



5GMOBIX

5G for cooperative & connected automated
MOBility on X-border corridors

D7.7

Report on the dissemination activities

Dissemination level	Public (PU)
Work package	WP7: Dissemination and exploitation
Deliverable number	D7.7
Version	V1.0
Submission date	30/09/2022
Due date	30/09/2022



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 825496.

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Control sheet

Version history			
Version	Date	Modified by	Summary of changes
Vo.1	07.06.2022	Sevi Christoforou	ToC draft
Vo.2	28.07.2022	Sevi Christoforou	First draft: all chapters
Vo.3	25.08.2022	Sevi Christoforou	Introduction chapter & collection of information/data
Vo.4	12.09.2022	Sevi Christoforou	Contribution to chapters: Dissemination Report and Analysis; Report on performed dissemination activities
Vo.5	14.09.2022	Sevi Christoforou	Contribution to chapters: Report on performed dissemination activities; Participation in conferences and events; Workshop Organisation; 5G-MOBIX webinars; Exhibition stands and booths
Vo.6	15.09.2022	Sevi Christoforou	Contribution to chapters: Publications; ICT-18 joint dissemination activities
Vo.7	19.09.2022	Sevi Christoforou	Contribution to chapter: Demonstration Events
Vo.8	23.09.2022	Sevi Christoforou	Contribution to subsection Final Event; Annexes
Vo.9	30.09.2022	Sevi Christoforou	Incorporation of peer review suggestions/changes
V1.0	30.09.2022	Sevi Christoforou	Final version for submission

Peer review		
	Reviewer name	Date
Reviewer 1	Esther Novo (VICOMTECH)	28/09/2022
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Table of contents

EXECUTIVE SUMMARY	12
1. INTRODUCTION	13
1.1. 5G-MOBIX concept and approach	13
1.2. Purpose of the deliverable	13
1.3. Intended audience.....	14
1.4. Structure of the deliverable.....	14
1.5. Relation to other tasks and deliverables	15
2. DISSEMINATION STRATEGY AND OBJECTIVES.....	16
3. REPORT ON PERFORMED DISSEMINATION ACTIVITIES	20
3.1. Participation in Conferences and Events.....	20
3.1.1. Highlights of 5G-MOBIX participation at major events	28
3.1.1.1. Mobile World Congress 2019 – Barcelona, Spain.....	28
3.1.1.2. ITS EU Congress - Eindhoven, the Netherlands	29
3.1.1.3. EUCNC 2019 – Valencia, Spain.....	29
3.1.1.4. ITS World Congress 2019, Singapore	30
3.1.1.5. IEEE 5G for CAM Summit 2021, Virtual.....	31
3.1.1.6. EUCNC & 6G Summit 2021, Virtual	32
3.1.1.7. ITS World Congress 2021 – Hamburg, Germany.....	33
3.1.1.8. ITS European Congress 2022 – Toulouse, France.....	35
3.1.1.9. EUCNC & 6G Summit 2022 – Grenoble, France.....	36
3.1.2. Conference and Events Presentations	37
3.2. Workshop Organisation	52
3.2.1. 5G deployment for Automated Mobility Workshop at the ITS EU Congress 2019 (Eindhoven, The Netherlands)	53
3.2.2. '5G in the Era of Connected Cars' at the EUCNC 2019 (Valencia, Spain).....	54
3.2.3. 5G and IoT boosting the digital transformation of the automotive sector Symposium at the ITS World Congress 2019 (Singapore)	54
3.2.4. Stakeholder Workshop on 5G corridor deployment in the perspective of CEF2-Digital and the Recovery and Resilience Plan (Virtual).....	55
3.2.5. Workshop on the Deployment Methodology of 5G for CAM on Cross-Border Corridors (Virtual) ..	56
3.2.6. 5G for CCAM for Cross Border Corridors Workshop at the EUCNC 2021 & 6G Summit (Virtual) ..	56
3.2.7. Connecting to Future Mobility Workshop at ITS World Congress 2021 (Hamburg, Germany)....	56
3.2.8. 5G Connectivity Workshop at the ITS World Congress 2022 (Los Angeles, USA)	57
3.3. 5G-MOBIX Webinars.....	58

3.4. Exhibition stands and booths	73
3.5. Demonstration Events.....	74
3.5.1. 5G-MOBIX Trial Sites and Cross-Border Corridor Demonstration Events.....	74
3.5.2. Demo Event Preparation: The checklist.....	74
3.5.3. Demo Event Preparation and Follow-up: The 5G-MOBIX demonstration forms	75
3.5.4. Main Demo Events	75
3.5.4.1. <i>NL TS Demo Event</i>	76
3.5.4.2. <i>FR TS Demo Event</i>	78
3.5.4.3. <i>FI TS Demo Event</i>	81
3.5.4.4. <i>DE TS Demo Event</i>	82
3.5.4.5. <i>KR TS Demo Event</i>	84
3.5.4.6. <i>CH TS Demo Event</i>	85
3.5.4.7. <i>GT-TR CBC Demo Event</i>	88
3.5.4.8. <i>ES-PT CBC Demo Event</i>	92
3.5.5. Short Demo Events	94
3.5.6. Final Event at the ES-PT CBC.....	94
3.6. Publications.....	102
3.6.1. Papers in Conference Proceedings	103
3.6.2. Journal Publications.....	109
3.6.3. Articles in trade magazines & non-scientific publications	116
3.6.4. White papers and other publications	116
3.7. ICT-18 joint dissemination activities	117
4. ACHIEVEMENT OF DISSEMINATION OBJECTIVES	119
5. CONCLUSION	122
ANNEXES.....	123
ANNEX 1 – DISSEMINATION PROCEDURE.....	123
ANNEX 2 - DEMO EVENT PREPARATION: THE CHECKLIST	124
ANNEX 3 – TRIAL SITE DEMO DESCRIPTION FORMS	126
ANNEX 4 – TRIAL SITE DEMO FOLLOW-UP FORM.....	146
ANNEX 5 – 5G-MOBIX DEMONSTRATION EVENTS: TS AND CBC AGENDAS.....	149

List of figures

Figure 1: 5G-MOBIX scenario trucks at the Turkcell booth.....	28
Figure 2: Elif Yenihan Kaya, Gulay Yardim and Nazli Guney, Cordelia Wilson from Turkcell represented 5G-MOBIX at the MWC '19, #womenonthemove2019.....	28
Figure 3: Francois Fischer, 5G-MOBIX coordinator and Kostas Trichias, 5G-MOBIX technical manager at the 5G-MOBIX booth.....	29
Figure 4: 5G-MOBIX, 5G-Croco and 5G-CARMEN receive the EUCNC Best Booth Award.....	30
Figure 5: Joint stand at the ITSWC 2019 in Singapore.....	31
Figure 6: IEEE 5G for CAM Virtual Summit, May 2021	32
Figure 7: 5G-MOBIX virtual stand at EUCNC 2021	33
Figure 8: Workshop on "5G for CCAM for Cross-Border Corridors"	33
Figure 9: Nazli Guney (Turkcell) presenting during the Special Interest Session at ITSWC '21.....	34
Figure 10: The lightbox of 5G-MOBIX, 5G-CARMEN & 5G-CroCo stand at the ERTICO stand.....	35
Figure 11: 5G-MOBIX booth at the ERTICO stand.....	35
Figure 12: 5G-MOBIX presented by the project's coordinator.....	35
Figure 13: The speakers in SIS on 5G for ITS comms and computational challenges and prospects	36
Figure 14: The 5G-MOBIX team with 5G-MOBIX officer and Principal Scientific Officer at European Commission Jorge Pereira at the 5G-MOBIX booth.....	37
Figure 15: 5G deployment for Automated Mobility Workshop at the ITS EU Congress 2019.....	53
Figure 16: Agenda of the '5G in the Era of Connected Cars' workshop at the EUCNC 2019	54
Figure 17: Announcement of the Stakeholder Workshop on 5G corridor deployment in the perspective of CEF2-Digital and the Recovery and Resilience Plan.....	55
Figure 18: Agenda of the '5G Connectivity' Workshop at the ITSWC 2022 in Los Angeles	57
Figure 19: 5G-MOBIX 4 th Webinar, 'Evaluation Framework'.....	63
Figure 20: 5G-MOBIX 5 th Webinar, 'Challenges and recommendations to 5G for CAM deployment in Cross-border scenarios'	65
Figure 21: Announcement of the 6 th 5G-MOBIX Webinar, '5G for CAM Deployment: Challenges and Lessons Learned'	66
Figure 22: The European/Asian location of the eight 5G-MOBIX cross-border corridors and trial sites	74

Figure 23: 5G-MOBIX NL TS Demo announcement	77
Figure 24: NL TS Demo Event	77
Figure 25: NL TS Demo Event.....	77
Figure 26: NL TS Demo Event	77
Figure 27: NL TS Demo Event.....	77
Figure 28: 5G-MOBIX FR TS Demo announcement	79
Figure 29: FR TS Demo Event, group picture	80
Figure 30: 5G-MOBIX FR TS Demo Event	80
Figure 31: 5G-MOBIX FR TS Demo Event.....	80
Figure 32: 5G-MOBIX FR TS Demo Event	80
Figure 33: 5G-MOBIX FR TS Demo Event.....	80
Figure 34: 5G-MOBIX FI TS Demo Event.....	82
Figure 35: 5G-MOBIX FI TS Demo Event.....	82
Figure 36: 5G-MOBIX FI TS Demo Event.....	82
Figure 37: 5G-MOBIX FI TS Demo Event	82
Figure 38: 5G-MOBIX KR TS Demo Event, group picture	85
Figure 39: 5G-MOBIX CH TS Demo Event, group picture.....	87
Figure 40: 5G-MOBIX CH TS Event	87
Figure 41: 5G-MOBIX CH TS Event	87
Figure 42: 5G-MOBIX GR-TR CBC Demo Event (GR)	92
Figure 43: 5G-MOBIX GR-TR CBC Demo Event (TR)	92
Figure 44: 5G-MOBIX GR-TR CBC Demo Event	92
Figure 45: 5G-MOBIX GR-TR CBC Demo Event	92
Figure 46: 5G-MOBIX GR-TR CBC Demo Event	93
Figure 47: 5G-MOBIX GR-TR CBC Demo Event.....	93
Figure 48: 5G-MOBIX GR-TR CBC Demo Event	93
Figure 49: 5G-MOBIX GR-TR CBC Demo Event	93
Figure 50: 5G-MOBIX Final Event	101
Figure 51: 5G-MOBIX Final Event.....	101

Figure 52: 5G-MOBIX Final Event	101
Figure 53: 5G-MOBIX Final Event	101
Figure 54: 5G-MOBIX Final Event	101
Figure 55: 5G-MOBIX Final Event	101
Figure 56: Demo Event Preparation Checklist: Responsibilities	125
Figure 57: Demo Event Preparation Checklist: Physical vs Virtual Event.....	125
Figure 58: 5G-MOBIX NL Trial Site Demo Description	126
Figure 59: 5G-MOBIX FR Trial Site Demo Description	130
Figure 60: 5G-MOBIX FI Trial Site Demo Description.....	132
Figure 61: 5G-MOBIX DE Trial Site Demo	135
Figure 62: 5G-MOBIX KR Trial Site Demo.....	138
Figure 63: 5G-MOBIX GR-TR CBC Trial Site Demo.....	141
Figure 64: 5G-MOBIX ES-PT CBC Trial Site Demo/Final Event.....	144
Figure 65: NL TS Demo Event Agenda	149
Figure 66: FR TS Demo Event Agenda.....	150
Figure 67: NL TS Demo Event Agenda (2).....	150
Figure 68: FI TS Demo Event Agenda and Announcement	151
Figure 69: DE TS Demo Event Agenda	152
Figure 70: CH TS Demo Event Agenda.....	153
Figure 71: GR-TR CBC Demo Event Agenda & Information.....	154

List of tables

Table 1: Intended Audience	14
Table 2: Main Dissemination Tools & Channels - KPIs	17
Table 3: List of Conference and External Events with 5G-MOBIX presence	20
Table 4: Indicators of Success for Conference and Events Presentations.....	37
Table 5: List of 5G-MOBIX presentations at conferences and events.....	38
Table 6: List of 5G-MOBIX Workshops	52
Table 7: List of 5G-MOBIX webinars	58
Table 8: Description of 5G-MOBIX Webinars.....	59
Table 9: List of 5G-MOBIX Exhibition Stands and Booths.....	73
Table 10: 5G-MOBIX NL TS Demo Event Description	76
Table 11: 5G-MOBIX FR TS Demo Event Description	78
Table 12: 5G-MOBIX FI TS Demo Event Description	81
Table 13: 5G-MOBIX DE TS Demo Event Description	82
Table 14: 5G-MOBIX KR TS Demo Event Description	84
Table 15: 5G-MOBIX CH TS Demo Event Description	85
Table 16: 5G-MOBIX GR-TR CBC Demo Event.....	88
Table 17: 5G-MOBIX GR-TR Demo Event, Turkish media coverage	91
Table 18: 5G-MOBIX ES-PT CBC Demo Event	92
Table 19: List of 5G-MOBIX Short Demo Events.....	94
Table 20: 5G-MOBIX Final Event at the ES-PT CBC	94
Table 21: Indicators of Success for Publications.....	102
Table 22: List of 5G-MOBIX Papers in Conference Proceedings.....	103
Table 23: List of 5G-MOBIX Papers in Journal Publications.....	109
Table 24: List of 5G-MOBIX Non-Scientific Publications.....	116
Table 25: 5G-MOBIX White Papers and other publications.....	116
Table 26: Achievement of 5G-MOBIX KPIs	120

Table 27: ES-PT CBC Final Event Agenda	155
Table 28: ES-PT CBC Final Event Agenda (2)	155

ABBREVIATIONS

Abbreviation	Definition
CBC	Cross Border Corridor
CAM	Connected and Automated Mobility
EC	European Commission
GA	General Assembly
ITS	Intelligent Transportation Systems
KPI	Key Performance Indicator
TS	Trial Site
WP	Work Package
WPL	Work Package Leader
X-border	Cross-border

EXECUTIVE SUMMARY

Funded under the European Union's Horizon 2020 Framework Programme, the 5G-MOBIX project aims to execute Connected and Automated Mobility (CAM) trials along x-border and urban corridors using 5G core technological innovations to qualify the 5G infrastructure and evaluate its benefits in the CAM context as well as to define deployment scenarios and to identify and respond to standardisation and spectrum gaps.

To ensure that the 5G-MOBIX results were systematically disseminated to the expert communities and to relevant stakeholders and to guarantee the attainment of the project objectives, 5G-MOBIX developed a detailed plan of activities for disseminating the project's progress and results. This plan was outlined in Deliverable 7.3, first submitted in March 2019 and lastly updated in February 2022 (5th version). There were minor alterations and adjustments to the dissemination plan along the way due to COVID-19 and its implications, while the consortium undertook some additional activities as opportunities arose. Throughout the project, the dissemination plan played a significant role in establishing a common understanding amongst project partners by defining the required actions, the timeframe to be realized, the internal procedures to be followed and the success criteria (KPIs) of the performed activities.

D7.7 is a public deliverable and reports all the dissemination activities carried out by the 5G-MOBIX consortium members throughout the project's lifetime i.e., November 2018 – September 2022. These dissemination activities include scientific and non-scientific publications, white papers, participation in events, organisation of demonstration events, workshops and webinars. The deliverable evaluates the effectiveness of the dissemination activities performed, assessing the degree of fulfilment of the project's plans and key performance indicators that were previously set in D7.3. Overall, all efforts resulted to a participation in **104 conferences and external events (49 of those events took place virtually), 35 journal publications, 43 papers at conference proceedings, 128 presentations, 9 workshops, 15 webinars, 18 exhibition booths and 9 public demonstrations**. These numbers are not only in line with the target value set in D7.3 but in most cases surpass them, illustrating the commitment of partners to the project's vision and goals and their success in raising awareness about the project's key findings and reach the target stakeholders groups.

1. INTRODUCTION

1.1. 5G-MOBIX concept and approach

5G-MOBIX's primary aim was to showcase the added value of 5G technology for advanced Connected and Automated Mobility (CAM) use cases and validate the viability of the technology to bring automated driving to the next level of vehicle automation (SAE L₄ and above). To do this, 5G-MOBIX has demonstrated the potential of different 5G features on real European roads and highways and created and used sustainable business models to develop 5G corridors. 5G-MOBIX also utilized and upgraded existing key assets (infrastructure, vehicles, components) and the smooth operation and co-existence of 5G within a heterogeneous environment comprised of multiple incumbent technologies such as ITS-G5 and C-V2X.

5G-MOBIX has executed CAM trials along cross-border (x-border) and urban corridors using 5G core technological innovations to qualify the 5G infrastructure and evaluate its benefits in the CAM context. The Project also defined deployment scenarios and identified and responded to standardisation and spectrum gaps.

5G-MOBIX first defined critical scenarios needing advanced connectivity provided by 5G, and the required features to enable some advanced CAM use cases. The matching of these advanced CAM use cases and the expected benefits of 5G have been tested during trials on 5G corridors in different EU countries as well as in Turkey, China and Korea.

The trials also allowed 5G-MOBIX to conduct evaluations and impact assessments and to define business impacts and cost/benefit analysis. As a result of these evaluations and international consultations with the public and industry stakeholders, 5G-MOBIX has identified new business opportunities for the 5G enabled CAM and proposed recommendations and options for its deployment.

Through its findings on technical requirements and operational conditions 5G-MOBIX is expected to actively contribute to standardisation and spectrum allocation activities.

1.2. Purpose of the deliverable

This deliverable is an inclusive dissemination report of the 5G-MOBIX project. It outlines all the dissemination activities carried out throughout the project's lifetime **i.e., November 2018 – September 2022**. These dissemination activities include scientific and non-scientific publications, organisation and participation in events, demonstration events, workshops and webinars. For the project's dissemination activities measurable targets (KPIs) have been previously set in order to assess the effectiveness of the dissemination plan and estimate whether the desired impact was achieved. This document assesses if the

dissemination indicators have been reached and evaluates their performance by providing specific information and more details on outreach and engagement.

1.3. Intended audience

The deliverable D7.7 is mainly addressed to the European Commission (*funding authority*) as well as the 5G-MOBIX consortium partners without though excluding other audiences interested in reading it. The table below (Table 1) presents in detail all concerned audience groups and their interest in this deliverable.

Table 1: Intended Audience

Intended audience	Reasons for interest
5G-MOBIX project partners	To be informed as well as ensure common understanding amongst the consortium in regards to the project's performed dissemination activities.
European Commission	As the funding authority to assess the performed activities of the project and the quality of the document. It constitutes an official document of the project.
Target Groups <i>(Industries, institutions, scientific and research community, users)</i>	To be informed about the project in general; its scope; the dissemination activities performed during its implementation and discover the channels from where they could acquire the project's results for exploitation.
Representatives of organizations involved into ongoing/future projects under similar topic	To share knowledge, best practices, lessons learned that might find them useful in the implementation of their dissemination activities.
Anyone interested	To be informed about the topic of the project in general and its scope; the methods, tools and channels deployed for promoting 5G-MOBIX and its results.

1.4. Structure of the deliverable

D7.7 is comprised of **5 chapters** and **5 annexes**. The first chapter introduces the reader to the 5G-MOBIX project, its objectives as well as the objectives of the project Dissemination & Exploitation activities WP7. Additionally, it describes the scope of the current deliverable, the audience that is addressed to and its relation to other WP7 tasks and deliverables. The second chapter presents the dissemination strategy and plan set in the beginning of the project as well as the measurable targets that were set in order to assess the effectiveness of the project's dissemination activities. The third chapter provides a detailed overview of the

different dissemination activities performed during the lifetime of the project. The fourth chapter evaluates the effectiveness of the dissemination activities performed during the lifecycle of the project i.e., November 2018 – September 2022. The fifth chapter concludes the report.

[Annex 1](#) includes information about the dissemination procedure, describing the guidelines and the main steps to be followed by partners for the publication or presentation of work done within the framework of the 5G-MOBIX project. [Annex 2](#) includes the 'checklist' prepared by the WP7 team with the list of requirements and a plan for communication and dissemination activities that was shared with pilot site leaders for the preparation of their public demonstration events. [Annex 3](#) presents the demo preparation form that was shared with pilot site leaders prior to the realization of their demo events to collect important information and ensure a timely and efficient preparation from a communication and dissemination perspective. [Annex 4](#) includes the demo follow-up form that was shared after the demo events took place to collect information on the outcome of each demonstration event. Finally, [Annex 5](#) includes a compilation of the agendas from all TS and CBC Demonstration events.

1.5. Relation to other tasks and deliverables

This document represents the continuation of the work begun in D7.3 "Dissemination Plan"¹. The dissemination strategy and plan were developed over the fourth month of the project and D7.3, as a living document, retained flexibility and was regularly revised to incorporate necessary changes due to external factors (e.g., COVID-19 restrictions) and emerging opportunities. The document laid out the project's scope and dissemination objectives, the guiding principles of the project's dissemination activities, individual dissemination plans prepared by each beneficiary and the success criteria for the evaluation of the dissemination activities performed. D7.7 "Dissemination Report", presents in detail the dissemination activities performed during the lifecycle of the project i.e., November 2018 – September 2022 and includes the evaluation of the dissemination activities based on the initial targets set in D7.3.

¹ D7.3 Communication Strategy and Plan (5th version), 5G-MOBIX, 2022. Available here: <https://www.5g-mobix.com/resources/deliverables>

2. DISSEMINATION STRATEGY AND OBJECTIVES

This section includes the main aspects of the 5G-MOBIX dissemination strategy, including the objectives, the stakeholders to whom the external dissemination actions were addressed, the channels that were used by the consortium to diffuse the project's key messages and findings, and finally, the 9 dissemination indicators for measuring the project's dissemination performance.

The **specific objective** of *Task 7.2 Dissemination Activities and Events*, as defined in the project's Grant Agreement was to ensure that the 5G-MOBIX results were systematically disseminated to the expert communities and to relevant stakeholders throughout the lifetime of the project, to help increase the outreach and impact of the 5G-MOBIX outcomes in EU, China and Korea and beyond.

The **high-level objectives** of the dissemination strategy and plan were summarised in D7.3 Dissemination Plan as follows:

- Disseminate the project's results and outcomes to the relevant stakeholder and expert communities in order to raise awareness (*and encourage their uptake*);
- Ensure the involvement of the relevant research organisations as well as business stakeholders and public authorities' representatives;
- Support the impactful completion of the whole project and strengthen collaboration amongst European and global partners for research and industry innovation initiatives;
- Coordinate with other relevant actors, related projects and standardisation bodies, facilitating the exchange of knowledge and experience between industry and research community.

The dissemination strategy also defined the relevant actors and targeted communities ("**target groups**") to whom the dissemination actions should be addressed to i.e., MNOs, Automotive OEMs, SW/ Service providers, MNO vendors, OBU/RSU providers, Road operators, C-ITS centres, R&D institutions, End users (individuals, drivers)².

Dissemination activities were performed through **a variety of channels**, in order to effectively reach out the identified key audiences, taking into consideration the specific characteristics and needs of each group. The dissemination channels employed by the dissemination team and the consortium included:

- a) Presentations at external conferences, workshops and other external events;

² D6.6 Final report on the business models for cross-border 5G deployment enabling CAM, 5G-MOBIX, 2002. Available here: <https://www.5g-mobix.com/resources/deliverables>

- b) Project events (*demonstrations events, including the final event, and technical workshops*);
- c) Webinars;
- d) 5G-MOBIX website and social media;
- e) Journals and other scientific publications;
- f) Liaison activities with related projects and organisations.

In order to fulfil the dissemination plan's objectives, we have initially devised a list of 9 dissemination indicators for quantifying the dissemination progress. As the project progressed and while taking into consideration external factors that were not anticipated in the beginning of the project, those indicators were regularly revisited and revised to better reflect the project's dissemination potential. The KPIs that were set in the last dissemination plan (Version 5.0, Submitted March 2022) together with their desired values at the end of the project have been defined as follows:

Table 2: Main Dissemination Tools & Channels - KPIs

Tool / Channel	Measured Indicators	Indicators of Success (target values)			
		Y1 (M1 – M12)	Y2 (M13– M24)	Y3* (M25 – M45)	Total
Webinars	Number organised/ participants per	2/50	4/50	8/50	14/50
Conferences	Presentations (including poster sessions)	≥10	≥15	≥40	65
Trade shows	Exhibition stands	≥3	≥5	≥8	≥16
Project Events	Number of workshops / participants per	≥2/70	≥3/70	≥5/70	10/70
	Number of demonstration	n/a	3/100	5/100	8/100

	events / participants per				
	Final event / participants	n/a	n/a	1/150	1/150
Scientific publications	Papers in conference proceedings	≥3	≥15	≥40	58
	Scientific and technical articles in peer-reviewed journals	≥3	≥5	≥15	23
	Articles in trade magazines & non-scientific publications	≥1	≥2	≥7	10

The following sections of this deliverable contain a detailed listing of the consortium's dissemination activities, namely:

- **Participation in Conference and Events**, outlining all conferences and external events where 5G-MOBIX partners participated, highlights from participation at major conferences and the extended list of project presentations (including poster, workshop and webinar presentations) at conferences and external events;
- **Workshop Organisation**, listing the workshops organised by 5G-MOBIX or jointly with other sister projects;
- **Webinars**, providing a detailed overview of the webinars held by 5G-MOBIX;
- **Exhibition stand and booths**, listing the exhibition stands and booths that 5G-MOBIX organised or participated at;
- **Demonstration Events**, recording the organisation of short demos and the project's main demonstration events at the two cross-border corridors and the eight urban trial sites;
- **Publications**, detailing all 5G-MOBIX scientific papers and technical articles submitted for publication in conference proceedings scientific peer-reviewed journals, technical magazines, etc.

Following this comprehensive record of the project's performed dissemination activities, the final section will look into the overall dissemination performance, assessing the degree of fulfilment of the project's objectives and key performance indicators.

3. REPORT ON PERFORMED DISSEMINATION ACTIVITIES

This chapter provides a general and detailed overview of all dissemination activities performed by consortium members throughout the whole duration of the project from November 2018 until September 2022. Despite limitations and COVID-19 restrictions, a significant number of activities have been organized and implemented.

Throughout the project, all partners were encouraged to inform the Dissemination Task leader prior to a dissemination activity following a specific procedure (Annex 1) register their dissemination activities in a central spreadsheet stored in the project's file repository. 5G-MOBIX participated in overall 104 conferences and external events (49 of those events took place virtually) while 35 journal publications, 43 papers at conference proceedings, 128 presentations, 9 workshops, 15 webinars, 18 exhibition booths and 6 white papers were recorded by partners.

3.1. Participation in Conferences and Events

The participation of 5G-MOBIX partners in opportunities for disseminating the project's work and results included a wide range of project-related conferences, congresses, workshops and external events that took place across Europe and beyond, throughout the lifecycle of the project. The aim was to disseminate the project's progress and findings, as well as to receive feedback from experts and relevant stakeholders. Special effort was put on participating in the annual **ITS European Congresses**, **Mobile World Congresses** and **EUCNCs (European Conferences on Networks and Communications)**.

In total, partners have taken on opportunities for disseminating 5G-MOBIX's goals and results in **104 events** within the specified period, **i.e., November 2018 until September 2022**, with **49** of them taking place virtually during the COVID-19 restrictions period. 16 below presents all conferences and external events where 5G-MOBIX participated in to raise awareness about the project and disseminate important outcomes. Please note, the online events are highlighted in yellow. Additional information on the 5G-MOBIX activities in following conferences and events are available on both the [Resources](#) page (under [Presentations](#) or [Papers and Publications](#)) and the [News & Events](#) page of the 5G-MOBIX website.



Table 3: List of Conference and External Events with 5G-MOBIX presence

List of Conference and External Events with 5G-MOBIX presence				
No.	Event	Type of activity	Date	Partner(s) Involved
1.	Greek Digital Technology Symposium	Athens, Greece	05 – 06 November 2018	COSMOTE
2.	Automotive Cybersecurity 2018	Berlin, Germany	28 – 29 November 2018	UL

3.	ICT2018 conference	Vienna, Austria	04 – 06 December 2018	ERTICO
4.	5G deployment: the heterogeneity Challenge (EP Workshop)	Brussels, Belgium	6 February 2019	ERTICO, TNO
5.	Mobile World Congress (MWC2019)	Barcelona, Spain	24-27 February 2019	ERTICO, Turkcell
6.	EUCAD 2019	Brussels, Belgium	02 -03 April 2019	ERTICO
7.	FICIS 2019	Braga, Portugal	04 April 2019	Siemens Mobility
8.	ARCADE Stakeholder workshop	Brussels, Belgium	04 April 2019	ERTICO
9.	Turkcell Technology Summit	Istanbul, Turkey	10 April 2019	Turkcell
10.	5G Forum 2019	Malaga, Spain	23 – 24 April 2019	NOKIA ES
11.	4th Global Pre-Commercial 5G Industry Summit (5GIS 2019)	Shanghai, China	22 – 24 May 2019	UL
12.	China – Europe Forum	Jinan, China	27 – 28 May 2019	Catapult
13.	Hel Tech Meet Up	Helsinki, Finland	03 June 2019	AALTO
14.	ITS Europe Congress 2019	Eindhoven, Netherlands	03 – 06 June 2019	CTAG CCG, ERTICO, WINGS, CATAPULT
15.	IEEE 5G Summit 2019	Istanbul, Turkey	13 – 14 June 2019	UL
16.	World Transport Convention 2019	Beijing, China	14 June 2019	Catapult, ERTICO, DUT
17.	EuCNC 2019	Valencia, Spain	18 - 21 June 2019	UMU, ERTICO, Nokia Bell Labs, CCG, CTAG
18.	IEEE International Conference on Fog Computing (ICFC'19)	Prague, Czech Republic	24-26 June 2019	AALTO
19.	Summer school on "Smart Cities for a Sustainable Energy Future - From Design to Practice"	Berlin, Germany	19 – 30 August 2019	GT-ARC
20.	ITU Telecom World 2019	Budapest, Hungary	09 – 12 September 2019	AEVAC

21.	Global IoT Summit 2019	Dublin, Ireland	30 September – 02 October 2019	UL
22.	Human Factors and Ergonomics Society (HFES 2019)	Nantes, France	02 October 2019	CCG
23.	Digital Transport Days	Helsinki, Finland	07 – 09 October 2019	AALTO
24.	TechDays Aveiro 2019	Aveiro, Portugal	10 – 12 October 2019	IT
25.	Turkcell 25th Year Anniversary Reception	Istanbul, Turkey	17 October 2019	Turkcell
26.	ITS World Congress 2019	Singapore	21 – 25 October 2019	ERTICO, Catapult
27.	IEEE 15th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMOB 2019)	Barcelona, Spain	21 – 23 October 2019	AALTO
28.	5GTNF (5G Test Network Finland) Result Seminar	Espoo, Finland	01 November 2019	AALTO
29.	ETPC Network Workshop 2019	Brussels, Belgium	13 November 2019	FORD
30.	Innovation Forum 2019 organized by the Hellenic-German Chamber of Commerce	Athens, Greece	15 November 2019	COSMOTE
31.	5G Techritory Event	Riga, Latvia	28 November 2019	ERTICO
32.	5G Drive Workshop on V2X	Tampere, Finland	17 December 2019	AALTO
33.	BeeTech Conferences Turkey	Istanbul, Turkey	18 December 2019	Ericsson
34.	ITS Hellas Conference	Athens, Greece	18 – 19 December 2019	ICCS
35.	MP20 Trade Fair 2020	Helsinki, Finland	31 January – 02 February 2020	VTT
36.	23rd Conference on Innovation in Clouds,	Paris, France	24 - 27 February 2020	TUB, GTARC

	Internet and Networks (ICIN 2020)			
37.	Future Networked Car Symposium (FNC-2020)	Online	04 March 2020	UL
38.	Vehículos autónomos y conectados: una realidad cercana con el 5G	Online	23 April 2020	AEVAC
39.	2020 IEEE 91st Vehicular Technology Conference (VTC2020 Spring)	Online	25 May 2020	UL
40.	5G PPP Technology Board Workshop	Online	26 -27 May 2020	WINGS
41.	Global IoT Summit 2020	Online	01 – 05 June 2020	UL/UMU
42.	2020 IEEE International Conference on Communications (ICC)	Online	07 – 11 June 2020	UL
43.	Virtual ITS Europe Congress	Online	14 – 17 June 2020	AALTO, A-TO-BE, ERTICO, IT, CCG, CTAG, TNO
44.	Board Meeting of the Belt and Road International Transport Alliance (BRITA)	Online	19 June 2020	ERTICO
45.	IEEE Conference on Network Softwarization	Online	03 July 2020	UMU
46.	17 th International Conference on Mobile Systems and Pervasive Computing (MobiSPC)	Leuven, Belgium	10 August 2020	UMU
47.	16 th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP 2020)	Online (Cluj-Napoca, Romania)	04 September 2020	VTT
48.	L3Pilot Summer School	Athens, Greece	09 – 10 September 2020	CCG
49.	IEEE 5G World Forum 2020	Online	10 September 2020	UL, UMU
50.	IoT and Edge Computing: Future directions for Europe	Online	11 September 2020	UMU

51.	6 th Congress of Smart Cities (VI Congreso Ciudades Inteligentes) - 	Madrid, Spain	15 September 2020	AEVAC
52.	ACM MobiHoc Workshop on "Cooperative data dissemination in future vehicular networks" (D2Vnet)	Online	11 October 2020	FORD
53.	The Digital Around the World event 2020	Online	20 – 21 October 2020	UL/UMU
54.	IEEE International Symposium on Networks, Computers, and Communications	Online	20 – 22 October 2020	UL
55.	O Futuro com 5G na Mobilidade	Online (Portugal)	04 November 2020	Nokia PT, NOS, A-to-BE
56.	5G PPP Webinar: 5G for Cooperative, Connected and Automated Mobility (CCAM)	Online	06 November 2020	WINGS
57.	Infocom World Conference 2020 – Transforming Greece: The 5G and Fiber Enablers – The Future is now - 	Online	04 - 06 November 2020	INTRA
58.	5G Techritory 2020	Online	11 – 12 November 2020	ERTICO, PO
59.	IEEE 5G-IoT Summit	Online	18 November 2020	UL
60.	Websummit	Online	02 December 2020	Siemens
61.	5GPPP Technology Board workshop	Online	10 December 2020	ICCS
62.	EUROPEAN TRUCK PLATOONING CHALLENGE Meeting	Online	20 January 2021	DUT
63.	5G Test Network Finland (5GTNF) Results Seminar	Online	28 January 2021	AALTO
64.	6th Annual Future of Transport Conference	Online	02 March 2021	ERTICO

65.	ScaleUp 360° Intelligent Telematics Europe -	Online	24 March 2021	FORD
66.	TRAI 5G and Artificial Intelligence Conference (in Turkish) -	Online	25 March 2021	FORD, Turkcell, TUBITAK
67.	Tech4Fleet (International Congress on Fleet Management Technologies)	Madrid, Spain	08 April 2021	AEVAC
68.	EUCAD 2021	Online	20 – 21 April 2021	ERTICO, ICCS
69.	IEEE VTC 2021	Online	27 – 28 April 2021	AALTO, SENSIBLE4, TUB, GTARC
70.	Mobility MKT Observatory	Online	29 April 2021	AEVAC
71.	IEEE 5G for CAM summit -	Online	11 – 12 May 2021	ERTICO, UL, Turkcell, Ford, Ericsson, WINGS, CTAG, CCG, A-to-Be, IT, CTAG, DEKRA, ISEL, WINGS, COSMOTE, Turkcell, Ericsson
72.	EuCNC & 6G Summit 2021 -	Online	08 – 11 June 2021	UMU, ISEL, WINGS, ICCS, IT, KPN, Turkcell, COSMOTE, DEKRA
73.	IEEE International Conference on Communications (4TH WORKSHOP ON 5G AND BEYOND WIRELESS SECURITY)	Online	14 – 23 June 2021	UL
74.	5GPPP webinar: Practical insights from 5G Test, Measurement and KPI Validation with vertical applications	Online	18 June 2021	ICCS

75.	2nd 2CeVau Workshop: Cybersecurity Challenges of the 5G Corridors	Online	26 June 2021	WINGS
76.	IEEE 5th International Conference on Smart Internet of Things (SmartIoT 2021)	Online	14 – 15 August 2021	DUT
77.	IoT Week 2021 - 5G FOR CONNECTED AND AUTOMATED MOBILITY SUMMIT	Online	02 September 2021	ERTICO, CTAG, Turkcell
78.	5G Test Network Finland (5GTNF) results seminar	Online	09 September 2021	AALTO
79.	ETSI webinar IPv6 Enhanced Innovation: the IPv6-Only Future in the 5G, IoT & Cloud Era, 1/2	Online	13 September 2021	UL
80.	IEEE/ACM 25th International Symposium on Distributed Simulation and Real Time Applications (DS-RT)	Online (Valencia, Spain)	29 September 2021	TUB, GT-ARC
81.	ITS World Congress 2021	Hamburg, Germany	11 -15 October 2021	ERTICO, Turkcell, FORD, A-To-Be
82.	2021 IEEE 4th 5G World Forum	Online	13 – 15 October 2021	UL, WINGS
83.	Stakeholder Workshop on 5G corridor deployment in the perspective of CEF Digital and the Recovery and Resilience Plans	Online	20 October 2021	ERTICO, COSMOTE
84.	Digital Around the World '21	Online	20 October 2021	UL, GT-ARC, ICCS, INTRA, VEDECOM
85.	5G Techritory 2021	Online	22- 25 November 2021	ERTICO
86.	5G-Blueprint webinar “Will teleoperation revolutionise the transportation and logistics sectors?”	Online	02 December 2021	ERTICO

87.	2021 GLOBECOM - IEEE Global Communications Conference	Madrid, Spain	07 – 11 December 2021	GT-ARC, TUB
88.	IEEE CSCN 2021	Online	15 December 2021	Turkcell
89.	IEEE Consumer Communications and Networking Conference (IEEE CCNC 2022)	Online	09 January 2022	AALTO
90.	SUMMITS'22 "Shaping the Future of Transportation"	Ankara, Turkey	09 – 10 March 2022	ERTICO
91.	Intelligent Telematics Europe	Online	30 March 2022	FORD
92.	2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design	Hangzhou, China	04 -06 May 2022	DUT
93.	IWPC - The International Wireless Industry Consortium	Online	18 May 2022	FORD
94.	ITS European Congress	Toulouse, France	30 May – 01 June 2022	VEDECOM, ICCS, A-to-Be, IT
95.	IV22 - 33rd IEEE Intelligent Vehicles Symposium	Aachen, Germany	05 – 09 June 2022	FORD, TUB
96.	EuCNC & 6G Summit 2022	Grenoble, France	07 – 10 June 2022	ERTICO, ICCS, WINGS
97.	Global Mobility Call -	Madrid, Spain	12 – 14 June 2022	AEVAC, CTAG, ERTICO
98.	VTC 2022 Spring	(Online), Helsinki	19 -22 June 2022	VTT, AALTO
99.	IoTWeek & Global IoT Summit	Dublin, Ireland	20 – 23 June 2022	UL, ERTICO
100.	10º Congresso Rodoferroviário Português	Lisbon, Portugal	5-7 July 2022	A-To-Be, IT
102.	ITS World Congress 2022	Los Angeles, USA	18 – 25 September 2022	ERTICO, ICCS
103.	2022 IEEE 5th Future Networks World Forum (FNWF'22)	Montreal, Canada	12 – 14 October 2022	UL, TUE

104.	TRA 2022	Lisbon Portugal	14 – 17 October 2022	A-To-Be, IT
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3.1.1. Highlights of 5G-MOBIX participation at major events

As previously mentioned, special effort was put on participating in major EU and world conferences that attract key audience from the fields of intelligent transport, mobility and telecommunications, such as the annual **ITS Congresses**, **Mobile World Congresses**, the **EUCNC & 6G Summits** as well as the annual **IEEE 5G for CAM Summits** which are co-organized by the project's officer. Below there are some highlights of 5G-MOBIX's overall presence in the aforementioned conferences.

3.1.1.1. Mobile World Congress 2019 – Barcelona, Spain

5G-MOBIX was present at the [Mobile World Congress 2019](#), the world's largest exhibition for the mobile industry that took place in Barcelona, Spain from **25-28 February 2019**. The 2019 event was attended by approximately 60,000 people by almost 2,400 companies of various sizes.

5G-MOBIX was presented at the Turkcell booth (Figure 1, Figure 2). At the booth, participants had the opportunity to get an insight on the 5G-MOBIX concept and also see a track with three trucks moving around. The idea was to create a cross border trial scenario of the 5G-MOBIX corridor from Greece to Turkey and vice versa. Using a tablet, the participants could form a truck platoon, create a road obstruction scenario at the track and let the trucks cross the border. Moreover, MWC'19 was the ideal setting to launch the project's website, while the three EU-funded ICT-18 projects on 5G for CCAM (5G-MOBIX, 5G CARMEN, 5GCroCo) were also jointly presented at the 5GPPP stand.



Figure 1: 5G-MOBIX scenario trucks at the Turkcell booth



Figure 2: Elif Yenihan Kaya, Gulay Yardim and Nazli Guney, Cordelia Wilson from Turkcell represented 5G-MOBIX at the MWC '19, #womenonthemove2019

3.1.1.2. ITS EU Congress - Eindhoven, the Netherlands

The [ITS European Congress 2019](#) took place from **03-06 June 2019** in Brainport, the Netherlands. The ITS EU Congress is the largest European event entirely dedicated to smart mobility and digitalisation of transport and 5G-MOBIX participated with a number of activities in the 2019 edition.



The [project's video](#) was released and [brochures](#) and postcards were distributed during the conference. Moreover, 5G-MOBIX participated with a stand on the ERTICO-ITS Europe exhibition booth, where a 20' project presentation took place by João Moutinho (CCG), 5G-MOBIX partner in the Spain - Portugal corridor, who introduced the 5G-MOBIX project and provided an overview of the use cases in the cross-border corridor (Figure 3).

Figure 3: Francois Fischer, 5G-MOBIX coordinator and Kostas Trichias, 5G-MOBIX technical manager at the 5G-MOBIX booth

On June 5th, the former 5G-MOBIX project coordinator François Fischer (ERTICO) organised a workshop on "[5G deployment for Automated Mobility](#)". The purpose of the workshop was to bring an exchange of views on the vehicle and roadside infrastructure needs for CCAM using 5G. The discussion focused on the vehicle and roadside infrastructure needs and cellular network requirements for deploying 5G technologies and architectures to run trials on national and the cross-border corridors in particular the three 5G for CCAM Innovation Actions (5G-MOBIX, 5GCroCo, 5G CARMEN) in the context of cross-border testing.

The workshop agenda is available [here](#).

3.1.1.3. EUCNC 2019 – Valencia, Spain

5G-MOBIX had a successful participation at the [EUCNC 2019](#) conference and 5G Global collocated event in Valencia, Spain from **18 to 21 June 2019**. On June 18th, 5G-MOBIX gave two presentations during the Workshop "5G in the Era of connected Cars", co-organised by 5G-MOBIX, 5G CARMEN and 5GCroCo.

5G-MOBIX shared a booth with fellow 5G cross border corridor projects 5G CARMEN and 5GCroCO. 5G-MOBIX stand offered to participants a demo by Wings ICT Solutions about the Greece-Turkey x-border corridor, which was also visited by Pierce O'Donohue, Director DG-CNECT Directorate E - Future Network. At the end of the event, the three projects were awarded the [Best Booth Award](#) (Figure 4).



Figure 4: 5G-MOBIX, 5G-Croco and 5G-CARMEN receive the EUCNC Best Booth Award

Finally, 5G-MOBIX partner UMU represented the project with a presentation on “5G enabled CCAM at Spain-Portugal x-border corridor”, while partners Nokia Bell Labs, CCG, CTAG participated with a poster session on [“5G Video Optimization Challenges for Entertainment and Remote Driving in Connected Mobility”](#).

3.1.1.4. ITS World Congress 2019, Singapore

The [ITS World Congress 2019](#) took place in Singapore, from **21 to 25 October** under the theme “Smart Mobility, Empowering Cities”. 5G-MOBIX participated at the Congress with a joint stand alongside 5G CARMEN and 5GCroCo (Figure 5). Next to the stand, 5G-MOBIX was presented in a Special Interest Session on the “Prospects of a 5G Reference Framework for CCAM”, discussing the necessary actions required by the communication and road infrastructures and the automotive industry to meet the disruptive demands of the envisioned CCAM technologies.



Figure 5: Joint stand at the ITSWC 2019 in Singapore

Moreover, 5G-MOBIX organized a symposium on “[5G and IoT Boosting the Digital Transformation of the Automotive Sector](#)”, where experts from Europe, Asia and the Americas presented perspectives on how 5G and IoT can bridge the gap to fully automated and on-demand mobility. An overview of the [5G-MOBIX presence](#) at the conference can be found [here](#).

3.1.1.5. IEEE 5G for CAM Summit 2021, Virtual

This first [IEEE 5G for CAM](#) conference that took place virtually on **May 11 -12 2021**, brought together a variety of EU-funded projects in the area of CAM, to share their experiences and present results with a view towards deployment.



Figure 6: IEEE 5G for CAM Virtual Summit, May 2021

The 5G-MOBIX coordinator ERTICO-ITS Europe was heavily involved in the organization and the management of the online event, while the consortium participated in the conference with **6 presentations**, namely:

- "[5G-MOBIX from a high level](#)" – ERTICO
- "[5G-MOBIX: The Greece-Turkey Cross-Border Corridor](#)" - Turkcell, Ford, Ericsson, WINGS
- "[5G-MOBIX: ES-PT Cross-Border Corridor](#)" - CTAG, CCG
- "[HD Maps in the 5G-MOBIX project](#)" – A-to-Be, IT, CTAG
- "[Latency Assessment for CAM services over 5G](#)" - DEKRA, ISEL
- "[TDD Synchronization Testing Over Neighbouring 5G Networks in a Cross-Border Corridor](#)" - WINGS, COSMOTE, Turkcell, Ericsson

The conference papers can be downloaded from [here](#), while the presentation recordings are available [here](#).

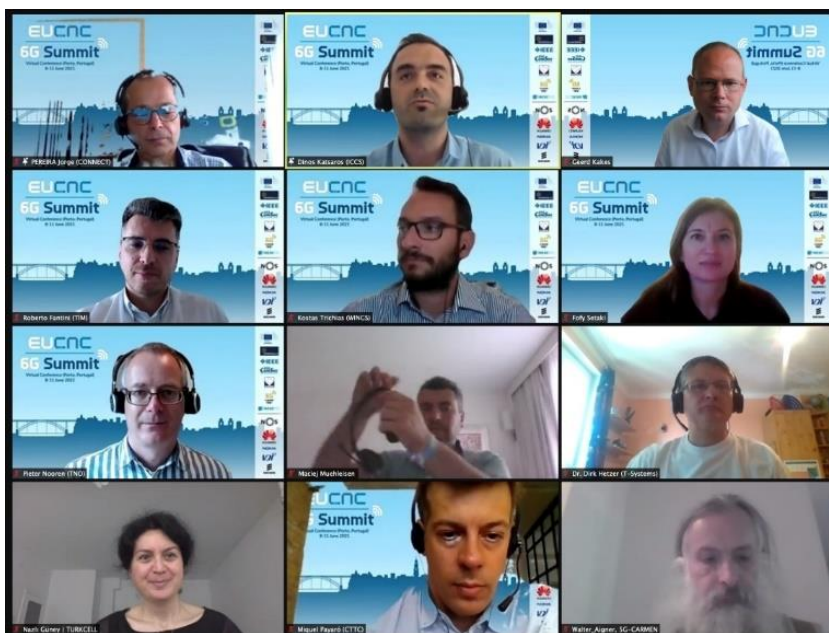
3.1.1.6. EUCNC & 6G Summit 2021, Virtual

Between **8 and 11 June 2021**, the 5G-MOBIX project attended the [EuCNC & 6G Summit](#), an event which focuses on all aspects of telecommunications ranging from 5G deployment and mobile IoT to 6G exploration and future communications systems and networks, including experimentation and testbeds, and applications and services.

5G-MOBIX activities during EUCNC 2021 consisted of two workshops, [a paper presentation](#) and a stand at the virtual exhibition (Figure 7).



Figure 7: 5G-MOBIX virtual stand at EUCNC 2021



Together with 5G CARMEN and 5GCroCo, 5G-MOBIX co-organized the workshop "[5G for CCAM for Cross-Border Corridors](#)". This [online workshop](#) (Figure 8) brought together the experiences gained in the three projects, targeting a focused discussion on the technical challenges, considered solutions and most importantly, preliminary results from the ongoing cross-border trials along 5G cross-border corridors across Europe.

Figure 8: Workshop on "5G for CCAM for Cross-Border Corridors"

The conference was also a great opportunity for 5G-MOBIX to share its latest findings in the field of smart mobility with a second workshop, titled "[From 5G to 6G Automated and Intelligent SecuriTy](#)", which featured EU projects INSPIRE-5Gplus, 5GASP, 5GZORRO, 5GROWTH and 5GENESIS.

3.1.1.7. ITS World Congress 2021 – Hamburg, Germany

The schedule of 5G-MOBIX at the [ITS World Congress 2021](#) that took place on **11 – 15 October** in Hamburg was packed with sessions and workshops.

During the Technical Paper Session 4, Tiago Dias from the consortium member A-to-Be presented the paper “[Cloud-based HD maps in the 5G-MOBIX CBC Trial on the Spanish-Portuguese border](#)”. The week continued with the “[5G Connecting to Future Mobility Workshop](#)” where along with the presentations on the recent developments in the industry, Elina Aittoniemi from the consortium member VTT described the issues, 5G technologies, use-cases and their impact in 5G-MOBIX, accompanied by a brief overview of the use-cases of the other ICT-18 projects. Moreover, during a Special Interest Session organised by Coen Bresser from the consortium member ERTICO, Nazli Guney from the consortium member Turkcell and Roman Saakel from the consortium member DETECON talked about the 5G-MOBIX trials in Turkey-Greece corridor (Figure 9) and 5G Road coverage in the Netherlands and Germany among other things.

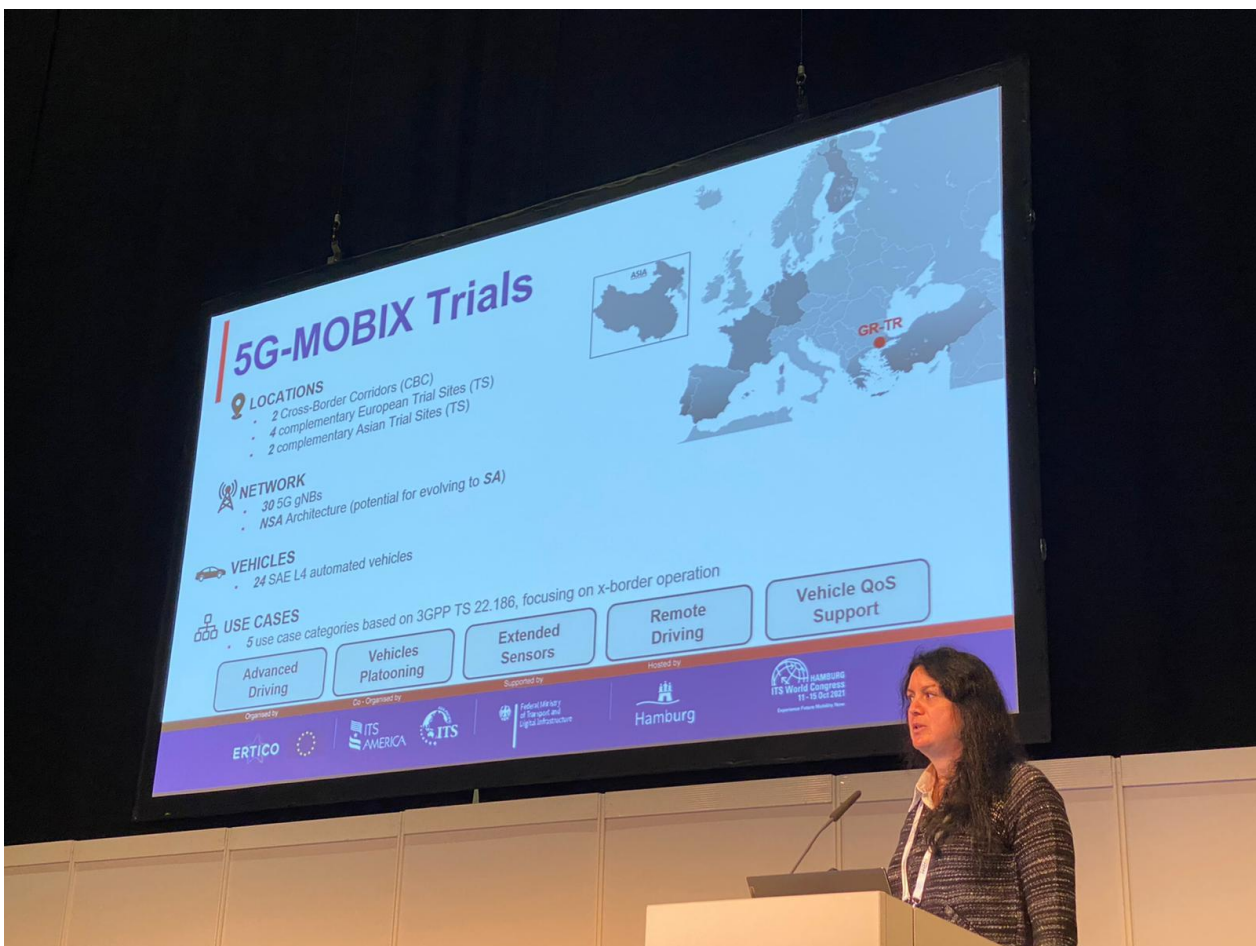


Figure 9: Nazli Guney (Turkcell) presenting during the Special Interest Session at ITS World Congress '21

Finally, 5G-MOBIX also had a lightbox and a postcard distributed at the ERTICO Stand (Figure 10) along with the two other sister projects 5G CARMEN and 5GCroCo.



Figure 10: The lightbox of 5G-MOBIX, 5G-CARMEN & 5G-CroCo stand at the ERTICO stand

3.1.1.8. ITS European Congress 2022 – Toulouse, France

ERTICO ITS Europe and Toulouse Métropole hosted the [European ITS Congress](#), from **30 May to 1 June 2022**. 5G-MOBIX participated with a booth on the ERTICO - ITS Europe exhibition stand (Figure 11, Figure 12) where the project latest results were presented on Tuesday 31 May 2022.



Figure 11: 5G-MOBIX booth at the ERTICO stand



Figure 12: 5G-MOBIX presented by the project's coordinator

The project was also represented in two Special Interest Sessions. The first special session that took place on May 30th focused on “[5G technologies for verticals](#)”, where speakers from EU projects [5GMETA](#), [5G-LOGINNOV](#), 5G-MOBIX & [SHOW](#) discussed the various applications of 5G, with a focus on the logistics and automotive sectors and CAD. The second session took place on May 31st and focused on “5G for ITS: communication and computational challenges and prospects” on 31 May 2022, where along with notable

speakers from EU projects [5G-IANA](#) and [ICT4CART](#) the discussions covered the prospects and challenges of 5G in the advanced Intelligent Transportation Systems (ITS) and the Cooperative Connected and Automated Mobility (CCAM) services.



Figure 13: The speakers in SIS on 5G for ITS comms and computational challenges and prospects

Finally, the research paper "Portuguese 5G Connected Vehicle and Infrastructure in the 5G-MOBIX project" was presented in the technical session RP 4 - Cooperative and connected mobility on June 1st.

3.1.1.9. EUCNC & 6G Summit 2022 – Grenoble, France

The [2022 Joint EuCNC & 6G Summit](#) built on putting together two successful conferences in the area of telecommunications: EuCNC, in its 31st edition of a series, supported by the European Commission; the 6G Summit, in its 4th edition, originated from the 6G Flagship programme in Finland, one of the very first in its area.

The project's consortium actively participated in the 2022 edition that took place between June 7-10 in Grenoble, France, with a booth in the exhibition area (Figure 14) and presentations at the "[5G for CAM](#)" convened session, alongside speakers from 5G CARMEN and 5GCroCo.



Figure 14: The 5G-MOBIX team with 5G-MOBIX officer and Principal Scientific Officer at European Commission Jorge Pereira at the 5G-MOBIX booth

3.1.2. Conference and Events Presentations

5G-MOBIX partners showcased the project's work and findings in overall **128 presentations** at a wide range of EU and global conferences and external events. Looking at Table 4 below and the values set in the dissemination plan to measure the project's success when it comes to conference presentations, the 5G-MOBIX consortium has **exceeded the target by almost 2x**. Among the 128 recorded presentations, there were **37 paper presentations**, **4 poster presentations** and **4 keynote speeches** acknowledging 5G-MOBIX. A comprehensive overview of the 5G-MOBIX presentations and related details can be found in Table 5 while additional information is available on the [Resources](#) page of the 5G-MOBIX website under [Presentations](#)

Table 4: Indicators of Success for Conference and Events Presentations

Tool / Channel	Measured Indicators	Indicators of Success			
		Y1	Y2	Y3	Total
		(M1 – M12)	(M13– M24)	(M25 – M47)	
Conferences	Presentations (including poster sessions)	≥10	≥15	≥40	65

Table 5: List of 5G-MOBIX presentations at conferences and events

5G-MOBIX presentations at conferences and events					
<i>Period: November 2018 – October 2022</i>					
No.	Event	Type of activity	Description of activity	Partner(s)	Year
1.	Greek Digital Technology Symposium (Athens, Greece)	Presentation	Presentation of the project as part of COSMOTE's flagship 5G R&D Projects	COSMOTE	2018
2.	Workshop on 5G for Cross-border Corridors and the Strategic Deployment Agenda (Brussels, Belgium)	Presentation	Presentation of 5G-MOBIX - 5G for cooperative & connected automated MOBility on X-border corridors	ERTICO	2018
3.		Presentation	Presentation on the Greece – Turkey cross border corridor	WINGS	2018
4.	Automotive Cybersecurity 2018 (Berlin, Germany)	Presentation	[enter title/description]	UL	2018
5.	ICT2018 conference (Vienna, Austria)	Presentation	Presentation of 5G-MOBIX, 5G-CARMEN, 5G-CroCo objectives in the "On the 5G road to Smart Mobility" session	ERTICO	2018
6.	EU Parliament Workshop (Brussels, Belgium)	Presentation	Presentation at the TNO workshop on 5G deployment: <i>the heterogeneity challenge</i> on the topic of "5G interoperability challenges"	ERTICO	2019
7.	FICIS 2019 (Braga, Portugal)	Presentation	"Rede celular 5G aplicada à mobilidade conectada"	Siemens Mobility	2019
8.	ARCADE 2 nd Stakeholder Workshop (Brussels, Belgium)	Poster Presentation	N/A	ERTICO	2019
9.	5G Forum 2019 (Malaga, Spain)	Poster presentation	"5G-MOBIX: H2020 5G CCAM Project"	NOKIA ES	2019
10.	4th Global Pre-Commercial 5G Industry Summit (Shanghai, China)	Presentation	N/A	UL	2019

11.	China-Europe Forum (Jinan, China)	Presentation	Lecture at Shandong Academy of Sciences	CATAPULT	2019
12.	Hel Tech Meet Up (Helsinki, Finland)	Presentation	Unleash the power of the crowd for smart mobility	AALTO	2019
13.	ITS Europe Congress 2019 (Eindhoven, Netherlands)	Presentation	Project presentation at the ERTICO stand	CTAG, CCG	2019
14.	ITS Europe Congress 2019 (Eindhoven, Netherlands)	Presentation	"5G-MOBIX deployment for automated mobility"	WINGS	2019
15.	ITS Europe Congress 2019 (Eindhoven, Netherlands)	Presentation	"5G with Satellite – Delivering Resilience and Reach"	Catapult	2019
16.	IEEE 5G Summit 2019 (Istanbul, Turkey)	Presentation	Opening Speech & Closing remarks by Dr. Latif Ladid	UL	2019
17.	World Transport Convention 2019 (Beijing, China)	Presentation	Presentation of 5G-MOBIX as a prime example of high-tech project between Europe and China on 5G for CCAM	Catapult, ERTICO, DUT	2019
18.	EuCNC 2019 (Valencia, Spain)	Presentation	"5G enabled CCAM at Spain-Portugal x-border corridor"	UMU	2019
19.	EuCNC 2019 (Valencia, Spain)	Presentation	"5G enabled CCAM at Greece – Turkey x-border corridor"	WINGS	2019
20.	EuCNC 2019 (Valencia, Spain)	Presentation	"CCAM progressed by Internet of Thing" at the workshop "5G in the era of Connected Cars"	ERTICO	2019
21.	EuCNC 2019 (Valencia, Spain)	Paper Presentation	"5G Video Optimization Challenges for Entertainment and Remote Driving in Connected Mobility"	Nokia Bell Labs, CCG, CTAG	2019
22.	IEEE ICFC'19 -International Conference on Fog Computing (Prague, Czech Republic)	Paper Presentation	"Edge capacity planning for real-time compute-intensive applications"	AALTO	2019

23.	Summer school on "Smart Cities for a Sustainable Energy Future - From Design to Practice" (Berlin, Germany)	Presentation	5G-MOBIX and DE trial site were presented to an audience of 40 participants as part of an IoT and communications lecture	GT-ARC	2019
24.	ITU Telecom World 2019 (Budapest, Hungary)	Panel discussion	"Autonomous Driving Pilot Projects and Use Cases" within the workshop "The Turing Test for Autonomous Driving - A Global Performance Standard for AI on our Roads"	AEVAC	2019
25.	Global IoT Summit 2019 (Dublin, Ireland)	Presentation	[enter title/description]	UL	2019
26.	HFES 2019 - Human Factors and Ergonomics Society (Nantes, France)	Poster presentation	"Studying driving styles on a driving simulator: The case of overtaking on highways"	CCG	2019
27.	Digital Transport Days conference (Helsinki, Finland)	Presentation	"5G-MOBIX: 5G for cooperative & connected automated Mobility on X-border corridors"	AALTO	2019
28.	ITS World Congress Singapore 2019	Presentation	"5G and Satellite Communication for Resilience and Reach"	Catapult	2019
29.	ITS World Congress Singapore 2019	Presentation	Presentation at the Symposium "5G and IoT Boosting the Digital Transformation of the Automotive Sector"	ERTICO	2019
30.	IEEE WiMOB 2019 - 15th International Conference on Wireless and Mobile Computing, Networking and Communications (Barcelona, Spain)	Paper Presentation	"Route-based Radio Coverage Analysis of Cellular Network Deployments for V2N Communication" (WC2: Localization and Vehicular Networks)	AALTO	2019
31.	IEEE WiMOB 2019 - 15th International Conference on Wireless and Mobile	Paper Presentation	"Usability Benefits and Challenges in mmWave V2V Communications: A Case Study" (WC4: Channel Measurement and Characterization)	AALTO	2019

	Computing, Networking and Communications (Barcelona, Spain)				
32.	5GTNF - 5G Test Network Finland Result Seminar 2019 (Espoo, Finland)	Presentation	"5G-MOBIX: 5G for cooperative & connected automated Mobility on X-border corridors"	AALTO	2019
33.	ETPC Network Workshop 2019 (Brussels, Belgium)	Presentation	"5G-MOBIX Platooning"	FORD	2019
34.	Innovation Forum 2019 (Athens, Greece)	Presentation	Presentation of 5G-MOBIX	COSMOTE	2019
35.	5G Techritory Event 2019 (Riga, Latvia)	Panel Presentation	"Ecosystems and Partnerships are key to successful 5G commercialization"	ERTICO	2019
36.	5G Drive Workshop on V2X (Tampere, Finland)	Presentation	"Complementarity focus areas of the 5G MOBIX project"	AALTO, ERTICO	2019
37.	BeeTech Conferences Turkey	Presentation	"5G MOBIX Cross Border Corridor GR-TR Trial Use Cases and our Experiences"	Ericsson	2019
38.	ITS Hellas Conference 2019 (Athens, Greece)	Presentation	Presentation during the session "International developments and good practices in the field of ITS"	ICCS, ERTICO	2019
39.	IEEE ICIN 2020 - 23rd Conference on Innovation in Clouds, Internet and Networks (Paris, France)	Paper Presentation	"A Lightweight Policy-aware Broker for Multi-domain Network Slice Composition"	TUB, GTARC	2020
40.	FNC 2020 - Future Networked Car Symposium (Virtual)	Presentation	"IPv6-based V2X report: Consensus: IPv6 recommended for V2X"	UL	2020
41.	Vehículos autónomos y conectados: una realidad cercana con el 5G (Virtual)	Panel discussion	Presentation on the business models and the state of the 5G MOBIX project	AEVAC	2020

42.	IEEE VTC 2020 Spring - 91st Vehicular Technology Conference (Virtual)	Paper Presentation	"SDN-based Misbehavior Detection System for Vehicular Networks"	UL	2020
43.	5G PPP Technology Board Workshop (Virtual)	Presentation	"5G-MOBIX: Project Overview & Key Achievements"	WINGS	2020
44.	Global IoT Summit 2020 (Virtual)	Presentation (chair)	Keynote: Dr. Jorge Pereira Cross-Border Corridors: 5G for Connected and Automated Mobility	UL/UMU	2020
45.	ICC 2020 - IEEE International Conference on Communications (Virtual)	Paper Presentation	"Toward an SDN-based Data Collection Scheme for Vehicular Fog Computing"	UL	2020
46.	Virtual ITS Europe	Paper Presentation	"5GMOBIX Spanish-Portuguese Pilot Site"	CTAG	2020
47.	Virtual ITS Europe	Paper Presentation	"Cybersecurity and data privacy aspects in 5G-MOBIX"	AKKA, UMU, IT, LIST, ISEL	2020
48.	BRITA - Board Meeting of the Belt and Road International Transport Alliance (Virtual)	Presentation	CEO presented 5G-MOBIX and other projects	ERTICO	2020
49.	IEEE Conference on Network Softwarization (Virtual)	Presentation	"Dynamic Security Management on IoT through Network Softwarization"	UMU	2020
50.	MobiSPC - 17th International Conference on Mobile Systems and Pervasive Computing (Leuven, Belgium)	Paper Presentation	"On-board unit to connect personal mobility vehicles to the IoT"	UMU	2020
51.	ICCP 2020 - 16th IEEE International Conference on Intelligent Computer Communication and Processing (Online - Virtual, Cluj-Napoca, Romania)	Paper Presentation	"V2X-supported automated driving in modern 4G networks"	VTT	2020

52.	L3Pilot Summer School (Athens, Greece)	Poster Presentation	"Applying acceptability models to CCAM Use-Cases in cross-border contexts: The 5GMOBIX approach"	CCG	2020
53.	IEEE 5G World Forum 2020 (Virtual)	Presentation (co- chair)	Dr Jorge Pereira keynote 5G for Connected and Automated Mobility – Cross-border Corridors: Challenges towards Deployment	UL	2020
54.	IEEE 5G World Forum 2020 (Virtual)	Paper Presentation	"Enforcing GDPR regulation to vehicular 5G communications using edge virtual counterparts"	UMU	2020
55.	IoT and Edge Computing: Future directions for Europe (Virtual)	Presentation	Interactive Session on Enabling Technologies	UMU	2020
56.	6th Congress of Smart Cities/VI Congreso Ciudades Inteligentes (Madrid, Spain)	Presentation	"5G-MOBIX - towards autonomous and connected mobility in Europe based on the potential of 5G"	AEVAC	2020
57.	ACM MobiHoc Workshop on "Cooperative data dissemination in future vehicular networks" (Virtual)	Presentation	"Platooning with See What I See & Truck Routing Applications"	FORD	2020
58.	The Digital Around the World 2020 (Virtual)	Moderation and Keynote Speech	UL chaired the 5G Industry Verticals Innovation with 5G-AA and 5G-IA with keynote on 5G cross border Corridors by Dr Jorge Pereira	UL/UMU	2020
59.	ISNCC '10 - IEEE International Symposium on Networks, Computers, and Communications (Virtual)	Keynote Speech	Keynote Speech by Latif Ladid	UL	2020
60.	O Futuro com 5G na Mobilidade	Webinar Presentation	Presentation of 5G-Mobix project and use-cases during the webinar 'The Future of Mobility' organised by APDC (Portuguese Association for Communications Development)	Nokia PT, NOS and A- to-BE	2020

61.	5G PPP Webinar: 5G for Cooperative, Connected and Automated Mobility (CCAM) (Virtual)	Webinar Presentation	5G Trials for CCAM along European 5G Cross-Border Corridors - Challenges and Opportunities	WINGS	2020
62.	Infocom World Conference 2020 - Transforming Greece: The 5G and Fiber Enablers - The Future is now (Virtual)	Presentation	"5G-MOBIX: Deployment enablers for 5G-based Connected, Cooperative and Automated Mobility (CCAM)"	INTRA	2020
63.	5G Techritory 2020 (Virtual)	Presentation	Dr Jorge Pereira presenting the Portuguese – Spanish Cross Border Corridor	UL, ERTICO	2020
64.	IEEE 5G-IoT Summit (Virtual)	Keynote Speech	Keynote Speech on 5G cross border Corridors by Dr Jorge Pereira	UL	2020
65.	Websummit 2020 (Virtual)	Presentation	"Making our Roads safer with AI"	Siemens	2020
66.	5GPPP Technology Board workshop (Virtual)	Presentation	"5G MOBIX: Measurement methodology, KPIs framework, data collection mechanisms and common logging format"	ICCS	2020
67.	European Truck Platooning Challenge Meeting (Virtual)	Presentation	Presentation on the 5G-MOBIX Chinese pilot and truck platooning use case.	DUT	2021
68.	5G Test Network Finland - 5GTNF Results Seminar 2021 (Virtual)	Presentation	"5G-MOBIX: The FINLAND trial site"	AALTO	2021
69.	6th Annual Future of Transport Conference (Virtual)	Presentation	"5G-MOBIX presentation from a high level"	ERTICO	2021
70.	ScaleUp 360° Intelligent Telematics Europe (Virtual)	Presentation	"H2020 5GMOBIX Project - Platooning and Autonomous Truck Routing User Story"	FORD	2021
71.	TRAI 5G and Artificial Intelligence Conference (Virtual)	Panel Discussion/Presentation	"The interaction between 5G and Connected Autonomous Vehicles" (in Turkish)	FORD, Turkcell, TUBITAK	2021

72.	Tech4Fleet - International Congress on Fleet Management Technologies (Virtual)	Presentation	"New technologies and new energies for fleets" (in Spanish)	AEVAC	2021
73.	IEEE VTC 2021 (Virtual)	Paper Presentation	Paper presentation in session Vehicle Cooperation and Control, Assisted and Autonomous Driving IV – "Qualifying 5G SA for L4 automated vehicles in a multi-PLMN experimental testbed"	AALTO, SENSIBLE4	2021
74.	IEEE VTC 2021 (Virtual)	Paper Presentation	Paper presentation in session Emerging Technologies, 5G and Beyond I - Integrated Service Discovery and Placement in Information-Centric Vehicular Network Slices	TUB, GTARC	2021
75.	Mobility MKT Observatory (Virtual)	Presentation	Presentation on the situation of autonomous and sustainable mobility (in Spanish)	AEVAC	2021
76.	IEEE 5G for CAM summit (Virtual)	Presentation	Keynote speeches by Dr Jorge Pereira and Latif Ladid	UL	2021
77.	IEEE 5G for CAM summit (Virtual)	Presentation	"5G-MOBIX from a high level"	ERTICO	2021
78.	IEEE 5G for CAM summit (Virtual)	Paper Presentation	"5G-MOBIX: The Greece-Turkey Cross-Border Corridor"	Turkcell, Ford, Ericsson, WINGS	2021
79.	IEEE 5G for CAM summit (Virtual)	Paper Presentation	"5G-MoBiX ES-PT Cross-Border Corridor"	CTAG, CCG	2021
80.	IEEE 5G for CAM summit (Virtual)	Paper Presentation	"HD Maps in the 5G-MOBIX project"	A-to-Be, IT, CTAG	2021
81.	IEEE 5G for CAM summit (Virtual)	Paper Presentation	"Latency Assesment for CAM services over 5G"	DEKRA, ISEL	2021
82.	IEEE 5G for CAM summit (Virtual)	Paper Presentation	"TDD Synchronization Testing Over Neighbouring	WINGS, COSMOTE,	2021

			5G Networks in a Cross-Border Corridor"	Turkcell, Ericsson	
83.	EuCNC 2021 (Virtual – Porto, Lisbon)	Presentation	"5GMobix: Security Challenges on 5G CCAM Scenarios"	UMU	2021
84.	EuCNC 2021 (Virtual – Porto, Lisbon)	Paper Presentation	"A Performance Measurement Platform for C-ITS over 5G"	ISEL	2021
85.	EuCNC 2021 (Virtual – Porto, Lisbon)	Presentation	"5G-MOBIX-Project Overview & Key Achievements to Date" – at the "5G for CCAM for Cross-Border Corridors" Workshop	WINGS, ICCS, IT, KPN	2021
86.	EuCNC 2021 (Virtual – Porto, Lisbon)	Presentation	"5G NSA Roaming Challenges and Prospects for Latency-Critical Applications with Strict Service Continuity Requirements" - at the "5G for CCAM for Cross-Border Corridors" Workshop	Turkcell, COSMOTE	2021
87.	EuCNC 2021 (Virtual – Porto, Lisbon)	Presentation	"Seamless roaming with 5G SA deployments" - at the "5G for CCAM for Cross-Border Corridors" Workshop	KPN	2021
88.	EuCNC 2021 (Virtual – Porto, Lisbon)	Presentation	"Neighboring Mobile Networks Synchronization Aspects at the Cross-Borders: The 5G-MOBIX Greece-Turkey Study" - at the "5G for CCAM for Cross-Border Corridors" Workshop	COSMOTE, Turkcell	2021
89.	EuCNC 2021 (Virtual – Porto, Lisbon)	Presentation	"Preliminary network measurements in the context of 5G-MOBIX" - at the "5G for CCAM for Cross-Border Corridors" Workshop	DEKRA	2021
90.	IEEE International Conference on Communications – 4 th Workshop on 5G and Beyond Wireless Security (Virtual)	Paper Presentation	"Intelligent Misbehavior Detection System for Detecting False Position Attacks in Vehicular Networks"	UL	2021
91.	5GPPP webinar: Practical insights from 5G Test,	Webinar Presentation	"Application of the Methodology on the Automotive Vertical"	ICCS	2021

	Measurement and KPI Validation with vertical applications				
92.	2nd 2CeVau Workshop: Cybersecurity Challenges of the 5G Corridors	Presentation	"Connected and Automoted Driving at EU Corridors: Challenges, targeted solutions & implmentation at the GR-TR borders"	WINGS	2021
93.	IEEE 5th International Conference on Smart Internet of Things (SmartIoT 2021)	Paper Presentation	"A Scheduling Algorithm for Pass-through of Connected and Automated Vehicle with Different Priorities in Non-signalized Intersection" - Paper presented in session R5: Smart cities, intelligent transportation and internet of vehicles	DUT	2021
94.	IEEE 5th International Conference on Smart Internet of Things (SmartIoT 2021)	Paper Presentation	"A Multi-objective Roadside Units Deployment Method in VANET; A shortest job first algorithm for minimizing the average delay of vehicles at the un-signalized intersection" - Paper presented in session W2: Wearable/Implantable Smart Technology and Its Security & Cooperative, Connected and Automated Mobility	DUT	2021
95.	IEEE 5th International Conference on Smart Internet of Things (SmartIoT 2021)	Paper Presentation	"Complexity Assessment with K-Weighted Entropy for Cloud-Edge-Vehicle System" - Paper presented in session S2: Cloud computing/Edge computing/Fog computing and Emerging research or Technologies	DUT	2021
96.	IoT Week 2021 - 5G FOR CONNECTED AND AUTOMATED MOBILITY SUMMIT	Presentation	Project main achievements - introduction + ES-PT & GR-TR Corridors presentations	ERTICO, CTAG, Turkcell	2021

97.	5G Test Network Finland - 5GTNF 2021 Results Seminar (Virtual)	Presentation	"5GTNF: Aalto Test Network"	AALTO	2021
98.	ETSI webinar IPv6 Enhanced Innovation: the IPv6-Only Future in the 5G, IoT & Cloud Era, 1/2	Webinar Presentation	Part 1 included presentations by Latif and Dr Jorge Pereira. Jorge has one additional slide on IPv6 compared to his usual presentation. 5G-MOBIX has a section on IPv6 in Task 6.3 Standardization	UL	2021
99.	IEEE/ACM 25th International Symposium on Distributed Simulation and Real Time Applications, DS-RT (Virtual – Valencia, Spain)	Paper Presentation	"SEP4CAM – A Simulative / Emulative Platform for C-V2X Application Development in Cross-Border and Cross-Domain Environments" - Paper presentation in Session 8: Modeling and Simulations	TUB, GT-ARC	2021
100.	ITS World Congress 2021 (Hamburg, Germany)	Presentation	SIS 99 "Ubiquitous 5G deployment for CCAM: observations and lessons learned"	ERTICO, Turkcell	2021
101.	ITS World Congress 2021 (Hamburg, Germany)	Presentation	SIS 96 "CAD, Safe Platooning and 5G Eco-Systems for verticals"	FORD	2021
102.	ITS World Congress 2021 (Hamburg, Germany)	Paper Presentation	"Cloud Based HD Maps Scenario in the 5G-MOBIX Project"	A-To-Be	2021
103.	2021 IEEE 4th 5G World Forum (Virtual – Montreal, Canada)	Presentation	5G-MoBiX – main achievements	WINGS	2021
104.	2022 IEEE 4th 5G World Forum (Virtual – Montreal, Canada)	Presentation	"Dialogues between 5G/B5G and Vertical Domains: AI for Intelligent Services"	WINGS	2021
105.	Stakeholder Workshop on 5G corridor deployment in the perspective of CEF Digital and the Recovery and Resilience Plans (Virtual)	Presentation	Introduction and presentation on "Service continuity across the border"	ERTICO, COSMOTE	2021

106.	Digital Around the World '21 (Virtual)	Presentation	Presentation of 5G-MOBIX at the 5G for CAM session	UL, GT-ARC, ICCS, INTRA, VEDECOM	2021
107.	5G-Techritory 2021 (Virtual – Riga, Latvia)	Presentation	Presentation during the session: 5G Intelligent Transport Systems and Services	ERTICO	2021
108.	5G-Blueprint webinar “will teleoperation revolutionise the transportation and logistics sectors?” (Virtual)	Webinar Presentation	EU-funded projects that address teleoperation: 5G-MOBIX	ERTICO	2021
109.	IEEE Global Communications Conference (IEEE GLOBECOM) 2021	Paper Presentation	“Hierarchical Deep Reinforcement Learning based Dynamic RAN Slicing for 5G V2X”	GT-ARC, TUB	2021
110.	IEEE CSCN 2021 (Virtual)	Presentation	Standardization Activities by Research Projects	Turkcell	2021
111.	IEEE CCNC 2022 - Consumer Communications and Networking Conference (Virtual)	Paper Presentation	“Balancing Latency and Accuracy on Deep Video Analytic at the Edge”	AALTO	2022
112.	SUMMITS'22 “Shaping the Future of Transportation” (Ankara, Turkey)	Presentation	Dr Jorge Pereira as invited speaker	UL, PO	2022
113.	Intelligent Telematics Europe	Presentation	H2020 5GMOBIX Project - Platooning and Autonomous Truck Routing User Story	FORD	2022
114.	2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design (Hangzhou, China)	Paper Presentation	“An Extended Adaptive Large Neighbourhood Search for Vehicles’ Task Offloading in Platooning”	DUT	2022
115.	2022 IEEE 25th International Conference on Computer	Paper Presentation	“A Leader-Follower Model with Communication Delay for Platooning Control in Highway Scenario”	DUT	2022

	Supported Cooperative Work in Design (Hangzhou, China)				
116.	2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design (Hangzhou, China)	Paper Presentation	"A cooperative control algorithm for real-time on-ramp merging of connected and automated vehicles"	DUT	2022
117.	IWPC - The International Wireless Industry Consortium	Keynote Speech	"Driving Connected and Automated Mobility"	FORD	2022
118.	ITS European Congress (Toulouse, France)	Presentation	"5G infrastructure assisted advanced driving: results and lessons learnt from the 5G-MOBIX experimentation" (SIS 20)	VEDECOM, ICCS	2022
119.	ITS European Congress (Toulouse, France)	Presentation	Presentation during SIS 9 on 5G technologies for verticals	ERTICO	2022
120.	ITS European Congress (Toulouse, France)	Paper Presentation	"Portuguese 5G Connected Vehicle and Infrastructure in the 5G-MOBIX project"	A-To-Be, IT	2022
121.	IV22 - 33rd IEEE Intelligent Vehicles Symposium (Aachen, Germany)	Paper Presentation	"Cloud Assisted Connected and Automated Mobility System Architecture Design and Experimental Verification: The 5G-MOBIX Autonomous Truck Routing Use Case"	FORD, TUB	2022
122.	Global Mobility Call 2022 (Madrid, Spain)	Panel Discussion	'European project 5G Mobix: using 5G for trans-frontier continuity of autonomous mobility.'	AEVAC, ERTICO, CTAG, DETECON	2022
123.	Global IoT Summit 2022 (Dublin, Ireland)	Presentation	Presentation 5G-MOBIX during the 5G for CAM session	UL, ERTICO	2022
124.	10º Congresso Rodoferroviário Português	Presentation	"A Infraestrutura e Veículos Conectados Portugueses no projeto 5G-MOBIX"	A-To-Be, IT	2022
125.	ITS World Congress 2022 (Los Angeles, USA)	Presentation	Presentation at the workshop	ICCS, ERTICO	2022

126.	2022 IEEE 5th Future Networks World Forum (FNWF'22) (Montreal, Canada)	Paper Presentation	"Resource Allocation with Vickrey-Dutch Auctioning Game for C-RAN Fronthaul"	TUE	2022
127.	9th Transport Research Arena - TRA 2022	Paper Presentation	"Cloud-based HD Mapping supporting Autonomous Driving using cellular 5G in cross-border scenarios"	A-To-Be	2022
128.	9th Transport Research Arena - TRA 2022	Paper Presentation	"5G Connected Vehicle and Roadside Infrastructure for Advanced Driving Maneuvers in a Cross-Border Scenario"	A-To-Be, IT	2022

3.2. Workshop Organisation

The project's research results were also disseminated through workshops and other actors in the wider 5G community. As seen in Table 6, 5G-MOBIX organised and hosted **9 workshops**, either under the frame of the targeted ITS Congresses and EUCNC conferences to ensure maximum outreach or as stand-alone events.

Table 6: List of 5G-MOBIX Workshops

Organisation of 5GMOBIX workshops <i>Period: November 2018 – September 2022</i>		
No.	When	Title
1.	05/06/2019	'5G deployment for Automated Mobility Workshop' at the ITS EU Congress 2019 (Eindhoven, The Netherlands)
2.	18/06/2019	'5G in the Era of Connected Cars' at the EUCNC 2019 (Valencia, Spain)
3.	23/09/2019	'5G and IoT boosting the digital transformation of the automotive sector Symposium at the ITS World Congress 2019 (Singapore)
4.	26/03/2021	Workshop on the 'Deployment Methodology of 5G for CAM on Cross-Border Corridors' (Virtual)
5.	20/10/2021	'Stakeholder Workshop on 5G corridor deployment in the perspective of CEF2-Digital and the Recovery and Resilience Plan' (Virtual)
6.	08/06/2021	'5G for CCAM for Cross Border Corridors' Workshop at the EUCNC 2021 & 6G Summit (Virtual)
7.	15/08/2021	'Wearable/Implantable Smart Technology and Its Security & Cooperative, Connected and Automated Mobility'
8.	13/10/2021	'Connecting to Future Mobility' Workshop at ITS World Congress 2021 (Hamburg, Germany)
9.	21/09/2022	'5G Connectivity Workshop' at the ITS World Congress 2022 (Los Angeles, USA)

A detailed overview of the aforementioned workshops is presented in the following subsections.

3.2.1. 5G deployment for Automated Mobility Workshop at the ITS EU Congress 2019 (Eindhoven, The Netherlands)

The purpose of this workshop that took place on June 5th, 2019 under the framework of ITS European Congress in Eindhoven, was to bring about an exchange of views on the vehicle and roadside infrastructure needs for CCAM using 5G. The discussion focused on the vehicle and roadside infrastructure needs and cellular network requirements for deploying 5G technologies and architectures to run trials on national and cross-border corridors. Interactive panel discussions provided insight into the 5G technologies for CCAM, the envisioned business models as well as state-of-the-art results from the 5G-PPP projects, in particular the three 5G for CCAM Innovation Actions (5G-MOBIX, 5GCroCo, 5G CARMEN) in the context of cross-border testing.



Figure 15: 5G deployment for Automated Mobility Workshop at the ITS EU Congress 2019

The workshop was organised in two sessions. The first session aimed at presenting an overview of the 5G technology evolution for CCAM, envisioned business models, and State-of-the-Art results from the 5G-PPP projects. The second session provided a summary of the initial outcomes of the 5G-PPP projects and the current plans from the ICT-18 initiatives on CCAM. At the end of the second session an interactive panel discussion (Figure 15) followed, gathering views about 5G for CCAM deployment needs and options in order to help the ICT-18 actions align their plans and support the preparation of the CEF as part of the Strategic Deployment Agenda activities.

The workshop's detailed agenda is available [here](#).

3.2.2. '5G in the Era of Connected Cars' at the EUCNC 2019 (Valencia, Spain)

The workshop "5G in the era of connected cars" was co-hosted alongside 5G-CARMEN and 5GCroCo and took place on June 18th under the framework of the EUCNC 2019 conference in Valencia.

The goal of this workshop was to bring both experts and projects from automotive and the mobile communications industries to discuss on the successful path towards CCAM services with the use of 5G technologies. The challenges and the approaches to reduce the uncertainties of a 5G deployment, in multi-country, multi-operator, multi-vendor, and multi-car-manufacturer scenarios, were discussed and analysed. The validation via trials and the optimization of 5G technologies for CCAM services were additional topics of the workshop to pave the way for the preparation of commercial deployments. Figure 16 presents the agenda of the workshop.

Time	Duration	Title	Speaker	
8:30	15	Opening	EC+WS Chairs	
8:45	15	Keynote: "Making connected cars a reality with 5G"	Maxime Flament, SGAA	-
9:00	15	5GCAR, and the role of 5G in automotive industry	Mikael Fallgren, Ericsson	5GCAR
9:15	15	C-V2X trial activities in 5G-DRIVE	Tao Chen, VTT	5G-DRIVE
9:30	15	CCAM progressed by Internet of Thing	Francois Fischer, ERTICO	AUTOPILOT
9:45	30	Coffee break	-	-
10:15	15	5G for Connected and Automated Mobility in the European unionN	Roberto Riggio, FBK	5G-CARMEN
10:30	15	5G-CARMEN and Greta – touching the next frontier in entirely new societal benefits	Walter Aigner, HITec	5G-CARMEN
10:45	15	5G Cross-Border CCAM in France-Germany-Luxembourg Corridor	Jesus Alonso-Zarate, CTTC	5GCroCo
11:00	15	5GCroCo Tests and Trials: User Stories and 5G Technologies	Dirk Hetzer, DTAG	5GCroCo
11:15	15	5G enabled CCAM at Greece – Turkey x-border corridor	Panagiotis Demestichas, WINGS-ICT	5G-MOBIX
11:30	15	5G enabled CCAM at Spain-Portugal x-border corridor	José Santa, University of Murcia	5G-MOBIX
11:45	30	A Timeline for C-V2X	Ashok Tiplirneni, QUALCOMM	-
12:15	45	Panel	Roberto Riggio, FBK (moderator)	-
13:00		END OF WORKSHOP		

Figure 16: Agenda of the '5G in the Era of Connected Cars' workshop at the EUCNC 2019

3.2.3. 5G and IoT boosting the digital transformation of the automotive sector Symposium at the ITS World Congress 2019 (Singapore)

In this symposium, that was organised by ERTICO and took place on October 23rd 2019 during the ITS World Congress in Singapore, experts from Europe, Asia and the Americas presented perspectives on how 5G and IoT can bridge the gap to fully automated and on-demand mobility. The discussion focused on the following points:

- Technological trends and research and innovation strategies;
- New business models for automated mobility, particularly data sharing along a large value chain involving diverse stakeholders supplying solutions;
- Policy and regulation approaches across the three continents.

More information is available [here](#).

3.2.4. Stakeholder Workshop on 5G corridor deployment in the perspective of CEF2-Digital and the Recovery and Resilience Plan (Virtual)

On 20 October 2021, the 5G IA Working Group on 5G for Connected and Automated Mobility (5G CAM WG), supported by ERTICO and DG CONNECT, organised [a workshop focusing on the deployment of 5G networks along major transport paths to enable advanced Connected and Automated Mobility \(CAM\) services](#). The main objectives of this workshop were:

- Allowing all interested stakeholders to contribute to the concepts for 5G Corridor deployment projects under CEF2-Digital and RRF, as well as to discuss underlying cooperation models;
- Creating visibility and interest for participation in the first CEF2-Digital deployment waves in 2021-2023 calls.



Figure 17: Announcement of the Stakeholder Workshop on 5G corridor deployment in the perspective of CEF2-Digital and the Recovery and Resilience Plan

The workshop was targeted to interested parties from telecom operators and vendors, automotive and rail manufacturers and suppliers, transport infrastructure operators, together with their relevant industry associations, to transport authorities, regional and local authorities, as well as actors involved in road safety and security and private and public funding sources.

The workshop's detailed agenda is available [here](#) and the recording [here](#).

3.2.5. Workshop on the Deployment Methodology of 5G for CAM on Cross-Border Corridors (Virtual)

As one of the three projects funded under the H2020-ICT-18-2018 action, 5G-MOBIX was tasked to perform 5G-enabled trials at national border conditions and drew useful insights regarding the challenges and opportunities of provisioning 5G-enabled CAM services in cross-border conditions. This [workshop](#) that was organized by 5G-MOBIX WP6 partners and took place virtually on March 26th, 2021, provided an insight into the technical, business and policy enablers from the 5G-MOBIX CBC and Trial Sites that facilitate future 5G deployment.

More information on the workshop, the workshop's presentation and recording are available [here](#).

3.2.6. 5G for CCAM for Cross Border Corridors Workshop at the EUCNC 2021 & 6G Summit (Virtual)

The workshop "[5G for CCAM for Cross-Border Corridors](#)", took place on June 8th 2021 under the frame of the virtual [EUCNC & 6G Summit 2021](#). It was co-organised with 5G-CARMEN and 5GCroCo and aimed to bring together the experiences gained in the three projects, targeting a focused discussion on the technical challenges, considered solutions and most importantly, preliminary results from the ongoing cross-border trials along 5G cross-border corridors across Europe. The event offered the opportunity to consolidate views and promote the understanding of the various barriers and opportunities brought by 5G, for CCAM, exposing the first lessons learned from 5G network deployments and corresponding trials in these projects. In addition, discussions, including a panel, explored the implications for the future of 5G deployment and the prospects for the support of seamless CCAM service provisioning.

The workshop's detailed agenda is available [here](#).

3.2.7. Connecting to Future Mobility Workshop at ITS World Congress 2021 (Hamburg, Germany)

The workshop on 'Connecting to Future Mobility' was held as part of the ITS World Conference in Hamburg on October 13th and was organised by the project coordinator ERTICO and VTT. The aim of the workshop was to assess how communication technology enables Future Mobility. The presentations had a practical perspective to ensure the participants can apply the learnings within a short horizon. The workshop will give

a holistic approach starting from goals, moving towards solutions, and finalizing with the practical experience from projects trying to implement these solutions. The workshop's detailed program is available [here](#).

3.2.8. 5G Connectivity Workshop at the ITS World Congress 2022 (Los Angeles, USA)

The third version of the '5G connectivity workshop', took place on September 21st under the framework of ITS World Congress 2022 in Los Angeles. The workshop brought together experts from Europe, Korea and the USA, discussing the deployment of 5G for seamless connected and automated driving (CAM) in the different regions. It started with an overview of current and upcoming developments of 5G and CAM before deep-diving into the most suitable use-cases for CAM and their associated timelines.

5G-MOBIX partner member ICCS participated in the workshop with a presentation on the key findings stemming from the extensive experimental activities of the 5G-MOBIX project in two (2) Cross-Border Corridors, Greece-Turkey and Spain-Portugal, as well as four (4) European inter-PLMN trial sites (Finland, Netherlands, France, Germany) and two (2) Asian ones (China, S. Korean). Figure 18 presents the agenda of the workshop.



5G CONNECTIVITY WORKSHOP AT THE 2022 ITS WORLD CONGRESS, LOS ANGELES

Wednesday 21 September 1:00 - 4:30 PM, Room 409A

Panellists

- Dr Jorge Pereira, Principal Scientific Officer, European Commission DG Connect, Belgium
- Dr Maxime Flament, CTO, 5GAA, Belgium
- Dr Villy Portouli, Senior Researcher, ICCS, Greece
- Dr Ralf Weber, Standards & Industry Organizations Lead, Qualcomm, Germany
- Dr Gosan Noh, Senior Researcher, ETRI, Korea
- Ms Julia Rainer, PhD, Connective Automotive Technologies, Audi, Germany
- Mr Erik Varney, Managing Director, Verizon, United States

Moderator

Mr Coen Bresser, Senior Project Manager Innovation & Deploymet, ERTICO, Belgium

Figure 18: Agenda of the '5G Connectivity' Workshop at the ITSWC 2022 in Los Angeles

3.3. 5G-MOBIX Webinars

Webinars addressing different topics and categories of stakeholders were organised at regular intervals to provide a comprehensive view on particular results of the project. Task 7.2 leader drafted the plan regarding topics, speakers, audience and circulated to project partners for approval and/or commenting where needed. The plan was flexible regarding topics and timeline as the webinars were replaced or postponed during the course of the project, depending on the project's progress and produced results.

As shown in Table 7 below, 5G-MOBIX organised **15 webinars** in total. Four webinars were organised during the first two years (M1-M26) and eleven more the last years of the project (M27-M47). The recordings of the webinars are all available on the [5G-MOBIX website](#), together with the presentations made during each webinar.

Table 7: List of 5G-MOBIX webinars

Organisation of 5GMOBIX webinars <i>Period: November 2018 – September 2022</i>			
No.	Year	When	Title
1.	Y ₁	16/09/2019	"Cooperative, Connected and Automated Mobility use cases for initial deployment of 5G technological innovations"
2.	Y ₂	20/05/2020	"5G-MOBIX: Presentation of the ES – PT Cross Border Corridor and preliminary findings"
3.		29/06/2020	"Presentation of the GR-TR cross border corridor: Activities and Objectives"
4.		16/09/2020	"Evaluation Framework"
5.	Y ₃	14/07/2021	"Challenges and recommendations to 5G for CAM deployment in Cross-border scenarios"
6.		03/12/2021	"5G for CAM Deployment Challenges and Lessons Learned"
7.		16/06/2022	"5G-MOBIX Finland Trial Site's results and lessons learnt on 5G for CAM"
8.		20/06/2022	"5G-MOBIX French Trial Site's results and lessons learnt on 5G for CAM"
9.		22/06/2022	"5G-MOBIX German Trial Site's results and lessons learnt on 5G for CAM"
10.		23/06/2022	"5G-MOBIX Dutch Trial Site's results and lessons learnt on 5G for CAM"

11.		30/06/2022	"5G-MOBIX Korean Trial Site's results and lessons learnt on 5G for CAM"
12.		30/06/2022	"ITS Türkiye Webinar Series: 5G MOBIX"
13.		08/07/2022	"5G-MOBIX Chinese Trial Site's results and lessons learnt on 5G for CAM"
14.		29/09/2022	"5G-MOBIX evaluation results and recommendations"
15.		TBD	"5G-MOBIX cross-border corridor results and lessons learnt on 5G for CAM"

Table 8 presents information and details on the all the webinars that were organised by the 5G-MOBIX consortium in the past 47 months. At the time of submitting the report (September 2022) the 15th webinar organisation is still in progress.

Table 8: Description of 5G-MOBIX Webinars

Webinar #1	"Cooperative, Connected and Automated Mobility use cases for initial deployment of 5G technological innovations"
Date	16/09/2019
Partners Involved	ERTICO, AALTO, WINGS
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note • General presentation: 5G-MOBIX concept and approach - François Fischer, ERTICO-ITS Europe • 5G-MOBIX Use cases overview: description and methodology - Edward Mutafulungwa, AALTO • 5G-MOBIX Use cases: Cross-border corridors and Trial Sites - Kostas Trichias, WINGS ICT Solutions • Questions & Answers
Description	<p>The 1st 5G-MOBIX Webinar: Cooperative, Connected and Automated Mobility use cases for initial deployment of 5G technological innovations took place on Monday, 16 September at 12:00 CEST.</p> <p>The webinar focused on presenting the 5G-MOBIX project at relevant stakeholders and interested parties. As it was the first webinar, an overview of the project's concept and approach, uses cases and trial sites was presented, while a series of theme-oriented webinars will follow, according to the project's phase, developments and outcomes.</p>

Outreach and overall engagement	123 Registrants
Link	https://www.5g-mobix.com/resources/webinars/cooperative-connected-and-automated-mobility-use-cases-for-initial-deployment-of-5g-technological-innovations
Webinar #2	"5G-MOBIX: Presentation of the ES – PT Cross Border Corridor and preliminary findings"
Date	20/05/2020
Partners Involved	CTAG, TELEFONICA, CCG, TIS, ERTICO
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcoming - Pantelis Kanellopoulos, ICCS • 5G for CCAM - Jorge Pereira, Project Officer and Principal Scientific Officer European Commission, DG CONNECT • 5G-MOBIX project presentation - Nikolaos Tsampieris, ERTICO • 5G Network Infrastructure - Juan Francisco, TELEFONICA • Technical Evaluation - Marta Miranda, CTAG • Conclusions and outcomes- Joao Moutinho, CCG • Questions and Answers
Description	<p>The webinar presented the Spanish-Portuguese Cross Border Corridor of the 5G-MOBIX project and its preliminary findings.</p> <p>Particularly, it gave an overview of the corridor and the related use cases; the discussion included the 5G network infrastructure, as well as the Vehicle and Roadside one. Moreover, the participants were informed regarding the Technical Evaluation, User Acceptance and Impact Assessment aspects.</p> <p>Conclusions and outcomes from the Spanish-Portuguese Cross Border Corridor gave a comprehensive summary of the work made so far by the consortium and its most relevant outcomes.</p>
Outreach and overall engagement	263 Registrants, 178 Attendees (75% Attendance Rate)

Link	https://www.5g-mobix.com/resources/webinars/5g-mobix-presentation-of-the-es-pt-cross-border-corridor-a-webinar-hosted-by-the-ertico-academy
Webinar #3	"Presentation of the Greek-Turkish cross border corridor: activities & objectives"
Date	29/06/2020
Partners Involved	TURKCELL, ERICSSON GR, FORD, WINGS
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcoming - Pantelis Kanellopoulos, ICCS • 5G for CCAM - Jorge Pereira, Project Officer and Principal Scientific Officer European Commission, DG CONNECT • 5G-MOBIX project presentation - Nikolaos Tsampieris, ERTICO • 5G Network Infrastructure - Juan Francisco, TELEFONICA • Technical Evaluation - Marta Miranda, CTAG • Conclusions and outcomes- Joao Moutinho, CCG • Questions and Answers
Description	<p>This webinar presented the main objectives and activities of the Greek-Turkish Cross-Border Corridor of 5G-MOBIX.</p> <p>The session provided an overview of the corridor along with the challenges addressed; it was also a great opportunity to exchange information regarding the 5G network infrastructure and features, the automated control of the vehicles as well as the rest of the developments and deployments (OBU/RSU/Application) that would enable the GR-TR trials.</p> <p>The user stories designed for "Platooning with see-what-I-see functionality" and "Assisted Border Crossing" were thoroughly explained, summarising the work made so far by the consortium in the Greek-Turkish Cross-Border Corridor but also presenting next steps.</p>
Outreach and overall engagement	151 Registrants, 99 Attendees (66% Attendance Rate)
Link	https://www.5g-mobix.com/resources/webinars/presentation-of-the-greek-turkish-cross-border-corridor-activities-objectives

Webinar #4	"Evaluation Framework"
Date	16/09/2020
Partners Involved	ICCS, DEKRA, CTAG, AKKA, VTT, CCG
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcoming - Barbara Basdeki, ICCS • Evaluation Framework Overview - Konstantinos V. Katsaros, ICCS <p>Technical Evaluation</p> <ul style="list-style-type: none"> • Overview of Test Case Templates, Logging Information, Quality Check - Marta Miranda, CTAG • Short Preview of preliminary ES-PT results - Oscar Castañeda, DEKRA • Data collection and Management Tools Overview - Sadeq Zougari, AKKA <p>Impact Assessment - Maija Federley, VTT</p> <ul style="list-style-type: none"> • Business and societal impacts of the systems and applications • Description of on-going activities • Value network description <p>User Acceptance - Emanuel Sousa, CCG</p> <ul style="list-style-type: none"> • The importance of user acceptance • Methodology details • Preliminary outcome <p>Questions & Answers</p>
Description	<p>This webinar presented the main objectives and activities of the Greek-Turkish Cross-Border Corridor of 5G-MOBIX.</p> <p>The session provided an overview of the corridor along with the challenges addressed; it was also a great opportunity to exchange information regarding the 5G network infrastructure and features, the automated control of the vehicles as well as the rest of the developments and deployments (OBU/RSU/Application) that would enable the GR-TR trials.</p>

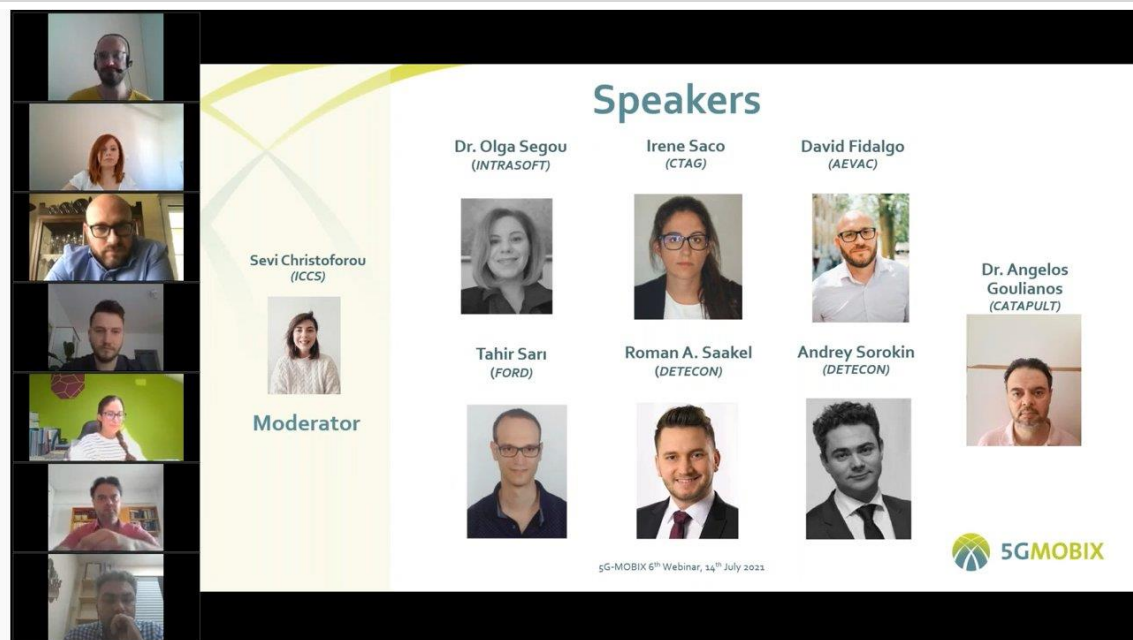
	The user stories designed for “Platooning with see-what-I-see functionality” and “Assisted Border Crossing” were thoroughly explained, summarising the work made so far by the consortium in the Greek-Turkish Cross-Border Corridor but also presenting next steps.
Outreach and overall engagement	107 registrants
Link	https://www.5g-mobix.com/resources/webinars/presentation-of-the-greek-turkish-cross-border-corridor-activities-objectives



Figure 19: 5G-MOBIX 4th Webinar, ‘Evaluation Framework’

Webinar #5	“Challenges and recommendations to 5G for CAM deployment in Cross-border scenarios”
Date	14/07/2021
Partners Involved	INTRASOFT, CTAG, AEVAC, FORD, DETECON, CATAPULT
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note - Sevi Christoforou, ICCS • Introduction: Challenges and recommendations to 5G for CAM deployment in Cross-border scenarios - Olga Segou, INTRASOFT

	<p>Session 1: Challenges and Recommendations</p> <ul style="list-style-type: none"> Challenges in 5G for CAM cross border deployments - Irene Saco, CTAG Recommendations Prioritisation - David Fidalgo, AEVAC Business and cooperation models – motivation of stakeholders, challenges and recommendations - Tahir Sari, FORD <p>Session 2: Deployment Study in European Cross-border Corridors</p> <ul style="list-style-type: none"> 5G for CAM Deployment Study Requirements for selected CBCs - Roman A. Saakel and Andrey Sorokin, DETECON SatCom use cases and deployment for CBC coverage in CAMAngelos Goulianos, Catapult <p>Questions & Answers</p>
Description	<p>5G-MOBIX develops and tests automated vehicle functionalities using 5G core technological innovations along multiple cross-border corridors and urban trial sites, under conditions of vehicular traffic, network coverage, service demand, as well as considering the inherently distinct legal, business and social local aspects.</p> <p>This webinar focused on the analysis of the challenges surrounding 5G for CAM deployment in cross border scenarios, as well as recommendations on Deployment Enablers stemming from the experience of the project.</p>
Outreach and overall engagement	190 registrants, 104 attendees
Link	https://www.5g-mobix.com/resources/webinars/challenges-and-recommendations-to-5g-for-cam-deployment-in-cross-border-scenarios



Challenges and recommendations to 5G for CAM deployment in Cross border scenarios

Figure 20: 5G-MOBIX 5th Webinar, 'Challenges and recommendations to 5G for CAM deployment in Cross-border scenarios'

Webinar #6	"5G for CAM Deployment Challenges and Lessons Learned"
Date	03/12/2021
Partners Involved	GT-ARC, TUE
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note - Sevi Christoforou, ICCS • Summary of the vehicle/CAM-infrastructure related issues and lessons learned in 5G-MOBIX - Fikret Sivrikaya, GT-ARC • 5G network deployment challenges and lessons learned in 5G-MOBIX - Simon Rommel, TU Eindhoven • Insights on lessons learned during the use case tests at 5G-CroCo pilot sites, including first hints on the evaluation results - Dirk Hetzer, T-Systems • Notes from the field: 5G CAM deployment in today's 5G NSA networks - Edwin Fischer, Deutsche Telekom AG • Q&A

Description	In this joint webinar on December 3, 5G-MOBIX, 5GCroCo and 5G CARMEN partners brought forward their experience on challenges faced and lessons learned during deployment and integration of 5G for CAM use cases in cross-border scenarios, namely 5G network connectivity, vehicles/OBUs, and software tools.
Outreach and overall engagement	217 Registrants, 119 Attendees, 354 people clicked on the registration link
Link	https://www.5g-mobix.com/resources/webinars/5g-mobix-webinar-5g-for-cam-deployment-challenges-and-lessons-learned

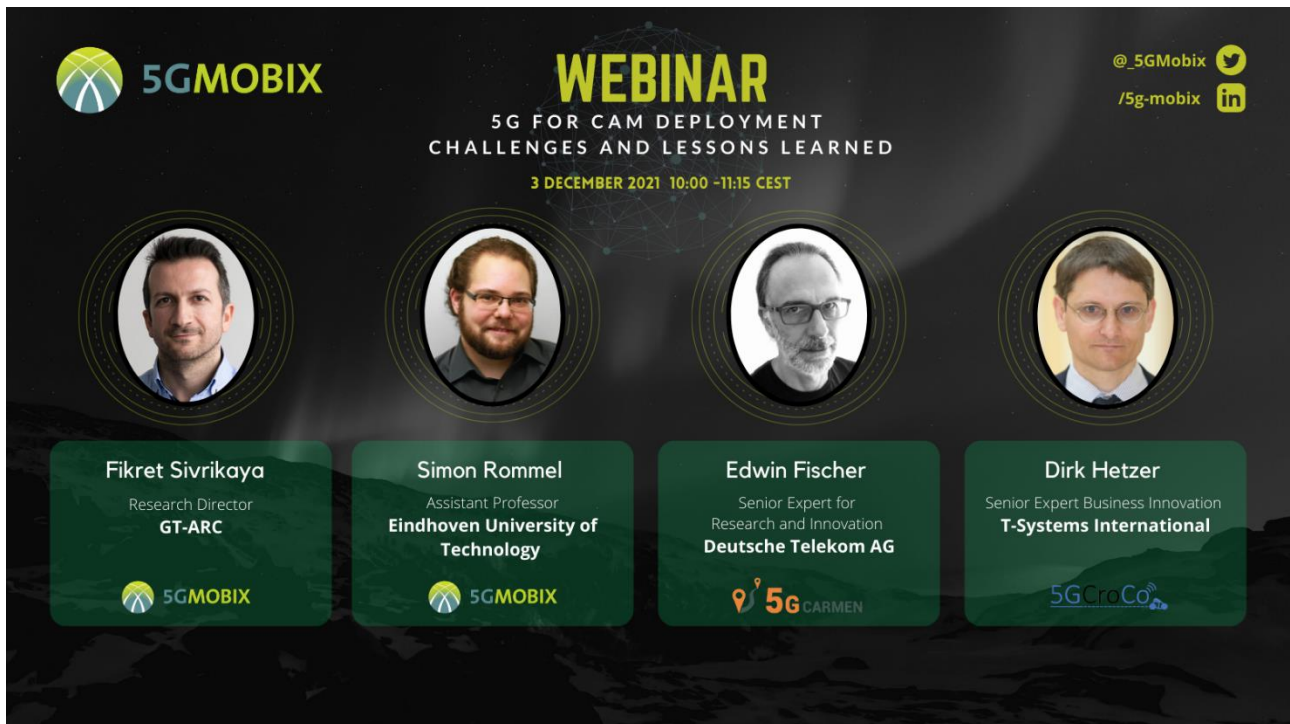


Figure 21: Announcement of the 6th 5G-MOBIX Webinar, '5G for CAM Deployment: Challenges and Lessons Learned'

Webinar #7	"5G-MOBIX Finland Trial Site's results and lessons learnt on 5G for CAM"
Date	16/06/2022
Partners Involved	AALTO, Sensible 4

Presentation titles & Speakers	<ul style="list-style-type: none"> Welcome note - Sevi Christoforou, ICCS Introduction of the 5G-MOBIX project and Finland Trial Site - Ozgur Akgul, AALTO University Sensible 4 test vehicle AVA, the remote driving test case and motivation - Timo Mustonen, Sensible 4 Description of trial objectives, demo story board, test environment and setup - Edward Mutafulungwa, AALTO University Demo video from the trials Trial results - Edward Mutafulungwa, AALTO University Lessons Learned - Edward Mutafulungwa, AALTO University Q&A
Description	This webinar presented the Finland Trial Site contributions and trial results testing 5G service continuity solutions with a focus on remote driving use case in a 5G multi-PLMN environment. These solutions ensure availability of adequate vehicle-to-network connectivity for continuous transmission of the data traffic streams from the vehicle to the Remote Operations Centre (ROC), and timely reception of command messages from ROC to the vehicle.
Outreach and overall engagement	67 registered, 32 attended
Link	https://www.5g-mobix.com/resources/webinars/fi-1
Webinar #8	"5G-MOBIX French Trial Site's results and lessons learnt on 5G for CAM"
Date	20/06/2022
Partners Involved	VEDECOM
Presentation titles & Speakers	<ul style="list-style-type: none"> Welcome note - Sevi Christoforou, ICCS Introduction of the project and FR TS and trials presentation - Camille Plestan, VEDECOM Demonstration video of the FR TS

	<ul style="list-style-type: none"> • Technical challenges & applied solutions (5G, vehicles, OBU solutions) - Laurent Février, VEDECOM • FR Site contributions to the Cross Borders Issues (2 use cases on lane changes; service continuity test case - MultiSim & Satcom; predictive QoS test case) - Pierre Merdrignac, VEDECOM • FR TS contributions to ES-PT CBC (considered Solutions versus Cross Border Issues; CBCs test cases in ES-PT) - Laurent Février/ Pierre Merdrignac, VEDECOM • Lessons learnt & conclusions (5G technologies benefits, drawbacks and issues) - Laurent Février, VEDECOM • Q&A
Description	This webinar presented the French Trial Site contributions related to service continuity and dynamic communication quality aspects for the infrastructure-assisted advanced driving use case.
Outreach and overall engagement	61 registered, 41 attended
Link	https://www.5g-mobix.com/resources/webinars/5g-mobix-french-trial-sites-results-and-lessons-learnt-on-5g-for-cam
Webinar #9	"5G-MOBIX German Trial Site's results and lessons learnt on 5G for CAM"
Date	22/06/2022
Partners Involved	TUB, VALEO, VICOMTECH, GT-ARC
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note - Sevi Christoforou, ICCS • Opening - Sebastian Peters, TUB • Market needs and industrial motivation - Christian Müller-Hirschhorn, VALEO • Introduction to German Trial Site - Sebastian Peters, TUB • 5G for CCAM solutions - Sebastian Peters, TUB & Angel Martin, Vicomtech

	<ul style="list-style-type: none"> • Trial results - Fikret Sivrikaya, GT-ARC • Lessons Learned - Gorka Velez, Vicomtech • Q&A
Description	The German Trial Site webinar presented the outcome of their trials, results and lessons learnt obtained. The 5G-MOBIX Trial Site in Berlin looked into the benefits of 5G services in providing extended sensor data to address QoS limitation of current 4G networks, namely for platooning use cases with SAE L-4 vehicles. The webinar also included presentation of the recorded video footage of the tested solutions and a Q&A session.
Outreach and overall engagement	68 registered, 37 attended
Link	https://www.5g-mobix.com/resources/webinars/webinar-5g-mobix-german-trial-sites-results-and-lessons-learnt-on-5g-for-cam
Webinar #10	"5G-MOBIX Dutch Trial Site's results and lessons learnt on 5G for CAM"
Date	23/06/2022
Partners Involved	TNO, KPN, VTT, TUE
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note - Sevi Christoforou, ICCS • General introduction - Sven Jansen (TNO) • Introduction to the NL-trials in relation to challenges for 5G CAM - Geerd Kakes, KPN • Collision avoidance using Manoeuvre coordination services - Johan Scholliers, VTT • Extended Sensors considering slicing and V2x quality of service - Peter-Paul Schackmann, TNO • Remote Driving using various network configurations - Jos van den Ouden, TU Eindhoven • Conclusions and summary - Sven Jansen, TNO • Questions & Answers

Description	This webinar presented the Netherlands Trial Site contributions and trial results testing 5G service continuity solutions for the different applications concerning extended sensing, advanced driving (collision avoidance) and remote driving. The webinar also included videos from the trials and an interactive Q&A session to drive discussions on the results and lessons learnt from the trials.
Outreach and overall engagement	48 registered, 28 attended
Link	https://www.5g-mobix.com/resources/webinars/webinar-5g-mobix-netherlands-trial-sites-results-and-lessons-learnt-on-5g-for-cam
Webinar #11	"5G-MOBIX Korean Trial Site's results and lessons learnt on 5G for CAM"
Date	30/06/2022
Partners Involved	KATECH, ETRI
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note - Sevi Christoforou, ICCS • General introduction to 5G-MOBIX and the KR Trial Site - Dr. You-Jun CHOI, Korea Automotive Technology Institute (KATECH) • Tethering via mmWave communication - Dr Heesang Chung, Electronics and Telecommunication Research Institute (ETRI) • Remote controlled vehicle via mmWave communication - Dr. You-Jun CHOI, Korea Automotive Technology Institute (KATECH) • Questions & Answers
Description	The webinar presents the results from the 5G-MOBIX Trial Site in South Korea, which looked into the benefits of 5G services in providing broadband free WiFi service to passengers in the shuttle bus to address QoS limitation of current 4G networks, namely for tethering via mmWave communication use case. The webinar also includes a video demonstration of the tested solutions.
Outreach and overall engagement	32 registered, 19 attended

Link	https://www.5g-mobix.com/resources/webinars/webinar-5g-mobix-korean-trial-sites-results-and-lessons-learnt-on-5g-for-cam
Webinar #12	ITS Türkiye Webinar Series: 5G MOBIX (in Turkish)
Date	30/06/2022
Partners Involved	FORD, TUBITAK
Link	https://www.youtube.com/watch?v=ycmpy-SkzIk
Webinar #13	"5G-MOBIX Chinese Trial Site's results and lessons learnt on 5G for CAM"
Date	08/07/2022
Partners Involved	DUT, SDIA
Presentation titles & Speakers	<ul style="list-style-type: none"> • Welcome note - Sevi Christoforou, ICCS • General introduction - Yanjun Shi, DUT • Introduction to the 5G-MOBIX CN Trial Site - Yanqiang Li, SDIA • Demo videos from trials - Jing Ma, SDIA • Trial results and Lessons Learned - Jiajian Li, DUT • Q&A
Description	This webinar presented the China Trial Site contributions and trial results testing 5G service continuity solutions for the different user stories concerning remote driving with data ownership focus, cloud-assisted advanced driving and cloud-assisted platooning. The trials have been conducted using one dedicated 5G MEC cloud server and two PLMNs for adequate vehicle-to-network connectivity and exploiting 5G features to provide lower end-to-end latency and greater bandwidth for use cases.
Outreach and overall engagement	16 registered, 11 attended

Link	https://www.5g-mobix.com/newsandevents/events/5g-mobix-chinese-trial-sites-results-and-lessons-learnt-on-5g-for-cam
Webinar #14	"5G-MOBIX Evaluation Results and Recommendations"
Date	29/09/2022
Partners Involved	ICCS, CTAG, CCG, VTT
Presentation titles & Speakers	<ul style="list-style-type: none"> Welcome note - Sevi Christoforou, ICCS Introduction, Konstantinos Katsaros (ICCS) Technical Evaluation, Marta Miranda Dopico (CTAG) <p>Key findings stemming from the extensive experimental activities of the 5G-MOBIX project - technical performance of technologies and solutions implemented</p> <ul style="list-style-type: none"> Impact Assessment, Maija Federley (VTT) <p>Potential business and societal impacts of the systems and applications demonstrated</p> <ul style="list-style-type: none"> User Acceptance, Emanuel Sousa (CCG) <p>Assessment of acceptability of different kinds of mobility services in the context of 5G CBC mobility</p> <ul style="list-style-type: none"> Q&A
Description	This webinar presented the China Trial Site contributions and trial results testing 5G service continuity solutions for the different user stories concerning remote driving with data ownership focus, cloud-assisted advanced driving and cloud-assisted platooning. The trials have been conducted using one dedicated 5G MEC cloud server and two PLMNs for adequate vehicle-to-network connectivity and exploiting 5G features to provide lower end-to-end latency and greater bandwidth for use cases.
Outreach and overall engagement	72 attended
Link	Soon available here: https://www.5g-mobix.com/resources/webinars

3.4. Exhibition stands and booths

5G-MOBIX has organized **18 exhibition booths** at conferences and external events at a local and international level to inform stakeholders about the project's vision and progress and raise awareness on the project's achievements and results. Table 9 provides an overview of the exhibition booths that were organized by 5G-MOBIX.

Table 9: List of 5G-MOBIX Exhibition Stands and Booths

Organisation of 5G-MOBIX exhibition stands and booths <i>Period: November 2018 – September 2022</i>				
No.	Event	Type of activity	Partner(s)	Year
1.	Mobile World Congress (MWC2019)	Exhibition booth	ERTICO, Turkcell	2019
2.	EUCAD2019	Exhibition booth	ERTICO	2019
3.	Turkcell Technology Summit	Exhibition booth	Turkcell	2019
4.	Turkcell 25th Year Anniversary Reception	Exhibition booth	Turkcell	2019
5.	5G Techritory event	Exhibition booth	ERTICO	2019
6.	ITS Hellas Conference	Exhibition booth	ICCS	2019
7.	ITS EU Congress	Exhibition booth	ERTICO	2019
8.	EuCNC 2019	Exhibition booth	ERTICO	2019
9.	ITS World Congress	Exhibition booth	ERTICO	2019
10.	TechDays Aveiro 2019	Exhibition booth	IT	2020
11.	MP20 Trade Fair 2020	Exhibition booth	VTT	2020
12..	ITS Virtual Congress	Exhibition booth (virtual)	ERTICO	2020
13.	EUCAD 2021	Exhibition booth (virtual)	ERTICO	2021
14.	EUCNC 2021	Exhibition booth (virtual)	ERTICO, ICCS	2021
15.	ITS World Congress, Hamburg	Exhibition booth	ERTICO	2021
16.	EUCNC 2022	Exhibition booth	ERTICO	2022
17.	ITS EU Congress, Toulouse	Exhibition booth	ERTICO	2022
18.	ITS World Congress, L.A.	Exhibition booth	ERTICO	2022

3.5. Demonstration Events

5G-MOBIX consortium organised **9 demonstration events**, one per each corridor and urban test site and one during **the final event** to present and discuss trials results and achievements.

3.5.1. 5G-MOBIX Trial Sites and Cross-Border Corridor Demonstration Events

During the lifetime of the project **eight trial sites** have been selected to conduct 5G–MOBIX experiments:

- **Two cross-border corridors** within the EU region, namely **Spain – Portugal (ES-PT)** and the **Greece – Turkey (GR-TR)**;
- **Six urban test sites**: Versailles (*France, FR*), Berlin and Stuttgart (*Germany, DE*), Eindhoven-Helmond (*The Netherlands, NL*) and Espoo (*Finland, FI*) and two additional places outside EU in Jinan (*China, CN*) and Yeonggwang (*South Korea, KR*).



Figure 22: The European/Asian location of the eight 5G-MOBIX cross-border corridors and trial sites

The following two subsections include information on the process of the demo organisation and the collaboration between WP7 and the trial site leaders to best prepare for the demo event and ensure the involvement of relevant organisations, local authorities as well as business stakeholders.

3.5.2. Demo Event Preparation: The checklist

In order to facilitate the organisation of the main demo events, determine the details and ensure optimum success, the WP7 team prepared a 'checklist' ([Annex 2](#)) that included a list of requirements and a plan for communication and dissemination activities to be shared with pilot site leaders. The 'checklist' was

discussed during regular calls organised by the WP7 team with each trial site leader, to ensure that everyone was aware of the activities that needed to take place in order to engage the target audience and secure maximum outreach. The list of responsibilities in the 'checklist' included the identification and invitation of relevant stakeholders, the issue of a press release, promotion activities through social media and online channels, etc.

The 'checklist' was adjusted during the period of COVID-19, suggesting online alternatives in case hosting a physical demonstration event was not possible due to restrictions.

3.5.3. Demo Event Preparation and Follow-up: The 5G-MOBIX demonstration forms

Besides the demo preparation 'checklist', the WP7 team also created both demo preparation and follow-up forms in order to collect important information about each pilot site demonstration. Each pilot site leader had to fill in the forms and provide all necessary information prior and after the realisation of the demo activities.

This input on the demo event preparation form ([Annex 3](#)) was essential to ensure a timely and efficient demo preparation from a communication and dissemination perspective, but also for maximum stakeholder engagement. The information provided on the demo follow-up form ([Annex 4](#)) was valuable to understand the outcome of each demonstration event and assess its success.

3.5.4. Main Demo Events

The aim of the **main demo events** in each corridor and urban test site was to present and discuss trial results and achievements, as well as to multiply the impact of the project outcomes towards the different (local) key audiences and to raise awareness of these results and lessons learnt to stakeholders who might want to reuse or exploit them. In the context of these events, efforts were made to invite the local and national press, while briefings involving the local authorities and press were organized during the two CBC demonstration events, as well as a tour of the demonstrations were organised.

The tables below present a comprehensive insight on the preparation and realisation of the main demo events, as well as details regarding the nature and number of participants and the event's overall performance on stakeholder outreach and engagement.

3.5.4.1. NL TS Demo Event

Table 10: 5G-MOBIX NL TS Demo Event Description

No.	Trial site / CBC	Partners involved
1.	NL Trial Site	KPN, TNO, SIEMENS
Date: 05 April 2022		
Location: Automotive Campus Helmond NL		
Type of Event: Part of 5G-Fieldlab event organised by KPN (physical)		
Use cases/ user stories to be demonstrated: Live demo of collision avoidance at the venue		
Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders, MNOs, Road Operators, Service Providers E.g., DG CNECT, HERE, Ericsson, Orange BE, Rijkswaterstaat, Vialis, DEKRA, TU Eindhoven		
Participants: 57		
Demo event announcement: https://www.5g-mobix.com/newsandevents/events/the-role-of-5g-in-autonomous-driving-and-intelligent-transport-systems-in-helmond-1		
Media coverage: Dissemination via KPN's website (no longer available), no press coverage		
Description: 5G as the latest telecommunication generation brings a promise of digitalisation and connected society. The change anticipated in the automotive sector is perhaps the most profound and spectacular. The 5G Automotive FieldLab Helmond have therefore put together an inspirational day of presentations, workshops, interactive discussions and live demonstrations to update on their latest activities on this theme, namely in 5G-MOBIX and 5G-Blueprint projects.		
Agenda (Annex 5): 9:00 Reception and registration 9:30 Welcome by KPN 9:45 Workshops on tele-operations, cooperative collision avoidance and extended sensors 12:00 Lunch 13:00 Presentations on 5G-Blueprint by Dutch Ministry of Infrastructure and an update on KPN's strategy on connectivity in Mobility 14:00 Live demonstrations of 5G-MOBIX Collision Avoidance & Remote Driving use cases 15:30 Drinks reception		

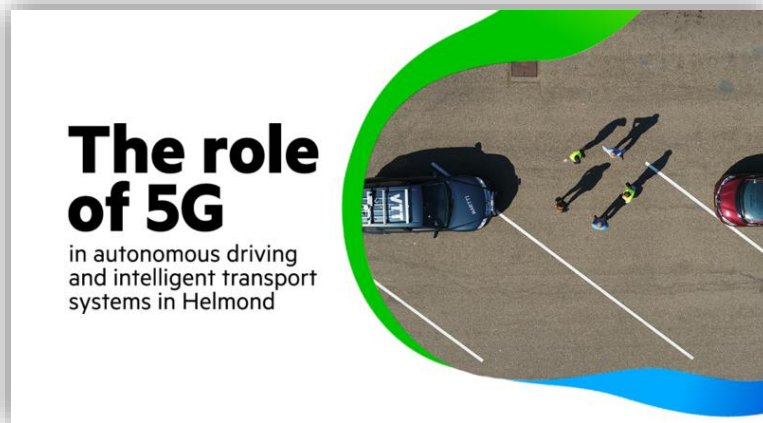


Figure 23: 5G-MOBIX NL TS Demo announcement

Photos:



Figure 24: NL TS Demo Event



Figure 25: NL TS Demo Event



Figure 26: NL TS Demo Event



Figure 27: NL TS Demo Event

3.5.4.2. FR TS Demo Event

Table 11: 5G-MOBIX FR TS Demo Event Description

No.	Trial site / CBC	Partners involved
2.	FR Trial Site	VEDECOM, AKKA, CATAPULT, ORANGE/BOUYGUES, UTAC CERAM
Date: 21 April 2022		
Location: MobiLab, Satory, Versailles		
Type of Event: Stand-alone event (physical)		
Use cases/ user stories to be demonstrated: Demonstration of the use case "Infrastructure-assisted advanced driving" using one connected automated vehicle, 1 connected vehicle, and one basic vehicles. Audience will experience the use case in the CAV (which changes its lane based on the guidance received from the infrastructure, if a collision risk is detected) as well as at the control centre.		
Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders, MNOs, Road Operators, Service Providers, RTOs, Press E.g.: Ministère Economie - Ministère transition écologique, Renault - Stellantis- Valeo, Continental, Nokia - TDF- Catapult- Orange, Bouygues		
Participants: 55		
SME Involvement: AKKA: French SME, member of 5G-MOBIX and 5G-META projects, Yogoko- French connectivity solutions provider		
Demo event announcement: https://www.5g-mobix.com/newsandevents/events/5g-for-cooperative-connected-and-automated-mobility-towards-more-safety-and-efficiency		
Media Coverage: https://www.vedecom.fr/5g-vehicules-automatisees-site-francais-5g-mobix/ https://www.vedecom.fr/5g-vehicules-automatisees-site-francais-5g-mobix/?lang=en https://www.autonews.fr/hi-tech/la-france-prepare-l-arrivee-de-la-5g-107559 https://www.linkedin.com/feed/update/urn:li:activity:6922960691595210752/ https://twitter.com/vedecom		
Videos: https://www.youtube.com/watch?v=l1p2RrZhDoQ https://www.youtube.com/watch?v=SpxUpPmzFZl		
Description: 5G-MOBIX trial sites include two Cross-Border Corridors (Greece-Turkey and Spain-Portugal) and six local Trial Sites in France, Germany, Netherlands, Finland, China and South Korea. The local sites bring additional and complementary insights to the cross-border trials. The French Trial Site		

contributions are related to service continuity and dynamic communication quality aspects for the infrastructure-assisted advanced driving use case.

Agenda (Annex 5):

9:00 Welcome coffee

9:30 Introduction by Eric Lebeau, General Manager of VEDECOM. Context and stakes.

9:40 Presentation of the European 5G-MOBIX project: methodology, key innovations, tests and results of the French site.

11:25 Connection with other European and French projects dedicated to 5G: 5GMED, 5GMETA and 5G Open Road in Paris-Saclay cluster.

12:00 Lunch break.

13:15 Demonstration session on tracks:

- Infrastructure assisted automated lane change at highway entry (demonstration with an L4 automated vehicle prototype)
- Continuity of service with network handover
- Dynamic quality control of 5G communication

15:30 Vision of 5G and CCAM by market players: Panel discussion with vehicle manufacturers, telecom and road infrastructure operators, public transport players and territories.

16:40 Conclusion by Tony Jaux, President of VEDECOM, VP Innovation at Stellantis and Director of the connectivity program at the French Automotive Platform.

17:00 Final Cocktail and Networking



Figure 28: 5G-MOBIX FR TS Demo announcement

Photos:



Figure 29: FR TS Demo Event, group picture



Figure 30: 5G-MOBIX FR TS Demo Event



Figure 31: 5G-MOBIX FR TS Demo Event



Figure 32: 5G-MOBIX FR TS Demo Event



Figure 33: 5G-MOBIX FR TS Demo Event

3.5.4.3. FI TS Demo Event

Table 12: 5G-MOBIX FI TS Demo Event Description

No.	Trial site / CBC	Partners involved
3.	FI Trial Site	AALTO, SENSIBLE ₄
Date: 28 April 2022		
Location: Espoo, Finland		
Type of Event: Stand-alone event (physical)		
Use cases/ user stories to be demonstrated: The remote control or driving of an SAE L ₄ automated vehicle presents stringent requirements on connection between the vehicle and the Remote Operations Centre (ROC) where remote human operator is located. Furthermore, the whole control loop needs to be kept tight. The demo showcases 5G service continuity solutions for remote driving in a 5G multi-PLMN environment. These solutions ensure availability of adequate vehicle-to-network connectivity for continuous transmission of the data traffic streams from the vehicle to the ROC, particularly LIDAR and HD video, and timely reception of command messages from ROC to the vehicle. The invited participants will experience the demo from two perspectives, firstly from a follower vehicle behind the automated vehicle and secondly from the perspective of the remote operator at the ROC.		
Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders, Service Providers, Innovation Ecosystems, Local Research Stakeholders E.g.: Automotive stakeholders (Goodmill Systems), Service/solution vendors (Cumucore), local research stakeholders (automotive research experts and Leadership from Aalto University)		
SME Involvement: Goodmill Systems is a Finnish SME that provides a 5G multi-SIM OBU for the FI-TS and leverages these trials to further showcase the capabilities of their product for critical CAM use cases.		
Demo Event Announcement: https://www.5g-mobix.com/newsandevents/events/public-demo-day-of-the-5g-mobix-finland-trial-site		
Participants: Approx. 30 -40		
Media Coverage: https://twitter.com/THUotila/status/1519663765985415168 https://twitter.com/THUotila/status/1567795248960602112 https://twitter.com/sensible4ltd/status/1519881998327820288		
Description: The event will be the opportunity to learn more about the Finland Trial Site results through presentations and demonstration showcasing the impacts of the considered solutions for service continuity. The live demonstration will showcase 5G service continuity solutions for remote driving in a		

5G multi-PLMN environment, from the perspective of the automated vehicle and from that of the operator at the Remote Operations Centre (ROC). These solutions ensure availability of adequate vehicle-to-network connectivity for continuous transmission of the data traffic streams from the vehicle to the ROC, and timely reception of command messages from ROC to the vehicle.

Photos:



Figure 34: 5G-MOBIX FI TS Demo Event



Figure 35: 5G-MOBIX FI TS Demo Event



Figure 36: 5G-MOBIX FI TS Demo Event



Figure 37: 5G-MOBIX FI TS Demo Event

3.5.4.4. DE TS Demo Event

Table 13: 5G-MOBIX DE TS Demo Event Description

No.	Trial site / CBC	Partners involved
4.	DE Trial Site	TUB, GT-ARC, VALEO, VICOMTECH
Date: 22 June 2022		
Location: Online		

Type of Event: Webinar
Use cases/ user stories to be demonstrated: Recorded demo video footage from September demo event 2021 and CBC trials event that took place in March 2022 will be shown. The September demo video includes both DE TS use cases performed in Berlin; the CBC demo video focuses on the extended sensors use case. In addition to the videos the German trial site presents the outcome of their trials and results obtained. This will be followed by a Q&A session for the audience.
Event Structure: This will be a stand-alone event (webinar), focused on the DE TS.
Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders, MNOs, Service Providers, Press E.g.: Berlin Senate, Valeo, IAV, Deutsche Telekom, Cohda Wireless, MobileedgeX, local press in Berlin
SME Involvement: Cohda Wireless could be interested into the usage of RSU deployment and integration into the 5G V2X architecture.
Participants: 68 registered, 37 attended
Demo Event Announcement: https://www.5g-mobix.com/newsandevents/events/5g-mobix-german-trial-sites-results-and-lessons-learnt-on-5g-for-cam
Media Coverage: https://www.linkedin.com/posts/sebastian-peters-743885224_webinar-5g-mobix-german-trial-sites-results-activity-6940303866705911809 https://www.linkedin.com/posts/vicomtech_webinar-5g-mobix-german-trial-sites-results-activity-6942465625835368448-SqTp
Description: The German Trial Site is holding a webinar to present the outcome of their trials and results obtained. The 5G-MOBIX Trial Site in Berlin looked into the benefits of 5G services in providing extended sensor data to address QoS limitation of current 4G networks, namely for platooning use cases with SAE L-4 vehicles. The webinar will also include presentation of the recorded video footage of the tested solutions and a Q&A session to exhaust all questions on our experts' work and lessons learnt.
Agenda (Annex 5): <ul style="list-style-type: none"> • Opening - Sebastian Peters, TUB • Market needs and industrial motivation - Christian Müller-Hirschhorn, VALEO • Introduction to German Trial Site - Sebastian Peters, TUB • 5G for CCAM solutions - Sebastian Peters, TUB & Angel Martin, Vicomtech • Trial results - Fikret Sivrikaya, GT ARC • Lessons Learned - Gorka Velez, Vicomtech • Q&A
Link to the recording: https://www.youtube.com/watch?v=BuJMW-7io14

3.5.4.5. KR TS Demo Event

Table 14: 5G-MOBIX KR TS Demo Event Description

No.	Trial site / CBC	Partners involved
5.	KR Trial site	All KR consortium
Date: 26 November 2020		
Location: Workshop venue: Somerset Central Bundang Hotel in Seoul, South Korea Demonstration site: highway test track in Yeosu, South Korea		
Type of Event: Stand-alone event (physical)		
Target Audience/Invited Stakeholders: Automotive Industry Stakeholders, Road Operators, Service Providers E.g.: Korea Expressway Corporation, Korea University, SNetICT, KMW (Korea MicroWave), KiHanwha systems, Hanyang University, WOORINET, Choenbuk Institute of Automotive Convergence Technology, IITP, ETRI, KATECH, SNetICT		
SME Involvement: SMEs of network equipment development may be involved. What may stand out to them is the Implementation of the millimetre-wave 5G NR communication system and its application on wireless connectivity provision to moving vehicles.		
Participants: 14		
Description: On Nov. 26, 2020, the final field trial for Tethering via Vehicle (User Story 5.2) was conducted on a highway test track in Yeosu, Korea, using a mmWave OBU (vehicle UE) installed on a demo bus and five gNB DUs deployed along the trackside. The field trial mainly showed the results that a data rate of 1.15 Gbps between the gNBs and the vehicle UE is achievable for 90% of the time during the trial and a Wi-Fi data rate of over 400 Mbps is attainable by a smartphone.		
Agenda: <ul style="list-style-type: none"> • Presentation on a brief overview of the field trial including background and key enablers to be demonstrated • Visitors move to the trial site (Yeosu highway test track) • Field trial demonstrated to the visitors • Visitors move back to the venue • Presentation for summary and Q&A session 		

Photo:



Figure 38: 5G-MOBIX KR TS Demo Event, group picture

3.5.4.6. CH TS Demo Event

Table 15: 5G-MOBIX CH TS Demo Event Description

No.	Trial site / CBC	Partners involved
6.	CN Trial site	All the CN partners, ZTE, China mobile
Date: 25 May 2022		

Location: Eastern of Shandong Academy of Sciences (SDIA), China, Jinan
Type of event: Stand-alone event (physical)
Use cases/ user stories to be demonstrated: Remote Driving with data ownership focus, Cloud-Assisted Advanced Driving, and Cloud-assisted Platooning
Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders E.g., Dalian University of Technology, Shandong Academy of Sciences, Shandong Hi-speed Group Co. Ltd, China National Heavy Duty Truck Group Co. Ltd
Participants: 31
Agenda (Annex 5): 09:00 – Welcome and Opening Speech, SDIA (10 min), Yanjun Shi 09:10 –10:00 – Remote Driving with data ownership focus demos <ul style="list-style-type: none"> ● Introduction to the Remote Driving process (15 min), Jiajian Li ● Presentation of Remote Driving (25 min), Zihui Zhang 10:15 – 11:15 Cloud-Assisted Advanced Driving demos, SDIA <ul style="list-style-type: none"> ● Introduction to the Advanced Driving process (15 min), Yuhan Qi ● Presentation of Advanced Driving (35 min), Liangjie Yu 11:15 – 14:00 Lunch Travel to Binlai Expressway 14:00 – 15:30 Cloud-assisted Platooning demos, Binlai Expressway <ul style="list-style-type: none"> ● Introduction to the Platooning process (15 min), Dongling Liang ● Presentation of Cloud-assisted Platooning (65 min), Meng Yang 15:30 – 17:00 Return to SDIA 17:00 – 19:00 Dinner
Media Coverage: http://www.stdaily.com/index/kejixinwen/202206/b2de5d44ec7d45f29880801aee6f4ec2.shtml
Video: https://www.youtube.com/watch?v=N31nSdafNmk
Photos:

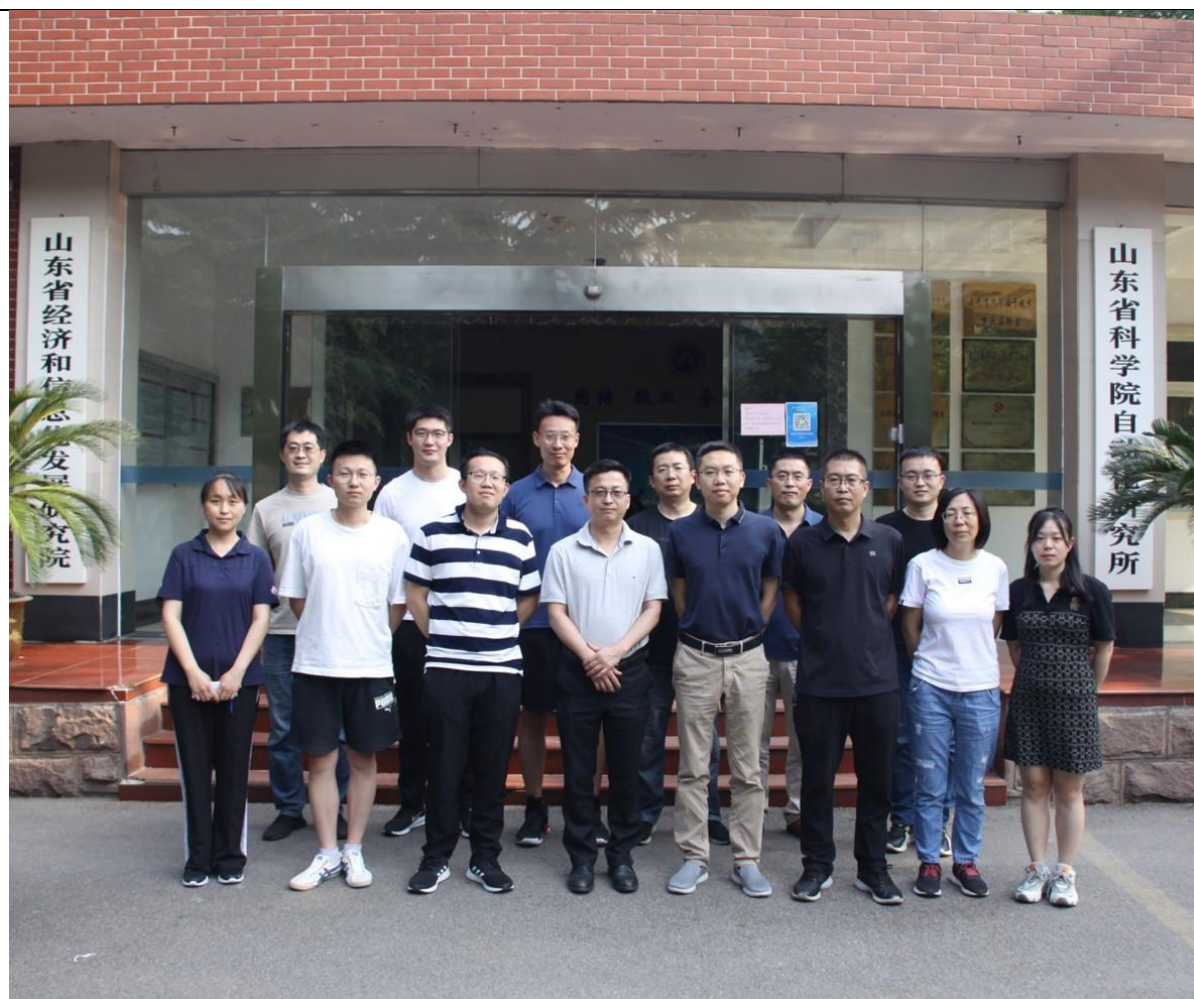


Figure 39: 5G-MOBIX CH TS Demo Event, group picture



Figure 40: 5G-MOBIX CH TS Event

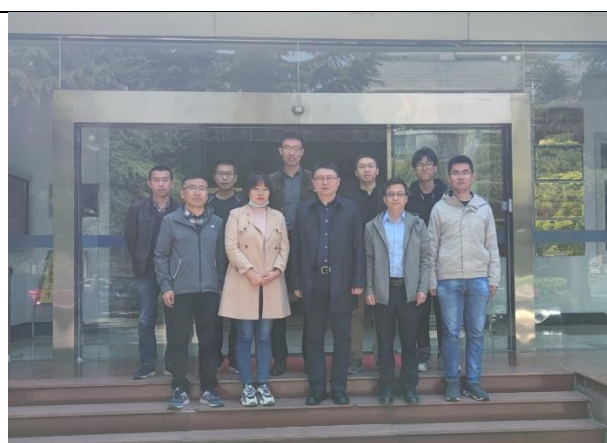


Figure 41: 5G-MOBIX CH TS Event

3-5-4-7. GT-TR CBC Demo Event

Table 16: 5G-MOBIX GR-TR CBC Demo Event

No.	Trial site / CBC	Partners involved
7.	GR-TR CBC	TURKCELL, TUBITAK, COSMOTE, WINGS, ICCS, ERICSSON GR, ERICSSON TR, FORD
Date: 10 May 2022		
Location: Kipoi (GR) & Ipsala (TR)		
Type of Event: Stand-alone event (physical)		
Use cases/ user stories to be demonstrated: <ul style="list-style-type: none"> UC Demo #1: (Platooning with) See What I See The 'See What I see' functionality for trucks driving in platoon formation, while also testing the potential Local break out (LBO) scenario. UC Demo #2: Assisted Border Crossing Remote vehicle inspection and predictive risk assessment for all trucks coming into the customs area of the GR-TR borders, using the WINGS application and testing 2 scenarios i.e., VRU and False License Plate. UC Demo #3: Platooning The Platooning user story in the TR side. UC Demo #4: Truck Routing Autonomous routing of the truck inside the customs area. 		
Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders, MNOs, Road Operators, Service Providers, RTOs, Press E.g.: Turkcell, Tubitak, Ford, Ericsson TR, BTK Information and Communication Technologies Authority, COSMOTE, WINGS, ICCS, Local municipality representatives etc.		
Participants: 45		
Demo Event Announcement: https://www.5g-mobix.com/newsandevents/events/5g-mobix-greece-turkey-cross-border-corridor-demo-event		
Press Release: https://www.5g-mobix.com/newsandevents/pressreleases/testing-5g-enabled-cam-functionalities-in-cross-border-scenarios-5g-mobix-announces-the-first-ever-public-demonstration-across-the-greece-turkey-border		
Description: The 5G-MOBIX project consortium has developed and evaluated automated vehicle functionalities using 5G core technological innovations along two cross-border corridors and several urban trial sites. The Greece-Turkey cross-border corridor is one of them. Located on the south eastern border of Europe, between Kipoi, Greece and Ipsala, Turkey, this trial site provides a strategic geopolitical environment, a pertinent testing ground for the operation of CAM use cases at a hard EU		

border. During the demonstration, the Greece-Turkey trial site partners will present different user stories and showcase the impact of tested solutions that target the specific characteristics of this dynamic border route. More specifically, the demonstrations will show how the heavy commercial traffic in this border region – created by large numbers of queuing trucks – may be alleviated by implementing platooning, automated truck routing and assisted border crossing.

Agenda (Annex 5):

10.00 (UTC) Welcome and Introduction to the trial site and demonstrations (Kipoi Crossing Border Point Cafe, GR)
 11.00 See what I see & Assisted border crossing demonstration
 12.30 Lunch
 13.30 Crossing the border (from Kipoi to Ipsala, TR)
 14.30 Platooning & Autonomous Truck routing demonstration
 16.00 Demo wrap up – Q&A (Ipsala, TR)

Media Coverage:

Greek media coverage

Greek Daily Newspaper *Kathimerini*

<https://www.kathimerini.gr/society/561849979/geniki-dokimi-gia-eyfyeis-metafores/>

<https://www.kathimerini.gr/economy/561882904/fortiga-choris-odigo-dieschisan-ta-synora/>

Greek public broadcaster *ERT 3* (nationwide, aimed at Northern Greece)

<https://www.youtube.com/watch?v=NzQugohXrDQ>

T-Press WebTV (media source for Greek technical news and updates)

<https://tpresswebtv.gr/oi-exelixeis-se-olokliri-tin-chora/>

Other news outlets:

1. <https://www.ertnews.gr/roi-idiseon/aytomatopoiimeni-dieleysi-fortigon-sta-synora-elladas-toyrkias/>
2. <https://www.inewsgr.com/496/gia-proti-fora-zontani-epideixi-aftomatopoiimenis-dielefsis-fortigon-sto-diasynoriako-diadromo-elladas-tourkias.htm>
3. <https://www.autonomous.gr/5g-movich-aytomatopoiimeni-dieleysi-fortigon-diasynoriako-diadromo-elladas-toyrkias/>
4. <https://www.metaforespress.gr/autokinitodromoi/για-πρώτη-φορά-live-επίδειξη-αυτοματοποι/>
5. <https://www.thessaliaeconomy.gr/blog/tecnologia/5g-epideiksi-fortigon-xoris-odigo>
6. https://www.caranddriver.gr/eidiseis/arthro/gia_proti_fora_zontani_epideiksi_aytomatopoiimenis_dieleusis_fortigon_sto_diasynoriako_diadromo_elladas_tourkias-7809298/

7. https://portal.tee.gr/portal/page/portal/INFO_TEE/INFO_2022/05_22/NEWSLETTER20220510.pdf
8. <https://fleetnews.gr/diasynoriaki-dokimi-5g-mobix/>
9. <https://ictplus.gr/gia-proti-fora-zontani-epideixi-aytomatopoiimenis-dieleysis-fortigon-sto-diasynoriako-diadromo-elladas-tourkias/>
10. <https://www.iccs.gr/blog/2022/05/09/>
11. <https://troxoikaitir.gr/article/aytomatopoiimeni-dieleysi-fortigon-sta-ellinotoyrkika-synora-platooning-ayrio-se-zontani>
12. <https://www.gnomionline.gr/fortiga-choris-odigo-dieschisan-ta-synora-ston-evro/>

Turkish media coverage

Turkish News Agency *Anadolu Ajansı*:

<https://www.aa.com.tr/tr/sirkethaberleri/bilisim/turkcell-den-sinirlari-asan-iletisim-teknolojilerinde-yeni-bir-adim/672869>

Analiz Newspaper:

http://www.medyatakip.com/medya_sistem/yb_kupurgoster.php?gnosif=YR1oSWqSKmhczIXOkRKbcA..&mnosif=2b5yEEuvCAA.&st=2

Milliyet Newspaper:

http://www.medyatakip.com/medya_sistem/yb_kupurgoster.php?gnosif=y8h7GjxpPkdqTZo3f4ErPg..&mnosif=2b5yEEuvCAA.&st=2

Türkgün Newspaper:

http://www.medyatakip.com/medya_sistem/yb_kupurgoster.php?gnosif=y8h7GjxpPkcsoKL7fkA6bA..&mnosif=2b5yEEuvCAA.&st=2

Türkiye Gazetesi Newspaper:

http://www.medyatakip.com/medya_sistem/yb_kupurgoster.php?gnosif=y8h7GjxpPkdoxdO_mgEUMA..&mnosif=2b5yEEuvCAA.&st=2

Önce Vatan Newspaper:

http://www.medyatakip.com/medya_sistem/yb_kupurgoster.php?gnosif=YR1oSWqSKmiFpeOEaN_IVA..&mnosif=2b5yEEuvCAA.&st=2

Bursa Kent Newspaper:

<https://clips.medyatakip.com/pm/clip/m8gjuGtb9xGU6RajE77MWp>

While 6 newspapers (4 national and 2 local) about our bulletin were reflected in the newspaper, these news covered 258 st*cm (approximately 0.6 newspaper pages), and 968,169 people were reached.

Table 17: 5G-MOBIX GR-TR Demo Event, Turkish media coverage

No	Tarih	Yayın	Başlık	Sayfa	StxCm	Erişim	R.E(TL)	İl	Yayın Dağılımı
#2022052411785	14.05.2022	Analiz	TURKCELLDEN İLETİŞİMDE YENİ BİR ADIM	1	91	150.828	4.103	İstanbul	Ulusal
#2022052546833	14.05.2022	Milliyet	5GYI SINIRDA TEST ETTİ	6	37	348.597	9.635	İstanbul	Ulusal
#2022052525558	14.05.2022	Türkgün	TURKCELL, AR-GE DE YENİ BİR ADIM DAHA ATTI	5	42	103.440	1.455	İstanbul	Ulusal
#2022052528006	14.05.2022	Türkiye Gazetesi	TURKCELLDEN SINIRLARI AŞAN TEKNOLOJİ	6	13	351.546	1.094	İstanbul	Ulusal
#2022052410024	14.05.2022	Önce Vatan	TURKCELL, AVRUPA BİRLİĞİ AR-GE PROJESİNİ TAMAMLADI	7	75	13.758	675	İstanbul	Yerel
				5 haber	258	968.169	16.962		
				4 ulusal	0,6				

Other news outlets

1. <https://medya.turkcell.com.tr/bulletins/turkcellden-sinirlari-asan-iletisim-teknolojilerinde-yeni-bir-adim/>
2. <https://www.dha.com.tr/teknoloji/turkcell-avrupa-birligi-ar-ge-projesini-tamamladi-2068921>
3. <https://www.milliyet.com.tr/ekonomi/5gyi-sinirda-test-etti-6754365>
4. <https://www.narkozhaber.com/turkcell-in-koridor-liderligindeki-ab-ar-ge-projesi-tamamlandi/>
5. <https://beyazgazete.com/haber/2022/5/13/turkcell-in-koridor-liderligindeki-ab-ar-ge-projesi-tamamlandi-6508502.html>
6. <https://medyapolls.com/turkcell-avrupa-birligi-ar-ge-projesini-tamamladi/>
7. <https://songelisme.com/turkcell-avrupa-birligi-ar-ge-projesini-tamamladi/>
8. <https://www.gazeteyildiz.com/turkcell-avrupa-birligi-ar-ge-projesini-tamamladi-213903.html>
9. <https://www.tradeall.com/haber-detay/1309349/turkcell-in-koridor-liderligindeki-ab-ar-ge-projesi-basariyla-tamamlandi>
10. <https://infialhaber.com/5gyi-sinirda-test-etti/>
11. <https://bilgem.tubitak.gov.tr/tr/haber/bilgem-yaptigi-uluslararası-birlikleri-ile-teknolojinin-onusu-olmaya-devam-ediyor>

International media coverage

1. <https://5gmed.eu/category/article/>
2. <https://5g-ppp.eu/testing-5g-enabled-cam-functionalities-in-cross-border-scenarios-5g-mobix-announces-the-first-ever-public-demonstration-across-the-greece-turkey-border/>
3. <https://www.ugent.be/ea/idlab/en/news-events/news/5gmbx-final-demo-event.htm>
4. <https://www.wings-ict-solutions.eu/live-demonstration-of-automated-transit-of-trucks-on-the-greek-turkish-cross-border-corridor/>
5. https://6g-ia.eu/single_post/?slug=testing-5g-enabled-cam-functionalities-in-cross-border-scenarios-5g-mobix-announces-the-first-ever-public-demonstration-across-the-greece-turkey-border

Photos:



Figure 42: 5G-MOBIX GR-TR CBC Demo Event (GR)



Figure 43: 5G-MOBIX GR-TR CBC Demo Event (TR)



Figure 44: 5G-MOBIX GR-TR CBC Demo Event



Figure 45: 5G-MOBIX GR-TR CBC Demo Event

3.5.4.8. ES-PT CBC Demo Event

Table 18: 5G-MOBIX ES-PT CBC Demo Event

No.	Trial site / CBC	Partners involved
7.	ES-PT CBC	CTAG, NOKIA ES, NOKIA BEL LABS, ISEL, IT, ATOBE, NOS, NOKIA PT, and TELEFÓNICA.
Date: 26-27 October 2021		
Location: Porto -Vigo		
Type of Event: Stand-alone event (physical)/ not open to the public		
Description: 5G-MOBIX partners working on the 250 km-long cross-border corridor between Vigo and Oporto successfully carried out trial demonstrations of advanced CAM use cases related to motorways and urban routes. The trial of motorway use case was carried out with autonomous and connected		

prototypes focusing on the scenarios of lanes merging onto the motorway, overtaking, and HD maps that display detected roadworks in real time; while an urban route scenario was tested with an autonomous shuttle.

Participants: 23 (EC officials and 5G-MOBIX partners)

Video: <https://www.5g-mobix.com/resources/videos/es-pt-cbc-demo-october-2021>

Photos:



Figure 46: 5G-MOBIX GR-TR CBC Demo Event



Figure 47: 5G-MOBIX GR-TR CBC Demo Event



Figure 48: 5G-MOBIX GR-TR CBC Demo Event



Figure 49: 5G-MOBIX GR-TR CBC Demo Event

3.5.5. Short Demo Events

Besides the main demo events, the project partners organised **6 short demo events** within major conferences and other public events or as stand-alone demonstrations, where part of the tested solutions were showcased.

Table 19: List of 5G-MOBIX Short Demo Events

Organisation of 5G-MOBIX short demo/event (trial sites & CBC) <i>Period: November 2018 – September 2022</i>				
No.	Trial site / CBC	Date	Partners involved	Event Description
1.	TR TS	April 2019	Turkcell	Demonstration of what platooning is, using programmable toy trucks during the Turkcell Technology Summit in Istanbul
2.	GR – TR CBC	June 2019	WINGS	Demo on the Greece-Turkey x-border corridor at the project's booth at EUCNC 2019 in Valencia, Spain
3.	NL TS	January 2020	KPN, VTT, TNO, Ericsson	Remote Driving use cases demonstrated at Dutch trial site at KPN's 5G themed event -
4.	FI TS	October 2021	AALTO, Sensible 4	Field demonstration of service continuity for remote driving in a 5G multi-PLMN environment at the 2021 IEEE 4th 5G World Forum
5.	DE TS	September 2021	TUB, GT-ARC, Valeo, VICOMTECH	'Platooning' and 'Extended Sensors' use cases demo in Berlin
6.	NL TS	September 2021	KPN, VTT, TNO, Ericsson	'Collision Avoidance application using 5G' demo

3.5.6. Final Event at the ES-PT CBC

Table 20: 5G-MOBIX Final Event at the ES-PT CBC

Date: 13-14 September 2022
Location: CTAG, Porriño / International Bridge Tui-Valença (Spain-Portugal)
Type of Event: Stand-alone event (physical)

<p>Target Audience/Invited Stakeholders: Public Authorities & Policy Makers, Automotive Industry Stakeholders, MNOs, Road Operators, Service Providers, RTOs, Press, SW & HW Providers E.g.: TELEFONICA, NOS, DGT, STELLANTIS, VALEO, IMT - Instituto da Mobilidade e dos Transportes, I.P., 5GAA</p>
<p>Participants: 106</p>
<p>Description: 5G-MOBIX held its final event on 13-14 September at the CTAG facilities in Porriño, with presentations and test tracks demos at the two International Bridges Tui-Valença. The contribution of all project partners was reflected in the final outcome of the project, showcasing their work and achievement in both the presentations and demonstrations of the event.</p> <p>The Spanish and Portuguese partners led the organization of the final event with CTAG being the host and coordinating the connected and automated vehicles (CAVs) and infrastructure devices in the demos. Telefónica and NOS represented the Spanish and Portuguese Mobile Network Operators (MNOs), respectively, NOKIA ES & NOKIA PT were responsible for the Network Infrastructure on the Spanish and Portuguese sides, respectively, Instituto de Telecomunicações (IT) and A-to-Be were responsible for the connected vehicle in the demo in the New Bridge, DGT, Infraestruturas de Portugal, IMT, Norte Litoral were in charge of road management, closures and securing authorization to carry out the demos and ALSA buses dealt with the transfers during the event. Finally, the Concello de Tui and Camera de Valença made the trials and overall event possible in both cities.</p> <p>The first day of the final event had a more technical focus, providing the opportunity to interact with the project experts on the detailed outcomes of the trials. The second day (on invitation only) was open to the press, public and high-level stakeholders.</p>
<p>Use cases/ user stories to be demonstrated:</p> <ul style="list-style-type: none"> <p>Lane Merge use case The autonomous vehicle in mixed traffic with non-connected vehicles receives through 5G the position information of these vehicles on the main lanes of e.g., a motorway, predicts their trajectories and adapts speed for safe merging manoeuvre.</p> <p>Overtaking use case The autonomous vehicle sensors view is blocked and it receives from nearby connected vehicles via the 5G network information to perform safe overtaking manoeuvre.</p> <p>HD Maps use case The autonomous vehicle receives from the traffic management centre information on roadworks ahead; comparing it with its own map information, it concludes that its internal map is out of date and prompts the driver to take control and begins to record what the sensors are seeing as new. This new map is sent back via the 5G network to nearby vehicles so that they can autonomously overcome the roadworks.</p>

- **Remote driving use case**
The autonomous shuttle in autonomous mode is on meeting an obstacle remotely steered by the Control Centre supported by the low latency of the 5G network.
- **Speed adaptation based on Vulnerable Road User use case**
The autonomous shuttle crosses the border along the bridge in autonomous mode and slows down or comes to a complete stop to avoid a pedestrian (pedestrian detection - shuttle anti-collision system - and position - pedestrian's phone - information exchanged over 5G).

Agenda ([Annex 5](#)):

Programme 13 September 2022

9:00 CET/ 8:00 GMT Welcome & opening (@CTAG, Porriño)

- Welcome from the Host
- Agenda presentation

9:15 CET 5G-MOBIX results & lessons learnt

- Introduction to the project
- Developments & trials
- Evaluation results
- Introduction to the demonstrations

11:00 CET Coffee break

11:30 CET Demonstrations on CTAG's tracks and tour of the Trial Sites stand

- **Lane Merge use case**
- **Overtaking use case**
- **HD Maps use case**

13:00 CET Lunch

13:30 CET Transport to International Bridge Tui-Valença

13:45 CET Demonstration at the International Bridge Tui-Valença ("old bridge")

- **Remote driving use case**
- **Speed adaptation based on Vulnerable Road User use case**

16:00 CET Transport to the Ponte nova Tui-Valença ("new bridge")

16:15 CET Demonstration at the New Bridge

17:00 CET Transport back to CTAG for a networking cocktail

Programme 14 September 2022 (on invitation only)

9:30 CET/ 8:30 GMT Welcome & opening (@Teatro Municipal Tui, Spain)

- Welcome from the Host CTAG
- Welcome from the Mayor of Tui, Enrique Cabaleiro González and Deputy Mayor of Valença, Ana Paula Sanches
- Introduction to the project and the demonstrations presented
- Business models, policy and financial impacts associated with 5G roll-out

11:30 CET Live demonstration "Autonomous Shuttle manoeuvres in cross-border areas" (@ International Bridge Tui-Valença)

13:00 CET Transport to CTAG & lunch (Porriño, Spain)

14:00 CET Demonstrations on CTAG's tracks

Video: <https://www.youtube.com/watch?v=fd5odruuny8>

Press Pack: <https://5g-mobix.com/newsandevents/presskit/5g-mobix-final-event-press-pack>

Final Event Announcement: <https://5g-mobix.com/newsandevents/events/5g-mobix-final-event>

Media Coverage:

Spanish media coverage

1. [El proyecto europeo 5G-Mobix prueba un vehículo autónomo con tecnología 5G en la frontera de España con Portugal](#) - Galicia Press
2. [La frontera Galicia-Portugal, escenario de la primera demostración de conducción autónoma - 5G](#) Faro de Vigo
3. [Tui y Valença prueban la movilidad del futuro con el coche autónomo](#) - Faro de Vigo
4. [Tui, capital europea del coche autónomo](#) - Atlántico
5. TVE Galicia: <https://www.rtve.es/play/videos/telexornal-galicia/14-09-2022/6691667/> from mn 7:35
6. Revista TVG: <https://www.crtvg.es/tvg/a-carta/a-revista-5810148?t=210>
7. [El vehículo del futuro cruza la frontera entre Galicia y Portugal en el Puente Internacional de Tui](#) - Metropolitano.gal
8. [Tui acoge la primera demostración pública de conducción autónoma 5G entre Galicia y Portugal](#) Vigoé
9. [La conducción autónoma con 5G se prueba en la Eurociudad Tui- Valença](#) - Cadena SER
10. [Un vehículo autónomo diseñado por CTAG cruza la frontera entre Galicia y Portugal](#) - Treintayseis
11. [CTAG lidera la primera demostración pública de conducción autónoma apoyada en la tecnología 5G en la frontera entre España y Portugal](#) - CTAG website
12. [O vehículo autónomo de diseño galego fai probas entre Tui e Valença](#) – G24.gal

Portuguese media coverage

Portuguese media present at the final event:

- Correio da Manhã TV (CMTV) – national TV
- RTP – national public TV
- Público – daily national generalista newspaper

Phone interviews:

- TSF – national radio
- Agência Lusa – news agency
- Observador – national generalist medium

TV coverage

- [Condução autónoma 5G](#) - RTP1 - Jornal da Tarde
- (Online) [Primeira viagem de condução autónoma 5G entre Valença e Tui](#) – TV Online Alto Minho
- (Rep) [Condução autónoma 5G](#) – RTP3 Eixo Norte Sol
- (Rep) [Condução autónoma 5G](#) – RTP3

- (Rep) [Condução autónoma 5G](#) – RTP1 Portugal em Direto

Press coverage

- (National) [Veículo sem condutor](#) - Correio da Manhã
- (Regional) [Eurocidade Tui - Valença testou veículo com mobilidade autónoma](#) – Correio do Minho

Radio coverage

- [Veículos autónomos](#) - TSF - Mundo Digital
- [Veículos autónomos – REPETIÇÃO](#) - TSF - Mundo Digital

Other news outlets:

1. [5G-Mobix apresenta balanço final dos ensaios sobre mobilidade conectada e automatizada em corredores transfronteiriços](#) - Portal 5G
2. [PRIMEIRA VIAGEM AUTÓNOMA NA FRONTEIRA PORTUGAL- ESPANHA COM 5G DA NOS - NOS](#)
3. [Primeira viagem de veículo autónomo conectado à rede 5G em Portugal](#) - Away Magazine
4. [Autocarro sem condutor: capacidade do 5G na condução autónoma testada em Valença](#) - Porto Canal Online
5. [Primeira viagem de um veículo autónomo em Portugal](#) - Green Future - Automagazine Online
6. [Entre Portugal e Espanha, um autocarro sem condutor mostrou capacidade do 5G na condução autónoma](#) - Sapo Online/Sapo Tek Online
7. [NOS adianta-se à Vodafone e MEO com esta iniciativa pioneira em Portugal](#) - 4GNews Online
8. [Veículo sem condutor viajou entre Portugal e Espanha](#) - Motor 24 Online
9. [Valença recebeu primeira viagem feita por carros sem condutores](#) - Aurora do Lima Online (A)
10. [Veículo sem condutor atravessou a fronteira Portugal-Espanha](#) - Auto Foco Online
11. [Primeira viagem num veículo autónomo feito entre Portugal e Espanha](#) - Notícias ao Minuto Online
12. [5G-Mobix. Veículos autónomos já circulam em Portugal](#) - Observador Online
13. [Portugal a caminho da condução autónoma. Veja como](#) - Observador Online
14. [Condução autónoma 5G. Primeira viagem ocorreu entre Valença e Tui](#) - RTP Online
15. [5G: ponte Valença-Tui foi palco da primeira viagem de condução autónoma em Portugal](#) - ComputerWorld Online
16. [Eurocidade Tui - Valença testou veículo com mobilidade autónoma](#) - Correio do Minho Online
17. ["Shuttle" sem condutor regressou à ponte de Valença para primeira viagem transfronteiriça](#) - Diário Guardiã Online
18. [Primeira viagem de condução autónoma ligada à internet aconteceu na Ponte Internacional de Valença](#) - Geice FM Online

19. [Valença: Primeira viagem de condução autónoma 5G transfronteiriça](#) - Jornal C - O Caminhense Online
20. ["Shuttle" sem condutor regressou à ponte de Valença para primeira viagem transfronteiriça](#) - Jornal de Notícias Online
21. [Projecto europeu 5g-mobix: realizou-se a primeira viagem de condução autónoma 5g entre Valença e Tui](#) - Minho Digital Online
22. [Primeira viagem autónoma na fronteira com a rede 5G da NOS](#) - Pulsar Económico Online
23. [Ana Paula Xavier: "Resultados são porta aberta para o futuro das empresas e da indústria"](#) - Rádio Vale do Minho Online
24. [Sem condutor, shuttle 5G atravessou ponte entre Valença e Tui](#) - Semanário V Online
25. [Primeira viagem autónoma na fronteira Portugal-Espanha](#) - Smart Planet Online
26. [Primeira viagem autónoma na fronteira Portugal-Espanha com 5G da NOS Destaque](#) – Wintech Online
27. [Não é ficção. Primeiro veículo sem condutor atravessa Ponte de Internacional de Valença](#) - Amarense Online (O)
28. [Conectividade do 5G da NOS concretiza primeira viagem autónoma em Portugal](#) - Ambiente Magazine Online
29. [NOS participa na 1ª viagem autónoma e conectada 5G](#) - APDC Online
30. [NOS prova que condução autónoma é possível e agora cabe às empresas avançar](#) - Dinheiro Vivo Online
31. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar](#) - ECO - Economia Online
32. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar](#) - Executive Digest Online
33. [Primeira viagem autónoma na fronteira Portugal-Espanha com 5G da NOS](#) - Flead Online
34. [Realizou-se hoje a primeira viagem autónoma em 5G em Portugal](#) - Green Savers Online
35. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar - administrador](#) - Impala Online
36. [Não é ficção. Primeiro veículo sem condutor atravessa Ponte de Internacional de Valença](#) - Jornal O Vilaverdense Online
37. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar](#) - Lusa Online
38. [Ponte internacional de Valença foi palco da primeira viagem autónoma entre Portugal e Espanha](#) - Minho Online (O)
39. [Primeira viagem de condução autónoma e conectada com 5G na fronteira Portugal-Espanha](#) – Mob- Magazine Online
40. [Cumpe-se hoje a primeira viagem de condução autónoma 5G entre Portugal e Espanha](#) - MultiNews Online

41. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar - administrador](#) - Mundo Atual Online
42. [Condução autónoma com tecnologia 5G. "Está demonstrado que é possível"](#) - Notícias ao Minuto Online
43. [Viagem autónoma ligou Portugal e Espanha com apoio do 5G](#) - Ntech.news Online
44. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar, diz administrador](#) - Observador Online
45. [Portugal: Primeira viagem de um veículo autónomo ligado à rede 5G](#) - Pplware Online
46. [Não é ficção. Primeiro veículo sem condutor atravessa Ponte de Internacional de Valença](#) - Press Minho Online
47. [Ponte de Valença cortada ao trânsito esta terça e quarta](#) - Aurora do Lima Online (A)
48. [5G: NOS prova que condução autónoma é possível e agora cabe às empresas avançar - administrador](#) - Visão Online
49. [Marcada a primeira viagem de condução autónoma através de 5G entre Portugal e Espanha](#) - Sapo Tek Online
50. [VALENÇA/TUI: Primeira viagem de condução autónoma entre Portugal e Espanha já tem data](#) - Rádio Alto Minho Online
51. [Valença: Ponte centenária cortada ao trânsito esta noite e madrugada \(e também na quinta-feira\)](#) - Rádio Vale do Minho Online
52. [Valença: Ponte centenária vai fechar ao trânsito esta quarta-feira \(só reabre amanhã!\)](#) - Rádio Vale do Minho Online
53. [5G da NOS impulsiona Condução Autónoma](#) - Jornal das Oficinas Online

International Press Coverage

1. [5G-powered autonomous vehicle demoed in Spain-Portugal](#) – Electronics 360
2. [5G-MOBIX shuttle tested in a pioneer trip on the cross-borders of Spain and Portugal](#) – IT website
3. [Breaking Boundaries with 5G](#) - ERTICO Newsroom
4. [Between Portugal and Spain, a semiconductor bus with 5G capability in autonomous driving – Telecomunicações](#) – Europe Cities
5. [The first autonomous 5G trip in Portugal took place today](#) – Trend detail news
6. [5G technology represents the key to 100% autonomous mobility](#) – Fog News
7. [5G-powered autonomous vehicle demoed in Spain-Portugal](#) – AV America

Photos:



Figure 50: 5G-MOBIX Final Event



Figure 51: 5G-MOBIX Final Event



Figure 52: 5G-MOBIX Final Event



Figure 53: 5G-MOBIX Final Event



Figure 54: 5G-MOBIX Final Event

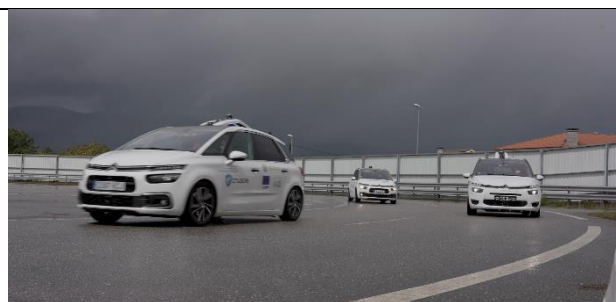


Figure 55: 5G-MOBIX Final Event

3.6. Publications

Publications are an essential mean of raising awareness of the project's output for uptake, namely to the scientific and professional community. 5G-MOBIX scientific papers and technical articles were submitted for publication in conference proceedings, scientific peer-reviewed journals, technical magazines as well as trade and magazines in Europe and beyond. The KPIs that measure how effectively the project's consortium disseminated results through scientific publication have been defined as follows:

Table 21: Indicators of Success for Publications

Tool / Channel	Measured Indicators	Indicators of Success			
		Y1 (M1 – M12)	Y2 (M13– M24)	Y3 (M25 – M47)	Total
Scientific publications	Papers in conference proceedings	≥3	≥15	≥40	58
	Scientific and technical articles in peer-reviewed journals	≥3	≥5	≥15	23
	Articles in trade magazines & non-scientific publications	≥1	≥2	≥7	10

According to the information recorded in the dissemination registry, the 5G-MOBIX consortium has published:

- **42** papers in conference proceedings;
- **35** scientific and technical articles in peer-reviewed journals;
- **13** articles in trade magazines & non-scientific publications.

Looking at the data extracted from the dissemination registry, the 5G-MOBIX consortium has reached the target for the published scientific and technical articles in peer-reviewed journals and articles in trade

magazines and non-scientific publications. However, it was not possible to reach the target regarding the published papers in conferences proceedings. Nevertheless, we believe that exceeding the target number set for peer-reviewed publications by **52%**, shows the consortium's dedication and effort towards diffusing the project's results to the scientific and professional community.

All papers in conference proceedings, journal publications, article and white papers are available on the 5G-MOBIX website under the [Papers and Journals](#) page.

3.6.1. Papers in Conference Proceedings

In Table 22: List of 5G-MOBIX Papers in Conference Proceedings there is an overview of the scientific and technical papers that have been published in conference proceedings under the acknowledgement of the 5G-MOBIX project.

Table 22: List of 5G-MOBIX Papers in Conference Proceedings

5G-MOBIX Papers in Conference Proceedings <i>Period: November 2018 – September 2022</i>				
No	Title	Authors	Partners	Event
1.	Edge capacity planning for real-time compute-intensive applications	Marius Noreikis, Yu Xiao, Yuming Jiang	AALTO	IEEE International Conference on Fog Computing (ICFC'19)
2.	Route-based Radio Coverage Analysis of Cellular Network Deployments for V2N Communication	Umar Saeed, Jyri Hämäläinen, Edward Mutafulungwa, Risto Wichman, David Gonzalez G., Mario Garcia-Lozano	AALTO	IEEE WiMOB 2019
3.	Usability Benefits and Challenges in mmWave V2V Communications: A Case Study	Muhammad Usman Sheikh, Jyri Hämäläinen, David Gonzalez Riku Jäntti, Osvaldo Gonsa	AALTO	IEEE WiMOB 2019
4.	5G Video Optimization Challenges for Entertainment and	Ignacio Benito Frontelo, Jaime Ruiz Alonso, Pablo Perez, João Moutinho, Diego Bernárdez Morón,	Nokia Bell Labs, CCG, CTAG	EuCNC2019

	Remote Driving in Connected Mobility	Francisco Sánchez Pons		
5.	A Lightweight Policy-aware Broker for Multi-domain Network Slice Composition	Xuan-Thuy Dang, Fikret Sivrikaya	TUB, GTARC	IEEE ICIN 2020 (23rd Conference on Innovation in Clouds, Internet and Networks and Workshops)
6.	Enforcing GDPR regulation to vehicular 5G communications using edge virtual counterparts	Jordi Ortiz, Pedro J. Fernández, Ramón Sánchez-Iborra, Jorge Bernal, José Santa, Antonio F. Skarmeta	UMU	2020 IEEE 3rd 5G World Forum (5GWF 2020)
7.	5G-MOBIX - towards autonomous and connected mobility in Europe based on the potential of 5G	Aitor Fernández	AEVAC	6th Congress of Smart Cities
8.	V2X-supported automated driving in modern 4G networks	Pasi Pyykönen, Aki Lumiaho, Matti Kutila, Johan Scholliers	VTT	16th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP)
9.	Cloud Based HD Maps in the 5G-MOBIX Project	Tiago Dias, Jorge Ribeiro, Lara Moura	A-to-Be	Virtual ITS European Congress
10.	Description of the Methodology developed to perform traffic safety assessment: Using advanced image analytics on overhead video captured by drone	Francisco Freitas; Carolina Alves	Siemens	Virtual ITS European Congress 2020
11.	5GMOBIX Spanish-Portuguese Pilot Site	N/A	CTAG	Virtual ITS European Congress 2020
12.	CCAM Infrastructure Support for 5G	João Almeida, Joaquim Ferreira, João Moutinho,	IT, CCG, CTAG, TNO	Virtual ITS European Congress 2020

	Advanced Driving Scenarios	Daniel Jáuregui, Estrela Álvarez, Marcel van Sambeek		
13.	Cybersecurity and data privacy aspects in 5G-MOBIX	Djibrilla Amadou Kountche, Marwan El-Bekri, Pedro J. Fernández Ruiz, Jose Santa, Antonio F. Gómez-Skarmeta, Joao Almeida, Qiang Tang, Nuno Cruz	AKKA, UMU, IT, LIST, ISEL	Virtual ITS European Congress 2020
14.	Qualifying 5G SA for L4 automated vehicles in a multi-PLMN experimental testbed	Giancarlo Pastor, Edward Mutafulungwa, Jose Costa-Requena, Xuebing Li, Oussama El Marai, Norshahida Saba, Aziza Zhanabatyrova, and Yu Xiao	AALTO, SENSIBLE4	IEEE VTC 2021
15.	Integrated Service Discovery and Placement in Information Centric Vehicular Network Slices	Xuan-Thuy Dang, Fikret Sivrikaya, Sebastian Peters	TUB, GTARC	IEEE 93rd Vehicular Technology Conference (Helsinki)
16.	On-board unit to connect personal mobility vehicles to the IoT	Jose Santa, Luis Bernal-Escobedo, Ramon Sanchez-Iborra	UMU	The 17th International Conference on Mobile Systems and Pervasive Computing (MobiSPC)
17.	SDN-based Misbehavior Detection System for Vehicular Networks	Abdelwahab Boualouache, Ridha Soua, Thomas Engel	UL	2020 IEEE 91st Vehicular Technology Conference (VTC2020 Spring)
18.	Toward an SDN-based Data Collection Scheme for Vehicular Fog Computing	Abdelwahab Boualouache, Ridha Soua, Thomas Engel	UL	ICC 2020 - 2020 IEEE International Conference on Communications (ICC)

19.	TDD Synchronization Testing Over Neighbouring 5G Networks in a Cross-Border Corridor	Serhat Col, Nikolaos Kostopoulos, Fotini Setaki, Eutuxia Nikolitsa, Afrim Berisa, Konstantinos Trichias	WINGS, COSMOTE, Turkcell, Ericsson	IEEE 5G for CAM Virtual Summit
20.	HD Maps in the 5G-MOBIX project	Tiago Dias, Jorge Ribeiro, Mohannad Jooriah, Lara Moura, Joaquim Ferreira et al.	IT, A-to-Be, CTAG	IEEE 5G for CAM Virtual Summit
21.	5G-MOBIX: The Greece-Turkey Cross-Border Corridor	Nazlı Güney, Konstantinos Trichias, Dries Naudts, Vasilis Maglogiannis, Tahir Sarı, Serhat Çöl, Ioannis Zompas	Turkcell, Ford, Ericsson, WINGS	IEEE 5G for CAM Virtual Summit
22.	5G-MoBiX ES-PT Cross-Border Corridor	Diana Blanco, Francisco José Sánchez, Diego Bernárdez, Marta Miranda, Daniel Jáuregui, Joel Puga, Filipe Meneses, Emanuel Sousa	CTAG, CCG	IEEE 5G for CAM Virtual Summit
23.	Latency Assessment for CCAM services over 5G	Oscar Castañeda, Janie Baños, Antonio J. Garrido, Carlos Cárdenas, Carlos Mendes, Antonio Serrador, Nuno Cota, Nuno Datia, Nuno Cruz	ISEL, DEKRA	IEEE 5G for CAM Virtual Summit
24.	A Performance Measurement Platform for C-ITS over 5G -	António Serrador; Carlos Mendes; Nuno Datia; Nuno Cota; Nuno Cruz; Ana R. Beire	ISEL	EUCNC 2021

25.	Intelligent Misbehavior Detection System for Detecting Position Falsification Attacks	Faisal Hawlader, Abdelwahab Boualouache, Sébastien Faye, and Thomas Engel	UL, LIST	Workshop on 5G and Beyond Wireless Security (IEEE International Conference on Communications)
26.	A Multi-objective Roadside Units Deployment Method in VANET	Zihui Zhang, Chao Li, Liangjie Yu, Yiqiang Zhao and Yanqiang Li	SDAS	IEEE International Conference on Smart Internet of Things (SmartIoT 2021)
27.	A shortest job first algorithm for minimizing the average delay of vehicles at the un-signalized intersection	Yanjun Shi, Hafiz Abdul Saboor, Lujun Wang and Zihui Zhang	DUT	IEEE International Conference on Smart Internet of Things (SmartIoT 2021)
28.	A Scheduling Algorithm for Pass-through of Connected and Automated Vehicle with Different Priorities in Non-signalized Intersection	Lujun Wang, Yanjun Shi, Xiangjie Xiao, Xuyang Cao and Fuzheng Qu	DUT	IEEE International Conference on Smart Internet of Things (SmartIoT 2021)
29.	Complexity Assessment with K-Weighted Entropy for Cloud-Edge-Vehicle System	Yanjun Shi, Jiajian Li and Lingling Lv	DUT	IEEE International Conference on Smart Internet of Things (SmartIoT 2021)
30.	SEP4CAM-A Simulative/Emulative Platform for C-V2X Application Development in Cross-Border and Cross-Domain Environments	Sebastian Peters, Fikret Sivrikaya, Xuan-Thuy Dang	TUB, GT-ARC	IEEE 25th International Symposium on Distributed Simulation and Real Time Applications (ACM DS-RT 2021)
31.	Cloud Based HD Maps Scenario in the 5G-MOBIX Project	Tiago Dias, Jorge Ribeiro, Lara Moura	A-to-Be	27th ITS World Congress

32.	Hierarchical Deep Reinforcement Learning based Dynamic RAN Slicing for 5G V2X	Umuralp Kaytaz, Fikret Sivrikaya, Sahin Albayrak	GT-ARC, TUB	IEEE Global Communications Conference (IEEE GLOBECOM) 2021
33.	Balancing Latency and Accuracy on Deep Video Analytics at the Edge	Xuebing Li, Byungjin Cho, Yu Xiao	AALTO	IEEE Consumer Communications and Networking Conference (IEEE CCNC 2022)
34.	Portuguese 5G Connected Vehicle and Infrastructure in the 5G-MOBIX project	Tiago Dias, Ana Vieira da Silva, Lara Moura, João Almeida, Mohannad Jooriah, Joaquim Ferreira	A-to-Be, IT	ITS European Congress 2022
35.	Cloud-based HD Mapping supporting Autonomous Driving using cellular 5G in cross-border scenarios	Tiago Dias, Ana V. Silva, Lara Moura	A-to-Be	9th Transport Research Arena - TRA 2022
36.	5G Connected Vehicle and Roadside Infrastructure for Advanced Driving Maneuvers in a Cross-Border Scenario	João Almeida, Mohannad Jooriah, Joaquim Ferreira, Tiago Dias, Lara Moura	IT, A-to-Be	9th Transport Research Arena - TRA 2022
37.	Competitive Learning for Unsupervised Anomaly Detection in Intelligent Transportation Systems	Umuralp Kaytaz, Fikret Sivrikaya, Sahin Albayrak	GT-ARC, TUB	IEEE International Conference on Communications (ICC 2022)
38.	An Extended Adaptive Large Neighbourhood Search for Vehicles' Task Offloading in Platooning	Hongna Lou, Fangyi Hu, Xiaojun Zheng and Yanjun Shi	DUT	2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design
39.	A Leader-Follower Model with Communication Delay for Platooning	Dong-Lin Liang, Tao Li, Xiao-Jun Zheng and Yan-Jun Shi	DUT	2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design

	Control in Highway Scenario			
40.	A cooperative control algorithm for real-time on-ramp merging of connected and automated vehicles	Yanjun Shi, Lingling Lv, Yuhang Qi and Rong Xie	DUT	2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design
41.	Cloud Assisted Connected and Automated Mobility System Architecture Design and Experimental Verification: The 5G-MOBIX Autonomous Truck Routing Use Case	Tahir Sari, Mert Sever, Arda Taha Candan, G'ulsum Tuba Cibuk Girgin, Emre Girgin, and, Mehmet Haklıdır	FORD, TUB	IEEE Intelligent Vehicles Symposium 2022
42.	Resource Allocation with Vickrey-Dutch Auctioning Game for C-RAN Fronthaul	Doruk Sahinel, Simon Rommel, Idelfonso Tafur Monroy	TUE	2022 IEEE 5th Future Networks World Forum (FNWF'22)

3.6.2. Journal Publications

In Table 23 there is an overview of the papers that have been published in peer-reviewed journals under the acknowledgement of the 5G-MOBIX project:

Table 23: List of 5G-MOBIX Papers in Journal Publications

5G-MOBIX Papers in Journal Publications <i>Period: November 2018 – September 2022</i>				
No.	Title	Authors	Partner(s)	Journal
1.	SURROGATES: Virtual OBUs to Foster 5G Vehicular Services	Universidad de Murcia - José Santa, Pedro J. Fernández, Jordi Ortiz, Ramon Sanchez-Iborra, Antonio F. Skarmeta	UMU	Electronics

2.	Empowering the Internet of Vehicles with Multi-RAT 5G Network Slicing	Universidad de Murcia - Ramón Sanchez-Iborra, José Santa, Jorge Gallego-Madrid, Antonio F. Skarmeta	UMU	Sensors
3.	Chameleon: Latency and resolution aware task offloading for visual-based assisted driving	Chao Zhu, Yi-Han Chiang, Abbas Mehrabi, Yu Xiao, Antti Ylä-Jääski, and Yusheng Ji.	AALTO	IEEE Transactions on Vehicular Technology
4.	Vehicular Systems Technologies: Challenges and Trends Across Transportation Means	José Santa, Ramón Sanchez-Iborra	UMU	Electronics
5.	MIGRATE: Mobile Device Virtualisation Through State Transfer	José Santa, Jordi Ortiz, Pedro J. Fernández, Miguel Luis, Christian Gomes, Jorge Oliveira, Diogo Gomes, Ramón Sánchez-Iborra, Susana Sargento, Antonio F. Skarmeta	UMU	IEEE Access
6.	Multi-objective Optimization of Uplink NOMA-Enabled Vehicle-to-Infrastructure Communication	Furqan Jameel, Guftaar Ahmad Sardar Sidhu, Manzoor Ahmed, Xingwang Li, Riku Jäntti	AALTO	IEEE Access

7.	5G Beyond 3GPP Release 15 for Connected Automated Mobility on Cross-Border Contexts	Gorka Velez, Angel Martin, Giancarlo Pastor, Edward Mutafulungwa	VICOM, AALTO	Sensors
8.	Smooth and Low Latency Video Streaming for Autonomous Cars during Handover	Oussama El Marai; Tarik Taleb	AALTO	IEEE Network Magazine
9.	Hybrid Positioning for Smart Spaces: Proposal and Evaluation	Pedro J. Fernández, José Santa, Antonio F. Skarmeta	UMU	Applied Sciences
10.	Evaluation of a zone encryption scheme for vehicular networks	Jorge Gallego-Madrid, Ramon Sanchez-Iborra, Jose Santa, Antonio F. Skarmeta-Gomez	UMU	Computer Networks
11.	Eco-Efficient Mobility in Smart City Scenarios	Ramon Sanchez-Iborra, Luis Bernal-Escobedo, Jose Santa	UMU	Sustainability
12.	SOFTWARE-DEFINED LOCATION PRIVACY PROTECTION For OR VEHICULAR NETWORKS	Abdelwahab Boualouache, Ridha Soua, Qing Tang, Thomas Engel	UL/LIST	[Book Chapter] Springer Book, Machine Intelligence and Data Analytics for Sustainable Future Smart Cities
13.	LPWAN-Based Vehicular Monitoring Platform with a Generic IP Network Interface	José Santa, Ramon Sanchez-Iborra, Pablo Rodriguez-Rey, Luis Bernal-Escobedo and Antonio F. Skarmeta	UMU	Sensors (Special issue Selected Papers from the 2nd Global IoT Summit: IoT Technologies and Applications for the Benefit of Society)

14.	A Center-Rule-Based Neighborhood Search Algorithm for Roadside Units Deployment in Emergency	YanJun Shi, Lingling Lv, Hao Yu, Liangjie Yu and Zihui Zhang	DUT	Mathematics (MDPI)
15.	An Efficient Resource Scheduling Strategy for V2X Microservice Deployment in Edge Servers	YanJun Shi, Yijia Guo, Lingling Lv and Keshuai Zhang	DUT	Future internet (MDPI)
16.	Mobility-as-a-Service research trends of 5G-based vehicle platooning	Lingling Lv, YanJun Shi, Weiming Shen	DUT	Service Oriented Computing and Applications
17.	Vehicular Communication Management Framework: A Flexible Hybrid Connectivity Platform for CCAM	Dries Naudts, Vasilis Maglogiannis, Seilendria Hadiwardoyo, Daniel van den Akker, Simon Vanneste, Siegfried Mercelis, Peter Hellinckx, Bart Lannoo, Johann Marquez-Barja and Ingrid Moerman	Ghent University, University of Antwerp	MDPI Future Internet Journal
18.	A Coordination Algorithm for Signalized Multi-Intersection to Maximize Green Wave Band in V2X	YanJun Shi, Jiajian Li, Qiaomei Han, Lingling Lv	DUT	IEEE Access

19.	A Collaborative Merging Strategy with Lane Changing in Multilane Freeway On-Ramp Area with V2X Network	YanJun Shi, Hao Yu, Yijia Guo and Zhiheng Yuan	DUT	Future Internet (MDPI)
20.	Consortium Blockchain for Cooperative Location Privacy Preservation in 5G-enabled Vehicular Fog Computing	Abdelwahab Boualouache, H. Sedjelmaci, Thomas Engel	UL	IEEE Transactions on Vehicular Technology
21.	Inter-PLMN Mobility Management Challenges for Supporting Cross-Border Connected and Automated Mobility (CAM) over 5G Networks	Konstantinos Trichias, Panagiotis Demestichas, Nikolaos Mitrou	WINGS	Journal of ICT Standardization, special issue on Zero-touch Network and Service Automation (ZSM)
22.	5G for Connected and Automated Mobility (CAM) in Europe: Targeting Cross-Border Corridors	Jorge Pereira	Latif Ladid (UL)	IEEE Network Magazine
23.	Federated Learning-based Scheme for Detecting Passive Mobile Attackers in 5G Vehicular Edge Computing	Abdelwahab Boualouache, Thomas Engel	UL	Elsevier Annals of Telecommunications

24.	A parametric quality model to evaluate the performance of tele-operated driving services over 5G networks	Pablo Pérez, Jaime Ruiz, Ignacio Benito & Raúl López	Nokia Bell Labs	Springer Multimedia Tools and Applications
25.	Machine Learning-Based Radio Access Technology Selection in the Internet of Moving Things	Ramon Sanchez-Iborra, Luis Bernal-Escobedo, Jose Santa	UMU	China Communications
26.	5G MEC-enabled vehicle discovery service for streaming-based CAM applications	Gorka Vélez, Josu Pérez, Ángel Martín (VICOM)	VICOM	Multimedia Tools and Applications
27.	Learning-based decentralized offloading decision making in an adversarial environment	Byungjin Cho and Yu Xiao	AALTO	IEEE Transactions on Vehicular Technology
28.	A Particle Swarm Optimisation with Linearly Decreasing Weight for Real-Time Traffic Signal Control	YanJun Shi, Yuhang Qi, Lingling Lv and Donglin Liang	DUT	Machines (Special Issue Connected and Automated Vehicles (CAVs): Technologies and Applications)
29.	A Graph-Based Optimal On-Ramp Merging of Connected Vehicles on the Highway	YanJun Shi, Zhiheng Yuan, Hao Yu, Yijia Guo and Yuhang Qi ORCID	DUT	Machines (Special Issue Connected and Automated Vehicles (CAVs): Technologies and Applications)
30.	TinyML-Based Fall Detection for Connected	Ramon Sanchez-Iborra, Luis Bernal-Escobedo, Jose Santa, Antonio F. Skarmeta	UMU	CMC-Computers, Materials & Continua Special Issue: Artificial Intelligence

	Personal Mobility Vehicles			Enabled Intelligent Transportation Systems
31.	Resource Management in Converged Optical and Millimeter Wave Radio Networks: A Review	Doruk Sahinel, Simon Rommel, Idelfonso Tafur Monroy	TUE	Applied Sciences
32.	Design and Evaluation of Remote Driving Architecture on 4G and 5G Mobile Networks	Jos den Ouden, Victor Ho, Tijs van der Smagt, Geerd Kakes, Simon Rommel, Igor Passchier, Jakub Juza, Idelfonso Tafur Monroy	TUE, SISSBV, AIIM, KPN	Frontiers in Future Transportation
33.	A Control Method with Reinforcement Learning for Urban Un-Signalized Intersection in Hybrid Traffic Environment	Yanjun Shi, Yuanzhuo Liu, Yuhan Qi and Qiaomei Han	DUT	Sensors (Special Issue Internet of Things, Big Data and Smart Systems)
34.	Automatic Map Update Using Dashcam Videos	Aziza Zhanabatyrova, Clayton Souza Leite, Yu Xiao	AALTO	Software: Practice and Experience
35.	CCAM Service Continuity in a Cross-Border MEC Federation Scenario	Seyed Hosseini, Mohannad Jooriah, João Almeida, Paulo Bartolomeu, Joaquim Ferreira, Carlos Rosales	IT, CTAG	Frontiers In Future Transportation

3.6.3. Articles in trade magazines & non-scientific publications

Table 24 includes an overview of the articles that acknowledge 5G-MOBIX and have been published in magazines and non-scientific publications:

Table 24: List of 5G-MOBIX Non-Scientific Publications

5G-MOBIX Non-Scientific Publications <i>Period: November 2018 – September 2022</i>				
No.	Type of Activity/Event	Channel	Partner(s)	Year
1.	Annual Corporate responsibility report (for 2018) of OTE Group	COSMOTE website	COSMOTE	2018
2.	Website Article	COSMOTE website	COSMOTE	2019
3.	Annual Corporate responsibility report (for 2018) of DTGroup	DT website	COSMOTE	2018
4.	Blogpost	SENSIBLE ₄ Website	SENSIBLE ₄	2020
5.	Article	NOKIA Website	NOKIA	2020
6.	Article	El Confidencial	N/A	2021
7.	Blog Post	Agenda de la Empresa	ALSA	2021
8.	Article	La Voz de Galicia	CTAG	2021
9.	Article	OECD Nov 2021 Report	ERTICO	2021
10.	Annual Report	The European 5G Annual Journal	N/A	2021
11.	Blogpost	CTAG Website	CTAG	2022
12.	Article	Catapult Website	CATAPULT	2022
13.	Position Paper -	ERCIM News 117	LIST	2022

3.6.4. White papers and other publications

The 5G-MOBIX consortium has also contributed to **6** White Papers, **2** University Theses and **1** 5GPPP brochure publication. Detailed information in Table 25 below:

Table 25: 5G-MOBIX White Papers and other publications

5G-MOBIX White Papers and Other Publications <i>Period: November 2018 – September 2022</i>				
No.	Type of Activity/Event	Title	Partner(s)	Year
1.	Bachelor Thesis	5G for automated and connected cars	AALTO	2019
2.	White Paper	Edge computing for 5G networks	NOKIA	2020

3.	White Paper	5G Trials for Cooperative, Connected and Automated Mobility (CCAM) along European Cross-Border Corridors	WINGS, ICCS	2020
4.	Master Thesis	Vision-based Road Construction Site Detection and Localization	AALTO	2020
5.	White Paper	Service performance measurement methods over 5G experimental networks	ICCS, WINGS	2021
6.	5GPPP Brochure	Trials and Pilots for Connected and Automated Mobility	N/A	2021
7.	White Paper	View on 5G Architecture	AALTO, KPN, VEDECOM	2021
8.	White Paper	From 5G to 6G Vision - A Connected and Automated Mobility (CAM) perspective	ICCS, WINGS	2022
9.	White Paper (Meta study)	5G for CAM: A Deployment Meta study	DETECON	2022

3.7. ICT-18 joint dissemination activities

5G-MOBIX, 5GCroCo and 5G CARMEN are the three automotive projects selected for funding in the 5G-PPP ICT-18-2018 Call (5G PPP Phase 3, Part 2: [Automotive Projects](#)). The **5G Infrastructure Public Private Partnership (5G PPP)** is a joint initiative between the **European Commission** and **European ICT industry** with the aim to deliver solutions, architectures, technologies and standards for the next generation communication infrastructures. 5G-PPP also coordinates joint opportunities for 5G projects dissemination and liaison, e.g., joint exhibition stands, joint workshops. The aforementioned projects of the 5G-PPP Phase 3 run for different durations with the main focus on implementing and testing advanced cross border 5G infrastructures in Europe. The European Commission has assigned to 5G-MOBIX the responsibility of the coordination of joint communication and dissemination activities among the three projects.

Common communication and dissemination activities of the three cross border projects (*5G-MOBIX*, *5GCroCo* and *5G CARMEN*) took place early in the beginning of the projects, including joint participation in conferences, workshops, white papers and trade exhibitions.

The official launch³ of **5G-MOBIX**, **5GCroCo** and **5G CARMEN** took place during [ICT 2018: Imagine Digital - Connect Europe](#) that took place in Vienna on 4-6 December 2018 and attracted over 4800 visitors. Early in 2019, the three projects participated a workshop organised by the European Commission, namely the workshop on the [5G Strategic Deployment Agenda for Connected and Automated Mobility](#) (5G SDA CAM)

³ <https://www.youtube.com/watch?v=olE4Vzhie54>

that took place on 7 February 2019. During [EUCAD 2019](#) (*Brussels, 2-3 April 2019*) all Phase-3 5G-PPP projects were represented in a joint exhibition booth distributing dissemination material and raising awareness with regards to the scope of each project and common goals. Following EUCAD 2019, on April 4th, 2019 5G-MOBIX together with 5G-CARMEN and 5GCroCo participated in the [ARCADE Joint CAD Network Stakeholder Workshop](#). At the [EUCNC 2019](#) conference in Valencia, Spain (*18-21 June 2019*) the projects co-organised the “5G in the Era of connected Cars”, half-day workshop and shared a booth that has been awarded with the “Best Booth” recognition. Moreover, the three projects had a strong presence at the two ITS Congresses that took place in 2019, taking part at the “[5G deployment for Automated Mobility](#)” workshop during the [ITS European Congress 2019](#) (*Eindhoven, 03-06 June 2019*) and sharing a booth at the ERTICO stand during the [ITS World Congress 2019](#) (*Singapore, 21- 25 October 2019*). On 13 February 2020 the three projects participated in a second workshop that was organised by the European Commission entitled 5G for CAM Workshop: Preparing for cross-border deployment. Other highlights of common activities at major conferences are, the organization of a joint booth at the [ITS World Congress 2021](#) (*Hamburg, 11 – 15 October*) and a joint workshop at the virtual [EuCNC & 6G Summit](#) (*08-11 June 2021*). Moreover, during the [2022 Joint EuCNC & 6G Summit](#) in Grenoble, France (June 7-10 2022) partners from the three projects participated at the “[5G for CAM](#)” convened session.

The three H2020 ICT-18 5GPPP cross-corridor projects also participated at the 5G PPP webinar ‘[5G for Cooperative, Connected and Automated Mobility \(CCAM\)](#)’ that was held on November 6, 2020, which also involved ICT-53 projects and introduced the ongoing CCAM work as well as a joint white paper on ‘[5G Trials for Cooperative, Connected and Automated Mobility along European 5G Cross-Border Corridors](#)’.

A joint webinar on [CAM deployment challenges](#) took place in December 2021 and a joint workshop on [deployment studies](#) in February 2022. Lastly, the three projects with their common goal of assessing the CAM connectivity demands and the corresponding 5G infrastructure investment delta in different European cross-border corridors, worked closely together in 2022 to produce the insightful [5G for CAM: A Deployment Metastudy](#).

4. ACHIEVEMENT OF DISSEMINATION OBJECTIVES

Throughout the lifecycle of the project, members of the 5G-MOBIX Consortium have actively contributed to various activities to raise awareness about the project's results and outcomes to relevant stakeholders and expert communities. Their efforts resulted to a participation in **104 conferences** and events, particularly focusing on major EU and world conferences that attract key audience from the fields of intelligent transport, mobility and telecommunications. For this reason, 5G-MOBIX had a strong presence at four (4) annual **ITS Congresses**, one (1) **Mobile World Congress**, three (3) **EUCNC & 6G Summits** and two (2) **IEEE 5G for CAM Summits** in the past 4 years. Moreover, 5G-MOBIX partners showcased the project's work and findings in overall **128 presentations** at a wide range of EU and global conferences and external events and 9 workshops organized by the consortium or jointly with the fellow ICT-18 projects. In addition, partners organised and participated in overall **16 exhibition booths** at conferences and external events at a local and international level, informing stakeholders about the project's vision and progress and raising awareness on the project's achievements and results.

Partners have also leveraged webinars – a powerful tool for dissemination as they are easily accessible and timeproof, organizing **15 webinars** in total, covering a wide range of themes related to the project and the topic of 5G for CAM in general.

To facilitate the exchange of knowledge and share the 5G-MOBIX progress and outcomes with the scientific and professional community, project partners have published **35 peer-reviewed journals, 43 publications in conference proceedings**, scientific, technical magazines as well as trade and magazines in Europe and beyond

The **9 public demonstration** events at the different Trial Sites and Cross-Border Corridors gave the opportunity to local business stakeholders, public authorities and research organisations to find out more about the project's work and solutions. While the target was to reach 100 participants per demonstration event, having an average of 50 relevant participants attending each event was satisfactory, taking into consideration the (post-)COVID-19 restrictions and sentiment when it comes to travelling and attending physical events.

Since the very beginning of the project, a number of common communication and dissemination activities took place together with the three ICT-18 cross border projects (*5G-MOBIX, 5GCroCo and 5G CARMEN*), strengthening the collaboration bond and boosting the projects' impact in the research and industry communities. Those activities included the joint participation in 9 conferences and external events, 4 workshops, 2 white papers and 3 webinars. Moreover, 5G-MOBIX took on available opportunities to collaborate with ICT-53, ICT-42 and ICT-41 projects in various dissemination activities.

As demonstrated by Table 26 below, most indicators and targets have been met within the project timeline. The project has almost reached the target of exhibition stands, workshops and final event participants (in

yellow), exceeding the target of conference presentations, webinars, demonstration events, journal publications and non-scientific articles (in green). However, it was not possible to reach the target regarding the published papers in conferences proceedings (in red). Nevertheless, we believe that exceeding the target number set for peer-reviewed publications by **52%** shows the consortium's dedication and effort towards diffusing the project's results to the scientific and professional community.

Table 26: Achievement of 5G-MOBIX KPIs

Tool / Channel	Measured Indicators	Indicators of Success				
		Y ₁ (M ₁ – M ₁₂)	Y ₂ (M ₁₃ – M ₂₄)	Y ₃ * (M ₂₅ – M ₄₅)	Total	Achieved
Webinars	Number organised/ participants per	2/50	4/50	8/50	14/50	15/70
Conferences	Presentations (including poster sessions)	≥10	≥15	≥40	65	128
Trade shows	Exhibition stands	≥3	≥5	≥8	≥16	18
Project Events	Number of workshops / participants per	≥2/70	≥3/70	≥5/70	10/70	9
	Number of demonstration events / participants per	n/a	3/100	5/100	8/100	9
	Final event / participants	n/a	n/a	1/150	1/150	106
Scientific publications	Papers in conference proceedings	≥3	≥15	≥40	58	42
	Scientific and technical articles in peer-reviewed journals	≥3	≥5	≥15	23	35

	Articles in trade magazines & non-scientific publications	≥ 1	≥ 2	≥ 7	10	13
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5. CONCLUSION

This report on dissemination activities illustrates the efforts and valuable contribution of the 5G-MOBIX consortium in systematically disseminating key findings to the expert communities and to relevant stakeholders and helping to increase the outreach and impact of the 5G-MOBIX outcomes throughout the lifetime of the project. Partners adhered to the dissemination strategy and worked hard to meet the KPI targets and achieve the project's dissemination objectives, leading to a number of successful and meaningful to the community dissemination activities. These dissemination activities included scientific and non-scientific publications, organisation and participation at events, demonstration events, workshops and webinars.

There were minor alterations and adjustments to the dissemination plan along the way due to COVID-19 and its implications, while the consortium undertook some additional activities as opportunities arose. All efforts resulted to a participation in overall **104 conferences and external events (49 of those events took place virtually), 35 journal publications, 43 papers at conference proceedings, 128 presentations, 9 workshops, 15 webinars, 18 exhibition booths and 9 public demonstrations**. These numbers are not only in line with the target value set in D7.3 but in most cases surpass them, illustrating the commitment of partners to the project's vision and goals and their success in raising awareness about the project's key findings and reach the target stakeholders groups.

ANNEXES

Annex 1 – Dissemination Procedure

Description and purpose

The dissemination procedures include guidelines and set out the main steps to be followed by partners for the publication or presentation of work done within the framework of the 5G-MOBIX project. The full description of the communication/dissemination procedures for 5G-MOBIX is presented below.

Main objectives of the procedure

The basic objectives of the aforementioned procedures are to:

- Produce high quality 5G-MOBIX publications and presentations;
- Avoid overlaps and possible disclosure of restricted or confidential information;
- Monitor and record the dissemination activities of the project.

Step by step procedure

1. **At least two weeks before** the performance of any dissemination activity related to the 5G-MOBIX project, **the initiator of the dissemination activity**:
 - Fills in the dissemination request form (see Annex 2, p. 65) <https://redmine.iccs.gr/projects/safertec/wiki> providing necessary information (type of activity, provisional title, short summary or draft of the whole paper/set of slides, if available);
 - Informs via email the Task 7.2 Leader (Sevi Christoforou, <mailto:sevi.christoforou@iccs.gr>) and the Dissemination Manager, ERTICO, comms@5g-mobix.com;
 - As soon as available, share the abstract/draft paper/draft poster, etc., in a dedicated folder on the project online collaboration tool (creating a corresponding folder for the related event, and informing the Task 7.2 Leader and Dissemination Manager when it is done.
2. **The Task 7.2 Leader** sends the request within 2 days to the Consortium partners for approval, modification, request for extra information/clarifications or rejection;
3. **The Consortium partners** have to reply to the Task 7.2 Leader **within 5 working days**; no response is considered as an approval;
4. **The Task 7.2 Leader** informs the initiator of the dissemination activity and the Project Coordinator about the decision.

In case of:

a) **Approval:** The initiator may proceed with the submission or realization of the planned dissemination activity;

b) **Conflict/objection:** Any Consortium member can object to the proposed dissemination activity, for example in cases of overlaps or risk of disclosure of restricted or confidential information. **The objection has to include a clear reasoning as well as a precise request for necessary modifications.**

The issue is discussed among the Coordinator, the Task 7.2 Leader and the involved partners.

5. **Within 10 working days** after the realization of the approved dissemination activity, the initiator of the dissemination activity:
 - Uploads the final paper, presentation, poster, or other presented material on the project online collaboration tool, in the dedicated folder;
 - Uploads photos from the activity, if relevant, in the same folder (in a “photos” sub-folder);
 - Completes a dissemination activity report template (see Annex 3, p. 66) and uploads it in the same folder;
 - Informs via email the Task 7.2 leader and Dissemination Manager;
 - The Task 7.2 leader adds the performed dissemination activity to the excel file “5G-MOBIX-Performed dissemination activities” recording all dissemination activities performed in the project, for progress reporting purposes, as well as publication on the website of the related presentation, poster and /or paper (if public).

NOTE:

If partners wish to present or release material already approved, such as public presentation/material, then no formal approval is required, but the Task 7.2 Leader and Dissemination Manager have to be informed.

Annex 2 - Demo Event Preparation: The checklist

The ‘checklist’ prepared by the WP7 team and discussed during regular calls with each trial site leader, to ensure that everyone was aware of the activities that needed to take place in order to engage the target audience and secure maximum outreach.

Responsibilities 5G-MOBIX WP7 (ERTICO-ICCS) & trial sites partners

1. Schedule individual **calls** with each site **site** ahead of event (e.g. 1 month at least/ ASAP for NL and DE)
2. Have an **article** per each site (for 5G-MOBIX website and website of the trial partner)
3. Promo of content in **newsletters** (5G-MOBIX, EUCAD, ERTICO + from trial sites partners if possible)
4. Create a **social media** schedule (Twitter and LinkedIn), identifying relevant hashtags, names and best time to publish
5. **Press release** in English
6. Identify **international press**
7. **Video/ streaming**: be careful with the use of eventual music while streaming
8. Follow-up article
9. Follow-up call with trial site about lessons learnt

2. Keep ERTICO & ICCS up-to-date about event programme
3. Use corporate promotional channels to promote the event
4. Share posts from 5G-MOBIX accounts
5. **Press release** in local language (assist with the English version)
6. Identify **local press**
7. Organise **pictures** and **videos** on-site:
 - For promotion after the event if takes place physically
 - Virtual event: live stream or pre-recorded videos



Figure 56: Demo Event Preparation Checklist: Responsibilities

Demo site event format: “physical” vs virtual

Physical event	Virtual event
× Live demonstrations	× Live video stream/ <u>pre-recorded</u> videos
× Local stakeholders targeted (explanations on the demos in the local language)	× All stakeholders can be invited
× Associated workshop to present the trials results/ comment the demos and collect feedback/ input (e.g. exploitation purposes?)	× Separate sessions can be foreseen (including one in the local language)
× Local authorities (and other “VIPs”?) invited at the demo so that it can attract more press coverage (↔ press release is issued in the local language to target the local press)	× Webinar to present the trials findings
	× Virtual workshop for interaction with stakeholders
	× Press release can still be issued
	× Local authorities can have a private visit/ tour (on location) scheduled
	× No press can be invited to cover visit

P1 Technical Review, 3-4, December 2020, Virtual

3



Figure 57: Demo Event Preparation Checklist: Physical vs Virtual Event

Annex 3 – Trial Site Demo Description Forms

Figure 58: 5G-MOBIX NL Trial Site Demo Description

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5G-MOBIX Demo Description Template

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

The Netherlands ▼

Date (exact or approximate) *

wk14 or wk19 2022

Location (s) *

Automotive Campus Helmond NL

Online/Physical *

☐ Online

☒ Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

5G-Fieldlab event organised by KPN

2/10/22, 9:59 PM

5G-MOBIX Demo Description Template

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

Live demo of collision avoidance at the venue

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

Presentations of main use case topics in NL Trials

Target Audience/Invited Stakeholders *

☒ Public Authorities & Policy Makers

☒ Automotive Industry Stakeholders

☒ MNOs

☒ Road Operators

☒ Service Providers

☐ RTOs

☒ Press

☐ Other: _____

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

I do not have that available now

2/10/22, 9:59 PM

5G-MOBIX Demo Description Template

Which SMEs could you involve and which specific results / demonstration parts can be highlighted as beneficial/ of interest to SMEs? *

SMEs are not involved, not sure what can be of interest to SMEs since it concerns safety critical applications that typically only certified companies can provide to OEM.

Do you have a (communications) department in charge of these aspects for the organisation of the event? (i.e. a department that WP7 could liaise with take care of preparing a press release and inviting local/ relevant press representatives to attend the event) *

☒ Yes

☐ No

Additional Comments

KPN is in charge of the event. They might provide further info

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Google Forms

3/14/22, 1:26 PM

5G-MOBIX Demo Description Template

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

France ▼

Date (exact or approximate) *

21/04/2022

Location (s) *

Versailles

Online/Physical *

☐

Online

☒

Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

Stand-alone

https://docs.google.com/forms/d/1jmE9rSEF6CCZpXBEIA2fOgGZfeemYbTROS1_yy7K268/edit#response=ACYDBNgIFC9b1snkyLTxqxAHDET-... 1/3

Figure 59: 5G-MOBIX FR Trial Site Demo Description

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

Demonstration of the use case "Infrastructure-assisted advanced driving" using one connected automated vehicle, 1 connected vehicle, and one basic vehicles. Audiance will experience the use case in the CAV (which changes its lane based on the guidance received from the infructure, if a collisin risk is detected) as well as at the control centre.

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

1. Session "5G-MOBIX": Introduction of 5G-MOBIX, FR TS activities/results,
2. Session "Related 5G projects (5GMed, 5G-META, 5G-Openroad)
3. Session "Vision of Industries on 5G and CAM"

Target Audience/Invited Stakeholders *

- ☒ Public Authorities & Policy Makers
- ☒ Automotive Industry Stakeholders
- ☒ MNOs
- ☒ Road Operators
- ☒ Service Providers
- ☒ RTOs
- ☒ Press
- ☐ Other: _____

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

Stellantis, Renault, VALEO, Continental, TDF

3/14/22, 1:26 PM

5G-MOBIX Demo Description Template

Which SMEs could you involve and which specific results / demonstration parts can be highlighted as beneficial/ of interest to SMEs? *

AKKA: French SME, member of 5G-MOBIX and 5G-META projects, Yogoko- french connectivity solutions provider

Do you have a (communications) department in charge of these aspects for the organisation of the event? (i.e. a department that WP7 could liaise with take care of preparing a press release and inviting local/ relevant press representatives to attend the event) *

☒ Yes

☐ No

Additional Comments

The event will be organised in French targeting French stakeholder.

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Figure 6o: 5G-MOBIX FI Trial Site Demo Description

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

Finland

Date (exact or approximate) *

Within 19-29 April 2022

Location (s) *

Espoo, Finland

Online/Physical *

☐ Online
☒ Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

Stand-alone event

https://docs.google.com/forms/d/1jmE9rSEF6CCZpXBEIA2fOgGZfeemYbTROS1_yy7K268/edit#response=ACYDBNjw9_Fd8cMFWthtIEAJmleNX... 1/3

2/15/22, 2:31 PM

5G-MOBIX Demo Description Template

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

The remote control or driving of an SAE L4 automated vehicle presents stringent requirements on connection between the vehicle and the Remote Operations Centre (ROC) where remote human operator is located. Furthermore, the whole control loop needs to be kept tight. The demo showcases 5G service continuity solutions for remote driving in a 5G multi-PLMN environment. These solutions ensure availability of adequate vehicle-to-network connectivity for continuous transmission of the data traffic streams from the vehicle to the ROC, particularly LIDAR and HD video, and timely reception of command messages from ROC to the vehicle. The invited participants will experience the demo from two perspectives, firstly from a follower vehicle behind the automated vehicle and secondly from the perspective of the remote operator at the ROC.

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

The public demo will be supported by slideshows on screens that provide an introductory storyboard of the demo and presents results/KPIs of interest in showcasing the impacts of the considered solutions for service continuity.

Target Audience/Invited Stakeholders *

- ☒ Public Authorities & Policy Makers
- ☒ Automotive Industry Stakeholders
- ☐ MNOs
- ☐ Road Operators
- ☐ Service Providers
- ☐ RTOs
- ☐ Press
- ☒ Other: Device vendors, local public funding body, municipalities

2/15/22, 2:31 PM

5G-MOBIX Demo Description Template

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

TRAFICOMM, Forum Virium, City of Espoo, Business Finland, Goodmill Systems

Which SMEs could you involve and which specific results / demonstration parts can be highlighted as beneficial/ of interest to SMEs? *

Goodmill Systems is a Finnish SME that provides a 5G multi-SIM OBU for the FI-TS and leverages these trials to further showcase the capabilities of their product for critical CAM use cases.

Do you have a (communications) department in charge of these aspects for the organisation of the event? (i.e. a department that WP7 could liaise with take care of preparing a press release and inviting local/ relevant press representatives to attend the event) *

☒ Yes

☐ No

Additional Comments

There are some details which are still tentative, for instance, list of invitees will increase and some details of the actual demo may be updated.

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Figure 61: 5G-MOBIX DE Trial Site Demo

3/1/22, 2:43 PM

5G-MOBIX Demo Description Template

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

Germany ▼

Date (exact or approximate) *

28.4.2022

Location (s) *

Webinar

Online/Physical *

☒ Online

☐ Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

Stand-alone

https://docs.google.com/forms/d/1jmE9rSEF6CCZpXBEiA2fOgGZfeemYbTROS1_yy7K268/edit#response=ACYDBNjevrmseNtemwwrYldV-n0S... 1/3

3/1/22, 2:43 PM

5G-MOBIX Demo Description Template

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

Recorded demo video footage from September demo event 2021 and CBC trials event (happening right now, March 2022) will be shown. The September demo video includes both DE TS use cases performed in Berlin, the CBC demo video focuses on the extended sensors use case. In addition to the videos the German trial site presents the outcome of their trials and results obtained. This will be followed by a Q&A session for the audience.

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

This will be a stand-alone event, focused on DE TS, no further programme is planned.

Target Audience/Invited Stakeholders *

- ☒ Public Authorities & Policy Makers
- ☒ Automotive Industry Stakeholders
- ☒ MNOs
- ☐ Road Operators
- ☒ Service Providers
- ☐ RTOs
- ☒ Press
- ☐ Other:

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

Berlin Senate, Valeo, IAV, Deutsche Telekom, Cohda Wireless, MobiledgeX, local press in Berlin

3/1/22, 2:43 PM

5G-MOBIX Demo Description Template

Which SMEs could you involve and which specific results / demonstration parts can be highlighted as beneficial/ of interest to SMEs? *

Cohda Wireless could be interested into the usage of RSU deployment and integration into the 5G V2X architecture.

Do you have a (communications) department in charge of these aspects for the organisation of the event? (i.e. a department that WP7 could liaise with take care of preparing a press release and inviting local/ relevant press representatives to attend the event) *

☒ Yes

☐ No

Additional Comments

Further companies / SMEs may be discovered after DE TS internal discussion

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Figure 62: 5G-MOBIX KR Trial Site Demo

3/25/22, 11:03 AM

5G-MOBIX Demo Description Template

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

South Korea ▼

Date (exact or approximate) *

Nov. 26, 2020

Location (s) *

Workshop venue: Somerset Central Bundang Hotel in Seoul, South Korea (Demonstration site: highway test track in Yeosu, South Korea)

Online/Physical *

☐ Online

☒ Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

It will be a stand-alone event.

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3/25/22, 11:03 AM

5G-MOBIX Demo Description Template

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

On Nov. 26, 2020, the final field trial for Tethering via Vehicle (User Story 5.2) will be conducted on a highway test track in Yeosu, Korea, using a mmWave OBU (vehicle UE) installed on a demo bus and five gNB DUs deployed along the trackside. The field trial will mainly show the results that a data rate of 1.15 Gbps between the gNBs and the vehicle UE is achievable for 90% of the time during the trial and a Wi-Fi data rate of over 400 Mbps is attainable by a smartphone.

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

The workshop for the final field trial of Tethering via Vehicle (User Story 5.2) will take place on Nov. 26, 2020, and it will be organized as 1) a presentation on a brief overview of the field trial including background and key enablers to be demonstrated, 2) visitors move to the trial site (Yeosu highway test track), 3) field trial demonstrated to the visitors, 4) visitors move back to the venue, 5) a presentation for summary and Q&A session.

Target Audience/Invited Stakeholders *

- ☒ Public Authorities & Policy Makers
- ☒ Automotive Industry Stakeholders
- ☒ MNOs
- ☒ Road Operators
- ☒ Service Providers
- ☒ RTOs
- ☐ Press
- ☐ Other:

3/25/22, 11:03 AM

5G-MOBIX Demo Description Template

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

Korea Expressway Corporation, Hanwha systems, Amazon, Korea University

Which SMEs could you involve and which specific results / demonstration parts can be highlighted as beneficial/ of interest to SMEs? *

SMEs of network equipment development may be involved. What may stand out to them is the Implementation of the millimeter-wave 5G NR communication system and its application on wireless connectivity provision to moving vehicles.

Do you have a (communications) department in charge of these aspects for the organisation of the event? (i.e. a department that WP7 could liaise with take care of preparing a press release and inviting local/ relevant press representatives to attend the event) *

☒ Yes

☐ No

Additional Comments

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Figure 63: 5G-MOBIX GR-TR CBC Trial Site Demo

3/14/22, 10:02 AM

5G-MOBIX Demo Description Template

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

Greece -Turkey ▼

Date (exact or approximate) *

May, 9-10

Location (s) *

1st day at Greece, 2nd day at Turkey

Online/Physical *

☐ Online

☒ Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

The event will be just on behalf of 5G-Mobix project, so stand-alone.

3/14/22, 10:02 AM

5G-MOBIX Demo Description Template

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

The first day of event will be held at Greece side of the border. There will be two use cases, See What I See and Assisted Border Crossing.

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

The first demo day will start with a "Welcome and Introduction" session. This session includes Welcome Note, Introduction to 5G-MOBIX, Agenda of the day/Description of Day demonstrations and Q&A subsessions. The the first demo and second demo which are Assisted Border Crossing and (Platooning with) See What I See, respectively will be shown. Then we will have a Q&A session. The second day will start with a "Welcome and Introduction" session. This session includes Welcome Note, Introduction to 5G-MOBIX and Agenda of the Day/Description of Day 2 demonstrations. The the first demo and second demo which are Platooning and Truck Routing, respectively will be shown. After that, "Network Measurement Exhibition" will be held. Then we will have a Q&A session.

Target Audience/Invited Stakeholders *

- ☒ Public Authorities & Policy Makers
- ☒ Automotive Industry Stakeholders
- ☒ MNOs
- ☐ Road Operators
- ☒ Service Providers
- ☐ RTOs
- ☐ Press
- ☐ Other: _____

3/14/22, 10:02 AM

5G-MOBIX Demo Description Template

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

Turkcell, Tubitak, Ford, Ericsson TR, BTK Information and Communication Technologies Authority

Which SMEs could you involve and which specific results / demonstration parts can be highlighted as beneficial/ of interest to SMEs? *

N/A

Do you have a (communications) department in charge of these aspects for the organisation of the event? (i.e. a department that WP7 could liaise with take care of preparing a press release and inviting local/ relevant press representatives to attend the event) *

☒ Yes

☐ No

Additional Comments

This content is neither created nor endorsed by Google.

Google Forms

Figure 64: 5G-MOBIX ES-PT CBC Trial Site Demo/Final Event

2/10/22, 9:59 PM

5G-MOBIX Demo Description Template

5G-MOBIX Demo Description Template

In the latest review, the PO stressed the need for concrete plans when it comes to public demonstrations, to ensure efficient preparation for demonstrating results and attracting the right audience. Therefore, I would like to ask all CBC/TS leaders to fill in this form by Monday, February 07 EoB with information on their demos, which will later be included in the deliverable.

CBC or Trial Site *

Spain - Portugal ▼

Date (exact or approximate) *

Approximate June 2022

Location (s) *

Spain - Vigo

Online/Physical *



Online



Physical

Type of Event (Would it be a stand-alone event or in the framework of another event? In case of the latter, which event?) *

Stand-alone

https://docs.google.com/forms/d/1jmE9rSEF6CCZpXBEiA2fOgGZfeemYbTROS1_yy7K268/edit#response=ACYDBNj--0HSWdCL17vN68LHET1... 1/3

2/10/22, 9:59 PM

5G-MOBIX Demo Description Template

Use cases/ user stories to be demonstrated (please describe how the demonstrations will be organised, i.e. what will be exactly demonstrated to the audience and how they can experience it/ them) *

Remote Driving and Vulnerable Road User- In the Tui-Valença Bridge. The operation of the use cases will be demonstrated. The transfer of attendees to the use case presentation area will be facilitated. The equipment involved and how it works will be demonstrated. Participants will be able to ride in the prototype vehicle.
Questions will be answered.

Related presentations, workshops and topics (proposed structure of the rest of the event programme) *

Presentations of the activities and work carried out at the event. Transfer to the demo area and presentations of other use cases on CTAG tracks.

Target Audience/Invited Stakeholders *

- ☒ Public Authorities & Policy Makers
- ☐ Automotive Industry Stakeholders
- ☒ MNOs
- ☒ Road Operators
- ☒ Service Providers
- ☐ RTOs
- ☒ Press
- ☐ Other: _____

Please provide 1-5 specific institution/organisation/company names (per stakeholder category) you will be inviting *

DGT, Fomento, Infraestructuras de Portugal, Concello de Tui, Cámara de Valença

Annex 4 – Trial Site Demo Follow-up Form

9/23/22, 6:35 PM

5G-MOBIX Demo Follow-up Report

5G-MOBIX Demo Follow-up Report

In order to ensure that the dissemination report (D7.7) - due end of September - is inclusive and has all information necessary for its success and for addressing any potential concerns during the review, I would like to ask all CBC/TS leaders to fill in the form below by Friday, September 16th EoB with follow-up information on their demo events.

* Required

1. CBC or Trial Site *

Mark only one oval.

- ☐ Greece -Turkey
- ☐ Spain - Portugal
- ☐ Finland
- ☐ France
- ☐ The Netherlands
- ☐ Germany
- ☐ South Korea
- ☐ China

2. Upload Agenda of the Event *

Files submitted:

3. Please select which of the target groups below attended the demo event *

Check all that apply.

- ☐ Public Authorities & Policy Makers
- ☐ Automotive Industry Stakeholders
- ☐ MNOs
- ☐ Road Operators
- ☐ Service Providers
- ☐ RTOs
- ☐ Press
- ☐ Other: _____

9/23/22, 6:35 PM

5G-MOBIX Demo Follow-up Report

4. Please provide 1-5 specific institution/organisation/company names (per selected stakeholder category) that participated in the event *

5. Upload list of invited organisations/companies/institutions (if applicable)

Files submitted:

6. Upload list of participants (names and/or organisation/company/institution name) *

Files submitted:

7. Outreach and press coverage (please provide links to posts, articles, press releases etc. and if applicable, engagement/outreach data) *

8. Upload pictures and/or promotional material *

Files submitted:

9/23/22, 6:35 PM

5G-MOBIX Demo Follow-up Report

9. Additional Comments/Information that could be included in the dissemination report

This content is neither created nor endorsed by Google.

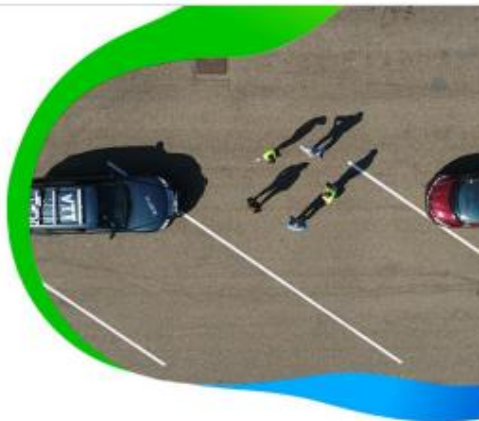
Google Forms

Annex 5 – 5G-MOBIX Demonstration Events: TS and CBC Agendas



The role of 5G

in autonomous driving
and intelligent transport
systems in Helmond



Thank you for your interest

We look forward to your participation in the event.

Tuesday April 5th 2022

09.00 - 17.00h

We appreciate that you may have indicated to participate only for certain parts of the program; feel free to walk in or out at any time!

Program April 5 2022

Program at the Automotive Campus and online

9.00 – 9.30 Reception / registration

9.30 – 9.35 Welcome by KPN

9.35 – 12.00 KPN, TNO and 5G-Mobix partners host workshops on tele-operations, cooperative collision avoidance and extended sensors

12.00 – 13.00 Lunch

13.00 – 13.30 Presentation by Ministry of Infrastructure & Watermanagement on the 5G Blueprint program

Figure 65: NL TS Demo Event Agenda

13.30 – 14.00 KPN's strategy on Mobility and introduction to the demonstrations
 14.00 – 15.30 Live demonstrations
 15.30 Drinks reception

Venue

Automotive Campus 30, 5708 JZ, Helmond

The campus has ample parking facilities but can also be reached through public transportation from NS Station Helmond by taking Hermes bus 150.

Figure 67: NL TS Demo Event Agenda (2)

Place	Subject		Speaker
mobilLAB, Salle des comités (option Training rooms for online connection)	1. Morning sessions: 9:30 -12h00 (2h30)		
	9h00	Welcome coffee	
	9h30	Opening Speech, VEDECOM President (10 min)	Eric Lebeau
		5G MOBIX presentation (1h30 min)	
		1. Le contexte: la mobilité automatisée et la 5G 2. Introduction au projet 5G-MOBIX & Activités du site français	
	9h40	40'	Oyunchimeg Shagdar
	10h20	Coffee break 15'	
		3. Tests and Trials 15'	
	10h35		Camille Plestan
	11h20	5G Projects (40 min)	Oyunchimeg Shagdar
mobilLAB Hall		4. Results 20' + 10' Q&A 4 bis. Intro sur les démos 3'	Oyunchimeg Shagdar
		5. 5G Med 11'	Kevin Nguyen, Valeo
		6. 5G Meta 11'	Benoît Baurens, Akka
		7. 5G Openroad 11'	Laurent Février
	12h00	Lunch break 1h15	
Tracks	2. Demo session 13h20-15h20 (2h)		
	13h15	Pedestrian transfert to the tracks via UGE	
	13h30	Demonstrations	8. Demonstrations (10' x 3)
	15h00	Return transfert	
mobilLAB, Salle des comités (option Training rooms for online connection)	3. Industry session: vision of industrial sectors and territories on 5G and CCAM: 15h20-16h50 (1h30)		
	15h20	9. Table-ronde	Tour de table (4' par intervenant) 45'
	16h05		6 questions de 6' chacune (2 à 3 réponses par pannaliste) 45'
	16h50	Closing remarks	Tony Jaux
mobilLAB Hall	17H00	Final cocktail and networking	
	18H00		

Figure 66: FR TS Demo Event Agenda



5G-MOBIX Remote Driving Demos
Thursday 28th April 2022



To that end, the Finland Trial Site partners from [Aalto University](#) and [Sorekha](#) has the pleasure to invite you to the open demo event on **Thursday 28th April 2022** at Aalto University Otakaari campus (Sähkötörmäntie 47, 00100 Espoo).

This event provides an opportunity to learn more about the results and experiences from the Finland trial site, as well as, witness a live demonstration of remote driving in open campus roads with support of connectivity from a 5G multi-network (multi-PLMN) environment road and that of a remote human operator.

The live demo event has been formulated to flexibly accommodate participant schedules, with demo runs held repeatedly within the 11:00-12:00 time window on 12/04/2023.

To allow us to contact participants with updates and other logistical info leading up to the event we request that you leave your contact info in the following registration link: <https://link.webregister.com/web/register/2024-08-26>. Furthermore, you may share this invitation email internally to other colleagues who may have interest in this event.

We looking forward to host you as well as get your feedback and insights at the event



- Aalto Garage, Sähkämiehentie 4, Espoo Otaniemi



Figure 68: FI TS Demo Event Agenda and Announcement

Speakers



Sebastian Peters



Christian Müller-Hirschhorn



Gorka Velez



Angel Martin



Fikret Sivrikaya

5G-MOBIX DETS Webinar | June 22, 2022

Agenda

Presentation Title & Speaker
Welcoming <i>Sevi Christoforou, ICCS</i>
Introduction to the 5G-MOBIX project <i>Sebastian Peters, TUB</i>
Market needs and industrial motivation <i>Christian Müller-Hirschhorn, VALEO</i>
Introduction to the 5G-MOBIX German Trial Site <i>Sebastian Peters, TUB</i>
5G for CCAM solutions <i>Sebastian Peters, TUB & Angel Martin, Vicomtech</i>
Trial results <i>Fikret Sivrikaya, GTARC</i>
Lessons Learnt <i>Gorka Velez, Vicomtech</i>
Questions & Answers

Figure 69: DE TS Demo Event Agenda

5G-MOBIX Demo In China Trial Site

Agenda 25/05/2022

Place: Eastern of Shandong Academy of Sciences (SDIA), China, Jinan

- 09:00 – Welcome and Opening Speech, SDIA (10 min) → *YanJun Shi*
- 09:10 – 10:00 – Remote Driving with data ownership focus demos
 - Introduction to the Remote Driving process (15 min) → *Jiajian Li*
 - Presentation of Remote Driving (25 min) → *Zihui Zhang*
 - *10 min buffer time*
- 10:00 – 10:15 Break
- 10:15 – 11:15 Cloud-Assisted Advanced Driving demos, SDIA
 - Introduction to the Advanced Driving process (15 min) → *Yuhan Qi*
 - Presentation of Advanced Driving (35 min) → *Liangjie Yu*
 - *10 min buffer time*
- 11:15 – 14:00 Lunch & Travel to Binlai Expressway
- 14:00 – 15:30 Cloud-assisted Platooning demos, Binlai Expressway
 - Introduction to the Platooning process (15 min) → *Dongling Liang*
 - Presentation of Cloud-assisted Platooning (65 min) → *Meng Yang*
 - *10 min buffer time*
- 15:30 – 17:00 Back to SDIA
- 17:00 – 19:00 Dinner

Figure 70: CH TS Demo Event Agenda

AGENDA

Day 01 (Rehearsal)

Monday 09/05 is planned as “on-field review day” for attending partners and EC officials.

- 09.00 – 10.00 Depart from hotel, bus trip to Kipoi Crossing Border Point Cafe
- 10.00 – 12.00 See what I see & Assisted border crossing demonstrations
- 12.00 – 13.00 Lunch
- 13.00 – 14.00 Crossing the border (from Kipoi to Ipsala, TR)
- 14.00 – 15.00 ERICSSON measurement demo
- 15.00 – 17.00 Platooning & Autonomous Truck routing demonstrations
- 17.00 Return to Alexandroupoli
- 19.30 – Dinner (tbc)

Day 02 (Public Demo Event)

Tuesday 10/05 is planned as an open, live demo event for attending partners and invited VIPs and local stakeholders.

- 10.00 – 11.00 Welcome and Introduction (Kipoi Crossing Border Point Cafe, GR)
- 11.00 – 12.30 See what I see & Assisted border crossing demonstrations
- 12.30 – 13.30 Lunch
- 13.30 – 14.30 Crossing the border (from Kipoi to Ipsala, TR)
- 14.30 – 16.00 Platooning & Autonomous Truck routing demonstrations
- 16.00 – 17.00 Demo Wrap-Up and Q&A session

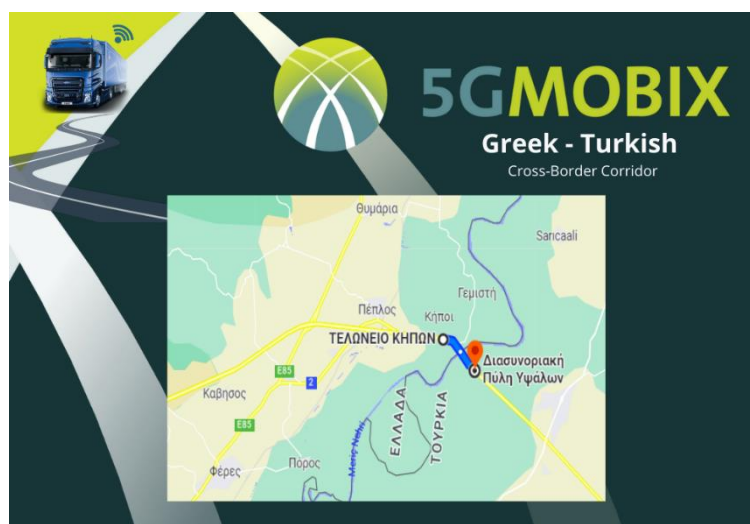


Figure 71: GR-TR CBC Demo Event Agenda & Information

Table 27: ES-PT CBC Final Event Agenda

Day 1, Tuesday October 26

Duration	Time (CEST)	Location	Topic
0:30	9:00	Porto	Welcome and agenda
1:00	9:30	Porto	Project introduction
1:30	10:30	ALSA bus	Trip to Vigo QoS demo
1:00	12:00	CTAG	Lunch
1:30	13:00	CTAG	WP4: - Work performed - Trials and demonstrations - last half hour ES-PT overview
0:30	14:30	ALSA bus	Start of demos Trip to old bridge
1:00	15:00	Old bridge	VRU use-case
1:00	16:00	Old bridge	RD use-case
0:30	17:00	Old bridge	Back to CTAG
1:00	17:30	ALSA bus	End of demos, to hotel in Vigo
	18:30	Surprise	Evening program

Table 28: ES-PT CBC Final Event Agenda (2)

Day 2, Wednesday October 27

Duration	Time (CEST)	Location	Topic
0:30	8:00	Hotel	Departure
0:15	8:30	CTAG	Welcome for day 2
0:45	8:45	CTAG	WP3 overview of deployed equipment
1:00	9:30	CTAG	WP5 early results
0:15	10:30	CTAG	Coffee break
0:45	10:45	CTAG	WP6
0:30	11:30	CTAG	Deployment Study
1:00	12:00	CTAG	Lunch
0:00	13:00	CTAG	Start of demos

0:45	13:00	CTAG	Remote driving at managed center
0:45	13:45	CTAG	Demo on CTAG track
0:15	14:30	CTAG	Coffee break
1:45	14:45	CTAG	x-site contributions (NL, FR, FI, DE)
1:30	16:30	ALSA Bus	End of review, transport back to Porto
	18:00		Arrival at Porto airport



5GMOBIX