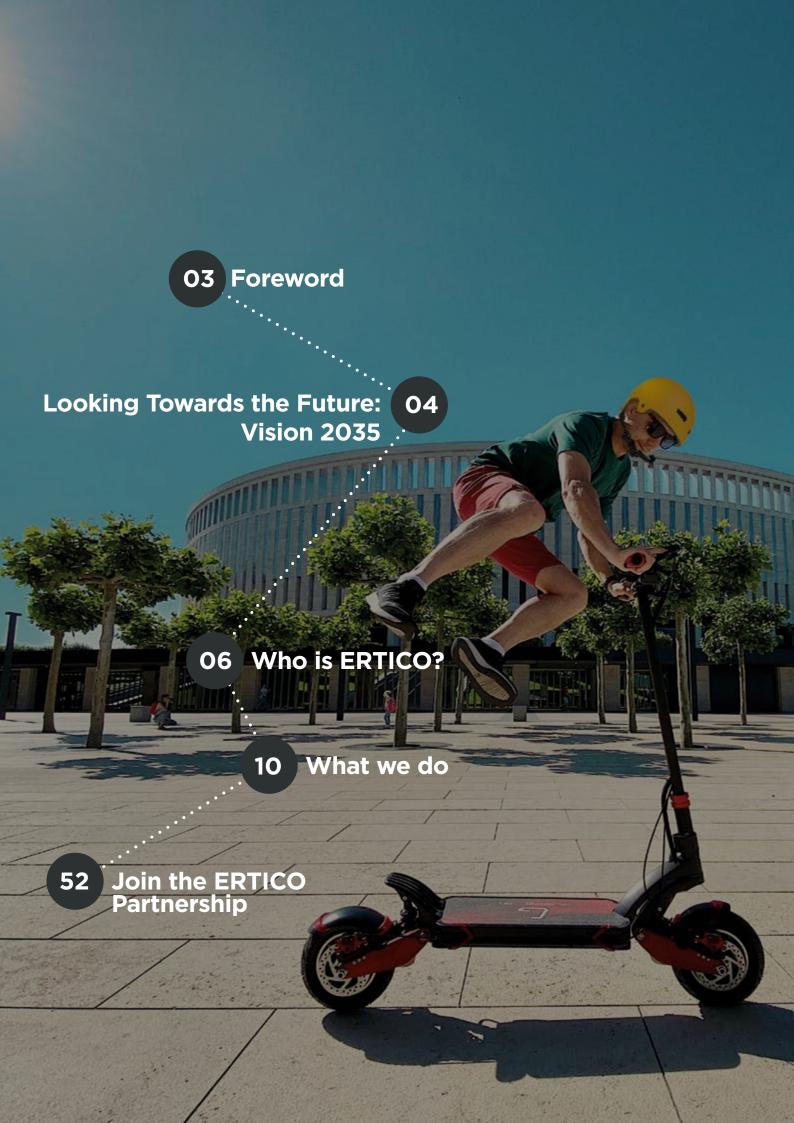


Connecting the dots



ERTICO is about making mobility smarter, safer and cleaner for all

In my second year as CEO of ERTICO, I have the honour of presenting our 2023 report on behalf of ERTICO and our Partners. I am proud to enhance how we work, integrating key priorities through a holistic and more horizontal approach, reflecting emerging challenges and new opportunities in mobility.

As an agent of inspiration, ERTICO holds a unique position in our sector, bringing together public and private stakeholders to shape and deliver policy across all areas: connecting the dots. We are strengthening our partnerships across continents, sectors, civil society and technologies, and this will remain my motto throughout our next year.

This year, ongoing dialogue with stakeholders across all domains has been a focal point this year to stand united in a changing landscape. This discussion includes the connectivity industry, public authorities, research and service providers, suppliers, vehicle manufacturers, the traffic and transport industry, and of course our citizens and end users.

Transport and mobility are now a horizontal layer with ITS technology as the common denominator. Innovation is another key element: it is part of ERTICO's DNA. As a thought leader, we facilitate, deploy and develop cooperative partnership projects to deliver positive impacts for the future of mobility. This includes helping to scale up and deploy cross-cutting technologies, co-creating cleaner, safer and more sustainable systems and services.

Our fantastic ITS Congresses connect all players in the wider mobility ecosystem. Each year, leading experts, decision-makers, policy influencers, researchers and academics at a national, European and international level come together to share best practices, foster new thinking and experience innovative technologies and trends. Advancing cross-sectoral cooperation is at the heart of these Congresses; together with our colleagues from the regional ITS organisations, ITS America and ITS Asia-Pacific, we bridge the gap between continents to strengthen the voice of ITS across the globe.

An inspiring year of inspiring achievements

Last year was an inflection point in rethinking the future of ITS. We made significant progress towards our ambitions for smarter, safer and more sustainable mobility despite major challenges on the geopolitical and societal front. We strengthened our ties through new alliances from other sectors, tapping into the potential of clean and urban mobility, and delivering cross-border 5G technologies with showcases in transport and logistics. We also displayed the possibilities of a data-driven economy with data sharing through various platforms hosted by ERTICO. This was indeed a remarkable year, with outstanding

accomplishments that included the finalisation of our flagship projects 5G-MOBIX, FENIX Network and MODALES.

Our Partnership is continuing to grow: inviting new players in the mobility and digital arena to keep pace with digital transformation in the transport industry. The year has also seen major regulatory policy work on green mobility, sustainability and smart mobility, as well as artificial intelligence, cybersecurity, mobility data spaces, the ITS Directive, and more. It is my ambition to keep our finger on the pulse, matching this increased tempo of inspiration and advocacy.

Building bridges is instrumental to ERTICO and our Partners

The second half of 2023 will highlight some of the previous year's priorities as we strengthen connections within the ITS community. These will include urban mobility, and working more intensively to deliver on mobility data spaces and Mobility-as-a-Service (MaaS). We will also "knock hard on the door" for the recognition of ITS as an enabler for decarbonisation.

Ensuring fruitful liaison with other European and international associations is another priority that I am keen to reinforce through actively engaging in discussions and streamlining our viewpoints on ITS. In this area, we reintroduced the ERTICO FOCUS ON Partnership events, examining strategic value chains across all Partners, their trends and challenges. Beyond this, I fully acknowledge that the network of National ITS organisations (ITS Nationals) is invaluable. This year, I had the great honour of taking an active role in stewardship, cooperation and synergising on key topics.

An organisation like ours is nothing without its people, without our team. We worked intensively to gain a fresh impetus through diverse HR-related actions. This included rethinking the key values that represent the ERTICO team and how we work.

Cooperative, Impactful, Open, Passionate and Visionary

These values mirror the joint effort we make with our Partners to strengthen connections between public and private stakeholders and enable positive transformations for future mobility.

As a team, we embarked on a new chapter last year that continues today: our Cultural Transformational Journey. Winning the 2023 HR Excellence Award for Best Workplace Redesign has been among the greatest collective achievements of ERTICO. I am proud to be at the helm of this unique organisation with a team that shares true dedication, ambition and drive to deliver on our promise to deploy smart and sustainable mobility across Europe and beyond. This ethos will propel ERTICO throughout 2023 and beyond with strength and optimism for tomorrow's challenges.

Be inspired and inspire others.

Joost Vantomme ERTICO CEO



ERTICO - a positive agent for change: Vision 2035



Vision by focus area

CONNECTED, COOPERATIVE AND AUTOMATED MOBILITY

ACCELERATING
AUTOMATION AND
CONNECTIVITY
FOR SAFER AND
SMARTER MOBILITY

CCAM continues to benefit from the expanding deployment of 5G and the emergence of 6G. Technologies and services will converge towards a hybrid approach in which short-range and long-range communications offer further developments for CCAM and higher levels of automation. Such automation will enable the realisation of CCAM services for shared multimodal transportation of people and goods. Data privacy and security are important enablers to support the transition from individual legacy vehicles toward CCAM services. These will consolidate into multiple trusted and interoperable data platforms, offering services to individuals, logistics service providers and public authorities. To facilitate deployment, an EU-wide regulatory regime will establish interoperability for integration in, for example, the broader traffic system and cross-border operations.



CLEAN & ECO-MOBILITY

REDUCING ENVIRONMENTAL IMPACT The major transport objective of the UN Climate Change Conference (COP) is to show that the transition to zero-emission road transport technology has reached a tipping point. This step-change towards mass-market clean mobility will focus on electric vehicles, necessary infrastructures, and the greater multimodality and shared mobility ecosystem. It will significantly contribute to the European Green Deal, making Europe climate neutral by 2050. In the shorter term, clean air policies in cities will change travel patterns and impose the 'polluter pays' principle. Evidence-based guidelines describe ways to relieve transport pollution for a healthier population, a better quality of life, and reduce $\rm CO_2$ emissions significantly. Pricing, taxation, education and awareness will contribute to adopting greener behaviour. The ways in which transport is managed today will change accordingly as transport decision-makers increasingly set environmental targets.



URBAN MOBILITY DELIVERING SEAMLESS MOBILITY FOR ALL

Future transport policies, including sustainable and smart mobility principles, will evolve to cater for urban and rural demographic changes (such as aging populations). The focus will be on the seamless integration of people and goods alike. Infrastructure management will be optimised to cater for all forms of transport, including cycling, walking, scooters, public transport, cars, rail, ferries as well as the new modes that emerged in the 20s and 30s such as urban air mobility, automated driving and electric vehicles. All transport modes and their operators will communicate and cooperate via data-rich mobility platforms. Mobility Network Management will move towards reality by focusing on user and citizen-centric approaches. Traffic management will be more predictive and interactive, not only reactive. The principle of competitive collaboration (co-opetition) between commercial and government bodies will ensure multimodality is integrated into services offered by private and public operators, including vehicle manufacturers and public transport providers. Mobility-as-a-Service (MaaS) will be the norm, offering multiple travel/mode choices, including public transport and user services, supported by interoperable transport payment and ticketing systems.



TRANSPORT & LOGISTICS CREATING THE DIGITAL

CREATING THE DIGITAL
INFRASTRUCTURE
FOR FREIGHT
TRANSPORT AND
LOGISTICS OPERATIONS

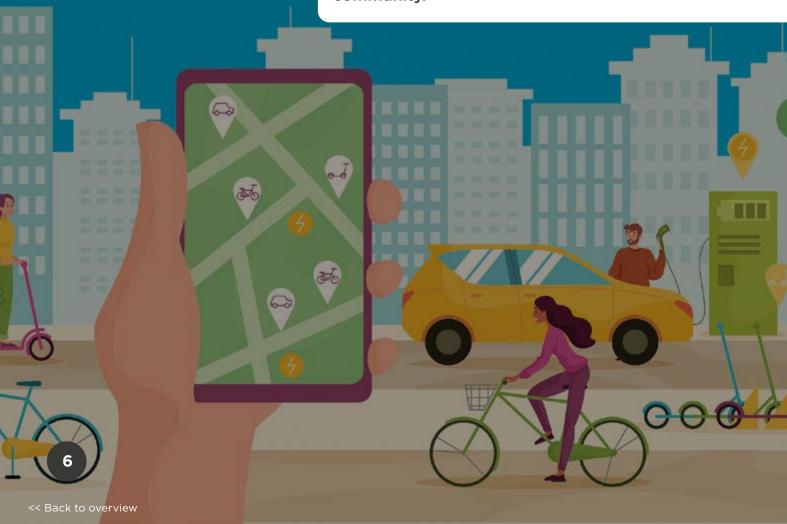
The CMR include sets of transport and liability conditions which replace individual businesses' terms and conditions. The CMR note confirms that the carrier (road haulage company) has received the goods and that a contract of carriage exists between trader and carrier. Adopting eCMR, the electronic version of consignment notes is now a reality and a huge step towards digitalising European supply chains. We will continue to see the integration of ports, cities and customs focusing on the management of goods and data exchange. 5G/6G enablers and automation deployment will play an important role in modernising freight and logistics. Implementation of smart logistics services will be supported by a trusted and interoperable EU-wide data platform while secure and seamless shared multimodal solutions will become available. Delivery as a Service (DaaS) for last-mile operations and Logistics as a Service (LaaS) are becoming a reality. Developing clean electromobility will be the primary building block for urban logistics. Cooperation between European Ministries of Transport, the European Commission's Digital Transport and Logistics Forum (DTLF), the United Nations Economic Commission for Europe (UNECE) and the International Road Transport Union (IRU) will be vital.



• Who is ERTICO?•••••

ERTICO-ITS Europe, established in 1991 by 15 industry leaders and the European Commission, aims to bridge the gap between Research & Development and the real-life deployment of new intelligent transport systems (ITS) and mobility services. We run numerous European co-funded projects and have a central role in public consultations and policymaking, establishing long-term relationships with key stakeholders worldwide.

ERTICO has organised more than 40 ITS European and World Congresses: unique events that present and help to shape the future of ITS. To advance the smart mobility agenda, ERTICO continues to work towards its vision by being a thought leader, engaging with stakeholders and connecting the dots between eight sectors across four main focus areas within the ITS community.



SUSTAINABLE MOBILITY reduced impact on the environment MOBILITY SAFE MOBILITY Zero delays and fully informed users zero accidents

EFFICIENT

Vision

Safe, smart, sustainable — ERTICO brings intelligence into mobility:

At ERTICO, we live five values that before represent our collective willingness and ambition to support our Partners in deploying Intelligent Transport Systems and Services (ITS). Our values embrace everything we do and how we aim to achieve our vision.

Mission

ERTICO develops, promotes and deploys intelligent transport services by providing a multi-stakeholder platform for action.











Cooperative

Impactful

Open

Passionate

Visionar

The Cultural Transformational Journey and HR Excellence Award 2023

'INSPIRE' - ERTICO is a great place to work to develop your skills and competence



By June 2022, a new chapter began at ERTICO. When Joost Vantomme joined as the new CEO six months earlier, he showed a strong willingness to start a Cultural Transformational Journey, internally known as 'INSPIRE'. This HR Strategic Plan aimed to build a stronger culture and more enriching employer identity while placing HR management more centrally in the organisation.

Beyond the mission of this project to maximise talent retention, it was also important to strengthen the team satisfaction and engagement across all departments. To realise this, more than 60% of the colleagues volunteered to participate in five key projects including over 36 initiatives which were translated into concrete action plans.

We achieved strong and tangible results, including drastic churn reduction, within nine months of our more than 30-year-old company. This team Journey led to ERTICO winning the prestigious HR Excellence Award 2023 in the category Best Workplace Redesign.

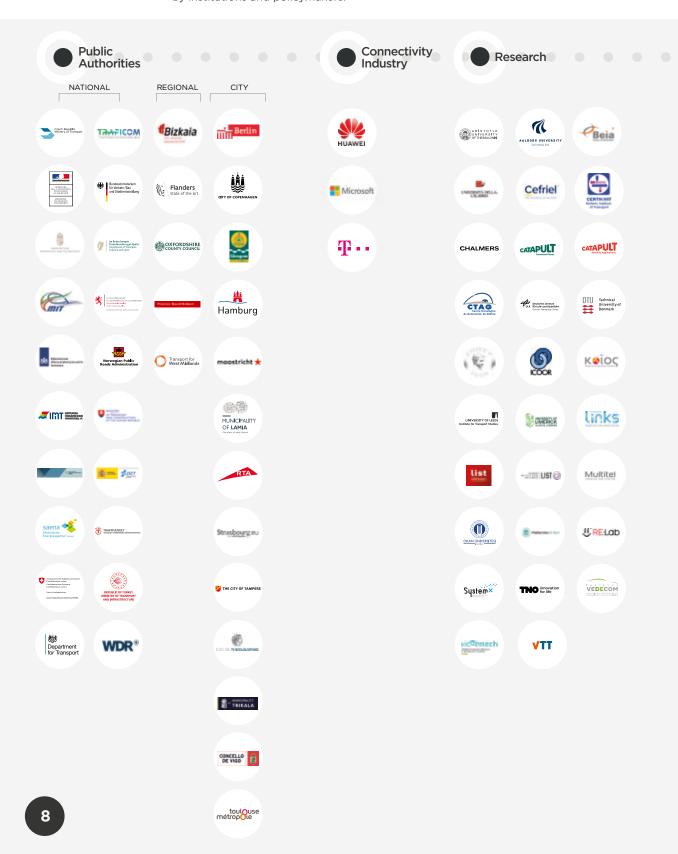
"This has been a collective achievement that everyone should be proud of, and it has already brought many positive changes to our company. ERTICO has a talented and highly skilled team and empowering individual developments to help them grow is key to making a positive impact, a passion for which we value everyone's unique contribution as fundamental."

Didier Gorteman, CFO & HR Director

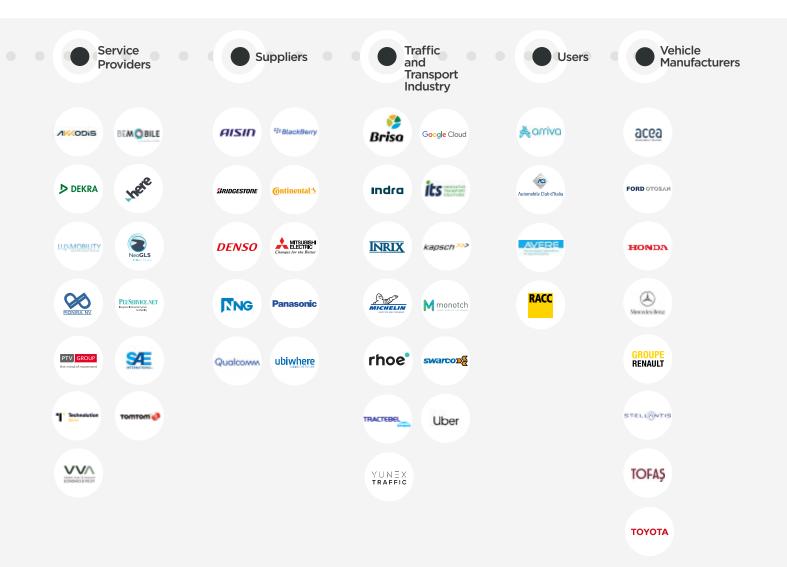
Partners are the heart of ERTICO

Partnerships power our drive and ambition to revolutionise mobility for all. We bring together stakeholders from across the ITS community to help make mobility safer, more efficient and sustainable. Every year, private and public sector organisations join the ERTICO Partnership. From 15 members in 1991, we now have 120 members from across transport and mobility: service providers, suppliers, the traffic and transport industry, research, public authorities, user organisations, manufacturers, and the connectivity industry.

Together, we lead the digital transformation of transport through the development of cutting-edge technologies, new services and innovative mobility solutions to move people and goods in smarter ways. We help shape the way forward through a holistic approach, enabling ITS voices to be heard by institutions and policymakers.



Connecting the mobility ecosystem with our partners





"Our mission is to change the face of mobility, and no single organisation can achieve that. For more than 30 years, ERTICO has provided a platform for collaboration, connecting diverse sectors and players in the ITS community, providing leadership, and fostering international cooperation and innovation. Working together is the only way to achieve more inclusive, smarter, safer, greener and sustainable mobility. 2022 was a year that brought our vision closer. ERTICO's journey to expand, deepen and broaden partnerships across nations and sectors, across public and private, continues to have a positive impact on all those involved, growing our knowledge in pursuit of innovation and shaping the future of mobility."

Dr. Angelos Amditis, ERTICO Chairman

• What we do • • • • •



CONNECTED, COOPERATIVE AND AUTOMATED MOBILITY



CLEAN & ECO-MOBILITY

Deploying innovation is central to ERTICO's work to make mobility smarter, safer and cleaner, working with our Partners in four focus areas. Deployment projects are funded by the European Commission and national authorities.

ERTICO Partnership Innovation Platforms and other multi-stakeholder activities are funded solely by industry and/or public authorities and comprise members and non-members of the ERTICO Partnership.

The ERTICO Partnership's Innovation & Deployment work is complemented by horizontal initiatives, including the ERTICO City Moonshot, the ERTICO Academy, and international cooperation that aligns Europe and EMEA with other ITS regional organisations in the US, Canada and Asia Pacific.





Focus areas

ERTICO's CCAM activities pave the way for the Research & Innovation required to deliver connected, cooperative and automated mobility services by 2035 across Europe.

Our CCAM work aims at contributing to cleaner, safer and more efficient transport in line with EU targets, including the European Green Deal and Vision Zero.

Our Clean & Eco-Mobility project and platform activities focus on reducing emissions and tackling pollutants from all forms of transport, extending to brakes, tyres and tailpipes, to improve air quality and support targets for a healthier society.

Our **Urban Mobility** priorities seek to achieve strategic goals, including multimodal, integrated and inclusive transport options for all based on an infrastructure supported by operational CCAM services that enable decarbonisation.

Our work in **Transport & Logistics** focuses on increasing interoperability and connectivity to optimise the shipment and movement of goods and enhancing supply chain management while using existing resources in smarter ways.

ERTICO Innovation Platforms focus on deploying ITS and are self-funded. We manage and host platforms for deployment services, including interactive traffic management (TM2.0), electromobility, automated valet parking (EAVP), and TN-ITS to update the specifications for refreshing digital maps. We also maintain close links with platforms that form a key part of the ITS ecosystem. This includes the Traveller Information Services Association (TISA) on Traffic Information Protocols, ADASIS on ADAS specifications, the MaaS Alliance on Mobility-as-a-Service, and SENSORIS for cloud-based vehicle sensor data.

Active Projects in 2022-2023 had a joint multi-annual budget of

£310 million

through which we currently manage and/or actively contribute to

23

research, pilot and deployment projects, with three new projects starting soon.

ERTICO Partners received almost

€75

Connected, Cooperative and Automated Mobility The future of mobility is connected, cooperative and

In order to deliver their expected benefits, future connected, cooperative and automated mobility services will need to be inclusive, integrated with the existing mobility systems and supported by the infrastructure. Bringing stakeholders together to develop and demonstrate CCAM-enabling technologies, aligned with sound policies and building consensus on common taxonomies and methodologies, is the heart of ERTICO's multisector partnership approach.

automated.



"CCAM is an important part of the Federal Highway Research Institute (BASt) agenda on research and innovation. We are proud to contribute to the ERTICO network. Being an active part in an agile network of private and public partners is valuable to discuss our approach and receive feedback, and important to align and synchronise our course of action in the multi-sector CCAM domain."

Torsten Geißler, Scientific Officer, German Federal Ministry of Transport and Digital Infrastructure

Policy and coordination

Europe is leading the charge in CCAM. With the Vehicle General Safety Regulation and automated driving systems (ADS) implementing regulation adopted in 2022, Level 4 automation is coming to our roads.

ERTICO's vision and roadmap for CCAM support European Commission policy goals including the Sustainable & Smart Mobility Strategy to deploy automated mobility at large-scale by 2030, Vision Zero and the European Green Deal. CCAM is considered to be an important contributor to decarbonisation and reducing congestion. To this end, we are also working with Member States, for whom improving the overall mobility systems is a priority, to integrate and demonstrate CCAM within a mix of mobility approaches, from electrification to the circular economy.

With the EU aiming to deliver 100+ climateneutral and smart cities by 2030, cities are keen to understand how CCAM can integrate into existing mobility systems and form part of their Sustainable Urban Mobility Plans (SUMPs). ERTICO's City Moonshot initiative shows that cities are eager to learn from each other about implementing CCAM successfully. These issues formed part of the discussion at the Smart Mobility Summit of Cities and Regions at our 2023 ITS European Congress in Lisbon.

Cooperation for pre-competitive research and innovation is key to achieving CCAM-related policy goals. ERTICO is a founding member of the CCAM Partnership under the Horizon Europe Framework Programme, which aims to better align R&I efforts in the EU and to speed up the deployment of CCAM systems and services for passengers and goods.

Harmonised approach and impact evaluation

As a CCAM-enabled world draws closer, it is critical to track progress and measure its potential impact with the help of harmonised evaluation methodologies. The EU-funded Coordination and Support Action ARCADE (Aligning Research & Innovation for Connected and Automated Driving in Europe) released the EU-wide Knowledge Base including the first European map of CCAM demonstrations and testing activities. The new ERTICO-led FAME project is seeking to establish a stakeholdervalidated European framework for testing CCAM on public roads including a common evaluation methodology (CEM), a CCAM test data space (TDS) and a legal and ethical framework. SUNRISE will develop and demonstrate a common Safety Assurance Framework for CCAM. This follows the HEADSTART (Harmonised European Solutions for Testing Automated Road Transport) project which defined testing and validation procedures.

Connectivity, data and interoperability

CCAM, and in particular high-level automation, needs support from the infrastructure and has a fundamental requirement for connectivity as well as high quality and diverse data sharing. It is crucial to further explore, develop and test its supporting technologies, including hybrid and ubiquitous connectivity, the role of AI, IoT and edge computing, and to address challenges such as cybersecurity. For CCAM to progress from experimentation to real-life deployment, a human-centric and trustworthy approach to technology advancement is essential.

ERTICO's cornerstone project 5G MOBIX, which ended in late 2022, tackled the issue of crossborder connectivity, highlighting advanced 5G CCAM use cases and new business opportunities.

Successful deployment of CCAM relies heavily on robust and resilient infrastructures that can serve the connectivity needs. The PoDIUM project is working on a reference architecture for the physical and digital infrastructure (PDI) required for CCAM, while the IN2CCAM consortium focuses on enhancing the integration and interoperability of the CCAM ecosystem.

With CCAM generating huge amounts of data, effective data management and sharing are essential. There is also a growing need to access non-competitive data for safety validation, impact assessment or training of automated driving functions and vehicles, and to identify critical scenarios. ERTICO is engaged with the development of the Mobility Data Space, contributing in its first phase to the PrepDSpace4Mobility Coordination Support Action, which aims to establish the basis for collecting and sharing mobility data across Europe in a secure and controlled way. We also have an active or leading role in a number of other initiatives for the enhancement and exchange of mobility data: Data for Road Safety (DFRS) deals with data sharing to anticipate hazards and reduce fatalities; the NAPCORE project is focused on coordinating and harmonising all European National Access Points (NAPs) for mobility data interoperability and access through common standards. The ERTICO managed Innovation Platforms such as ADASIS (map-enhanced driver assistance) and SENSORIS (global standardised interface to share information between in-vehicle sensors and the cloud) also play a central role in determining the quality and interoperability of mobility data to be shared.



Public awareness and engagement

Public involvement and understanding are key for CCAM adoption, which means raising awareness and ultimately creating solutions that respond to the real-life needs of mobility users. For CCAM services to be embraced by the public, co-creation with users and citizens is essential. The SINFONICA project is looking at social impacts with a view to enhancing inclusivity, accessibility and equity in CCAM.

Interoperability and cooperation founded on common standards are essential to delivering an open and inclusive CCAM world. ERTICO connects the dots by leading numerous projects, pilots and platforms and driving a harmonised approach.



Connected, Cooperative and Automated Mobility

The roadmap for Connected, Cooperative and Automated Mobility (CCAM) lays down the path of cross-sector collaborative R&I actions and initiatives that are necessary to ensure the availability of CCAM services by 2035 that will be integrated, accepted, inclusive and supported by the infrastructure. Such services will contribute to the decarbonisation and increased safety of the transport sector for both passengers and logistics in line with targets from the European Commission, including the Green Deal and Vision Zero.

5G-DRIVE

5GMETA

5G-MOBIX

5G-LOGINNO

ARCADE

ENSEMBLE

FAME

FUTURE-RADAR

GUIDE

HEADSTART

IN2CCAM

NAPCORE

SHOW

SINFONICA

STREnGth_M

SUNRISE

PRIVATEER

PoDIUM

WE-TRANSFORM

V4SAFETY

PLATFORMS

CROSS-SECTOR

ADASIS DFRS

EAVP

SENSORIS

TN-ITS

CITY MOONSHOT

14

Our activities





Breaking boundaries with 5G

5G-MOBIX looked at the implications of 5G and its benefits in the future of CCAM. The project developed and tested 5G-enabled systems and services in a cross-border context, considering impacts and deployment scenarios from regulatory, business and social perspectives.

Now complete, 5G-MOBIX has achieved multi-stakeholder collaboration in two cross-border corridors and six urban trial sites in Europe and beyond, including Turkey, China and South Korea. This approach has brought valuable insights and lessons learned for future trials and further deployment of 5G corridors, including data on outstanding gaps and investments for large-scale 5G/advanced CCAM services rollout.

Start: 1 November 2018 End: 30 September 2022

Coordinator: ERTICO - ITS Europe

Partners: 61

ERTICO Partners: AKKODIS, CTAG, A-TO-B powered by Brisa, Concello de Vigo, DEKRA, Direccion General de Trafico, Ford Otosan, ICCS, Instituto da Mobilidade e dos Transportes, Luxembourg Institute of Science and Technology, CATAPULT Satellite Application, VTT, TNO, VEDECOM, Vicomtech











Leveraging car-captured data to stimulate, facilitate and feed innovative products and services

5GMETA aims to create an open platform to ingest and deliver car and road data flows. The project will stimulate the development of innovative CCAM products and services by expanding 5G network functions whilst ensuring data privacy, security, interoperability and ownership.

Impact

5GMETA empowers the automotive ecosystem by giving access to interoperable car-captured data provided by 5GMETA open platform 5GMETA telematics platform enables traditional and new automotive players to monetise on diverse and high volume road- and vehicle-generated data flows. In May 2023, 5GMETA hosted its second Hackathon at the ITS European Congress to design innovative CCAM services and shape monetisation models from data streams available through the platform.

Next steps

Building on the second Hackathon's results, 5GMETA will pursue further developments in structuring and implementing data monetisation and granting SMEs and high-tech start-ups access to car data that could feed their services and drive revenues. 5GMETA will produce recommendations for the effective implementation of 5G infrastructures adopting CCAM business and policy perspectives.

Start: 1 September 2020 End: 29 February 2024 Coordinator: Vicomtech

Partners: 12 Budget: €5.7M

ERTICO Partners: AKKODIS, DEKRA, Vicomtech, ICOOR, LINKS Foundation, NeoGLS, VEDECOM



#5GMETA





Advancing map-enhanced driver assistance leading to automated driving

The ADASIS organisation is developing the worldwide de facto industry standard interface to enable Advanced Driver Assistance Systems (ADAS) to access map and geo-referenced data ahead of a vehicle's position. This concept, known as ADAS Horizon, adapts as the vehicle advances on its route.

Impact

ADASIS specifications have enabled the market introduction of new vehicle systems. The ADAS Horizon is the standardised interface enabling ADAS and automated driving applications to access in-vehicle map database.

Next steps

The implementation of ADASISv3 as a standard will enable automated driving by supporting highdefinition maps of any type (e.g. NDS), supporting long-range horizons without restrictions, and attaching georeferenced objects (sensor, dynamic data) to the ADAS Horizon.

Start: 2002

Coordinator: ERTICO - ITS Europe

Members: 55

ERTICO Partners: Stellantis, Mercedes-Benz, Toyota, Renault, Honda, AISIN, Mitsubishi Electric, Panasonic, NNG, Huawei, CTAG, Continental, TomTom, HERE Technologies

#ADASIS IN ADASIS AISBL





Building consensus for the harmonised deployment of CCAM in Europe and beyond

ARCADE supported the alignment of R&I by identifying challenges, needs and solutions to deploy CCAM and building consensus across sectors. It facilitated the exchange of knowledge and experiences from past and ongoing research and piloting activities at national, European and international levels, and in particular the European CCAM Partnership in defining the future R&I agenda.

Impact

ARCADE consolidated the online Knowledge Base of CAD knowhow, providing an overview of R&I projects, a map of European testing and piloting activities, impact assessment and evaluation methodologies, testing regulations, standards, roadmaps and strategic plans. The project supported the European Commission for organisation of the EUCAD 2019 and EUCAD 2021 Conferences on Connected and Automated Driving.

Next steps

ARCADE was extended and ended in July 2022, ensuring the continuous update of the Knowledge Base until the start of the follow-up project FAME, also coordinated by ERTICO.

Start: 1 October 2018 End: 31 July 2022

Coordinator: ERTICO - ITS Europe

Partners: 23 Budget: €3M

ERTICO Partners: Chalmers University, DLR, ICCS, Renault, RWS, Leeds University, VEDECOM, VTT

#ARCADE

Our activities





Public-private cooperation for a Safety-Related Traffic Information **Ecosystem**

DFRS is an ERTICO platform and a pioneering initiative to enhance road safety based on public-private collaboration. The platform has created a Safety-Related Traffic Information (SRTI) ecosystem that enables data sharing among its members for the creation of safety warnings under the principle of reciprocity.

Impact

Public authorities including road authorities and operators, vehicle manufacturers and suppliers, and service providers are working together for the large-scale use of vehicle data on a mutual basis. This collaborative approach is an example of best practice in data sharing and can serve as an inspiration framework for projects such as NAPCORE. The DFRS Technical Group was among the finalists of the NCE TechFest for its outstanding work.

Next steps

DFRS aims to significantly reduce road fatalities, contributing to the EU's goal of halving road deaths to 50% by 2030. The team is focused on enhancing road safety SRTI and engaging a broader spectrum of public and private organisations to speed up achieving this goal.

Coordinator: ERTICO with the support of WSP as chair of the Technical Group

Partners: 21

ERTICO Partners: ACEA, the Netherlands' Ministry of Infrastructure and Water Management, DGT - Spain, Finnish Transport and Communications Agency Traficom, Germany's Federal Ministry of Transport and Digital Infrastructure, Flanders MOW (Belgium), HERE Technologies, TomTom, Inrix, Mercedes-Benz

#dataforroadsafety in DFRS - Data for Road Safety



A collaborative stakeholder ecosystem to bring parking to the next level

The EAVP platform brings stakeholders together for the coordinated and seamless dissemination and deployment of European Automated Valet Parking. It promotes collaboration at a hands-on-working level, networking, and establishing partnerships.

Impact

EAVP facilitates and supports the implementation of priority actions in deploying AVP in Europe, fostering and cultivating relevant standards and legislation, and aligning on deployment roadmaps. By creating and guiding an active ecosystem, EAVP will lead the consistent stepwise deployment of AVP functionality, both for OEMS and parking operators, for successful market entry in 2025.

In 2023, EAVP will focus on bringing technology to large-scale flagship city deployments and seek cooperation with all relevant stakeholders. It is also focusing on legal aspects and cooperation with EU legislation. Together with its partners, EAVP is engaged in relevant market communication and information dissemination.

Start: 2021

Coordinator: ERTICO - ITS Europe

Partners: 12

ERTICO Partners: Toyota, Honda, DEKRA

#EAVP



Framework for coordination of Automated Mobility in Europe

FAME supports the commitment of the European Commission and CCAM Partnership to provide a long-term coordination framework for R&I and large-scale testing and evaluation of connected automated driving in Europe. This involves establishing a stakeholder-validated framework for testing on public roads, including CCAM test data space (TDS), common evaluation methodology (CEM), and a way to exchange knowledge on activities to improve cooperation, consensus building and data sharing

Impact

FAME will consolidate the transferability, replicability and upscaling of knowledge for future research, development and testing of CCAM, thereby accelerating the development and deployment of CCAM-enabled solutions.

Next steps

The first elements of the EU framework for testing will be developed, including a taxonomy tool and analysis of CCAM testing procedures and administrative frameworks in Member States. The EU-wide Knowledge Base will be improved and updated with new content and functionalities.

Start: 1 July 2022 End: 30 June 2025

Coordinator: ERTICO - ITS Europe

Partners: 23

ERTICO Partners: ICCS, Czech Republic Ministry of Transport, NNG, PTV Group, Chalmers University, TNO, VEDECOM, Vicomtech, University of Leeds

@Europe_CAD

in Connected Automated Driving in Europe



Supporting the Strategic Deployment Agendas for the **EU Corridors**

The GUIDE project coordinates the development of the 5G Strategic Deployment Agenda (SDA) for CAM and facilitates CEF2 future project pipelines based on the evolution of the SDA.

The project will coordinate SDA development, facilitate project pipelines, and elaborate best practices of studies and deployment projects to cover common challenges (e.g. local breakout). It will assist in performance evaluation across projects, sharing solutions, and supporting progress monitoring.

Next steps

GUIDE will help to ensure coherence in the operation and collaborative working of the CEF programme as a whole. The project will focus on providing essential organisation and operational infrastructure to allow the active CEF project community to communicate and collaborate smoothly and efficiently.

Start: 1 January 2023 End: 30 June 2025

Coordinator: EURESCOM - European Institute For Research And Strategic Studies In Telecommunications Gmbh

Partners: 4





Enhancing integration and interoperability of the CCAM ecosystem

IN2CCAM develops, implements and demonstrates innovative services for connected vehicles, infrastructures and users The project will advance and accelerate CCAM technologies and services for seamless traffic management across Europe. Towards this goal, it is establishing six Living Labs: Tampere (Finland), Trikala (Greece), Turin (Italy), Vigo (Spain), Bari (Italy) and Quadrilatero (Portugal).

The project will enhance road safety by reducing the number of road accidents caused by human error, thanks to innovations in automation. It will reduce CO2 emissions caused by congestion and unnecessary trips, thus having a positive environmental impact. IN2CCAM also pursues an inclusive approach, making transport accessible for all.

Next steps

In 2023, the four Lead Living Labs of Tampere, Turin, Trikala and Vigo are deploying and testing automated vehicles in reallife demonstrations. The two Follower Living Labs at Bari and Quadrilatero will carry out simulations and data assessments.

Start: 1 November 2022 End: 31 October 2025 Coordinator: POLIBA

Partners: 21

ERTICO Partners: AKKODIS, CEA-List, NeoGLS, ICCS, LINKS Foundation, LIŚT, OKAN Úniversitý, POLIBA, TTS Italia, Ubiwhere, VEDECOM, Concello de Vigo, VTT



@ in2ccam



in IN2CCAM

Our activities



National Access Point Coordination Organisation for Europe



The world's largest cooperation of mobility data platforms

This project is the coordination mechanism to improve the interoperability of National Access Points (NAPs), and to establish a harmonised federated NAP infrastructure. ERTICO is part of the NAPCORE advisory board, representing its vast ITS partnership and TN-ITS, DFRS, TISA and MaaS Alliance.

Impact

NAPCORE members work collaboratively to set up a longterm governance structure at EU level, aligning regulatory and authoritative mobility standards such as TN-ITS and DATEX II. ERTICO's contribution is essential in aligning data content, data chain aspects and related data accessibility processes, defining and deploying the final role of NAPS within the EU mobility data space.

NAPCORE is working to establish itself as a leading European organisation, ensuring quality of data and standards alignments among Member States while exploring its application to approaches such as cycling and parking. ERTICO will continue to advise on strategic questions asked of the advisory board and to enhance the availability of reliable, qualitative and authoritative data through TN-ITS.

Start: 1 April 2021

End: 31 December 2024

Coordinator: Bundesanstalt für Straßenwesen (BASt)

Partners: 33

ERTICO Partners: Vlaamse Overheid - Department Mobility & Public Works, Czech Ministry of Transport, French Ministry of Transport, Ministry of Innovation and Technology- Hungary, Ministry of Infrastructures and Transport - Italy, Ministry of Infrastructure and Water Management Rijkswaterstaat - Netherlands, Ministry of Infrastructure - Slovenia, DGT (Spain), Swedish Transport Administration.



#NAPCORE









Accelerating the implementation of CCAM technology

PoDIUM aims to advance key technologies in physical and digital infrastructure (PDI) to achieve higher levels of automation and to foster the development of advanced CCAM solutions. The project will result in a reference architecture to apply to various road environments and infrastructure equipment.

PoDIUM will identify and assess connectivity and cooperation enablers and needs to reach higher levels of automation in CCAM through demonstrations of demanding CCAM use cases in three Living Labs, a multi-connectivity approach, and an interoperable and hybrid data management environment.

Next steps

In 2023, use cases are being refined, and the requirements and specifications of the PoDIUM platform defined, including data provision and CCAM messages, cooperation enablers and evaluation data. Work on the platform architecture began in the first part of 2023

Start: 1 October 2022 End: 30 September 2025

Coordinator: ICCS Partners: 24

ERTICO Partners: ICCS, SWARCO, Vicomtech, LINKS Foundation, **Stellantis**



@PoDIUM_EU



PoDIUM Project



Privacy-first Security Enablers for 6G Networks

6G technology has come with a new rich set of features and capabilities, which are accompanied by a drastic increase in the attack surface. PRIVATEER will address the challenge of a significantly widened 6G threat landscape while preserving the privacy of all actors in the 6G chain by deploying a 'privacy-first' 6G security integrated framework.

Impact

Privacy is a key pillar in EU R&D activities towards 6G; privacy enablement is a top societal aspect in the EU's 6G vision. PRIVATEER will work on relevant use case scenarios for two verticals with significant security and privacy requirements, Intelligent Transportation Systems (ITS) and Smart Cities.

Next steps

PRIVATEER will pave the way for 6G 'privacy-first security' by studying, designing and developing innovative security enablers for 6G networks, following a privacy-by-design approach. The first steps involve designing and building PRIVATEER's framework by identifying 6G threat landscapes and understanding the requirement to enable the use cases.

Start: 1 January 2023

End: 31 December 2025

Coordinator: Space Hellas S.A.

Partners: 13 Budget: €4.7M

ERTICO Partner: ICCS

SENSORÍS



A global standardised interface to exchange information between in-vehicle sensors and the cloud

The SENSORIS association enables access, delivery and processing of vehicle sensor data while collecting enriched location-based services, and allowing easy exchange of vehicle sensor data. It brings together key players from the global vehicle industry, map and data providers, sensor manufacturers, and telecom operators.

Impact

SENSORIS defines a global standardised interface between vehicle and cloud that will result in new services and increased business opportunities, using in-vehicle sensor data as probe data.

Next steps

After becoming an official non-profit entity under Belgian law in February 2023, SENSORIS will liaise with ISO in order to submit the SENSORIS specification as an ISO standard, and plan to develop SENSORIS v2.0.

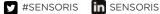
Start: 2016

Coordinator: ERTICO - ITS Europe

Members: 35

ERTICO Partners: Continental, DENSO, Huawei, HERE Technologies, TomTom, NNG,

Renault, Toyota, CTAG, ICCS









Social INovation to FOster INclusive cooperative, Connected and Automated mobility

SINFONICA focuses on the accessibility and inclusivity of CCAM solutions, developing methodologies for socially innovative, citizen-oriented long-term planning in CCAM. The project conducts a range of activities in four groups of interest in Europe to develop recommendations and guidelines that take user needs and requirements into account.

Impact

SINFONICA will enhance the seamless and sustainable deployment of CCAM in an inclusive and equitable way for all citizens. The project will develop strategies, methods and tools to engage users, providers and other stakeholders including vulnerable user groups, understanding their needs, desires and

Next steps

In 2023, work was completed on identifying the mobility needs and requirements of European citizens and in defining the CCAM vocabulary and stakeholders' needs and requirements for CCAM solutions. The project is now focusing on stakeholder engagement strategies, including surveys on user factors affecting CCAM deployment.

Start: 1 September 2022

End: 31 August 2025

Coordinator: University of Modena and

Reggio Emilia (UNIMORE)

Partners: 14

ERTICO Partners: City of Hamburg, IRT SystemX, ICOOR, ICCS, Provincie Noord Brabant, Arriva, Transport for West Midlands, RE:Lab





Our activities

STREnGth_M

Stimulating road Transport Research Next steps in Europe and around the Globe for sustainable Mobility

The STREnGth_M consortium will contribute significantly to the planning of R&I in Europe by: identifying future research needs in road transport; updating and supporting the coordination of strategic research agenda roadmaps in the field; and facilitating continuous exchange between road transport researchrelated Horizon Europe partnerships and platforms.

The global progress of e-mobility will be tracked while measuring the feasibility of innovative solutions for prospective and emerging markets in Africa, Asia and Latin America. This will help to strengthen existing and new links between European, national and regional programmes and support structures for international cooperation task forces.

The consortium will develop and elaborate dissemination strategies and support the dissemination and organisation of European and international road transport research events to help achieve the goals of the European Green Deal and Paris Agreement.

Start: 1 February 2023 End: 31 January 2026 Coordinator: AVL List GmbH

Partners: 24

ERTICO Partners: Aristotle University of Thessaloniki, Stellantis



Developing and providing a harmonised and scalable CCAM Safety Assurance Framework

SUNRISE will develop and demonstrate a validated, commonly accepted and extensible Safety Assurance Framework for testing and safety validation of a varied scope of CCAM systems. SUNRISE works closely with all relevant stakeholders including policymakers, regulators, consumer testing and user associations. ERTICO actively supports the international outreach of the Framework to ensure harmonisation, user-friendliness and wide adoption.

Impact

The long-term goal is accelerating safe deployment of innovative CCAM technologies and systems for passengers and goods by creating a demonstrable and positive impact on safety. This is in line with the long-term EU goal of moving close to zero fatalities and serious injuries by 2050 (Vision Zero), and improving the resilience of road and transport systems.



Next steps

The project is defining and then implementing the building blocks of the Safety Assurance Framework: harmonised and scalable safety assessment methodologies, procedures and metrics tailored for use cases, as well as a federated European Scenario Database framework and necessary data interfaces.

Start: 1 September 2022 End: 31 August 2025 Coordinator: IDIADA Partners: 21 + 2 Associate

Budget: €13.5M

ERTICO Partners: Continental, Chalmers University, ICCS, Renault Group, Toyota Motor, TNO, VEDECOM, Vicomtech, Stellantis









Transport Network ITS Spatial **Data Deployment**

This ERTICO multi-stakeholder Innovation Platform creates a data chain mechanism for trusted authoritative spatial road data changes between road authorities, map makers and service providers. TN-ITS enhances road safety, transport efficiency, automation and applications such as MaaS, smart parking and cycling.

The platform maintains and develops a CEN Technical Specification for the exchange of static road attributes. This standard is now a basis for static data exchange within the revised Delegated Regulation RTTI DR 2022/670. TN-ITS also encompasses the National Access Point Coordination Organisation for Europe (NAPCORE).

TN-ITS is expanding its scope with a focus on Member States, engaging additional private partners and public authorities through the road show initiative, providing training packages and enhancing cooperation. The platform continues to align with e.g., DATEX II and foresees the submission of a proposal to enhance data availability and data exchange infrastructure within the CEF 2023 programme. In 2023, the multi-stakeholder platform celebrates its 10th anniversary with dedicated activities to revise some of its achievements and look at upcoming milestones.

Start: 2013

Coordinator: ERTICO - ITS Europe

Partners: 13

ERTICO Partners: Vlaamse Overheid, Swedish Transport Administration, Ireland Department of Transport, Tourism and Sport, HERE Technologies, TomTom, UK Department for Transport, Huawei, Norwegian Public Roads Administration



in TN-ITS





Workforce Europe - Transformation Agenda for Transport Automation

Digitalisation and automation in the transport sector create significant challenges for the workforce and labour market. The EU-funded H2020 project WE-TRANSFORM aims to develop an action-oriented policy agenda to address these challenges and mitigate the impacts of automation on workers from all transport modes and sectors.

Impact

The project brings together stakeholders from all transport modes for cross-national collaboration. The resulting knowledge and data will help policymakers to deal effectively with the effects of automation on the transport labour force. These results will feed into the Living Hub, a collaborative platform enabling stakeholder dialogue and enriched with a knowledge base of collected and co-created knowledge, providing a solid basis for decision-making.

Next steps

Stakeholder co-creation activities including focus groups, interviews, workshops and citizen dialogue are being organised in various European countries to generate the agenda.

Start: December 2020 **End: November 2023**

Coordinator: Politecnico di Torino

Partners: 34 Budget: €2.5M

ERTICO Partners: VEDECOM, Mercedes-Benz





@TransformWe WeTransform Project



An accepted and reliable method to compare safety measures for CCAM is required to set policies for road safety in the coming decades and push for Vision Zero. This project will provide a prospective safety assessment framework able to handle a large variety of safety measures, from in-vehicle safety technology, new vehicle types and infrastructure solutions to regulations that influence road user behaviour.

Impact

V4SAFETY includes methods and associated guidelines to project the results in future scenarios and across EU regions for use by policymakers, authorities and consumer organisations. The proposed method will deal with the safety of all road users, including vulnerable road users and vehicle occupants.

Start: November 2022 **End: September 2025**

Type: RIA

Coordinator: TNO

Partners: 17 + 14 Associated Partners

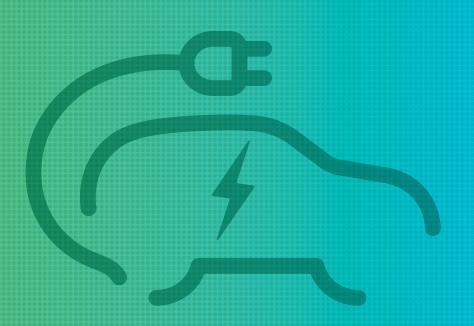
Budget: €4.1M ERTICO: €94,000



#V4SAFETY

Clean & Eco-Mobility Central to ERTICO's vision of making mobility smarter and safer.

Cleaner and more environmentally friendly transport is central to our vision for smarter and more sustainable future mobility. A reduction in pollutants and particle emissions resulting from all forms of traffic and improving air quality are at the heart of today's policymaking - and our innovations in clean and eco-mobility.



"We know that sustainable urban mobility and future-proofed energy infrastructure go hand-in-hand in achieving scalable climate positive impact. Through our ERTICO membership and our active involvement in its Clean & Eco-Mobility activities we can further explore those interrelations together with ERTICO Partners, shed light on the integration potential, and further pursue the alignment of these innovation roadmaps in a European context."

Jop Spoelstra, Innovation Manager, Technolution

Exploring cleaner solutions for future mobility

The movement of people and goods continues to be transformed in line with the EU Sustainable & Smart Mobility Strategy and the European Green Deal targets, which include reducing greenhouse gas (GHG) emissions from transport by 90% by 2050. To achieve these objectives, ERTICO and its Partners collaborate on numerous projects and platforms, reflecting diverse areas of business case development, innovative technologies, standards, legal issues, user behaviour, and social impacts.

Electrification of all modes of road transport is a critical route to clean mobility and is naturally an important theme in many EU-funded projects. ERTICO is uniquely placed to connect the dots across public and private stakeholders and, most importantly, across the three key dimensions of vehicle, infrastructure and user: from how EV charging stations are implemented to nudging drivers to change their behaviour.

With no single "magic bullet" in Clean & Eco-Mobility, we continue to explore shared mobility and multimodality solutions alongside new ways to deliver efficient and greener mobility network management. We support policy developments at both EU and Member State levels, such as clean air zones, the European Hydrogen Bank, and other eco-friendly approaches.

Generating a greener impact on society

As in other focus areas, there is an increased emphasis on measuring and reporting the impacts of new developments and gathering evidence of outcomes and KPIs. Phase two of ERTICO's City Moonshot initiative to engage with 300 cities worldwide is underway. Decarbonising mobility and improving air quality are among cities' top three mobility goals and allied with improving public transport systems.

92% of cities are already taking transport-related actions to tackle the climate crisis, including adding bicycle lanes for active mobility, new investments in public transport, and installing EV charging infrastructure. Air quality is also a policy priority: the vast majority of cities measure air quality (89%). In 37% of cases, cities change and adjust transport policies depending on air quality levels.

Contributing to cleaner and more sustainable mobility

The MODALES project, ending in 2023, takes a user-centric approach and covers all types of on-road vehicles. This is the first major project to examine the interaction and impacts of powertrain, brakes and tyres with driver behaviour. Recent activity includes a new low-emission driving app, which is being tested in seven European cities, and creating new guidelines and recommendations to help reduce emissions.

Covering infrastructure and the user perspective, ERTICO is part of the eCharge4Drivers consortium. Outputs include an EV Charging Location Planning Tool and demonstrations of new charging infrastructure. Ongoing work led by ERTICO includes recommendations for legal and regulatory harmonisation and guidelines for investors and authorities.





The NextETRUCK project is another joint effort to decarbonise fleets and deliver efficient and affordable zero-emission logistics in medium freight haulage. Three demonstration sites are live in Istanbul (Turkey), Utrecht (Netherlands) and Barcelona (Spain).

A wide scope of innovations for multimodal solutions

Supporting shared mobility and multimodality in public transport across vehicles and infrastructure, we are involved in the eBRT2030 project for full electric European Bus Rapid Transit (BRT). Coordinated by the International Association of Public Transport (UITP), eBRT2030 is expected to be one of the biggest innovations the bus domain has ever seen. Driving more sustainable urban transport and reducing cost per km per passenger, high-quality next-generation priority bus systems will be enhanced by automation and connectivity, reducing GHG emissions and pollutants as well as congestion.

ERTICO Innovation Platforms such as ADASIS, SENSORIS and TM 2.0 for collaborative traffic management continue to play an important role in enabling cleaner and more eco-friendly mobility. Now in Phase 3, TM 2.0 has moved from innovation to deployment and is closely linked to a range of other ERTICO projects and activities.

Future mobility will be cleaner and greener. ERTICO and its Partners are leading the way in ensuring public and private partners are co-creating the tools and technologies necessary to make this happen, setting new standards and meeting ambitious targets.

Clean & Eco-Mobility

We work with our Partners and stakeholders to facilitate greener services and products in the transport and mobility sector, as well as assessment of the environmental and social impact of different systems and strategies. The innovation and deployment targets in our Roadmap will contribute towards widespread zero-emission mobility in both urban and non-urban areas, to address climate change and clean air goals.

PROJECTS

eBRT2023

eCharge4Drivers

MODALES

NextETRUCK

SOLUTIONSplus

PLATFORMS

MAAS ALLIANCE

ADASIS



2035

ultra low emission mobility widespread in both urban and nonurban areas



2035

all new cars and majority of new HDVs are zero emissions

2030

smart electro-mobility widely deployed in cities

2027

Europe-wide smart infrastructure for clean modes

0

2025

electric light vehicles integrated with transport and energy networks across European cities and on key interurban corridors



2023

common methodologies allowing external auditable impact assessment of ITS measures



2022

 $\bigcirc \cdots \bigcirc$

low emission driving app and training tested

Our activities





European Bus Rapid Transit of 2030: electrified, automated, connected

This project represents a major milestone in electric mobility, proposing innovative solutions for electric Bus Rapid Transit (BRT). eBRT2030 will create a new generation of advanced full electric, urban and peri-urban eBRT, enhanced with novel automation and connectivity functionalities to support sustainable urban transport and reduce emissions, pollutants and congestion.

Impact

eBRT2030 will develop technology-focused innovative solutions and test them at seven demonstration sites in Europe, Latin America and East Africa, fully integrated into the wider urban mobility scenario. It will define a new European concept of BRT for 2030 that improves the performance of Europe's entire urban bus system.

Next steps

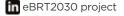
Work will initially focus on eBRT system requirements and specifications, taking into account cities' needs. A multi-level simulation and design and planning tools will start to be developed to verify eBRT technologies and infrastructures.

Start: 1 January 2023 End: 31 December 2026 Coordinator: UITP

Partners: 45

ERTICO Partners: ICCS, VTT, Arriva, CERTH









Easy charging, easy driving

eCharge4Drivers is working to make electric vehicle (EV) charging more prevalent and user-friendly, with an improved charging station design and increased interoperability. To boost the rollout of charging stations, the project focuses on user needs and expectations alongside commercial and regulatory requirements.

Impact

The project demonstrates convenient charging options including multi-outlet, standardised charging stations, standardised battery swapping stations for light EVs, and a charging location planning tool. It supports investors and authorities in deploying new charging infrastructure and services in a user-centric and sustainable way and develops guidelines for investors and regulatory recommendations.

Next steps

The first months of 2023 saw demonstrations of the project's charging solutions and services beginning in all 10 sites, for verification and evaluation. Work on guidelines to improve superfast charging systems, and developing regulatory recommendations and guidelines for investors and authorities, is continuing.

Start: 1 June 2020 End: 31 May 2024 Coordinator: ICCS

Partners: 30

ERTICO Partners: ICCS, CEA-List, Stellantis, ICOOR, Politecnico di Bari

♥ @Charge4E

in eCharge4Drivers

modales

Adapting driver behaviour for lower emissions

MODALES is working to substantially reduce air pollution from all types of road vehicles by encouraging the adoption of low-emission driving behaviour and appropriate maintenance. The project focuses on emissions from the powertrain, brake wear and tyre wear, exploring innovative and complementary solutions to reduce them.

Impact

MODALES is the first major project that considers the interaction of powertrain, brakes and tyres and driver behaviour to develop knowledge and guidance for low-emission driving, as well as maintenance, retrofit and legal aspects. The project analyses factors influencing petrol and diesel engine emissions from driving, On-Board Diagnostics (OBD), vehicle inspection and maintenance.

Next steps

On-road trials of the effects of training videos and the MODALES low-emission driving app, using car and commercial vehicle drivers in seven European countries, were finalised in early 2023. With work progressing on the effects of emissions and their potential impact, project results were presented at the MODALES final event in May 2023.

Start: 1 September 2019

End: 31 May 2023

Coordinator: ERTICO - ITS Europe

Partners: 18

ERTICO Partners: Cerema (French Ministry of Ecological Transition), Bridgestone, Michelin, CERTH, VTT, Luxembourg Institute of Science and Technology (LIST), Okan University, Leeds University, RACC Mobility Club

#MODALESproject #MODALEStips

MODALES project -

Adapting driver behaviour for lower emissions







Efficient and affordable Zero Emission logistics through the **NEXTgeneration of Electric TRUCKs**

NextETRUCK is a flagship project focused on the electrification of zero-emission medium freight haulage for the decarbonisation of urban and sub-urban logistics. Project innovations include the deployment of e-powertrain components, architecture, smart charging infrastructure and management, improved thermal design of the cabin, IoT and digital tools.

Three use cases are deployed in Istanbul (Turkey), Utrecht (Netherlands), and Barcelona (Spain). They explore optimisation challenges for tomorrow's logistics: seeking reliability, integration, affordability and flexibility, providing an end-to-end solution, and addressing vehicle components, vehicles and fleets, and infrastructure. Each use case will demonstrate 200km of average daily operation for at least six months.

Next steps

OEMs, vehicle operators, charging system suppliers and charge management software suppliers will cooperate in the design of fully operational zeroemission vehicles. ERTICO is the Innovation Manager and is leading the work on demonstration planning and implementation for each use case. NextETRUCK will also look for opportunities to share its expertise with related projects to boost the sustainable transition of the freight sector.

Start: 1 July 2022 End: 31 December 2025 **Coordinator: TNO**

ERTICO Partners: TNO, CERTH, Ford Otosan, NNG

Partners: 19







Integrated urban electric mobility in the context of the Paris Agreement, UN SDGs and New **Urban Agenda**

SOLUTIONSplus is a flagship project to support the sustainable electrification of road transport in large urban areas in Europe, Asia, Africa and Latin America. The project encompasses city-level demonstrations to test different types of e-mobility solutions, complemented by a comprehensive toolbox, capacity development and replication activities.

The project has piloted a wide range of electric vehicles with zero tailpipe emissions, including e-buses in Hamburg, Montevideo and Madrid, e-Mopeds in Hanoi, and e-Vans and Quadricycles in Passig and e-Bajajas in Dar es Salaam. SOLUTIONSplus is also supporting the introduction of technologies such as fleet management systems, battery swapping and charging points.

Next steps

SOLUTIONSplus will continue to support start-ups around the world through its Start-ups Incubator and further develop its e-global training programme. Demonstration activities will continue in the ten Living Labs, and the project's e-mobility technologies will be developed further. Replication activities were launched in early 2023.

Start: 1 January 2020 End: 31 December 2023 **Coordinator: UEMI**

Partners: 46

ERTICO Partners: Technical University of Denmark, TNO, VTT, T-Systems

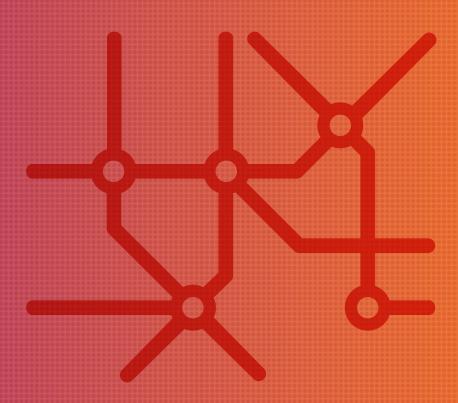


SOLUTIONS_EU



Urban Mobility Delivering seamless mobility for all

With millions of people living in cities, our Urban Mobility Roadmap focuses on delivering new and shared mobility solutions that are safe, inclusive, clean and sustainable. We are making more integrated and resilient urban mobility a reality through partnerships, co-creation and innovation. This includes using new technologies, developing mobility data spaces, multimodal solutions, improving traffic management, and making effective use of physical and digital infrastructure (PDI).



"As a smart mobility service provider, Be-Mobile is developing solutions in the areas of traffic monitoring and management, connected vehicle technologies, mobile payment and toll collection. ERTICO delivers us a great platform to share best practices and to reflect on lessons learned in these domains. Be-Mobile is also an active member in the TM 2.0 forum, which gives us the opportunity to discuss new innovative ideas on interactive traffic management."

Dr. Bart Lannoo, Innovation Director, Be-Mobile

Bringing innovative solutions to urban cities

As cities grow, traffic increases and transport systems are pushed to their limits. City authorities want fewer road vehicles and less congestion; citizens expect action from their leaders on environmental issues. In addition to working at a European level, we increasingly work directly with cities and regions on the urban mobility issues they face. With an increasing trend towards measuring and understanding the real-world impacts of new solutions, we recently launched a survey to gather intelligence from our Partners on their many activities now underway.

Expanding knowledge for smarter mobility solutions and services

With ambitious targets relating to decarbonisation and air quality, congestion and noise, and safety, we focus on reducing emissions and pollution, reducing accidents and fatalities, and avoiding millions of hours lost because of congestion and delays. Improved public transport and multimodal hubs, Mobility-as-a-Service (MaaS), active mobility, last-mile deliveries, unmanned aerial mobility, kerbside management and dynamic use of road space all play a part.

Cities remain an important focus for the European Commission, including a commitment to deliver more than 100 climate-neutral and smart European cities by 2030. Following the adoption of the EU Urban Mobility Framework in December 2021, the Commission invited ERTICO to join a reformed Expert Group on Urban Mobility, which first convened in October 2022. ERTICO also hosted a Smart Mobility Summit for Cities & Regions at the 2023 ITS European Congress in Lisbon.

In 2022, we supported the metropolitan municipalities of Istanbul and İzmir in Turkey on their Sustainable Urban Mobility Plans (SUMPs). Istanbul's SUMP is the first in the world to be developed for a megacity, with a population of more than 16 million.

Our City Moonshot initiative is engaging with 300 cities and regions worldwide and has entered its second phase. From phase one, we observed that the most common actions taken to encourage behavioural change (by citizens) to achieve air quality improvements were: incentivising walking and cycling (85%) - a large number of cities deployed more bike lanes or converted car lanes into bicycle lanes; incentivising public transport usage (77%), by reducing the price or making it free; and public transport improvement measures (79%) by investing in the infrastructure and services (e.g. more frequent, longer running hours).





Exploring new trends and solutions

In a multimodal world, it is logical to take mobility into the space above our cities. We have continued to explore the possibilities and challenges of unmanned aerial mobility (UAM) as part of our wider Mobility Network Management (MNM) approach. We have a regular presence at Amsterdam Drone Week and followed with interest the launch of the European Commission's forward-looking Drone Strategy 2.0 in November 2022. Our UAM expertise feeds into our work in SUMPs.

The four-year SHOW project reaches its peak in 2023. Looking at areas such as integrating different automated vehicles in public transport, MaaS, demand responsive transport (DRT) and Logistics as a Service (LaaS), its achievements were showcased at the Transport Research Arena (TRA) in November 2022.

ERTICO is also at the forefront of SOLUTIONSplus, which aims to accelerate the transition towards low-carbon new and shared urban mobility, leading upskilling and capacity building on Mobility-as-a-Service. The project is trialling EV options to meet different individual needs, including e-scooters, e-bikes and electric Tuk Tuks, and is establishing regional platforms.

Launched in September 2022, the SINFONICA project looks at inclusivity, equity and accessibility issues around mobility, with urban mobility an important component. NAPCORE, meanwhile, provides essential coordination of platforms for data sharing towards a common approach.

We also launched the European Automated Valet Parking (EAVP) platform focused on urban environments with limited parking spaces. This aims to optimise parking capacity and positively impact the wider urban community. Other ERTICO-managed Innovation Platforms relevant to urban mobility and reducing congestion include TM 2.0 for advanced interactive traffic management.

ERTICO and its Partners are at the forefront of delivering cleaner, greener, easier urban mobility: creating the more sustainable, congestion-free and people-focused towns and cities of tomorrow.







Our priority is to support the widespread deployment of personalised mobility services in urban spaces. We remain at the forefront of this evolution, helping to refocus policy and operations from traffic management and efficiency gains towards more environmental targets to ensure the planning and delivery of greener, cleaner and more sustainable mobility.

ROJECTS

SHOW

SOLUTIONSPLUS

SUMP IZMIR

NAPCORE

-ORMS

EAVP

MAAS ALLIANCE

TM 2.0

TISA

CITY MOONSHOT ERTICO ACADEMY

CROSS-SECTOR

Our activities





Together towards an open MaaS ecosystem

The MaaS Alliance is a public-private partnership dedicated to establishing the foundations for building a common approach towards Mobility-asa-Service (MaaS), and unlocking the economies of scale needed to support successful implementation and uptake of MaaS globally. The Alliance works on three fundamental levels to ensure the successful deployment of MaaS: technology, business modelling, and favourable regulations.

The goal is to facilitate an Open MaaS ECO System that benefits users, societies and the environment. The MaaS Alliance brings together stakeholders from all sectors to enable the successful deployment of MaaS. It also supports policymaking by promoting the benefits of MaaS to new stakeholders, monitoring and sharing information on market development, and contributing to developing technical interoperability of

Next steps

With more than 100 members worldwide, the MaaS Alliance is growing its network with key stakeholders. The aim is to build stronger connections between members and various stakeholders to transform the mobility sector. The MaaS Alliance supports its members and three working groups in promoting their different activities and applies a holistic approach to establish an Open MaaS ECO System and create the right offers in the market to provide the best travelling options to users.

Start: 2015

Partners: 100+ Members

ERTICO Partners: ACEA, Arriva, Brisa, Connected Places Catapult, Continental, City of Copenhagen, Dutch Ministry of Infrastructure and Water Management, **Finnish Transport and Communications** Agency Traficom, Oxfordshire County Council, ICCS, PLUSERVICES, PTV, RACC, Uber, Vlaamse Overheid







SHared automation Operating models for Worldwide adoption

SHOW is Europe's most significant and holistic real-life CCAV urban demonstration to advance sustainable mobility. The project investigates and deploys automated mobility for various transport modes: Public Transport (PT), Demand-Responsive Transport (DTR), Mobility-as-a-Service (MaaS), and Logistics as a Service (LaaS). SHOW has a strong consortium of 70 partners and boosts collaboration across EU borders. enhancing networking with the US, Asia and Australia.

SHOW integrates automated vehicles in the public transport network to provide a seamless user experience, making urban mobility sustainable and inclusive. Real-life urban demonstrations are carried out in 20 European cities, including buses, shuttles, pods, robot-taxis, automated cars connected to MaaS, and cargo vehicles. These pilot sites will transport more than 1.5M passengers and 350,000 units of goods.

Next steps

SHOW is now in its final year. The project partners are finalising all Mega Sites and Satellite Sites, totalling more than 70 SAE L4/L5 AVs. In addition, the consortium is carrying out numerous activities with twinning projects and external stakeholders to ensure the transferability and sustainability of the project, exchanging knowledge, tools and methodologies.

Start: 1 January 2020 End: 31 December 2023 Coordinator: UITP Members: 70

ERTICO Partners: CERTH, T-Systems, Kapsch Traficom, SWARCO, INDRA, TNO, VEDECOM, VTT, ICCS, CEA-List, LINKS Foundation, DTU, DRL, City of Tampere











Enabling vehicle interaction with traffic management

The TM 2.0 Innovation Platform brings together public and private sector organisations to focus on solutions for advanced interactive traffic management, with a governance model based on the core principles of co-opetition and trust among traffic stakeholders. TM 2.0 aims to improve the entire value chain for consistent traffic management and mobility services.

Impact

TM 2.0 works on enabling vehicle interaction with traffic management by building on the deployment of connected vehicles and travellers to achieve the convergence of mobility services and traffic management and create synergies between the actions of individual travellers and collective mobility objectives. The concept has fed into the EC Regulations on RTTI and MMMS.

Next steps

TM 2.0 will continue working on the concept of Mobility Network Management (MNM) and its close cooperation with the MaaS Alliance Platform. The ongoing Task Forces, including TM 2.0 and MaaS, Certification on TM 2.0 Compliance, ITS Services Standardisation Requirements, and TM 2.0 and Sustainability will complete their work in 2023.

Start: June 2014

Coordinator: ERTICO - ITS Europe and SWARCO

Members: 40

ERTICO Partners: Continental, ICCS, CTAG, HERE Technologies, Be-Mobile, PTV Group, TomTom, Technolution Move, SWARCO, Kapsch, Traficom, City of Hamburg, Government of Flanders, Federal Roads Office FEDRO, Dutch Ministry of Infrastructure and Environment, Swedish Transport Administration, RTA – Dubai, Concello de Vigo, Norwegian Public Roads Administration

SUMP IZMIR

Sustainable Urban Mobility Plan of İzmir, Turkey

This project seeks to prepare a Sustainable Urban Mobility Plan for Izmir (SUMP Izmir) in line with European best practices and standards. SUMP Izmir will define policies and actions to be implemented in the mobility sector based on an ambitious long-term vision, clear targets and objectives, and efficient packages of measures.

Impact

The policies and interventions defined by the SUMP will incentivise sustainable mobility and increase the use of non-motorised trips, shared mobility and public transport. The proposed measures would facilitate the shift away from cardependent travel and contribute to a reduction in congestion, $\rm CO_2$ emissions, and other negative effects due to the excessive use of private vehicles.

Next steps

By the completion of the project, a new transport model will have been established, a common vision and indicators will have been developed, and a SUMP action plan with concrete proposals for a pipeline of measures and projects will have been carried out.

Start: July 2022 End: July 2024

Coordinator: MuConsult - Panteia

Partners: 6



Transport& Logistics

Creating the digital infrastructure for freight transport and logistics operations

ERTICO plays a central role in coordinating innovative projects, smart solutions, platforms and standards to help make transport and logistics cleaner, more efficient and sustainable.



"The Italian ITS Association (TTS Italia) as the Ministry's acting body in ERTICO is proud to have been a Partner since 2018. Digitalisation is a key point for safer, more efficient and greener logistics. As a beneficiary of the FENIX project coordinated by ERTICO, MIT is contributing to improved logistics through interoperability and common protocols to support data sharing and the federation of logistics platforms."

Paolo Sangiorgio,

Ministry of Infrastructure and Transport, Directorate General for Road Safety - Director Divisione 4 on Infomobility, NAP, ITS

Bringing more sustainable freight transport to the world

Continued demand for home deliveries, solving inefficiencies in complex supply chains, and opportunities presented by CCAM continue to redefine freight and logistics. With policymakers discussing critical requirements such as reducing congestion, cutting carbon emissions, and improving air quality, ERTICO focuses on providing effective standards and delivering ways to measure the positive impacts of what we do.

We are working to improve the overall efficiency and economics of freight transport while reducing its environmental impacts, supporting a multimodal, intermodal and synchromodal future. Logistics as a Service (LaaS), Delivery as a Service (Daas) and last-mile operations are highly important, with automation and electromobility enabling cleaner journeys and less congestion. To deliver the smart logistics services required, work continues on interoperability, federation of platforms for cross-border data sharing, and the Mobility Data Space.

In these and other areas, ERTICO is involved in multiple projects together with our Partners to develop new standards, particularly around carbon and sustainability.



Four EU-funded and ERTICO-led projects contributed to a breakthrough worldwide ISO standard for extracting trip data from nomadic and mobile devices, enabling any fleet to estimate fuel consumption and CO_2 emissions. Bringing new opportunities for our Partners, the ITS standard was approved by 40 national standardisation bodies in May 2022. FENIX and 5G-LOGINNOV are two key contributing projects.

We are also co-developing the first practical tool that is 100% compliant with the new standard. This is an important evolution, taking society a step closer to ensuring sustainable energy is used for transport. It also holds the potential for a major impact globally: in addition to greener sources, measurement means people can change their behaviour so driving itself becomes more energy-efficient.

We also proposed and launched an ISO working group for environmental monitoring in transport and logistics under the banner 'Save the world - save the planet'. This will identify gaps and develop further international standards to define and support energy-based green ITS services.

In 2022-23, ERTICO supported the implementation of e-CMR electronic consignment notes as the new industry standard: a gamechanging development that grew from ERTICO-coordinated projects, notably AEOLIX. We are also contributing to the future electronic Freight Transport Information (eFTI) and eFTI Gate framework, again based on our work, and an expert group within DG MOVE's Digital Transport and Logistics Forum (DTLF) community.

In further policy development, the BOOSTLOG project proposed various scenarios for future policy in transport and logistics, reflecting new technologies and approaches for ERTICO projects such as FENIX and 5G-LOGINNOV.

5G-LOGINNOV continues to develop new enablers involving 5G, particularly for use in freight and logistics at port and airport areas, including the Green Truck Platooning initiative. 2022-23 saw an increasing focus on new applications and use cases that bring additional value through artificial intelligence (AI), machine learning, Internet of Things (IoT) enabled devices, and cyber security.





ERTICO is continuing to combine the innovation of our Partners with the most effective policies and operational developments across every stage of the movement of goods – working towards a cleaner, more efficient and sustainable sector.

The bigger picture in Transport & Logistics

For the wider European transport and logistics community, we supported the update of the Association of Logistics and Sustainable Intermodality (ALICE) texts relating to European Green Deal targets, drawing on our recent work in standards. We also continue to engage in international cooperation and discussions with South Korea, Japan, and the USA. The launch of FENIX 2.0 will expand the concept and create a common language by finalising the data semantic model for transport and logistics: another ERTICO-led breakthrough.

Transport and Logistics

Digitalisation of transport networks and infrastructure is at the heart of our vision for 2035 for seamless logistics and freight transport. We aim to facilitate synergies between technological trends and smart solutions by contributing to the increase of automation, connectivity and interoperability, and create standards through our activities.

> **CROSS-SECTOR ACTIVITIES BOOSTLOG**

5GLOGINNOV

FENIX

STORM

PLOTO

TM 2.0

CITY MOONSHOT

ERTICO ACADEMY

Our activities



5GLOGINNOV

Using 5G technologies to innovate logistics and ports for a sustainable future

5G-LOGINNOV aims to optimise freight and traffic operations at ports and logistics hubs by using innovative concepts, applications and devices supported by 5G technologies, Internet of Things (IoT), data analytics, next-generation traffic management, Cooperative, Connected and Automated Mobility (CCAM), and the 5G logistics corridor.

Impact

5G-LOGINNOV provides the framework for next-generation traffic management in port areas and city ports to handle upcoming and future capacity, coping with traffic congestion and environmental challenges while developing economic and innovative business opportunities for their region. To support this, the consortium collaborates with five innovative start-ups aiming to develop 5G-based solutions in the framework of the project's three Living Labs.

Next steps

New partnerships are being developed to take the project's vision forward: to support the new generation of 5G-CAD terminals and a new type of IoT-5G connectivity devices, and through technical solutions, business models and priority scenarios by deploying new CAD and Logistics as a Service in reallife port-city areas.



Start: 1 September 2020 End: 31 August 2023

Coordinator: ERTICO - ITS Europe

Members: 15

ERTICO Partners: Continental, ICCS, ICOOR, SWARCO, T-systems, Vicomtech, Huawei









Improving the resilience of Inland Waterways (IWW) against climate change

The deployment and assessment of predictive modelling, environmentally sustainable and emerging digital technologies and tools aim to improve the resilience of IWW against climate change and other extremes. PLOTO will combine downscaled climate change scenarios applied to IWW infrastructures with simulation tools and actual data to design a Common Operational Picture (COP) and Incident Management System (IMS), and develop a tailored forecasting module.

Impact

PLOTO will increase the resilience of IWW infrastructure and the connected land infrastructure, thus ensuring reliable network availability under unfavourable conditions such as extreme weather, accidents and other hazards.

Next steps

ERTICO is stepping up its efforts in PLOTO's dissemination and project communication activities, including an updated Dissemination and Communication Plan, and continues to contribute to the overall project strategy to maximise its impacts.

Start: 1 September 2022 End: 28 February 2026

Coordinator: NetCompany-Intrasoft

Partners: 20

ERTICO Partners: Aristotle University of

Thessaloniki

@PlotoProject

in PLOTO Project



Network of Information eXchange in LogistiX)



Supporting the transition to seamless data sharing

The FENIX project's goal was to create a digital framework to provide logistics operators with tools and services to exploit shared data and facilitate logistics operations. The project aimed to develop corridor information systems and further offer interoperability of data exchange within the logistic chain, and enable sharing of information to optimise TEN-T corridors.

Impact

The project has supported the creation of the first European federated architecture for data sharing, serving the European community of shippers, logistics service providers, mobility infrastructure providers, cities and authorities. It contributes directly to the EU's Connecting Europe Facility goals and responds to current global supply chain constraints.

Next steps

The FENIX project ended in March 2023. In February 2023, consortium partners met in Brussels to present the latest development and results, with an open event concluding the project and presenting its achievements to the public. This also provided the opportunity to present FENIX 2.0, the continuation of this project.

Start: 1 April 2019 - End: 31 March 2023 Coordinator: ERTICO-ITS Europe Partners: 45 + 20 implementing bodies + 20 affiliates Budget: €60.6M

ERTICO Partners: Italian Ministry of Infrastructures and Transport, INDRA, NeoGLS, PTV Group, PIONIRA





BOOSTLOG

Boosting the impact of R&I projects on integrated freight transport and logistics systems

BOOSTLOG examines the impact of freight transport and logistics research to support competitiveness and address the climate challenge. It aims to boost the impact generated by future EU-funded R&I projects to contribute to EU policy objectives, address societal challenges and increase EU competitiveness. The project will map more than 150 projects, identify successful implementation cases, and develop actionable reports on subjects prioritised by stakeholders.

Impact

BOOSTLOG will transform the European freight transport and logistics R&I ecosystem by directly impacting how selected investments can contribute to EU policy objectives and to the sustainability and competitiveness of organisations. Assessing impacts by identifying the gaps and priorities for future funding programmes, focus areas include urban logistics, logistics nodes, multimodal freight, corridors and transport networks, data sharing, and coordination and collaboration.

Next steps

These include aligning initiatives for sustainability measurement schemes that may be applicable to the sustainability impact assessment of European-funded R&I projects. This will start by defining



sustainability KPIs relevant to the EU research agenda, and a framework that enables 'before and after' assessments. Existing approaches will be aligned, and new approaches may be derived. An elaborated framework will be reviewed by stakeholder groups including the European Commission, evaluators and project proposal submitters. BOOSTLOG will also increase the impact of project outputs towards end users, establishing collaboration frameworks to exchange best practices at regional, national and European levels.

Start: 1 January 2021 End: 31 December 2023 Coordinator: ALICE Partners: 13

Budget: €1M approx.

ERTICO Partners: ICCS





Greener freight: Smart freight TranspOrt and logistics Research Methodologies

This project promotes the sustainable transition of the freight and transport sector to minimise its environmental impacts. It examines the main challenges, explores trends, and provides recommendations for innovative operational scenarios and business models, leveraging the rapid digitalisation of the sector.

Impact

STORM promotes a strong dialogue between academics, research organisations, freight and logistics companies, public authorities and other stakeholders. As a result of this solid international network, the project consortium designs concepts, methods and tools to meet new needs for analysis, monitoring and assessment based on innovative technologies for green freight.

Next steps

Now in its final year, the project continues to encourage the advancement of digital transition, sustainability transition, and future policy needs. Consortium partners are preparing a toolbox of advanced tools and methodologies based on big data, data fusion and agent-based modelling applied to electrified freight transport concepts and new collaborative and digitised logistics systems.

Start: 1 January 2021 End: 30 June 2023 Coordinator: VTT Partners: 5

ERTICO Partners: VTT, Chalmers University





Connecting the ITS community

Sharing knowledge and lessons learned with the ITS community is an important contributor in addressing emerging challenges while promoting the development of new technologies and innovative solutions and services.

Every year, ERTICO organises events for its Partners and annual ITS Congresses for the broader community: the European Congress and, every third year, a World Congress in the Europe, Middle East and Africa (EMEA) region. These unique events are planned and delivered in association with the host city and the European Commission, as well as ITS America and ITS Asia-Pacific.

The ERTICO Congresses and ITS Congress team support these efforts by bringing stakeholders together with industry influencers and the broader ecosystem, engaging in open dialogue and exchanging new ideas.

ITS European Congress

ITS World Congress













"The annual gatherings at ITS Congresses are at the heart of what we do: providing a ready-made channel and unique opportunities for our community to share knowledge and to network with other developers, thought leaders and decision-makers."

Lisa Boch-AndersenDirector of Communications,
Congresses and Events

Showcasing innovation in smart mobility

'Transformation by Transportation'

In September 2022, Los Angeles was host city for the 28th ITS World Congress, bringing the global ITS community and stakeholders together. A strong supporter of ITS World Congresses in America and Asia-Pacific, ERTICO hosted a European Pavilion, showcasing European innovation to the worldwide ITS community. When the Congress concluded, more than 400 hours of discussions, demonstrations and networking opportunities had taken place. In his closing remarks, **Professor Eric Sampson, Chief Rapporteur** said:

"We can deliver Transformation by Transportation but we need to transform our own thinking as well to make it happen."









ITS: The Game Changer

In May 2023, the 15th ITS European Congress took place in Lisbon, a city with its eyes on the future and a champion for urban sustainability, named European Green Capital in 2020. Under the theme 'ITS: The Game Changer', the European ITS community experienced how smart mobility solutions are changing the landscape in Europe and beyond. Participants witnessed many new technologies and innovations in the exhibition area and through live demonstrations.

The event also offered a comprehensive Congress programme, including four high-level plenary sessions that shed new light on complex topics from CCAM and digitalisation of transport to multimodal solutions for urban mobility space as well as freight and logistics. Each year, the Congress also invite leading policymakers to share best practices and exchange information about knowledge gaps and potential solutions for cities. This year was no different, the Smart Mobility Summit of Cities and Regions supported the work of local and regional authorities in driving innovation and implementing smart and sustainable mobility solutions.

Sharing knowledge and expertise was also at the core of the technical programme, featuring over 100 sessions with cross-domain topics. Read more about the Lisbon Congress here.

Upcoming ITS World Congresses: China and Dubai

Suzhou in China is the host city of the 29th ITS World Congress, some 100km west of Shanghai. Running from 16-20 October 2023 with the theme *Driving Towards Intelligent Society*, the Congress will provide a platform to promote the latest research and cutting-edge technologies. Organised by ITS Asia-Pacific, participants will experience a range of activities, including a high-level programme, technical sessions, exhibitions and demonstrations.

Dubai in the UAE will host the 30th ITS World Congress, from 16-20 September 2024 at the Dubai World Trade Centre. This is the first time this flagship global event has taken place in the Middle East. As a city driven by ambition and backed by a bold and futuristic vision for ITS, *Mobility Driven by ITS* is a suitable theme. The event is expected to attract up to 20,000 attendees from around the world, with participants hearing from leading mobility experts and decision-makers on how to shape the future of ITS and what the latest technologies adopted by the host city can offer.

Stay informed of updates and announcements with the Congress newsletter, which is already received by more than 22,000 subscribers.

Sign up here

ERTICO FOCUS ON Event Series

2022 saw the relaunch of the popular FOCUS ON events for the ERTICO Partnership. The goal is to support a deeper understanding of how the current and future mobility landscape and its players are evolving. Events include panel discussions on specific ITS topics and an exhibition of ERTICO facilitated platforms.



Advancing the smart mobility agenda

ERTICO's FOCUS ON events are designed to help Partners to contribute to achieving the goals of smart and sustainable mobility. Providing greater visibility of our work, the FOCUS ON is an opportunity to showcase the Partners' activities, knowledge and expertise. Events are attended by the entire ERTICO Partnership and, for each edition, different Partners are invited to take part in the panel discussion.

FOCUS ON events also support networking, with stakeholders coming together to share ideas and expertise, including representatives from the European Commission who are invited to present updates and explain future EU priorities.



We are thought leaders - empowering knowledge sharing

As acknowledged experts in smart and seamless mobility, ERTICO embodies thought leadership and co-creation in the digitalisation of transport. We empower knowledge sharing in our efforts to connect the dots between all relevant stakeholders and industries, facilitating the exchange of ideas and engaging in dialogue with EU institutions and policymakers. This includes our active participation with European and international institutions, and embracing cooperation and interoperability with national, regional and city authorities.institutions, and embracing cooperation and interoperability with national, regional and city authorities.

ERTICO is a:

Thought leader

 empowering a holistic vision of mobility for all by recognising key trends, leveraging best practices and harmonising standards.

Knowledge sharing channel

 demonstrating and connecting innovative solutions in mobility and transport through networking and crosssector networks.

Catalyst

 helping to avoid duplication of effort and supporting adoption of a harmonised vision for future mobility while preserving an objective position in a highly diversified sector.

Activity Development Days: Agreeing Partnership priorities

ERTICO brings together representatives from across the Partnership to reaffirm our priorities in line with the implementation of the focus area roadmaps. Hosted by the **Innovation and Deployment** team, ERTICO Activity Development Days (ADD) are an exclusive annual meeting that brings together ERTICO **Premium Partners to determine** common innovation targets and upcoming Calls and Tenders, in line with the priorities of the European Commission's forthcoming policy plans and targets.

The 2022 edition

The ADD was hosted online from 23-24 June 2022, with a series of workshops on interrogating active and upcoming funding opportunities around ERTICO's four focus areas. Representatives from the Commission and other funding bodies were invited to share their thoughts and insights into strategic objectives and future priority plans.

"Yet again, we proved the length and breadth of ERTICO members by having more than 100 participants, representing all eight sectors of the partnership, over two days."

Vladimir Vorotovic Director of I&D

Feedback from Partners following the ADD is always positive: it's a unique opportunity to participate and engage directly with EU institutions and other members of the ITS community on their needs and plans. Our I&D team uses feedback from the ADD and its related survey to help inform the creation of project-winning consortia from the outset of funding opportunities.

"The ERTICO Partnership, with its unique ability to gather multiple ITS sectors within its membership, around the table, is able to build the mobility of the future and in line with the ERTICO Roadmaps and our Vision."

Dr. Johanna Tzanidaki Chief Innovation Officer



Our activities

ERTICO City Moonshot



Engaging, inspiring and empowering cities around the world

More than half of the world's population lives in cities, and understanding how their citizens move is crucial to developing tomorrow's transport. City Moonshot is an ERTICO initiative to engage, inspire and empower cities by understanding their needs and requirements in mobility and transport. It features a global survey, interviewing 300 city and region representatives.

Impact

Data collected from this activity translates into a comprehensive report that analyses the cities' main concerns and priorities in transport and mobility. City Moonshot also gathers input from other studies, projects, new technologies and best practices that focus on creating a more efficient, inclusive and sustainable industry.

Next steps

The results of Phase I are already available in the first report. These focused on data exchange, Mobility-asa-Service (MaaS) and policy priorities on sustainability and the role of transport. Currently, City Moonshot is working on Phase II, interviewing a further 150 cities and regions with a focus on two topics essential for tomorrow's mobility: Urban Air Mobility and e-mobility.

Start: 2020

Coordinator: ERTICO - ITS Europe



#ERTICOCityMoonshot

ERTICO Academy



Sharing knowledge for tomorrow's journey

ERTICO Academy is a unique mobility training programme powered by our in-house experts and Partners, sharing ideas and increasing mobility literacy on the benefits of ITS services and product procurement for public authorities and their stakeholders. We leverage ERTICO's network of prestigious partners and our own subject matter specialists to build and deliver tailored training.

Impact

The training programme is founded on the circular principle for capacity building of public authorities and other stakeholders, encouraging learning, knowledge exchange, with peer-to-peer exchange, and deployment of smart mobility. In this way, ERTICO Academy enables faster and better informed decision making in deploying innovative solutions in the transport system.

Next steps

In 2023, ERTICO Academy is working on increasing the accessibility of training by adopting a four-level hands-on approach to learning and knowledge growth. We are continuing our conversations and dialogue with public authorities, including government ministries and cities, to provide training onsite and online as part of Sustainable Urban Mobility Plans (SUMPs).

Start: 2016

Coordinator: ERTICO - ITS Europe



#ERTICOAcademy

START-UPS by **ERTICO Partnership**

Innovating the transport and mobility of tomorrow: connecting and growing

This initiative engages Start-Ups within ERTICO's strong network of Partners to enhance their development. Networking Start-Ups aims to create new business and innovation opportunities, as well as offering marketing support and visibility.

The Start-Ups Initiative offers specialised and targeted opportunities for businesses to mature by connecting them within a world class network of industry Partners. ERTICO's extended network allows stakeholders and emerging businesses to open a dialogue and work together for mutual



Next steps

In 2023, the focus is on increasing the involvement of Start-Ups in ERTICO related projects and on enhancing their co-operation within our Partner innovation networks.

Start: 2019

ERTICO Partners involved: 120 connecting with European start-ups



#ERTICOCityMoonshot



Strong connections with EU and related institutions



ERTICO is actively engaged with the European Commission and other institutions on ITS and mobility issues including CCAM, decarbonisation, urban mobility, and the wider digital agenda.



CCAM Partnership

ERTICO plays a major role in the co-programmed CCAM Partnership. In November 2022, we presented at the CCAM Partnership's States Representative Groups and policy meeting in Prague. This covered support for Member States through the EU-funded FAME project. As a founder organisation of the CCAM Partnership, we contributed to drafting the Strategic Research & Innovation Agenda (SRIA) and subsequent Calls under the Horizon Europe Work Programme 2023-2024.

In 2023, we worked on the revision of the SRIA for 2025 and the drafting of the new Calls for 2025-2026. In addition to updates related to Clusters 4 (Integration of the vehicle in the CCAM system) and 7 (Coordination), we contributed to chapters on the roles of Member States and opportunities for international cooperation as well as the legislation related to CCAM.

Data spaces

The European Data Strategy aims to establish EU-wide common interoperable data spaces. In November 2021, the Digital Europe Programme published calls to fund a preparatory action for a mobility data space. On this topic, we partner with the PrepDSpace4Mobility consortium of the Coordination and Support Action (CSA), laying the foundation for a common European Mobility Data Space and we run the Data For Road Safety (DFRS) platform for road safety data sharing.

ERTICO is also contributing to two main strategic areas, automotive and supply chain transport and logistics. We facilitate engagement with the wider ITS community with regard to European Data Spaces through the above-mentioned project consortia as well as NAPCORE, working to harmonise National Access Points (NAPs) in Europe.

5G and 6G

ERTICO is a member of the **6G Smart Networks and Services Industry Association**, a voice of European industry and research for nextgeneration networks and services. We are involved in the following working groups: Pre-Standardization WG, Trails, SMEs and Test, Measurement and KPIs Validation.

Sustainable urban mobility

The revised ITS Directive of 2021 and TEN-T guidelines maintain that all major cities (urban nodes) on the Trans-European Transport Network must develop a **Sustainable Urban Mobility Plan** (SUMP) by 2025. ERTICO is a key enabler of SUMPs and is instrumental in drafting briefings and guidelines in cooperation with stakeholders and under the auspices of the Commission, we drafted the EU Briefings on ITS and MaaS in 2019 and on UAM in 2022.

We are also active in a new Expert Group on Urban Mobility (EGUM), a platform for dialogue and cooperation under the auspices of the Commission to support implementation of the 2021 EU Urban Mobility Framework. ERTICO is leading one of the six sub-groups alongside the City of Bremen, Germany, the Future of Urban Mobility & Urban Space, while participating in the other five

We also strengthened our close relationship with the Commission's DG MOVE and JRC while building stronger ties with DG CLIMA and DG GROW on the Taxonomy Regulation, a topic undertaken by the work of the ERTICO Strategy Committee. In addition to other legislative initiatives, such as the AI Act, we are following developments to ensure the ITS sector continues to be seen as instrumental in achieving Commission policy goals.

Engagements across the European Partnership

ERTICO experts have advised the Commission on the new Multimodal Passenger Mobility Forum (MPMF) operated by DG MOVE, which released its report in February 2023. As a member of the DTLF Steering Committee, a federated architecture for data sharing, we helped to conceptualise a network of platforms for digital transport and logistics. We continue to work together with DG-MOVE and RWS to support the coordination of corridor freight information systems and electronic Freight Transport Information groups.

ERTICO is co-chair of the ALICE Systems & Technologies for Interconnected Logistics thematic group to define research and innovation paths to be addressed in the future Steering Group as potential input for Horizon Europe calls. This includes low intrusive security technologies, supply chain resilience, advanced supply chain risk management, system-based supervision, and coordinated border management.

We are also a member of AIOTI, leading the CCAM and T&L research and innovation group together with the testbeds group. We liaise on research activities with European partnerships under Horizon Europe. This includes collaborations for research agenda, IoT and Edge Computing strategy alignment with Europe's digital vision and green technologies based on future intelligent connectivity across sectors.

As an associate member of the <u>2Zero</u> <u>partnership</u>, we contribute to the goal of accelerating the transition to a European carbonneutral road transport system by 2050. The partnership supports zero tailpipe emission road transport by developing research priorities, disseminating information, and promoting its work. ERTICO represents ITS stakeholders and contributed to the 2Zero SRIA update and revision and to the calls expected to be published with the next EC WP in 2025.

ERTICO building bridges worldwide •

Smart and sustainable mobility faces similar challenges across all regions around the world, with common aligned actions best supported by sharing new ideas, innovation and best practices. In line with requirements set by European funding bodies, ERTICO is proud to be a bridge to the world, working with many non-European Partners.



International cooperation is key

We work closely with colleagues in the ITS partner regions of ITS America, ITS Asia-Pacific and the Network of ITS National Associations (ITS Nationals), and the wider research, academic and industry community. Our events and knowledge exchange forums attract audiences from around the globe.

In September 2022, we gathered with multiple stakeholders in Los Angeles for the ITS World Congress. In January 2023, we attended the Annual Transportation Research Board meeting (TRB 2023) in Washington, represented by ERTICO Chairman Dr Angelos Amditis. Site visits and delegations planned and coordinated in recent years include Silicon Valley, transport and mobility partners in China, and central Asian stakeholders.

Making connections in a transforming landscape

Building strong foundations for cooperation is critical to paving the way for a changing mobility world. We have signed Memoranda of Understanding with the International Road Federation Geneva (IRF), the Traveller Information Services Association (TISA) and the Institute of Electrical and Electronics Engineers (IEEE), and a Memorandum of Intent with the European Space Agency (ESA). Our work with ESA resulted in a Call for Proposals on CCAM to advance the use of Positioning, Navigation and Timing (PNT). Together with the IRF and other leading organisations in the mobility ecosystem, we co-signed a Joint Statement on Climate Action, and mitigation addressed to the 2022 United Nations Climate Change Conference

We maintain close links with CAICV China (Connected and Automated Vehicles ecosystem) to align European and Chinese roadmaps on technology evolution and regulations. We also collaborated with the United Nations World Forum for Harmonisation of Vehicle Regulations (UN-ECE WP.29) and have contacts with the International Transport Forum (ITS), part of the OECD.

We engage actively with Australia and New Zealand. Australia's government is in regular discussions on data sharing systems in Europe for ITS and road safety, and we contributed to work by ITS New Zealand and its members. This included providing speakers for the Forum on automated vehicles.

Breakthrough international standard

We contribute to working on key international standards. In 2022, this led to the ISO specification 23795-1 for extracting trip data from nomadic and mobile devices to help estimate fuel consumption and CO₂ emissions. The advantage of the new proposed procedure developed and validated in our flagship projects AEOLIX, 5G-LOGINNOV and FENIX - lies in its flexibility due to the huge number of mobile devices in the global smartphone market.

Intensifying connections in Europe and beyond

We continued to strengthen ties with the ITS Nationals network to improve cohesiveness between European stakeholders. ITS Nationals joined the ERTICO Strategy Committee as a permanent member and will regularly attend Supervisory Board Meetings to help reinforce our shared goals and collaborative approach.

ERTICO empowers thought leadership through various keynotes and panels at events and conferences across Europe and beyond. This included exchanges on artificial intelligence and sustainable mobility at the TRA high-level session in Lisbon, an important area of cooperation for future research and innovation. We moved further into the 'drone space' through our active participation at Amsterdam Drone Week, and we addressed emerging challenges in ITS technology and innovation pillars at the Delphi Ministerial Economic Forum in Greece in April 2023. We also strengthened our partnership with Turkey, which has resulted in the operational implementation of aspects of SUMPs and MaaS guidelines.

Leading up to June 2023, we worked with TRB through the Innovation Platform TM 2.0 to co-organise the 4th International Symposium on Freeway and Tollway Operations in Vienna.

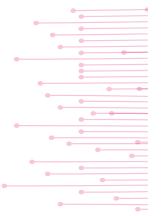
We have also initiated a Forum of Platforms: creating a new dialogue with 20 platforms and trade associations at the EU and international levels. The aim is to build bridges across verticals by identifying and exchanging ideas on horizontal topics, reflecting joint initiatives, strategies and policy developments in ITS and smart mobility.

"Connecting the dots is the motto we at ERTICO are really living up to, and I am grateful for the joint efforts on this with our Partners. This year, we have realised a lot together in Europe and beyond, and it could not have been achieved without the great quality team of ERTICO that I am very proud to lead."

Joost Vantomme

ERTICO CEO

Be part of the ERTICO Partnership



Joining the ERTICO Partnership is an important way to connect the dots between different sectors across the complex ecosystem. Our Partnership enables close collaboration between stakeholders by coordinating the planning and deployment of intelligent transport systems and smart mobility solutions in Europe and beyond.

Activity includes:

- Advocacy and raising awareness.
- Implementing co-funded projects and Innovation Platforms.
- Sharing policy and market insights through events and networking opportunities including ITS European and World Congresses and webinar series.
- Targeted training, matchmaking and technology to drive strategy development, including the ERTICO Academy and ERTICO City Moonshot.



"The partnership with ERTICO offers Brisa exciting collaborations in the smart mobility space with several initiatives such as co-funded projects, relevant industry events and a wide range of experienced stakeholders on a European level. This creates new opportunities for Brisa, continuing our 50 year history of delivering value through innovation."

Eduardo Ramos

Executive Board Member, Brisa



"Transportation has a tremendous impact on the day-to-day lives of so many people. Through our partnership with ERTICO, we are helping to bring the latest innovations in smart mobility to deliver more reliable, accessible, and efficient transportation solutions across Europe. Organisations like ERTICO help to foster strong collaboration across public and private sectors to deliver solutions for the public and Microsoft is proud to support their efforts."

Jeremy Goldberg

Worldwide Director of Critical Infrastructure, Microsoft



"We believe in public-private partnership and co-creating to improve sustainable urban mobility. ERTICO's network and philosophy is a perfect basis to move from PowerPoint to reality."

Daniel Deparis

Head of Urban Mobility Solutions, Mercedes-Benz AG



EU-supported projects

Working closely with the European Commission, we offer co-funded project opportunities, backed by ERTICO's high success rate and proven track record in management, technical support and stakeholder engagement. ERTICO Partners have the opportunity to join consortiums and connect with other multi-sector players while working on projects and programmes across advanced R&D, demonstrations, testing, pilots and implementation.

The latest market and technology insights

The ERTICO Partnership bridges the gaps between different stakeholders in the ITS community: to support knowledge exchange and share the latest thinking and approaches while anticipating new technologies and market trends. By keeping the conversation up to date, the Partnership brings together diverse interests and know-how in the mobility sector. It is a forum for knowledge sharing on the opportunities and challenges ahead, and shaping development of the sector beyond individual interests into a shared vision. Our partners play a central role through, for example, ERTICO governance bodies and other activities. Our shared mission is to:

- Promote active and sustainable collaborative relations with EU institutions and policymakers.
- Connect local and regional transport organisations with national authorities.
- Perform testing to support deployment of interoperable ITS and smart mobility solutions.
- Contribute to standards for applications and services, steering standards towards global harmonisation including the International Organization for Standardization (ISO), European Telecommunications Standards Institute (ETSI) and European Committee for Standardization (CEN).

Networking with our peers

ERTICO Partners play an important role at our European and global events: presenting and discussing new approaches, sharing ideas, networking and building visibility. This is a great way to connect with colleagues while building relationships with potential new clients and business partners. Our Partners have exclusive access to the annual ERTICO Think Tank and Focus On events. The ITS World and European Congresses offer a unique showcase for smart, sustainable and more efficient mobility solutions, with ERTICO Partners offered speaking opportunities and other benefits.

Bringing together eight different sectors

ERTICO brings together eight sectors from across the ITS community to help make mobility safer, more sustainable and efficient. To facilitate the engagement, ERTICO organises sector and cross-sector meetings. Sector meetings aim to facilitate the collaboration, networking and innovation among sectors. Cross-sector meetings target two sectors and aim to foster dialogue, discussing the opportunities for cross-sectoral collaboration within ERTICO and beyond. Cross-sector and sector meetings, are always attended by the representatives from the European Commission. It also creates an opportunity for the ERTICO Partners to stay in contact with the EU institutions.

Business development

ERTICO Partnership provides a unique opportunity for businesses to develop and expand their operations in the smart mobility sector. By bringing together various mobility players, ERTICO creates a collaborative environment that facilitates the exchange of ideas and the formation of partnerships. The ERTICO Partners are able to access a vast network of potential business partners and other mobility players across the private industry and the public sector. This usually leads to the creation of new products, services, and business models, which help companies expand their market reach and increase their revenue streams. The ERTICO Partners also have access to a range of events, workshops, participation in projects that create networking and business development opportunities.

Additional benefits

The ERTICO Newsroom provides regular updates to the global ITS community and stakeholders. The ERTICO newsletter and monthly events calendar is received by a diverse audience of more than 4,000 subscribers. This means ERTICO partners benefit from new marketing and profiling opportunities. For example, providing original content to the newsletter and other channels, profiling opportunities for projects and companies, technology updates, interviews and event announcements.

In the past year, the ERTICO Partnership team has organised Round Tables and Deep Dives on topical themes including Mobility Data Platforms and AI in Traffic Management, under the auspices of the ERTICO Strategy Committee. Partners can exchange views and discuss issues with stakeholders including the European Commission, industry and public partners, from within and outside the Partnership.

ERTICO Partnership options

- ERTICO is open to any public or private organisation that is active or interested in implementing intelligent transport systems and smart mobility solutions in Europe and beyond. We offer two partnership levels: ERTICO Partner and ERTICO Premium Partner.
- ERTICO Partners have access to all the networking opportunities that we offer, with the potential to raise your profile within an engaged audience and foster greater international co-operation. Partners become part of our shared vision and endeavour with other ITS pioneers around the world.
- ERTICO Premium Partners have all the opportunities described above plus the ability to access the proposal development process, and tap into the IP and financial benefits that can result from innovative ITS projects. Premium Partners also participate and engage at the highest level of ERTICO's events.

What we offer

		PREMIUM	PARTNER
	Access to ERTICO proposal building (maximum three per year)	✓	
	Invitation to ERTICO Activity Development Days	V	
•	High-level speaking opportunities at ERTICO events	✓	
•	Access to market insights		
	ITS Congress: one free ticket, VIP access, discount on exhibition spaces		
	Networking possibilities with other ITS stakeholders	\checkmark	
•	50% discount for ERTICO Innovation Platforms (maximum three)*		
•	Staying up to date on evolving EU policies, own sector evolutions and evolutions in other ERTICO sectors	✓	
	Knowledge sharing through the ERTICO Academy and discounted training	/	
	Access to activities of the ERTICO Strategy Committee and its Working Group	os 🗸	V
•	Eligibility to the membership of the ERTICO Supervisory Board, subject to voting (seats allotted per sector) **	V	
	Marketing opportunities through ERTICO communication channels	/	V
	Outreach to potential business partners and public authorities	V	Ø
	Stakeholder engagement across eight sectors	V	V
	International cooperation with the ITS organisations worldwide	V	V

^{*} The discount applies to maximum three platforms per year and its total amount cannot exceed the yearly ERTICO membership fee

^{**} Only for shareholders



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