancing inclusivity, communication, and empowerment in participatory processes. These include implementing more robust strategies for participant engagement and retention, developing tailored approaches to reach underrepresented groups, and ensuring transparent communication of outcomes to all participants. Additionally, fostering a participative political culture requires integrating participatory methodologies into broader governance structures and encouraging stakeholders to adopt a long-term view of collaboration and trust-building.



In conclusion, the SINFONICA participatory approach has demonstrated its potential to address complex mobility challenges through inclusive and user-centred methodologies. However, the identified shortcomings, such as the lack of effective return mechanisms and the limited focus on participative political culture, provide valuable insights for future improvements. By addressing these gaps, the participatory process can become a more powerful tool for fostering equity, trust, and sustainable mobility solutions across diverse communities.

6. References

- Auwerx, P., Bossaert, E., Martens, S., Cuixart, J., & Forjan, S. (2011). Involving Stakeholders: Toolkit on Organising Successful Consultations. CIVITAS Handbooks, CIVITAS Initiative. [Available online: <http://www.civitas.eu/downloadcenter>]
- Cargo, M., & Mercer, S. L. (2008). The value and challenges of participatory research: Strengthening its practice. *Annual Review of Public Health*, 29, 325–350. [DOI: 10.1146/annurev.publhealth.29.091307.083824]
- Diputación Foral de Gipuzkoa (2019). Guía de evaluación de procesos participativos. Dirección General de Participación Ciudadana, Gipuzkoa. [Available online: <https://www.gipuzkoa.eus/es/web/etorkizunaeraikiz/participacion>]
- FAME EU Project. Common Evaluation Methodology Handbook (Draft, 2024).
- Jagosh, J., Macaulay, A. C., Pluye, P., Salsberg, J., Bush, P. L., Henderson, J., Sirett, E., Wong, G., Cargo, M., Herbert, C. P., Seifer, S. D., Green, L. W., & Greenhalgh, T. (2012). Uncovering the benefits of participatory research: Implications of a realist review for health research and practice. *Milbank Quarterly*, 90(2), 311–346. [DOI: 10.1111/j.1468-0009.2012.00665.x]
- Kuhn, R., Konrad, W., Wist, S. K., & Witzel, B. (2021). Co-Creation Toolkit: A Guidance on the design, development, and implementation of effective co-creation in industry-citizen collaboration settings. [Available online: <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-72916-6>]
- Living Innovation EU Project (2021). [Available online: <https://www.living-innovation.net>]
- Vaughn, L. M., & Jacquez, F. (2020). Participatory research methods – Choice points in the research process. *Journal of Participatory Research Methods*, 1(1). [DOI: 10.35844/001c.13124]

7. Appendices

7.1 Annex 1 - Evaluation bilateral meetings (Round 1)

ANNEX 1

FIRST ROUND OF EVALUATION OF THE PARTICIPATORY PROCESS

BILATERAL MEETINGS GUIDELINES – GOI

Location:

- Trikala
- Hamburg
- Noord Brabant



- West Midland

Scale:

- 1 = not at all
- 2 = to some extent
- 3 = neither satisfied not dissatisfied
- 4 = Somewhat satisfied
- 5 = to a great extent

Design and Planning: Suitability

Suitable of Objectives

- To what extent were the objectives of SINFONICA interviews coherent?
- To what extent were the objectives of SINFONICA interviews inclusive?
- To what extent were the objectives of SINFONICA interviews achievable?
- To what extent were the objectives of SINFONICA focus group coherent?
- To what extent were the objectives of SINFONICA focus group inclusive?
- To what extent were the objectives of SINFONICA focus group achievable?
- To what extent were the objectives of SINFONICA workshop coherent?
- To what extent were the objectives of SINFONICA workshop inclusive?
- To what extent were the objectives of SINFONICA workshop achievable?

Rules of the Game

- To what extent were the engagement strategies useful?
- To what extent was the scope of SINFONICA clear?
- To what extent were the guidelines for the **interviews** clear?
- To what extent were the guidelines for the **focus group** clear?
- To what extent were the guidelines for the **workshop** clear?

Return

- To what extent were the engagement strategies clear in defining how to firstly get the participant engaged?
- To what extent were the engagement strategies clear in defining how to keep the participant engaged?

- To what extent were the engagement strategies clear in defining how to keep the participant informed about the results of the activities?

Design and Planning: Coherence

Coherence

- Were the **interviews** a good methodology to approach the defined target? Y/N
 - If not: which methodology would you have preferred?
- Were the **focus groups** a good methodology to approach the defined target? Y/N
 - If not: which methodology would you have preferred?
- Were the **workshops** a good methodology to approach the defined target? Y/N
 - If not: which methodology would you have preferred?

Design and Planning: Feasibility

Resources

- Did you encounter any problem with resource allocation during the whole process? Y/N
 - If yes: please specify
- Before starting the participatory approach process, did you have a clear idea of the resources needed to implement the activities? Y/N
 - If not: which resources were underestimated / overestimated?
- **During the interviews:** did you encounter any problem with resource allocation? Y/N
 - If yes: please specify
- **During the focus group:** did you encounter any problem with resource allocation? Y/N
 - If yes: please specify
- **During the workshop:** did you encounter any problem with resource allocation? Y/N
 - If yes: please specify

External dynamization

- Did you use external resources (not directly involved in the SINFONICA project)? Y/N
If yes:
 - How did you choose who to entrust the work to?
 - For which activities did you use external resources?

- Did you train the external resources with the SINFONICA guidelines / engagement strategies? Y/N
 - If not: why?
- Were you satisfied with the external resources you worked with? Y/N

Design and Planning: Design Quality

Leadership

- To what extent are you satisfied with the support team from the WP1 & WP2 team?
 - Do you have suggestions for improvements?
- Do you think the process (from the guidelines to the approaches) was well integrated? Y/N
 - Do you have suggestions for improvements?

Diversity of Participants

- Do you think we have involved a good representative of citizens? Y/N
- Would you have wanted to add some specific categories? Y/N
 - If yes, which ones?
- To what extent do you think you have involved the right representatives according to the target established for the **interviews**?
- To what extent do you think you have involved the right representatives according to the target established for the **focus group**?
- To what extent do you think you have involved the right representatives according to the target established for the **workshop**?
- Among the **interviewed**: how many were women?
- Among the **focus group** participants: how many were women?
- Among the **workshops** participants: how many were women?
- Did you invite women's associations and/or feminist collectives? Y/N
- How many people did you contact for the **interviews**?
 - How many have agreed to be interviewed?
 - How many have actually been interviewed?
- How many people did you contact for the **focus groups**?
 - How many have agreed to join?
 - How many have actually joined?

- How many people did you contact for the **workshops**?
 - o How many have agreed to join?
 - o How many have actually joined?

Transparency

- Was access to the information regarding the participatory approach easy? Y/N
 - o If not, what could be improved?
- To what extent was the format of the disclosure of the information understandable for your target?
 - o What can be improved?
- To what extent was the privacy consent understandable for your target?
 - o What can be improved?
- Did you experience some barriers / problems in the translation process (from English to your language)? Y/N
 - o If yes, please specify
- Were the working documents proposed within T1.4 useful to keep the updates of the **interviews**?
- Were the working documents proposed within T1.4 useful to keep the updates of the **focus group**?
- Were the working documents proposed within T1.4 useful to keep the updates of the **workshop**?

Methodological adaptation

- Was the time foreseen for the **interviews** enough? Y/N
- Was the time foreseen for the **focus groups** enough? Y/N
- Was the time foreseen for the **workshops** enough? Y/N
- Was the time foreseen for the co-creation of the GOI enough? Y/N
- Was the time foreseen for discussing the guidelines for the participatory approach enough? Y/N
- Was the time foreseen for discussing the engagement strategy enough? Y/N
- Was the period of data collection (2 months) enough to collect all the **interviews**? Y/N
- Was the period of data collection (2 months) enough to conduct all the **focus groups**? Y/N

- Was the period of data collection (2 months) enough to conduct the **workshop**? Y/N

Accessibility

- Did you ensure that the place where you conducted the **interviews** was accessible to everyone? Y/N
 - o If not: why? What could you improve?
- Did you ensure that the place where you conducted the **focus group** was accessible to everyone? Y/N
 - o If not: why? What could you improve?
- Did you ensure that the place where you conducted the **workshop** was accessible to everyone? Y/N
 - o If not: why? What could you improve?
- Did you encounter any gap in performing the **interviews** (technological, linguistic, thematic)? Y/N
 - o If yes: please specify.
- Did you encounter any gap in performing the **focus group** (technological, linguistic, thematic)? Y/N
 - o If yes: please specify.
- Did you encounter any gap in performing the **workshop** (technological, linguistic, thematic)? Y/N
 - o If yes: please specify.
- Did you offer alternative time schedule (during lunch, during evening, during the weekend...)? Y/N
 - o If yes were they successful?

Communication

- Does your entity have a communication plan?
- To what extent did you find useful the communication guidelines for the interviews made available by the SINFONICA project?
- To what extent did you find useful the communication guidelines for the focus groups made available by the SINFONICA project?
- To what extent did you find useful the communication guidelines for the workshops made available by the SINFONICA project?
- Which specific measures have been taken to assure inclusive communication with all participants?
- Which specific measures have been taken to assure a non-sexist communication with all participants?
-

Training

- To what extent were the trainings online useful for conducting the **interviews**?
- To what extent were the trainings online useful for conducting the **focus group**?
- To what extent were the trainings online useful for conducting the **workshop**?
- To what extent was the training online useful for feeling more self-confident in conducting participatory approaches?
- To what extent was the training in presence in Reggio Emilia (September 2023) useful for conducting the **interviews**?
- To what extent was the training in presence in Reggio Emilia (September 2023) useful for conducting the **focus group**?
- To what extent was the training in presence in Reggio Emilia (September 2023) useful for conducting the **workshop**?
- To what extent was the training in presence in Reggio Emilia (September 2023) useful for feeling more self-confident in conducting participatory approaches?
- To what extent were the interviews helpful in increasing the knowledge of the interviewed in the CCAM topic?
- To what extent was the focus group helpful in increasing the knowledge of the interviewed in the CCAM topic?

- To what extent were the workshops helpful in increasing the knowledge of the interviewed in the CCAM topic?

Implementation: Process Quality

Synergies with other processes

- Have you established synergies with other projects/activities in your territory through the SINFONICA participatory approaches?
 - o If yes: please specify:
 - o If not: do you plan to establish any?

Adaptation to participants' needs and agendas

- To what extent did you feel that your opinions were considered during the co-creation activities?
- To what extent did you feel that your remarks/comments were taken into account during the co-creation activities?
- Did you have to rearrange the proposed organization or time schedule in order to attend to the specific needs of the participants?
- To what extent were you flexible in answering people's requests during **interviews**?
- To what extent were you flexible in answering people request during **focus group**?
- To what extent were you flexible in answering people requests during **workshops**?

Dynamization

- To what extent has the participation of the people been facilitated during the **interviews**?
- To what extent has the participation of the people been facilitated during the **focus group**?
- To what extent has the participation of the people been facilitated during the **workshops**?
- To what extent were you able to report all the opinions expressed during the **focus group**?
 - o If little or not at all: what could be improved?
- To what extent were you able to report all the opinions expressed during the **workshop**?
 - o If little or not at all: what could be improved?
- To what extent are you satisfied with the **interviews** you have conducted?
- To what extent are you satisfied with the **focus group** you have conducted?
- To what extent are you satisfied with the **workshops** you have conducted?
- Would you say that the atmosphere during the **workshops** was nice? Y/N

- If not: what can be improved?
- Would you say that the atmosphere during the **interviews** was nice? Y/N
 - If not: what can be improved?
- Would you say that the atmosphere during the **focus group** was nice? Y/N
 - If not: what can be improved?

Implementation: Execution

Did you manage to perform all the required **interviews**? Y/N

If not: how many did you perform?

If not: why?

Did you manage to perform all the required **focus group**? Y/N

If not: how many did you perform?

If not: why?

Did you manage to perform all the required **workshops**? Y/N

If not: how many did you perform?

If not: why?

- How would you rate the level of engagement during the **interviews**?
- How would you rate the level of engagement during the **focus group**?
- How would you rate the level of engagement during the **workshop**?

Implementation: Flexibility

- Did you have the need to change the protocol of the **interviews**? Y/N
 - If yes: please explain the situation.
- Did you have the need to change the protocol of the **focus group**? Y/N
 - If yes: please explain the situation.
- Did you have the need to change the protocol of the **workshop**? Y/N
 - If yes: please explain the situation.

Results and Impacts: Efficiency

- To what extent are you satisfied with the effort-benefit ratio of the **interviews** you have conducted?
- To what extent are you satisfied with the effort-benefit ratio of the **focus group** you have conducted?
- To what extent are you satisfied with the effort-benefit ratio of the **workshop** you have conducted?

7.2 Annex 2 - Questionnaire (Round 2)

Questionnaire for GOI on 2nd Round participatory sessions

Location: Trikala, Hamburg, Noord Brabant, West Midland

Scale:

- 1 = not at all;
- 2 = to some extent;
- 3 = neither satisfied not dissatisfied;
- 4 = somewhat satisfied;
- 5 = to a great extent

CCAM Local Community

- Did you have the possibility to increase/enhance/go deeper with the collaboration with other stakeholders during the 2nd Round of participatory sessions? Please explain how and which stakeholders are involved in your local community.

Design and Planning: Methodological adaptation (from 1st to 2nd Round)

- To what extent did you feel that your remarks/comments were considered to adapt the guidelines for the 2nd Round?
- Is there any issue that have not been reflected in the guidelines for the 2nd Round

Implementation: Adaptation to participants' needs and agendas

- Was the time foreseen for the **interviews** enough? Y/N
- Was the time foreseen for the **focus groups** enough? Y/N
- Was the time foreseen for the **workshops** enough? Y/N

- To what extent was it difficult to schedule the **interviews**?
- To what extent was it difficult to schedule the **focus group**?
- To what extent was it difficult to schedule the **workshops**?

Implementation: Flexibility

- Did you have the need to change the protocol of the **interviews**? Y/N
 - o If yes: please explain the situation.
- Did you have the need to change the protocol of the **focus groups**? Y/N
 - o If yes: please explain the situation.
- Did you have the need to change the protocol of the **workshops**? Y/N
 - o If yes: please explain the situation
- **During the interviews:** did you encounter any problem with resource allocation? Y/N
 - o If yes: please specify
- **During the focus group:** did you encounter any problem with resource allocation? Y/N
 - o If yes: please specify
- **During the workshops:** did you encounter any problem with resource allocation? Y/N
 - o If yes: please specify

Results and Impacts: Efficacy

Achievement of objectives of participatory process

- Did you manage to perform all the required **interviews**? Y/N
 - o If not: how many did you perform? If not: why?
- Did you manage to perform all the required **focus groups**? Y/N
 - o If not: how many did you perform? If not: why?
- Did you manage to perform all the required **workshops**? Y/N
 - o If not: how many did you perform? If not: why?

Participation

- How many people did you contact for the **interviews**?
 - o How many have agreed to be interviewed?
 - o How many have actually been interviewed?
- Considering the categories of participants involved in the second round, which ones were most difficult to recruit? In your opinion, why?
- How many people did you contact for the **focus groups**?
 - o How many have agreed to join?
 - o How many have actually joined?
- How many people did you contact for the **workshops**?
 - o How many have agreed to join?
 - o How many have actually joined?
- Among the **interviewed**: how many were women?
- Among the **focus group** participants: how many were women?
- Among the **workshop** participants: how many were women?
- Did you invite women's associations and/or feminist collectives? Y/N

Accessibility

- Did you ensure that the place where you conducted the **interviews** was accessible to everyone? Y/N. If not: why? What could you improve?
- Did you ensure that the place where you conducted the **focus group** was accessible to everyone? Y/N. If not: why? What could you improve?
- Did you ensure that the place where you conducted the **workshops** was accessible to everyone? Y/N. If not: why? What could you improve?
- Did you encounter any gap in performing the **interviews** (technological, linguistic, thematic)? Y/N. If yes: please specify.
- Did you encounter any gap in performing the **focus group** (technological, linguistic, thematic)? Y/N. If yes: please specify.
- Did you encounter any gap in performing the **workshops** (technological, linguistic, thematic)? Y/N. If yes: please specify.

Results and Impacts: Efficiency

- To what extent are you satisfied with the effort-benefit ratio of the **interviews** you have conducted?
- To what extent are you satisfied with the effort-benefit ratio of the **focus group** you have conducted?
- To what extent are you satisfied with the effort-benefit ratio of the **workshops** you have conducted?

Final questions

- Any comment or remark for the 3rd and last Round of participatory sessions?

7.3 Annex 3 – Collective brainstorming session’s guidelines (Round 2)

SINFONICA Collective brainstorming session in Turin March 2024

Agenda – Part 1 ONLY GO

I

Introduction (5 minutes):

- Welcome and introduction to the collective brainstorming session
- Brief overview of discussion topics

Section 1: Interviews and Focus Groups Evaluation (25 minutes):

Exercise: share one thing that positively surprised you during the SINFONICA interviews and/or focus groups and one unexpected challenge you had to face while engaging participants in FG discussions or in responding to questions.

5 minutes to write on post-its (1 per GOI) and then discuss outcomes all together.

Moderator - dig into the following aspects:

- How would you describe the atmosphere during the interviews and FG sessions?
- Did you use any special strategy to ensure everyone participated?
- Did you find participants actively engaged in the discussions?
- Do you think CCAM is an engaging topic for discussion?

Quick response round 1: many of you had problems reaching out to people with low digital skills. Is that a problem in your area? How are you planning to reach these people?

Quick response round 2: can you make 1 suggestion for improving the dynamics of interviews and focus groups?



Section 2: Relevant Outcomes (25 minutes):

Exercise: share the most common patterns you noticed in the responses from citizens. One for each of the following sections: 1) barriers to mobility, 2) technology, 3) CCAM.

5 to 10 minutes to write on post-its (1 per GOI) and then discuss outcomes all together.

Moderator: check if there is any difference in feedback across GOI. Then dig into the following aspects:

- Were there prevailing views based on vulnerabilities?
- Overall, do you think you were able to truly detect the necessary information from the citizens?
- Did you encounter any questions that participants found uncomfortable to answer or found difficult to address, unrelated to how the questions were formulated?

Quick response round: are we asking the right questions?

Section 3: Community Perspective (25 minutes):

Exercise: share 3 reasons why SINFONICA is important for your administration.

5 minutes to write on post-its (1 per GOI) and then discuss outcomes all together.

Moderator: check if there is any difference in viewpoints across GOI. Then dig into the following aspects:

- Have you been able to collaborate with other projects and or initiatives in your territory through SINFONICA's participatory approaches?
- Who are the main types of stakeholders that you collaborate with for mobility projects?

Quick response round: Do you think European Projects are helping with the acceptance of innovative AND inclusive mobility solutions?

Section 4: Proposals for Next Steps (20 minutes):

Round table discussion around the following aspects:

- Are you interested in further investigating your city's approach to CCAM after the SINFONICA project?
- What factors would influence your decision to continue analysing CCAM?
- What kind of support would you need for further investigations?
- How do you plan to use the results of the SINFONICA project?

Conclusion (5 minutes):

- Summary of key points

Agenda – Part 2 Two Parallel Groups

Introduction (5 minutes):

- Welcome and introduction to the Focus Group
- Brief overview of discussion topics

Section 1: Imagine CCAM (30 min)

Exercise: think about having to explain what CCAMs are to your grandmother/your children. What would you say?

5 minutes to write the definition on a post-it and then discuss the outcomes.

Moderator: make participants discuss about:

SINFONICA_Deliverable3.2_V1.0.docx

- which different aspects about the technology were emphasized (e.g. more the connected, the cooperative or the autonomous)? Do you think interviewees have a good understanding of what CCAM is and how it works?
- The time perspective (e.g. is it already happening, or it is something for the future generations?). During interviews and focus groups prototypes were often mentioned as ways to bridge between present and future, are you currently working on any CCAM prototypes? What do you think can be their value?
- Which are the main barriers for CCAM adoption and how to overcome them?

Section 2: Trust (30 min)

Exercise: please give your own definition of trust in general, and trust in CCAM (one sentence each).

5 minutes to write the definition on a post-it and then discuss which different aspects were emphasized

Moderator: make participants reflect about the kind of trust we need when we talk about CCAM.

- What is the most important type of trust we need to consider for CCAM deployment: in machines, in science and technology at large (in AI), in other people, in governments, other?
- Do you think people trust in institutions is increasing, declining or stagnant?
- What would make you trust CCAM more?

Elaborate on the following concept: SINFONICA is about using technology to increase inclusive access to services. But from what we've done so far the relationship between smart technology and fragility/special needs is not so clear. Is technology abler in any way to solve inclusiveness problems than humans that have designed the current mobility services? If yes, in which way? How do you see the synergies between traditional and CCAM mobility solutions for inclusiveness?

Section 3: Next Steps (20 minutes):

Round table discussion around the following aspects:

- What do you think is the value of the opinions we are collecting?
- Will these become part of ready-to-use solutions?
- What do we need to make the research results implementable?

7.4 Annex 4- Evaluation bilateral meetings (Round 3)

Location: Trikala, Hamburg, Noord Brabant, West Midland

Scale:

1 = not at all;

2 = to some extent;

3 = neither satisfied not dissatisfied;

4 = somewhat satisfied;

5 = to a great extent

Design and Planning: Suitability

Suitability of objectives

- To what extent were the objectives of SINFONICA **workshops** coherent?
- To what extent were the objectives of SINFONICA **workshops** inclusive?
- To what extent were the objectives of SINFONICA **workshops** achievable?

Rules of the game

- To what extent were the guidelines for the **workshops** clear?
- To what extent were the data collection tools for the **workshops** clear?

Return

- To what extent were the engagement strategies clear in defining **how to firstly get the participant engaged**?
- To what extent were the engagement strategies clear in defining **how to keep the participant engaged**?
- To what extent were the engagement strategies clear in defining **how to keep the participant informed** about the results of the activities?

Design and Planning: Coherence

Coherence

- Were the **workshops** a good methodology to approach the defined target? Y/N
 - Explain why. If not: which methodology would you have preferred?

Design and Planning: Design Quality

Methodological adaptation (from 2nd to 3rd Round)

- To what extent did you feel that your remarks/comments were considered to adapt the guidelines for the 3rd Round?
- Is there any issue that have not been reflected in the guidelines for the 3rd Round? Y/N: if yes, please explain.

Implementation:

- Did you manage to perform all the required **interviews**? Y/N
 - If not: how many did you perform? If not: why?
- Did you manage to perform all the required **focus group**? Y/N
 - If not: how many did you perform? If not: why?
- Did you manage to perform all the required **workshops**? Y/N
 - If not: how many did you perform? If not: why?
- Was the time foreseen for the **interviews** enough? Y/N
- Was the time foreseen for the **focus groups** enough? Y/N
- Was the time foreseen for the **workshops** enough? Y/N
- To what extent was it difficult to schedule the **interviews**?
- To what extent was it difficult to schedule the **focus group**?
- To what extent was it difficult to schedule the **workshops**?

Dynamization

- Would you say that the atmosphere during the **interviews** was nice? Y/N
 - If not: what can be improved?
- Would you say that the atmosphere during the **focus groups** was nice? Y/N
 - If not: what can be improved? Explain.
- Would you say that the atmosphere during the **workshops** was nice? Y/N
 - If not: what can be improved? Explain.

- To what extent are you satisfied with the **interviews** you have conducted? Explain why.
- To what extent are you satisfied with the **focus groups** you have conducted? Explain why.
- To what extent are you satisfied with the **workshops** you have conducted? Explain why.

- To what extent were you able to report all the opinions expressed during the **focus groups and workshops**?
 - If little or not at all: what could be improved?
 - Explain the strategies you used to facilitate participation.

Flexibility

- Did you have the need to change the protocol of the **interviews/focus groups/workshops**? Y/N
 - If yes: please explain the situation.
- **During the interviews/focus groups/workshops:** did you encounter any problem with resource allocation? Y/N
 - If yes: please specify

Results and Impacts: Efficacy

Achievement of objectives of participatory process

- To what extent do you think the objectives of the SINFONICA participatory approach have been achieved? (Likert scale 1-5 or N/A). → Please give an answer for each of the following objectives and, in case of low evaluation, explain why you think they were not achieved:
1. Ensure inclusivity and representation
 2. Promote social equity
 3. Identify specific mobility challenges
 4. Generate comprehensive understanding of the mobility needs and preferences of the community
 5. Enhance community engagement
 6. Build trust and collaboration among stakeholders
 7. Approach the specificity of each local context, while providing elements for the replicability of the engagement strategy in other contexts
 8. Increase CCAM services' understanding and acceptance
 9. Empower vulnerable groups of population
 10. Promote a human-centric approach

11. Contributing to generate relevant policy recommendations

Engagement and quality of participation

- How would you rate the level of engagement of participants during the **interviews**?
- How would you rate the level of engagement of participants during the **focus group**?
- How would you rate the level of engagement of participants during the **workshops**?

Participation

- Among the **interviewed**: how many were women?
- Among the **focus group** participants: how many were women?
- Among the **workshop** participants: how many were women?

- Did you invite women's associations and/or feminist collectives? Y/N

- How many people did you contact for the **interviews**?
 - How many have agreed to be interviewed?
 - How many have actually been interviewed?
- How many people did you contact for the **focus groups**?
 - How many have agreed to join?
 - How many have actually joined?
- How many people did you contact for the **workshops**?
 - How many have agreed to join?
 - How many have actually joined?

Accessibility

- Did you ensure that the place where you conducted the **interviews** was accessible to everyone? Y/N. If not: why? What could you improve?
- Did you ensure that the place where you conducted the **focus groups** was accessible to everyone? Y/N. If not: why? What could you improve?
- Did you ensure that the place where you conducted the **workshops** was accessible to everyone? Y/N. If not: why? What could you improve?

- Did you encounter any gap in performing the **interviews** (technological, linguistic, thematic)? Y/N. If yes: please specify.
- Did you encounter any gap in performing the **focus groups** (technological, linguistic, thematic)? Y/N. If yes: please specify.
- Did you encounter any gap in performing the **workshops** (technological, linguistic, thematic)? Y/N. If yes: please specify.

Results and Impacts: Efficiency

- To what extent are you satisfied with the effort-benefit ratio of the **interviews** you have conducted?
- To what extent are you satisfied with the effort-benefit ratio of the **focus groups** you have conducted?
- To what extent are you satisfied with the effort-benefit ratio of the **workshops** you have conducted?

Impacts: Participative political culture

- Have you established synergies with other projects/activities in your territory through the SINFONICA participatory approaches?
 - If yes: please specify:
 - If not: do you plan to establish any?
- Have you established a community/group of followers/network among stakeholders, citizens and local authorities?
 - If yes: please specify:
 - If not: do you plan to establish any?
- How many participants in the GOI have expressed their intention to stay in contact with SINFONICA project after their participation (events, results' sharing, etc.)

Impacts: Participants' empowerment

- In your opinion, to what extent participants and stakeholders felt empowered and perceive that their voices have influence on decisions?

Impacts: Trust and collaboration building

- Overall, do you think you were able to truly detect the necessary information from the citizens and stakeholders?
- To what extent do you think you have expanded your knowledge and experience in engaging people and participatory approaches?
 - Can you please provide your opinions and considerations and detailed feedback on this.
- Did you have fun in performing the participatory sessions (interviews/focus group/workshops)?

Impacts: Gender impact

- To what extent do you think the specific views and opinions of women or LGBTQ+ community representatives have been expressed during the SINFONICA participatory sessions? Please explain.
- To what extent do you think participants have increased their level of awareness and understanding of gender issues related to mobility services? Please explain.



For more information

SINFONICA Project Coordinator

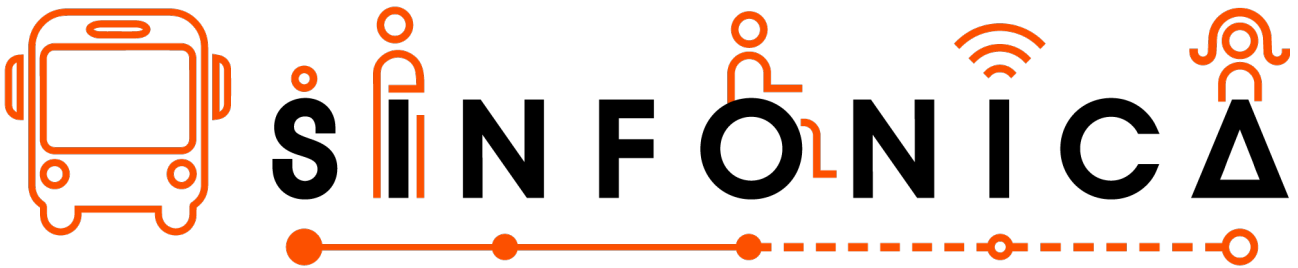
UNIMORE – University of Modena and Reggio Emilia

Via Giovanni Amendola, 2

42122 Reggio Emilia, IT

sinfonica@sinfonica.eu

www.sinfonica.eu



**Funded by
the European Union**

SINFONICA Project has received funding under the Horizon Europe Research and Innovation Programme (Grant Agreement n° 101064988).