CulturalRoad

Cocreate, Embrace

Project deliverable D5.2

Preliminary Exploitation Plan

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EXECUTIVE SUMMARY

Deliverable D5.2 – Preliminary Exploitation Plan presents the CulturalRoad project's initial approach to ensuring its results are taken up and used beyond the project's lifetime. It sets the foundation for building a long-term exploitation strategy that maximises the value of CulturalRoad's work across research, policy, and practice in Cooperative, Connected, and Automated Mobility (CCAM).

The document introduces the project's overall exploitation framework, including the goals, methodology, and tools used to identify and assess potential results. It places particular focus on stakeholders who are well-positioned to apply, scale, or build on CulturalRoad's outcomes — such as public authorities, transport operators, technology providers, researchers, and civil society.

A central tool of the strategy is the Exploitation Tracker to systematically map and monitor the project's results. The Tracker includes all project results identified to date and highlights a set of Key Exploitable Results (KERs) — those considered to have the highest potential for uptake and impact. For each KER, the deliverable provides a description of the result and the preliminary exploitation intentions of the partners involved. It is important to note that this list of KERs is not final. It has been developed to guide early planning and alignment between partners. As the project evolves, so too will the list of KERs — some may be refined or replaced, and new ones may emerge. A full update, including detailed exploitation plans and associated business models, will be delivered in Month 35 (March 2027) in D5.5 Final Exploitation Plan and Business Models.

The deliverable also describes the ongoing efforts to strengthen exploitation through stakeholder engagement and collaboration with external initiatives. This includes the establishment of the International Peer Group (IPG) — a panel of external experts from across the world — and the organisation of multi-stakeholder workshops to gather feedback and engage other potential exploitation partners.

Finally, the deliverable presents an initial overview of Intellectual Property Rights (IPR), covering ownership, background knowledge, and early access and licensing arrangements. A dedicated IPR Directory has been set up to track these aspects that will be further detailed and finalised in D5.5.

LIST OF ABBREVIATIONS AND ACRONYMS

Acronym	Meaning
CCAM	Cooperative, Connected, and Autonomous Mobility
DoA	Description of Action
ER	Exploitable Result
FPSR	Five-Pointed Star Rating
GA	Grant Agreement
IPG	International Peer Group
IPR	Intellectual Property Rights
KER	Key Exploitable Result
KPI	Key Performance Indicator
PR	Project Result
PTO	Public Transport Operator
PTA	Public Transport Authority
SUMP	Sustainable Urban Mobility Plans
VOT	Value of Time
WP	Work Package
WPL	Work Package Leader

1 INTRODUCTION

1.1 Project introduction

CulturalRoad aims to foster the fair and inclusive deployment of Cooperative, Connected, and Automated Mobility (CCAM) services by developing new methodologies and tools that integrate cultural and geographical diversity. By doing so, the project seeks to improve societal acceptance of CCAM across different local contexts.

To ensure that deployment strategies respond to the actual needs of citizens, CulturalRoad engages a broad range of stakeholders: public authorities, industry players, technology providers, research institutions, operators, and local communities. Through interviews, workshops, and focus groups, these stakeholders will contribute to the co-creation of CCAM strategies adapted to diverse environments.

A key output of the project is the development of new guidelines and recommendations for the implementation of CCAM services, with diversity and inclusion at their core. CulturalRoad will also introduce a unique Five-Pointed Star Rating System to assess the equity of CCAM systems and solutions. This framework will evaluate five critical dimensions, also called pillars: safety, inclusivity, user acceptance, network optimisation, and psychological factors influencing use. The resulting equity score will support the creation of tailored planning tools and roadmaps that can be adapted to different cultural and geographical settings.

The project's methodology will be validated in five demonstration sites: Barcelona (Spain), Karlsruhe (Germany), Eilat (Israel), Ljubljana (Slovenia), and the West Midlands and Oxfordshire regions (United Kingdom).

1.1 Purpose of the deliverable and target audience

The purpose of this deliverable is to outline the preliminary exploitation plan and IPR report for the CulturalRoad project, providing a structured approach for identifying, monitoring and supporting the uptake of the project's key exploitable results throughout the duration of the project and afterwards. The deliverable establishes the methodology for exploitation planning, presents the initial exploitation intentions of the consortium partners, and provides a first overview of Intellectual Property Rights (IPR) considerations.

This preliminary plan serves as the foundation for the continuous monitoring and refinement of exploitation activities, which will evolve as project results mature and stakeholder engagement progresses. It sets the stage for the final exploitation plan, which will be delivered in D5.5 "Final Exploitation Plan and Business Model" at Month 35 (March 2027) as an update to this document, incorporating detailed business models and a long-term exploitation strategy.

The target audience for this deliverable includes the project consortium partners, the European Commission and associated project reviewers, and relevant external stakeholders interested in the uptake and sustainability of CulturalRoad's outcomes, such as public authorities, industry partners, research organisations, and civil society representatives.

The objectives related to this deliverable have been achieved in full and as scheduled.

1.2 Structure of the deliverable

This deliverable is structured to provide a comprehensive overview of CulturalRoad's preliminary exploitation strategy and plan. Following the introduction in **Chapter 1**, which outlines the purpose of the deliverable, its target audience, and its relationship to other work packages and tasks, **Chapter 2** identifies the key stakeholders relevant to the exploitation of the project's results and describes the methodological approach used to identify and assess exploitable and Key Exploitable Results (KERs).

Chapter 3 presents the Exploitation Tracker, compiling all key exploitable results identified to date and providing an overview of the partners' preliminary exploitation intentions. This is followed in **Chapter 4** by a description of the synergies and stakeholder engagement activities already undertaken, including collaboration with other initiatives and networks, including that of the International Peer Group (IPG). **Chapter 5** provides the initial Intellectual Property Rights (IPR) report, covering ownership, background knowledge, and preliminary access and licensing models. Finally, **Chapter 6** summarises the main findings and the next steps for refining and implementing the exploitation strategy as the project progresses.

1.3 Links with other work packages/deliverables

The preliminary exploitation strategy and plan presented in this deliverable is closely connected to activities across several work packages and tasks in the CulturalRoad project. In particular, it contributes to the objectives of **Task 5.3 "Replication & Exploitation"** and overall of **WP5 "Dissemination, Communication, Exploitation and Outreach"**.

This deliverable is a core output of **Task 5.3 "Replication & Exploitation"**, focused on maximising the uptake and transferability of the project's results. The preliminary exploitation plan presented here supports Task 5.3 by establishing the strategy and tools for identifying all project results and outlining the exploitation intentions of the different partners for the Key Exploitable Results (KERs).

The deliverable also contributes to the broader objectives of **WP5 "Dissemination, Communication, Exploitation and Outreach"** by aligning exploitation activities with the project's dissemination and communication efforts. This alignment ensures that the visibility and promotion of results directly support their uptake and use by relevant stakeholders.

2 STAKEHOLDERS AND METHODOLOGICAL APPROACH

2.1 Stakeholders and Exploitation Objectives

The exploitation strategy of CulturalRoad focuses on engaging stakeholder groups that are positioned to benefit from, adopt, and scale the project's results. These groups represent key actors across the CCAM value chain and reflect the diversity of organisations involved in the consortium itself, creating a direct link between project activities and long-term impact. It is important to note that while the primary focus is on CCAM, the project's approach—particularly its individual pillars—has the potential to be adapted and applied to broader transport contexts, enhancing its relevance and transferability beyond the immediate scope. Target stakeholder groups are:

- **Local, regional, and national public authorities** are central stakeholders for the project. They can apply CulturalRoad's methods, indicators, and tools to improve planning, policy development, and regulation of CCAM services, promoting equity and user acceptance. Their involvement ensures that results are relevant, practical, and adaptable to different governance levels and cultural contexts.
- **Transport and mobility planners and operators** can benefit from business models, operational tools, and guidelines developed by the project. These stakeholders are responsible for implementing CCAM solutions and can apply CulturalRoad's outputs to optimise services, respond to user needs, and explore new market opportunities.
- **Industry and technology providers** can integrate CulturalRoad's tools, methodologies, and insights into their products and services. By identifying new commercial opportunities and improving the inclusivity and performance of CCAM solutions, they contribute to the wider adoption and sustainability of project outcomes.
- **Research and academic institutions** gain validated methodologies, frameworks, and data that support continued research and innovation in transport equity, CCAM deployment, and user acceptance.
- **Civil society organisations and user groups**, while not direct exploiters, contribute to the project's co-creation and participatory activities. Their perspectives help shape solutions that address real-world needs, improving inclusivity and accessibility in CCAM services.

The **exploitation objectives** of CulturalRoad are to ensure that the project's results are applied by these stakeholder groups, enabling the uptake of tools and methodologies in planning, policy, and operations; supporting commercial exploitation where appropriate; and fostering knowledge transfer and capacity building. These objectives aim to maximise the project's impact by aligning results with stakeholder needs and facilitating their use beyond the project's duration.

2.2 Methodological Approach

The exploitation strategy in CulturalRoad is based on a structured methodology that ensures project results are systematically identified, assessed, and prepared for uptake by a diverse set of stakeholders. It combines result mapping and prioritisation, alignment with partner strategies, and ongoing monitoring with early stakeholder engagement.

Identification and Prioritisation of Results

To support the development of the partners' exploitation strategies, the task leader: International Road Federation (IRF) initiated the project's Exploitation Tracker (Annex 2), a structured Excel-based tool designed to record and monitor the full range of CulturalRoad's results. This living document sets the foundation for the project's exploitation strategy and identifying preliminary exploitation plans, ensuring all results are captured, assessed, and tracked for their exploitation potential.

The Tracker includes all Project Results (Annex 1) identified in Cultural Road's Grant Agremeent[1] validated afterwards in collaboration with Task Leaders, Work Package Leaders, the Project Management Team, and the Innovation Management Team. For each result, it records the following information:

- Title and description
- Contribution to the project's objectives
- Associated work package and task
- Related deliverables
- Responsible partner(s) and other interested partner(s) with potential to exploit
- Classification of Exploitable Result (ER) and/or Key Exploitable Result (KER).
- Anticipated impact type (scientific, societal, or economic) and to which Horizon Europe's Key Impact Pathways it contributes.
- Preliminary Exploitation Intentions from partners (only for KERs)
- Ownership and access conditions

Results were prioritised into two levels based on their level of exploitation. First, results that could be useful beyond the project itself were marked as Exploitable Results (ERs). Then, from this group, the ones with the highest expected impact—whether scientific, societal, or economic were identified as Key Exploitable Results (KERs). Following the validation of the KERs, IRF coordinated the collection of preliminary partner-specific exploitation intentions for each KER (in section 3.2). The objective was to describe how each involved organisation plans to take forward the result—whether through integration in planning processes, commercial use, further research, or capacity-building activities.

As a living tool, the Exploitation Tracker will be updated regularly to reflect new results, adjustments to partner strategies, and insights gained through ongoing stakeholder engagement. While the current version provides a snapshot of the preliminary exploitation plan, a more comprehensive and final version—including detailed exploitation plans and business models for each KER—will be delivered in D5.5: Final Exploitation Plan and Business Model (Month 60).

Stakeholder Engagement for Exploitation

The second phase already underway focuses on **stakeholder engagement**. The success of exploitation depends not only on the quality of results, but also on their usability and relevance for key stakeholder groups

[1] European Climate, Infrastructure and Environment Executive Agency (CINEA). (2024, March 12). Annex 1 to the Grant Agreement Horizon Europe (HORIZON) Description of the Action (DoA) HORIZON-CL5-2023-D6-01-04 – Part B CulturalRoad.

including public authorities, transport operators, industry actors, research organisations, and civil society (as identified in Section 2.1).

To support this, CulturalRoad established an International Peer Group (IPG) early on the project. The IPG is composed of external experts and practitioners who represent both the broader CCAM community and key stakeholder groups identified as potential exploiters of project results. In addition to providing feedback on the relevance, transferability, and potential impact of the outcomes, IPG members are also well positioned to adopt and apply these results in their own work. As part of its broader stakeholder engagement strategy, the project also organises multi-stakeholder workshops to gather early input on the outcomes and involve additional potential users. Further details on the IPG and workshop outcomes are provided in Chapter 4.

Intellectual Property and Access Conditions

The exploitation methodology in CulturalRoad also integrates Intellectual Property Rights (IPR) considerations from the outset. Ownership of results, relevant background knowledge, and access conditions are systematically documented and reviewed throughout the project lifecycle. A preliminary overview of these aspects is presented in **Chapter 5** of this deliverable.

This integrated approach provides a solid legal and operational foundation to support future uptake of project results, especially in cases where outputs may be transferred, scaled, or commercialised. The IPR framework includes a central directory (see Table 7-5 of Deliverable D6.2) that captures key information such as ownership, licensing terms, protection measures, and intended use. These measures ensure that CulturalRoad's innovations remain accessible, appropriately protected, and aligned with Horizon Europe's principles of open and inclusive innovation

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3 PRELIMINARY EXPLOITATION INTENTIONS

3.1 Key Exploitable Results (KERs)

Key Exploitable Results (KERs) are the project outcomes considered to have the greatest potential for creating impact beyond the lifetime of the project. These are results that can be taken up by stakeholders outside the consortium, whether for further research, policy development, commercial applications, or broader societal benefit. They typically stand out for their relevance, maturity, and alignment with the needs of target user groups.

As explained before, CulturalRoad KERs were selected from the wider set of Exploitable Results, derived from all project results as outlined in the Grant Agreement[2], through a structured internal process in collaboration with different project partners. Table 1 presents the list of KERs identified to date. This list of KERs is subject to change through the course of the project, a final list will be provided in D5.5 the Final Exploitation Plan and Business Model.

It is worth noting that the associations ERTICO and IRF have wide networks that will be utilised for exploitation. ERTICO has a network of 120+ partners across eight sectors (public authorities, suppliers, traffic and transport industry, research, user, suppliers, vehicle manufacturers and connectivity). IRF also brings a global network of over 200+ members and partners across all continents, including road authorities, industry representatives, research institutions, consultancies, and international organisations.

Table 1 List of Key Exploitable Results

Nº	Key Exploitable Result	Description
1	**Set of transport equity KPIs**	A comprehensive set of 25-50 Key Performance Indicators that quantify and benchmark CCAM equity performance across the five FPSR dimensions: (i) road safety, (ii) psychological factors, (iii) network readiness, (iv) transport inclusiveness, and (v) user acceptance.
2	**Safety Scenario Assessment Models**	Simulation models for evaluating safety scenarios of CCAM deployment, incorporating surrogate safety measures, exposure metrics, and cultural variance in user behaviour.
3	**FPSR System Methodology**	A structured methodology assessing CCAM equity across five dimensions: inclusivity, safety, psychological readiness, user acceptance, and network preparedness.
4	**FPSR System Toolkit**	Comprehensive package including the FPSR system, KPIs, equity scoring guidance, and usage recommendations.
5	**CCAM Scheduling Optimiser**	A simple yet powerful optimisation model implemented in Python that can be used to optimize CCAM fleet scheduling to improve efficiency and equity of services, based on real-world constraints and multiple demand groups

[2] European Climate, Infrastructure and Environment Executive Agency (CINEA). (2024, March 12). Annex 1 to the Grant Agreement Horizon Europe (HORIZON) Description of the Action (DoA) HORIZON-CL5-2023-D6-01-04 – Part B CulturalRoad.

6	**Tool for CCAM Safety Scores**	An analytical tool for calculating safety risk scores of CCAM deployments across different environments and user profiles, informed by behavioural and experimental data.
7	**CCAM affordable accessibility assessment tool**	An analytical tool for calculating the level of affordable accessibility provided by CCAM deployments of different nature, across different environments and user profiles.
8	**Equity Visualisation Tool**	Matrix-based comparison and geospatial visualisations displaying levels of transport equity across different pilot areas, using demographic, infrastructural, and socio-cultural data. The tool supports evidence-based decision-making for planners and policymakers by visually representing multi-dimensional equity indicators, aligned with the Five-Pointed Star Rating System.
9	**Two-Step co-creation participatory framework**	A participatory planning approach combining community-based focus groups and multi-stakeholder workshops to co-design CCAM deployment strategies tailored to cultural and geographical specificities.
10	**Strategic plans for the phased deployment of CCAM**	Recommendations and measures developed for integrating CCAM equity into Sustainable and National Urban Mobility Plans, Roadmaps, and White Papers in line with project results.
11	**Knowledge transfer mechanism for scaling results**	A one-level-up/one-level-down knowledge transfer mechanism will be created to enhance interoperability, where each planning authority communicates with authorities at the lower level (i.e. more local) or higher level (more national/international).

3.2 Partner-Level Exploitation Intentions

The table below shows the current set KERs identified to date alongside the partners who have expressed, at this preliminary stage, their intention to exploit them.

Table 2 KER Nº1 "Set of transport equity KPIs" Preliminary Exploitation Plan

KER Nº1 "Set of transport equity KPIs"							
WP(s)	WP2	**Task(s)**	T2.4	**Type**	Deliverable/Document	**Deliverable**	D2.2
Linked to objective	O2						
Result owner(s)	UPC, ERT, DTU, NTUA, TUM, IRF						
Other potential exploitable partners	None						
Impact Potential	Societal Impact	**Key Impact Pathways**	Addressing EU policy priorities and global challenges through research and innovation				
Preliminary Exploitation Plans							
All partners listed as contributors will be able to exploit the KPI set to promote more inclusive, data-driven approaches to assessing equity in CCAM systems. **UPC** will integrate the KPIs into academic teaching, ongoing research on equity in CCAM, and proposals for follow-up Horizon projects. **ERTICO** and **IRF** will leverage their networks of public and private stakeholders to promote the transport equity KPI, supporting its uptake in CCAM policy, planning, and capacity-building activities. ERTICO will							

focus on alignment with CCAM innovation platforms and deployment roadmaps, while IRF will integrate the KPIs into training and policy dialogue with road authorities and international organisations. **DTU, NTUA,** and **TUM** will use the KPIs in scientific publications and in the development of equity-sensitive simulation and assessment models for CCAM services.

Table 3 KER Nº2 "Safety Scenario Assessment Models" Preliminary Exploitation Plan

KER Nº2 "Safety Scenario Assessment Models"							
WP(s)	WP2	**Task(s)**	T2.2	**Type**	Tool	**Deliverable**	D2.2
Linked to objective	O7						
Result owner(s)	NTUA, DTU, ARR, LIFT						
Other potential exploitable partners	None						
Impact Potential	Societal Impact	**Key Impact Pathways**	Creating high-quality new knowledge				
Preliminary Exploitation Plans							
Partners listed as contributors will be able to use the models for academic publications, support future research projects or develop open-access modelling tools. **NTUA** and **DTU** will apply the models in academic research and explore their further development in future projects or as open-access tools. **ARR** will use the models to support regional safety assessments and simulation work. **LIFT** will apply the models in internal simulation activities and explore their use in collaboration with local stakeholders to assess safety impacts of CCAM services.							

Table 4 KER Nº3 "FPSR System Methodology" Preliminary Exploitation Plan

KER Nº3 "FPSR System Methodology"							
WP(s)	WP2	**Task(s)**	T2.4	**Type**	Method	**Deliverable**	D2.3
Linked to objective	O2, O4, O7						
Result owner(s)	UPC, ERT, DTU, NTUA						
Other potential exploitable partners	None						
Impact Potential	Scientific Impact	**Key Impact Pathways**	Leveraging investment in research and innovation				
Preliminary Exploitation Plans							
All partners listed as contributors will be able to use the methodology in project-related publications and as a starting point for future research and collaborative initiatives focused on equity in CCAM. **UPC, DTU,** and **NTUA** will apply the methodology in academic research, publications, and future project proposals addressing inclusive mobility, CCAM evaluation, and behavioural modelling.							

ERTICO will promote the methodology through its stakeholder platforms and may explore its use in deployment-related activities, particularly where equity assessments can support decision-making.

Table 5 KER Nº4 "FPSR System Toolkit" Preliminary Exploitation Plan

KER Nº4 "FPSR System Toolkit"							
WP(s)	WP2	**Task(s)**	T2.4	**Type**	Guideline	**Deliverable**	D2.3
Linked to objective	O4						
Result owner(s)	UPC, ERT, DTU, NTUA						
Other potential exploitable partners	None						
Impact Potential	Societal Impact	**Key Impact Pathways**	Addressing EU policy priorities and global challenges through research and innovation				
Preliminary Exploitation Plans							
All partners listed as contributors will be able to use the toolkit in their collaboration with public administrations and other stakeholders, either in research-oriented or application-oriented settings. **UPC, DTU,** and **NTUA** will further develop the toolkit through academic research and use it as a basis for future project proposals and partnerships with public authorities interested in equity-focused CCAM assessment. **ERTICO** will promote the toolkit across its stakeholder platforms, encouraging its use by cities, mobility actors, and networks involved in deployment planning and policy development.							

Table 6 KER Nº5 "CCAM Scheduling Optimiser" Preliminary Exploitation Plan

KER Nº5 "CCAM Scheduling Optimiser"							
WP(s)	WP4/WP2	**Task(s)**	T2.3, T4.3	**Type**	Tool	**Deliverable**	D2.3
Linked to objective	O4, O7						
Result owner(s)	DTU, TUM, RRA LUR, NTUA, FICOSA, INIT, LIFT, TFWM, OCC, IRF						
Other potential exploitable partners	None						
Impact Potential	Technological/economic impact	**Key Impact Pathways**	Strengthening the uptake of research and innovation in society				
Preliminary Exploitation Plans							
All partners listed as contributors will be able to use the scheduling optimiser in publications, future research projects, and in collaboration with public administrations or operators. **DTU, NTUA,** and **TUM** will apply the optimiser in academic research and simulation work and will look to further develop it in future project proposals focusing on service design, operational efficiency, and demand modelling.							

FICOSA and **INIT** will assess the potential of the optimiser to support the design and testing of CCAM scheduling tools in real-world development settings. **RRA LUR, TFWM,** and **OCC** will explore its use in public-sector planning and operations, with a focus on ensuring equitable service provision across different user groups and geographies. **LIFT** will apply the optimiser in internal simulation activities and in support of consulting engagements with transport operators. **IRF** will promote the optimiser as part of its dissemination work and use it to support dialogue with public authorities on planning tools that advance equity and efficiency in CCAM services.

Table 7 KER Nº6 "Tool for CCAM Safety Scores" Preliminary Exploitation Plan

KER Nº6 "Tool for CCAM Safety Scores"							
WP(s)	WP2/WP4	**Task(s)**	T2.2, T4.3	**Type**	Tool	**Deliverable**	D2.3
Linked to objective	O4, O7						
Result owner(s)	NTUA, TUM, RRA LUR, FICOSA, INIT, LIFT, TFWM, OCC, IRF, UPC						
Other potential exploitable partners	None						
Impact Potential	Societal Impact	**Key Impact Pathways**	Addressing EU policy priorities and global challenges through research and innovation				
Preliminary Exploitation Plans							
All partners listed as contributors will be able to use the safety scoring tool to support CCAM deployment impact assessments and contribute to policy guidance on safety evaluation across different environments and user groups. **NTUA, TUM, DTU** and **UPC** will apply the tool in academic research, publications, and future projects, and **NTUA** will also explore its integration into training and educational programmes related to CCAM safety and evaluation. **FICOSA** and **INIT** will assess the tool's applicability in product development and testing, with a focus on improving the safety performance of CCAM systems. **RRA LUR, TFWM, and OCC** will use the tool in collaboration with local authorities or transport stakeholders to assess safety risks and inform deployment decisions. **LIFT** will apply the tool in simulation and consulting work. **IRF** will promote the tool through its policy and training activities, with its wide network of road authorities and international partners.							

Table 8 KER Nº7 "CCAM Affordable Accessibility Assessment Tool" Preliminary Exploitation Plan

KER Nº7 "CCAM Affordable Accessibility Assessment Tool"							
WP(s)	WP2/WP4	**Task(s)**	T2.1, T2.4, T4.3	**Type**	Tool	**Deliverable**	D2.3

Linked to objective	O4, O7		
Result owner(s)	UPC, TUM, FICOSA, INIT, NTUA, FICOSA, INIT, LIFT, TFWM, OCC, IRF, ERT		
Other potential exploitable partners	None		
Impact Potential	Societal Impact	**Key Impact Pathways**	Addressing EU policy priorities and global challenges through research and innovation
Preliminary Exploitation Plans			
All partners listed as contributors will be able to use the tool in publications, future research or innovation projects, and in collaboration with public administrations to support planning and evaluation. **UPC, NTUA,** and **TUM** will apply the tool in academic research on accessibility and equity, and use it as input for future proposals focused on inclusive CCAM deployment strategies. **FICOSA** and **INIT** will assess the tool's relevance for product and service development, particularly in tailoring CCAM solutions to meet the needs of different user profiles and affordability levels. **LIFT** will use the tool in consulting and simulation activities to help operators and public authorities assess cost-effective service coverage. **TFWM** and **OCC** will explore its use in regional planning processes to identify accessibility gaps and evaluate the social impact of CCAM deployment. **IRF** and **ERTICO** will promote the tool across their networks, supporting its integration into policy discussions, stakeholder engagement, and capacity-building activities focused on inclusive mobility.			

Table 9 KER Nº8 "Equity Visualisation Tool" Preliminary Exploitation Plan

KER Nº8 "Equity Visualisation Tool"							
WP(s)	WP2/WP4	**Task(s)**	T2.4, T4.1	**Type**	Tool	**Deliverable**	D4.3
Linked to objective	O4, O7						
Result owner(s)	NTUA, TUM, DTU, UPC, ERT						
Other potential exploitable partners	None						
Impact Potential	Societal Impact	**Key Impact Pathways**	Strengthening the uptake of research and innovation in society				
Preliminary Exploitation Plans							
All partners listed as contributors will be able to use the visualisation tool to support city planners and stakeholders involved in CCAM equity evaluation, providing an evidence-based resource for policy dialogue and decision-making. **NTUA, TUM, DTU,** and **UPC** will apply the tool in academic research and project-based collaborations focused on transport equity and will look to further develop it in future proposals addressing visualisation and data-driven mobility planning. **ERTICO** will promote the tool through its stakeholder platforms to cities, industry, and policy-makers.							

Table 10 KER Nº9 "Tow-Step Co-creation Participatory Framework" Preliminary Exploitation Plan

KER Nº9 “Two-Step Co-creation Participatory Framework”							
WP(s)	WP3	**Task(s)**	T3.1	**Type**	Method	**Deliverable**	D3.2
Linked to objective	O3, O5						
Result owner(s)	DTU, UPC (CARNET), ARR, INIT, EILAT, KIT, RRA LUR, TfWM, OCC						
Other potential exploitable partners	FICOSA, ATM, DfT, ERT, LIFT						
Impact Potential	Societal Impact	**Key Impact Pathways**	Creating high-quality new knowledge				
Preliminary Exploitation Plans							
All partners involved in WP3 will be able to use the participatory framework to support inclusive and context-sensitive planning of CCAM services, based on community engagement and multi-stakeholder collaboration. **DTU, UPC (CARNET), and KIT** will apply the framework in future research and innovation projects related to co-creation, mobility planning, and culturally responsive deployment strategies. **ARR, RRA LUR, TfWM, OCC, EILAT,** and **INIT** will use the framework to engage local stakeholders and communities in shaping CCAM deployment strategies tailored to their specific regional and societal contexts. **FICOSA, ATM, DfT, LIFT,** and **ERTICO** will explore its use in pilot coordination, stakeholder outreach, and public-private collaboration.							

Table 11 KER Nº10 "Strategic Plans for the Phased Deployment of CCAM" Preliminary Exploitation Plan

KER Nº10 “Strategic Plans for the Phased Deployment of CCAM”							
WP(s)	WP3	**Task(s)**	T3.2, T3.3	**Type**	Deliverable/Document	**Deliverable**	D3.2
Linked to objective	O5						
Result owner(s)	UPC (CARNET), DTU, FICOSA, INIT, ATM, ARR, EILAT, KIT, RRA LUR, TfWM, OCC, DfT						
Other potential exploitable partners	ERT						
Impact Potential	Societal Impact	**Key Impact Pathways**	Addressing EU policy priorities and global challenges through research and innovation				
Preliminary Exploitation Plans							
All partners involved in WP3 will be able to use the strategic planning outputs to support the integration of CCAM equity considerations into mobility strategies at local, regional, and national levels. **UPC (CARNET), DTU,** and **KIT** will use the recommendations in research and innovation activities related to mobility governance, equity frameworks, and the alignment of CCAM with existing policy instruments.							

ARR, RRA LUR, TfWM, OCC, EILAT, and **DfT** will apply the strategic plans in dialogue with public authorities, using them to inform updates to Sustainable Urban Mobility Plans (SUMPs), deployment roadmaps, or national strategies. **FICOSA, ATM,** and **ERTICO** will explore the use of these strategic insights in stakeholder engagement and deployment planning, contributing to more inclusive and phased approaches to CCAM implementation. **INIT** will use the strategic insights in discussions with PTOs and PTAs when implementing solutions for CCAM integration.

Table 12 KER Nº11 "Knowledge Transfer Mechanism for Scaling Results" Preliminary Exploitation Plan

KER Nº11 "Knowledge Transfer Mechanism for Scaling Results"							
WP(s)	WP5	**Task(s)**	T5.2	**Type**	Method	**Deliverable**	D5.6
Linked to objective	O9						
Result owner(s)	EILAT, ERT, ARR, IRF, DfT						
Other potential exploitable partners	KIT, UPC (CARNET), TfWM, OCC, RRA LUR						
Impact Potential	Technological/economic impact	**Key Impact Pathways**	Strengthening human capital in research and innovation				
Preliminary Exploitation Plans							
Partners involved will be able to use the knowledge transfer mechanism to support coordination across different governance levels. **EILAT, TfWM, OCC, ARR,** and **RRA LUR** will apply the mechanism to strengthen communication between local, regional, and national authorities, supporting smoother integration of CCAM planning processes and lessons learned. **DfT** and **IRF** will explore its use in facilitating vertical policy dialogue and promoting structured knowledge exchange in national and international policy settings. **UPC (CARNET)** and **KIT** will integrate the mechanism into research and innovation activities. **ERTICO** will support the promotion of the mechanism through its platforms.							

4 SYNERGIES AND STAKEHOLDERS' ENGAGEMENT

As part of its exploitation strategy, CulturalRoad will leverage synergies and stakeholder engagement to maximise the visibility, relevance, and uptake of its Key Exploitable Results (KERs). To do so, a series of activities have been put in place and planned with external platforms and organisations, including engagement with other projects and European platforms; the establishment of an International Peer Group (IPG) and the organisation of multi-stakeholder workshops.

4.1 Engagement with Other Projects and European Platforms

Through Task 5.4 Networking and Capacity Building, CulturalRoad is building links with other EU-funded projects and relevant initiatives in the CCAM field to share knowledge and avoid duplication of effort. These connections provide opportunities to promote CulturalRoad's outputs, identify synergies, and open pathways for future uptake.

The project also contributes to established European platforms such as the CCAM Knowledge Base TRIMIS, CORDIS, ELTIS, and FAME / CCAMbassador (coordinated by ERTICO). These platforms support broad and targeted dissemination, helping ensure that CulturalRoad's tools and results reach public authorities, researchers, industry, and other actors who could benefit from or build on them. These exchanges are not only about visibility but also about creating the right environment for potential exploitation through alignment with other initiatives and ongoing policy discussions.

CulturalRoad has established a good relationship with Diversify-CCAM (also funded under HORIZON-CL5-2023-D6-01-04). Representative from the project attended our General Assembly in January 2025 to discuss joint dissemination and exploitation opportunities. The agreement is to work together to cross-promote our outputs to maximise exploitation of both projects

4.2 International Peer Group (IPG)

To support the international relevance and exploitation of its results, CulturalRoad established an International Peer Group (IPG) early in the project. The group consists of 16 members representing 12 countries across five continents, including Europe, Asia, North America, Australia, and Africa – a list of members is included below in Table 13. Members were selected for their expertise in transport innovation, CCAM deployment, equity and accessibility, human-centred design, and regulatory or policy development—areas that are key to understanding how CulturalRoad's tools can be adapted and used in real-world contexts.

The IPG plays a central role in ensuring that the project's results are not only technically sound but also usable, transferable, and aligned with the needs of end users and decision-makers across different environments. By reviewing project outputs through a global lens, the group helps to validate their usability and relevance for diverse user groups and deployment contexts. Their feedback is particularly valuable in highlighting aspects that may support or hinder uptake in different regions, such as policy compatibility, cultural sensitivities, or infrastructure readiness.

The table below presents the current composition of the IPG (as of July 2025):

Table 13 International Peer Group (IPG) Members

Representative	Organisation	Country / Region
Jinping Guan	Harbin Institute of Technology / China Highway and Transportation Society (CHTS)	China
Lei Zhu	Mogo Auto / China Highway and Transportation Society (CHTS)	China
Yikang Rui	School of Transportation, Southeast University / China Highway and Transportation Society (CHTS)	China
Bin Ran	University of Wisconsin-Madison	United States
Takashi Oguchi	University of Tokyo	Japan
Johanna Tzanidaki	SAE Europe	Europe
Bruna Franceschini	Cáritas Coimbra	Portugal
Nikolas Thomopoulos	Surrey Business School, University of Surrey	United Kingdom
Jan Coetzee	Innovative Transport Solutions	South Africa
Clarissa Han	National Transport Research Organisation (NTRO)	Australia
Karla Jakeman	Transportation Research Laboratory (TRL)	United Kingdom
Susan Harris	ITS Australia	Australia
Satoru Nakajo	Mitsubishi Research Institute	Japan
Wael K. M. Alhajyaseen	Qatar Transportation and Traffic Safety Center, Qatar University	Qatar
Cindy Mayas	Ilmenau University of Technology	Germany
Ann Williamson	University of New South Wales	Australia

A first meeting was held online in May 2025 to provide an introduction of the project's status and gather insights from the IPG members. Annual meetings will be organised until the end of the project and targeted exchanges may be organised in between to increase cooperation.

4.3 CulturalRoad Multistakeholder Workshops

Workshops play a complementary role in CulturalRoad's exploitation approach by providing a space to introduce project results to external audiences and collect early feedback from key stakeholder groups. They serve both to test the applicability of the tools being developed and to build relationships that support future uptake.

The **Launch Multi-Stakeholder Workshop**, organised in March 2025, marked the first opportunity to share the project and initial outputs with a broader community. It gathered 112 participants from over 35 countries, including representatives of public authorities, research institutions, industry, and civil society. Discussions during the event highlighted practical considerations for implementation—such as user acceptance, affordability, and regulatory readiness—that are directly informing the refinement of CulturalRoad's tools.

Importantly, the workshop helped establish connections with a wide network of stakeholders who may play a role in adopting, promoting, or replicating project results. Several participants expressed interest in remaining engaged with the project, many of which joined the IPG afterwards, and in exploring possible synergies in their local or regional contexts.

Looking ahead, a **final Multi-Stakeholder Workshop** will also take place towards the end of the project in 2027, to showcase the project's mature outputs and provide a platform to explore concrete opportunities for transfer, replication, and integration into mobility planning and policy.

5 INTELLECTUAL PROPERTY RIGHTS (IPR) REPORT

This section presents the preliminary framework for managing Intellectual Property Rights (IPR) within the CulturalRoad project. It aims to ensure that project results are clearly owned, appropriately protected, and accessible for future use, whether internally within the consortium or externally by relevant stakeholders. The content builds on the IPR structure initially introduced in Deliverable 6.2 and will be further refined in Deliverable 5.5 (Final Exploitation Plan and Business Model).

5.1 Ownership and Background

All project results have clearly assigned ownership, as documented in Section 3 of the present deliverable and detailed in the Exploitation Tracker (Annex 2). Depending on partners' contributions, ownership may be individual or shared. The Consortium Agreement (CA) includes specific provisions to regulate joint ownership (see CA's Section 2.2.4), enabling partners to establish fair use and exploitation agreements.

Where relevant, partners have also declared pre-existing background knowledge and assets—such as simulation models, data processing methods, or planning frameworks, that may contribute to the development of results. These background elements remain the exclusive property of the originating partner, in line with the CA and the Horizon Europe Model Grant Agreement.

Examples of project results with defined ownership:

- The *Report on CCAM Studies*, owned by INIT, with contributions from DTU, TUM, NTUA, UPC, ARR, and KIT.
- The *FPSR Toolkit*, jointly owned by UPC, ERT, DTU, and NTUA.
- The *Equity Visualisation Tool,* owned by NTUA, with contributors from TUM, DTU, UPC, and ERT.
- The *Strategic Plans for Phased Deployment,* led by UPC (CARNET) and co-developed with WP3 partners.

Ownership and protection are monitored through the IPR Management Table (Table 7-5, Deliverable 6.2), which acts as the project's central IPR Directory. This table includes the following fields for each asset:

- The type of knowledge (background vs. result)
- The owner(s)
- Intended use and protection status
- Progress and next steps
- Potential for exploitation and dissemination
- Last review date

This table is continuously updated and serves as a key tool to manage and track intellectual assets throughout the project lifecycle.

5.2 Access and Licensing

The CulturalRoad project applies a dual approach to access and licensing conditions: (i) internal access within the consortium, and (ii) external access based on defined licensing models.

These measures ensure that results are used in a manner consistent with the project's goals of scientific advancement, policy relevance, and inclusive innovation, while safeguarding partners' rights.

5.2.1 Internal Consortium Use

Most project results are made available for internal use by consortium members, supporting research, educational activities, further development, and new proposals. Some examples include:

- The *Transport Equity KPIs* (led by UPC).
- The *Safety Scenario Models* (led by NTUA).
- The *Two-Step Co-Creation Framework* (developed by DTU and WP3 partners).
- The *Cross-Country Survey Framework for Cultural Diversity* (developed by NTUA and DTU).

As defined in the CA, these results are shared for non-commercial purposes, unless otherwise specified.

5.2.2 External Use and Licensing Models

Several project outcomes are intended for broader external uptake and may be made available under appropriate licensing agreements. The following categories outline the current approach:

- **Freely available / open access**
  - Applies to public deliverables, results designed for policy use, or open research.
  - Examples: FPSR Toolkit, CCAM Equity KPIs, Strategic Deployment Plans.
  - Target users: city administrations, policy-makers, researchers, and CCAM networks.

- **Non-commercial use (policy / research)**
  - Reserved for tools or models that are technically mature but limited to planning, evaluation, or academic purposes.
  - Examples: Scheduling Optimiser, Safety Scores Tool, Affordable Accessibility Tool.

- **To be defined (Pending maturity or Commercial potential)**
  - Covers results undergoing refinement or with future commercialisation potential (e.g., Business Model Canvases, advanced simulation models).
  - Ownership and licensing terms will be determined as these assets reach maturity.

All licensing conditions are continuously reviewed and updated by the Innovation Management Team, coordinated by UPC (CARNET). The IPR Directory (Table 7-5 of D6.2) is used to track the following:

- Ownership and contributors
- Background knowledge applied
- Protection status
- Licensing model
- Exploitation intentions by partners

5.2.3 Next steps

In the next reporting period, the consortium will:

- Finalise joint ownership agreements where applicable
- Define open-access formats and licensing terms (e.g., Creative Commons)

- Explore protection strategies (e.g., copyright registration, software licences)
- Update the IPR Directory (through Table 7-5) and align it with the Exploitation Tracker.

- Deliverable 5.5 (Final Exploitation Plan and Business Model) will present:
  - Consolidated IP protection and licensing strategies
  - Finalised ownership and access conditions
  - Mechanisms for resolving disputes
  - Assessment of readiness for exploitation per result and per partner.

The IPR management structure presented in this chapter supports CulturalRoad's commitment to open, inclusive, and culturally responsive innovation, ensuring that project results are safeguarded, shared appropriately, and positioned for long-term societal and commercial impact.

6 CONCLUSIONS

This D5.2 “Preliminary Exploitation Plan” outlines the first steps in ensuring that CulturalRoad’s results can be used, scaled, and sustained beyond the end of the project. It introduces a shared strategy and methodology for identifying, monitoring, and supporting the uptake of key outputs, both within the consortium and by external stakeholders.

At the core of this strategy is the Exploitation Tracker, a living tool that records all project results and enables partners to assess their potential, track ownership, and align exploitation actions. Based on this work, a first set of Key Exploitable Results (KERs) has been identified. These represent outputs with strong potential to generate scientific, societal, or economic impact, and reflect the diversity of CulturalRoad’s tools, methods, and planning resources. For each KER, preliminary exploitation intentions have been collected, offering a clear starting point for more targeted plans in the next phase.

This exploitation framework supports the wider project in several ways. It helps bridge the gap between technical development and practical application by connecting results from different work packages with the stakeholders who can use them. It also ensures that exploitation is informed by ongoing engagement with the broader CCAM ecosystem, including through the International Peer Group and stakeholder workshops.

Intellectual Property Rights (IPR) considerations have also been integrated from the outset, ensuring that the legal and operational framework for ownership, access, and licensing is in place to support future use and commercial or non-commercial uptake. A central IPR Directory (documented through Table 7-5 of Deliverable 6.2), tracks result ownership, protection measures, and licensing models, and is regularly updated by the Innovation Management Team. This approach safeguards partner contributions while promoting open, inclusive innovation where appropriate, and will be further detailed and finalised in Deliverable 5.5.

The current plan is designed to be flexible and will evolve as the project advances. The list of KERs is expected to be revised based on progress in technical work, feedback from end users, and the outcomes of demonstration activities. A fully developed set of exploitation plans, including tailored business models, will be delivered in D5.5 – Final Exploitation Plan and Business Models in M60.

In this first version of the exploitation plan, the project has moved from general ideas to a more structured and evidence-based approach that connects results to real-world applications. By involving partners early on, identifying initial priorities, and putting tools in place to support the process, CulturalRoad has created a solid foundation for practical and focused exploitation activities. The work presented here ensures that exploitation is not treated as a final step, but as an integral part of how CulturalRoad delivers value throughout its lifetime.

7 REFERENCES

European Climate, Infrastructure and Environment Executive Agency (CINEA). (2024, March 12). Annex 1 to the Grant Agreement Horizon Europe (HORIZON) Description of the Action (DoA) HORIZON-CL5-2023-D6-01-04 – Part B CulturalRoad.

European Commission. (2025) Dissemination and exploitation of research results. Retrieved from: https://research-and-innovation.ec.europa.eu/strategy/dissemination-and-exploitation-research-results_en

CulturalRoad Consortium. (2024). Deliverable D6.2 – Innovation Plan and Process. 12 May 2024.

CulturalRoad Consortium Agreement. (2024, July 19).

8 ANNEX 1: LIST OF PROJECT RESULTS

The following list provides a list of the project results identified in collaboration with Work Packages Leaders and Task Leaders where type and ownership of the results was reviewed.

Nº	Project Result	Description	Linked to WP	Linked to Task	Result Type	Owner(s)	ER	KER
1	**Report on CCAM studies**	Existing CCAM studies and projects documenting identifying the state of the practice for CCAM acceptance within and outside the European Union	**WP1**	T1.1	Deliverable/Document	INIT [leader], DTU, TUM, NTUA, UPC, ARR, KIT	NO	NO
2	**Blueprint data for demo sites**	A harmonised dataset combining new data from demonstration sites and existing data from consortium cities (e.g., Copenhagen, Munich) to test and scale the Five-Pointed Star Rating System. Includes a blueprint for standardised data collection to support adoption by other cities, regions, and CCAM stakeholders.	**WP1**	T1.2	Dataset	ERT [leader], DTU, FICOSA, INIT, UPC (CARNET), EILAT, KIT, RRA LUR, TfWM, IRF	NO	NO
3	**Interview framework for stakeholders**	Structured tool to collect stakeholder input, including probes and prompt questions used during co-creation.	**WP1, WP3**	T1.4, T3.1	Method	DTU [leader], UPC (CARNET), ARR	NO	NO
4	**Set of transport equity KPIs**	A comprehensive set of 25-50 Key Performance Indicators that quantify and benchmark CCAM equity performance across the five FPSR dimensions: (i) road safety, (ii) psychological factors, (iii) network readiness, (iv) transport inclusiveness, and (v) user acceptance.	**WP2**	T2.4	Deliverable/Document	UPC [leader], ERT, DTU, NTUA, TUM, IRF	YES	YES
5	**New methodology and grading scale to assess the value of time (VOT)**	A culturally and geographically sensitive methodology to evaluate user VOT in the context of CCAMs considering user perceptions, psychological aspects, as well CCAM's added value and usability. The user VOT is intended to act as a proxy measure to assess overall user acceptance.	**WP2**	T2.1, T2.3	Method	TUM [leader], UPC, FICOSA, INIT, DTU [leader], RRA	NO	YES

6	**Safety Scenario Assessment Models**	Simulation models for evaluating safety scenarios of CCAM deployment, incorporating surrogate safety measures, exposure metrics, and cultural variance in user behavior.	**WP2**	T2.2	Tool	NTUA [leader], DTU, ARR, LIFT	YES	YES
7	**FPSR System Methodology**	A structured methodology assessing CCAM equity across five dimensions: inclusivity, safety, psychological readiness, user acceptance, and network preparedness.	**WP2**	T2.4	Method	UPC [leader], ERT, DTU, NTUA	YES	YES
8	**FPSR System Toolkit**	Comprehensive package including the FPSR system, KPIs, equity scoring guidance, and usage recommendations.	**WP2**	T2.4	Guideline	UPC [leader], ERT, DTU, NTUA	YES	YES
9	**CCAM Scheduling Optimiser**	A simple yet powerful optimisation model implemented in Python that can be used to optimize CCAM fleet scheduling to improve efficiency and equity of services, based on real-world constraints and multiple demand groups	**WP4/WP2**	T2.3, T4.3	Tool	DTU [leader], TUM, RRA LUR, NTUA[leader], FICOSA, INIT, LIFT, TFWM, OCC, IRF	YES	YES
10	**Tool for CCAM Safety Scores**	An analytical tool for calculating safety risk scores of CCAM deployments across different environments and user profiles, informed by behavioural and experimental data.	**WP2, WP4**	T2.2, T4.3	Tool	NTUA [leader], TUM, RRA LUR, NTUA[leader], FICOSA, INIT, LIFT, TFWM, OCC, IRF	YES	YES
11	**CCAM affordable accessibility assessment tool**	An analytical tool for calculating the level of affordable accessibility provided by CCAM deployments of different nature,across different environments and user profiles	**WP2, WP4**	T2.1, T2.4, T4.3	Tool	UPC [leader], TUM [leader], FICOSA, INIT, NTUA[leader], FICOSA, INIT, LIFT, TFWM, OCC, IRF, ERT	YES	YES
12	**Equity Visualisation Tool**	Matrix-based comparison and geospatial visualisations displaying levels of transport equity across different pilot areas, using demographic, infrastructural, and socio-cultural data. The tool supports evidence-based decision-making for planners and policy-makers by visually representing multi-dimensional equity indicators, aligned with the Five-Pointed Star Rating System.	**WP2, WP4**	T2.4, T4.1	Tool	NTUA [leader], TUM, DTU, UPC, ERT	YES	YES

13	**Two-Step co-creation participatory framework**	A participatory planning approach combining community-based focus groups and multi-stakeholder workshops to co-design CCAM deployment strategies tailored to cultural and geographical specificities.	**WP3**	T3.1	Method	DTU [leader], UPC (CARNET), ARR, INIT, EILAT, KIT, RRA LUR, TfWM, OCC	YES	YES
14	**CCAM Target Groups**	Based on the results from the demonstration sites, training material on how to effectively deploy CCAMS depending on different user categories, such vulnerabile users, elderly, and mixed cultural background to ensure inclusive policy and technology design.	**WP3**	T3.1	Training Resource	DTU [leader], FICOSA, INIT, UPC (CARNET), KIT, OCC - TUM	YES	NO
15	**Strategic plans for the phased deployment of CCAM**	Recommendations and measures developed for integrating CCAM equity into Sustainable and National Urban Mobility Plans, Roadmaps, and White Papers in line with project results.	**WP3**	T3.2, T3.3	Deliverable/Document	UPC (CARNET) [leader], DTU, FICOSA, INIT, ATM, ARR, EILAT, KIT, RRA LUR, TfWM, OCC, DfT	YES	YES
16	**Business Model Canvases for CCAM Operators**	Business planning templates developed for different CCAM operators to develop their own business linked to the CulturalRoad target groups, incorporating regional and cultural dimensions into commercial strategies.	**WP3**	T3.3	Model	OCC [leader], ERT, DTU, FICOSA, INIT, UPC (CARNET), ATM, EILAT, KIT, RRA LUR, LIFT, TfWM, DfT	YES	NO
17	**CCAM Scheduling Optimiser**	A module optimising CCAM fleet scheduling to improve efficiency and equity of services, based on real-world constraints and cultural considerations.	**WP4/WP2**	T2.3	Tool	DTU [leader], TUM, RRA LUR	YES	NO
18	**Cross-Country Survey Framework for Cultural Diversity**	A replicable, cross-country travel survey protocol capturing perception of CCAM deployment plans and cultural sensitivity in planning.	**WP4**	T4.1	Framework / Dataset	NTUA, DTU	YES	NO
19	**Cultural Diversity Impact Scenario Simulation**	Scenario simulation models evaluating the future impact of CCAM deployments under varied cultural and demographic parameters.	**WP4**	T4.2	Deliverable/Document	TUM [leader], NTUA, INIT, RRA LUR	YES	NO

20	**Communication and Dissemination Strategy**	This is the foundational strategy guiding the project's outreach activities. It includes stakeholder identification, key messages, communication channels, branding elements, and KPIs to monitor communication impact	**WP5**	T5.1	Deliverable/Document	ERT [leader], ARR, LIFT, IRF	NO	NO
21	**Knowledge transfer mechanism for scaling results**	A one-level-up/one-level-down knowledge transfer mechanism will be created to enhance inter operability, where each planning authority communicates with authorities at the lower level (i.e. more local) or higher level (more national/international).	**WP5**	T5.2	Method	EILAT [leader], ERT, ARR, IRF, DfT	YES	YES
22	**Preliminary Exploitation Plan**	First version of how project results will be exploited by partners, including individual exploitation intentions.	**WP5**	T5.3	Deliverable/Document	IRF [leader], All partners	NO	NO
23	**Final Exploitation Plan and Business Models**	Updated exploitation plan detailing exploitation routes, business models, and pathways to sustainability after the project.	**WP5**	T5.3	Deliverable/Document	IRF [leader], All partners	YES	NO

9 ANNEX 2: EXPLOITATION TRACKER (VERSION JULY 2025)

CulturalRoad – Exploitation Tracker

#	Project Result	Short Description	Linked to Objective	Linked to WP(s)	Linked to Task(s)	Result Type	Linked to Deliverable	Result Owner(s)	Other potential exipoitable	ER?	KER?	Does this PR have a high potential? If so which?	To which "Key Impact Pathways" will the exploitation	Exploitation Intention (preliminary)	Access/Ownership Conditions
1	**Report on CCAM studies**	Existing CCAM studies and projects documenting identifying the state of the practice for CCAM acceptance within and outside the European Union	O1	**WP1**	T1.1	Deliverable/Document	D1.1 Report on CCAM readiness	INIT [leader], DTU, TUM, NTUA, UPC, ARR, KIT		No	No	[Towards technological/economic impact]	1. Creating high-quality new knowledge		[Internal Use (further development, research, education)]
2	**Blueprint data for demo sites**	A harmonised dataset combining new data from demonstration sites and existing data from consortium cities (e.g., Copenhagen, Munich) to test and scale the Five-Pointed Star Rating System. Includes a blueprint for standardised data collection to support adoption by other cities, regions, and CCAM stakeholders.	O1	**WP1**	T1.2	Dataset	D1.2 Opportunistic Data Set	ERT [leader], DTU, FICOSA, INIT, CARNET, EILAT, KIT, RRA LUR, TfWM, IRF		No	No	[Scientific impact]	6. Strengthening the uptake of research and innovation in society		[Internal Use (further development, research, education)]
3	**Interview framework for stakeholders**	Structured tool to collect stakeholder input, including probes and prompt questions used during co-creation.	O3	**WP1, WP3**	T1.4, T3.1	Method	D3.1 Initial Pilot assessment	DTU [leader], CARNET, ARR		No	No	[Societal impact]	4. Addressing EU policy priorities and global challenges through research and innovation		[Internal Use (further development, research, education)]
4	**Set of transport equity KPIs**	A comprehensive set of 25-50 Key Performance Indicators that quantify and benchmark CCAM equity performance across the five FPSR dimensions: (i) road safety, (ii) psychological factors, (iii) network readiness, (iv) transport inclusiveness, and (v) user acceptance.	O2	**WP2**	T2.4	Deliverable/Document	D2.2 Methodological report	UPC [leader], ERT, DTU, NTUA, TUM, IRF		Yes	Yes	[Societal impact]	4. Addressing EU policy priorities and global challenges through research and innovation	All partners listed as contributors will be able to exploit the KPI set to promote more inclusive, data-driven approaches to assessing equity in CCAM systems. **UPC** will integrate the KPIs into academic teaching, ongoing research on equity in CCAM, and proposals for follow-up Horizon projects. **ERTICO** and **IRF** will leverage their networks of public and private stakeholders to promote the transport equity KPI, supporting its uptake in CCAM policy, planning, and capacity-building activities. ERTICO will focus on alignment with CCAM innovation platforms and deployment roadmaps, while IRF will integrate the KPIs into training and policy dialogue with road authorities and international organisations. **DTU, NTUA,** and **TUM** will use the KPIs in scientific publications and in the development of equity-sensitive simulation and assessment models for CCAM services.	[Freely available / open access]
5	**New methodology and grading scale to assess the value of time (VOT)**	A culturally and geographically sensitive methodology to evaluate user VOT in the context of CCAMs considering user perceptions, psychological aspects, as well CCAM's added value and usability. The user VOT is intended to act as a proxy measure to assess overall user acceptance.	O4	**WP2**	T2.1, T2.3	Method	D2.2 Methodological report	TUM [leader], UPC, FICOSA, INIT, DTU [leader], RRA		Yes	No	[Scientific impact]	1. Creating high-quality new knowledge		[Internal Use (further development, research, education)]
6	**Safety Scenario Assessment Models**	Simulation models for evaluating safety scenarios of CCAM deployment, incorporating surrogate safety measures, exposure metrics, and cultural variance in user behavior.	O7	**WP2**	T2.2	Tool	D2.2 Methodological report	NTUA [leader], DTU, ARR, LIFT		Yes	Yes	[Scientific impact]	1. Creating high-quality new knowledge	Partners listed as contributors will be able to use the models for academic publications, support future research projects or develop open-access modeling tools. **NTUA** and **DTU** will apply the models in academic research and explore their further development in future projects or as open-access tools. **ARR** will use the models to support regional safety assessments and simulation work. **LIFT** will apply the models in internal simulation activities and explore their use in collaboration with local stakeholders to assess safety impacts of CCAM services.	[Non-commercial use for policy and research purposes]
7	**FPSR System Methodology**	A structured methodology assessing CCAM equity across five dimensions: inclusivity, safety, psychological readiness, user acceptance, and network preparedness.	O2, O4, O7	**WP2**	T2.4	Method	D2.3 Final report on the Five-Pointed Star Rating System	UPC [leader], ERT, DTU, NTUA		Yes	Yes	[Scientific impact]	9. Leveraging investment in research and innovation	All partners listed as contributors will be able to use the methodology in project-related publications and as a starting point for future research and collaborative initiatives focused on equity in CCAM. **UPC, DTU, and NTUA** will apply the methodology in academic research, publications, and future project proposals addressing inclusive mobility, CCAM evaluation, and behavioural modelling. **ERTICO** will promote the methodology through its stakeholder platforms and may explore its use in deployment-related activities, particularly where equity assessments can support decision-making.	[Non-commercial use for policy and research purposes]
8	**FPSR System Toolkit**	Comprehensive package including the FPSR system, KPIs, equity scoring guidance, and usage recommendations.	O4	**WP2**	T2.4	Guideline	D2.3 Final report on the Five-Pointed Star Rating System	UPC [leader], ERT, DTU, NTUA		Yes	Yes	[Societal impact]	4. Addressing EU policy priorities and global challenges through research and innovation	All partners listed as contributors will be able to use the toolkit in their collaboration with public administrations and other stakeholders, either in research-oriented or application-oriented settings. UPC, DTU, and NTUA will further develop the toolkit through academic research and use it as a basis for future project proposals and partnerships with public authorities interested in equity-focused CCAM assessment. ERTICO will promote the toolkit across its stakeholder platforms, encouraging its use by cities, mobility actors, and networks involved in deployment planning and policy development.	[Non-commercial use for policy and research purposes]
9	**CCAM Scheduling Optimiser**	A simple yet powerful optimisation model implemented in Python that can be used to optimize CCAM fleet scheduling to improve efficiency and equity of services, based on real-world constraints and multiple demand groups	O4, O7	**WP4/WP2**	T2.3, T4.3	Tool	D2.3 Final report on the Five-Pointed Star Rating System	DTU [leader], TUM, RRA LUR, NTUA[leader], FICOSA, INIT, LIFT, TFWM, OCC, IRF		Yes	To be defined	[Towards technological/economic impact]	6. Strengthening the uptake of research and innovation in society	All partners listed as contributors will be able to use the scheduling optimiser in publications, future research projects, and in collaboration with public administrations or operators. **DTU, NTUA,** and **TUM** will apply the optimiser in academic research and simulation work, and may further develop it in future project proposals focusing on service design, operational efficiency, and demand modelling. **FICOSA** and **INIT** will assess the potential of the optimiser to support the design and testing of CCAM scheduling tools in real-world development settings. **RRA LUR, TFWM**, and **OCC** will explore its use in public-sector planning and operations, with a focus on ensuring equitable service provision across different user groups and geographies. **LIFT** will apply the optimiser in internal simulation activities and in support of consulting engagements with transport operators. **IRF** will promote the optimiser as part of its dissemination work and use it to support dialogue with public authorities on planning tools that advance equity and efficiency in CCAM services.	[Non-commercial use for policy and research purposes]
10	**Tool for CCAM Safety Scores**	An analytical tool for calculating safety risk scores of CCAM deployments across different environments and user profiles, informed by behavioural and experimental data.	O4, O7	**WP2, WP4**	T2.2, T4.3	Tool	D2.3 Final report on the Five-Pointed Star Rating System	NTUA [leader], TUM, RRA LUR, FICOSA, INIT, LIFT, TFWM, OCC, IRF, UPC		Yes	To be defined	[Societal impact]	4. Addressing EU policy priorities and global challenges through research and innovation	All partners listed as contributors will be able to use the safety scoring tool to support CCAM deployment impact assessments and contribute to policy guidance on safety evaluation across different environments and user groups. **NTUA, TUM, DTU and UPC** will apply the tool in academic research, publications, and future projects, and NTUA will also explore its integration into training and educational programmes related to CCAM safety and evaluation. **FICOSA** and **INIT** will assess the tool's applicability in product development and testing, with a focus on improving the safety performance of CCAM systems. **RRA LUR, TFWM**, and **OCC** will use the tool in collaboration with local authorities or transport stakeholders to assess safety risks and inform deployment decisions. **LIFT** will apply the tool in simulation and consulting work. **IRF** will promote the tool through its policy and training activities, with its wide network of road authorities and international partners.	[To be defined]

11	**CCAM affordable accessibility assessment tool**	An analytical tool for calculating the level of affordable accessibility provided by CCAM deployments of different nature, across different environments and user profiles.	O4, O7	**WP2, WP4**	T2.1, T2.4, T4.3	Tool	D2.3 Final report on the Five-Pointed Star Rating System	UPC [leader], TUM [leader], FICOSA, INIT, NTUA[leader], FICOSA, INIT, LIFT, TFWM, OCC, IRF, ERT		Yes	To be defined	[Societal impact]	4. Addressing EU policy priorities and global challenges through research and innovation	All partners listed as contributors will be able to use the tool in publications, future research or innovation projects, and in collaboration with public administrations to support planning and evaluation. **UPC**, **NTUA**, and **TUM** will apply the tool in academic research on accessibility and equity, and use it as input for future proposals focused on inclusive CCAM deployment strategies. **FICOSA** and **INIT** will assess the tool's relevance for product and service development, particularly in tailoring CCAM solutions to meet the needs of different user profiles and affordability levels. **LIFT** will use the tool in consulting and simulation activities to help operators and public authorities assess cost-effective service coverage. **TFWM** and **OCC** will explore its use in regional planning processes to identify accessibility gaps and evaluate the social impact of CCAM deployment. **IRF** and **ERTICO** will promote the tool across their networks, supporting its integration into policy discussions, stakeholder engagement, and capacity-building activities focused on inclusive mobility.	[To be defined]
12	**Equity Visualisation Tool**	Matrix-based comparison and geospatial visualisations displaying levels of transport equity across different pilot areas, using demographic, infrastructural, and socio-cultural data. The tool supports evidence-based decision-making for planners and policy-makers by visually representing multi-dimensional equity indicators, aligned with the Five-Pointed Star Rating System.	O4, O7	**WP2, WP4**	T2.4, T4.1	Tool	D4.3 Planning & Cultural Context Geographical tools	NTUA [leader], TUM, DTU, UPC, ERT		Yes	Yes	[Societal impact]	6. Strengthening the uptake of research and innovation in society	All partners listed as contributors will be able to use the visualisation tool to support city planners and stakeholders involved in CCAM equity evaluation, providing an evidence-based resource for policy dialogue and decision-making. **NTUA**, **TUM**, **DTU**, and **UPC** will apply the tool in academic research and project-based collaborations focused on transport equity, and may further develop it in future proposals addressing visualisation and data-driven mobility planning. **ERTICO** will promote the tool through its stakeholder platforms to cities, industry, and policy-makers.	[Non-commercial use for policy and research purposes]
13	**Two-Step co-creation participatory framework**	A participatory planning approach combining community-based focus groups and multi-stakeholder workshops to co-design CCAM deployment strategies tailored to cultural and geographical specificities.	O3, O5	**WP3**	T3.1	Method	D3.2 Final Pilot assessment and lessons learnt	DTU [leader], CARNET, ARR, INIT, EILAT, KIT, RRA LUR, TfWM, OCC	FICOSA, ATM, DfT, ERT, LIFT	Yes	Yes	[Societal impact]	1. Creating high-quality new knowledge	All partners involved in WP3 will be able to use the participatory framework to support inclusive and context-sensitive planning of CCAM services, based on community engagement and multi-stakeholder collaboration. **DTU**, **UPC (CARNET)**, and **KIT** will apply the framework in future research and innovation projects related to co-creation, mobility planning, and culturally responsive deployment strategies. **ARR**, **RRA LUR**, **TfWM**, **OCC**, **EILAT**, and **INIT** will use the framework to engage local stakeholders and communities in shaping CCAM deployment strategies tailored to their specific regional and societal contexts. **FICOSA**, **ATM**, **DfT**, **LIFT**, and **ERTICO** will explore its use in pilot coordination, stakeholder outreach, and public-private collaboration.	[Freely available / open access]
14	**CCAM Target Groups**	Based on the results from the demonstration sites, training material on how to effectively deploy CCAMS depending on different user categories, such vulnerable users, elderly, and mixed cultural background to ensure inclusive policy and technology design.	O2, O3	**WP3**	T3.1	Training Resource	D3.2 Final Pilot assessment and lessons learnt	DTU [leader], FICOSA, INIT, CARNET, KIT, OCC - TUM		Yes	No	[Societal impact]	3. Fostering diffusion of knowledge and Open source		[To be defined]
15	**Strategic plans for the phased deployment of CCAM**	Recommendations and measures developed for integrating CCAM equity into Sustainable and National Urban Mobility Plans, Roadmaps, and White Papers in line with project results.	O5	**WP3**	T3.2, T3.3	Deliverable/Document	D3.2 Final Pilot assessment and lessons learnt	CARNET [leader], DTU, FICOSA, INIT, ATM, ARR, EILAT, KIT, RRA LUR, TfWM, OCC, DfT	ERT	Yes	Yes	[Societal impact]	4. Addressing EU policy priorities and global challenges through research and innovation	All partners involved in WP3 will be able to use the strategic planning outputs to support the integration of CCAM equity considerations into mobility strategies at local, regional, and national levels. **UPC (CARNET)**, **DTU**, and **KIT** will use the recommendations in research and innovation activities related to mobility governance, equity frameworks, and the alignment of CCAM with existing policy instruments. **ARR**, **RRA LUR**, **TfWM**, **OCC**, **EILAT**, and **DfT** will apply the strategic plans in dialogue with public authorities, using them to inform updates to Sustainable Urban Mobility Plans (SUMPs), deployment roadmaps, or national strategies. **FICOSA**, **ATM**, and **ERTICO** will explore the use of these strategic insights in stakeholder engagement and deployment planning, contributing to more inclusive and phased approaches to CCAM implementation. **INIT** will use the strategic insights in discussions with PTOs and PTAs when implementing solutions for CCAM integration.	[Freely available / open access]
16	**Business Model Canvases for CCAM Operators**	Business planning templates developed for different CCAM operators to develop their own business linked to the CulturalRoad target groups, incorporating regional and cultural dimensions into commercial strategies.	O5	**WP3**	T3.3	Model	D3.2 Final Pilot assessment and lessons learnt	OCC [leader], ERT, DTU, FICOSA, INIT, CARNET, ATM, EILAT, KIT, RRA LUR, LIFT, TfWM, DfT		Yes	No		5. Delivering benefits and impact through research and innovation missions		
17	**CCAM Scheduling Optimiser**	A module optimising CCAM fleet scheduling to improve efficiency and equity of services, based on real-world constraints and cultural considerations.	O4	**WP4/WP2**	T2.3	Tool	D2.3 Final report on the Five-Pointed Star Rating System	DTU [leader], TUM, RRA LUR		Yes	No		6. Strengthening the uptake of research and innovation in society		[Freely available / open access]
18	**Cross-Country Survey Framework for Cultural Diversity**	A replicable, cross-country travel survey protocol capturing perception of CCAM deployment plans and cultural sensitivity in planning.	O4	**WP4**	T4.1	Framework/ Dataset	D4.1 Survey data in each city	NTUA, DTU		Yes	No	[Scientific impact]	1. Creating high-quality new knowledge		[Internal Use (further development, research, education)]
19	**Cultural Diversity Impact Scenario Simulation**	Scenario simulation models evaluating the future impact of CCAM deployments under varied cultural and demographic parameters.	O7	**WP4**	T4.2	Deliverable/Document	D4.2 Five-Pointed Star Evaluation of Pilot Areas	TUM [leader], NTUA, INIT, RRA LUR		Yes	No	[Scientific impact]	1. Creating high-quality new knowledge		[Internal Use (further development, research, education)]
20	**Communication and Dissemination Strategy**	This is the foundational strategy guiding the project's outreach activities. It includes stakeholder identification, key messages, communication channels, branding elements, and KPIs to monitor communication impact	O7	**WP5**	T5.1	Deliverable/Document	D5.1 Communication and dissemination strategy	ERT [leader], ARR, LIFT, IRF		No	No	[Towards technological/economic impact]	3. Fostering diffusion of knowledge and Open source		[Freely available / open access]
21	**Knowledge transfer mechanism for scaling results**	A one-level-up/one-level-down knowledge transfer mechanism will be created to enhance interoperability, where each planning authority communicates with authorities at the lower level (i.e. more local) or higher level (more national/international).	O9	**WP5**	T5.2	Method	D5.6 Year 3 Dissemination report	EILAT [leader], ERT, ARR, IRF, DfT	KIT, CARNET, TfWM, OCC, RRA LUR	Yes	Yes	[Towards technological/economic impact]	2. Strengthening human capital in research and innovation	Partners involved will be able to use the knowledge transfer mechanism to support coordination across different governance levels. **EILAT**, **TfWM**, **OCC**, **ARR**, and **RRA LUR** will apply the mechanism to strengthen communication between local, regional, and national authorities, supporting smoother integration of CCAM planning processes and lessons learned. **DfT** and **IRF** will explore its use in facilitating vertical policy dialogue and promoting structured knowledge exchange in national and international policy settings. **UPC (CARNET)** and **KIT** will integrate the mechanism into research and innovation activities. **ERTICO** will support the promotion of the mechanism through its platforms.	[Freely available / open access]
21	**Preliminary Exploitation Plan**	First version of how project results will be exploited by partners, including individual exploitation intentions.	O7	**WP5**	T5.3	Deliverable/Document	D5.2 Preliminary Exploitation Plan	IRF [leader], All partners		No	No	[Towards technological/economic impact]	3. Fostering diffusion of knowledge and Open source		[Freely available / open access]
23	**Final Exploitation Plan and Business Models**	Updated exploitation plan detailing exploitation routes, business models, and pathways to sustainability after the project.	O7	**WP5**	T5.3	Deliverable/Document	D5.5 Final Exploitation Plan and business model	IRF [leader], All partners		Yes	No	[Scientific impact]	9. Leveraging investment in research and innovation		[Internal Use (further development, research, education)]