



NAPCORE Mobility Data Days 2024

7th November 2024, Turin

**Cooperation NAPCORE / C-Roads / (C-)ITS
Corridor Projects**

Agenda

Session time: 9:00-10:30

Moderation: Damaris Anna Gruber (AustriaTech/NAPCORE)

- 1. Introduction & opening**
- 2. MERIDIAN** (*Björn Siebert, die Autobahn*)
- 3. MATIS** (*Alessandra Pipitone Federico, Autoroutes*)
- 4. X4ITS** (*Benjamin Witsch, AustriaTech*)
- 5. C-Roads / NAPCORE Collaboration Agreement** (*Fabrizio Paoletti, Autostrade per l'Italia*)
- 6. NAPCORE – State of Play** (*Timo Hoffmann, BASt*)
- 7. Panel discussion**
- 8. Q&A with the audience**
- 9. Signature Procedure / Joint Declarations**

Cooperation Objectives

- Implementing harmonized National Access Points and (C-)ITS-Use Cases based on agreed specifications
- Data collection and provision via National Access Points
- Implementing cross-border (C-)ITS
- Best Practice sharing and collection of achievements
- Learning from experiences via common workshops

MERIDIAN



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MOBILITY DATA DAYS

TORINO

Nov 6th – Nov 7th 2024



Björn Siebert
die Autobahn GmbH des Bundes, Germany

*-former Project Manager intl. heavy lift logistics
-acting intl. Project coordinator MERIDIAN, Umneo, VERKKO25*

Status quo (highlights)

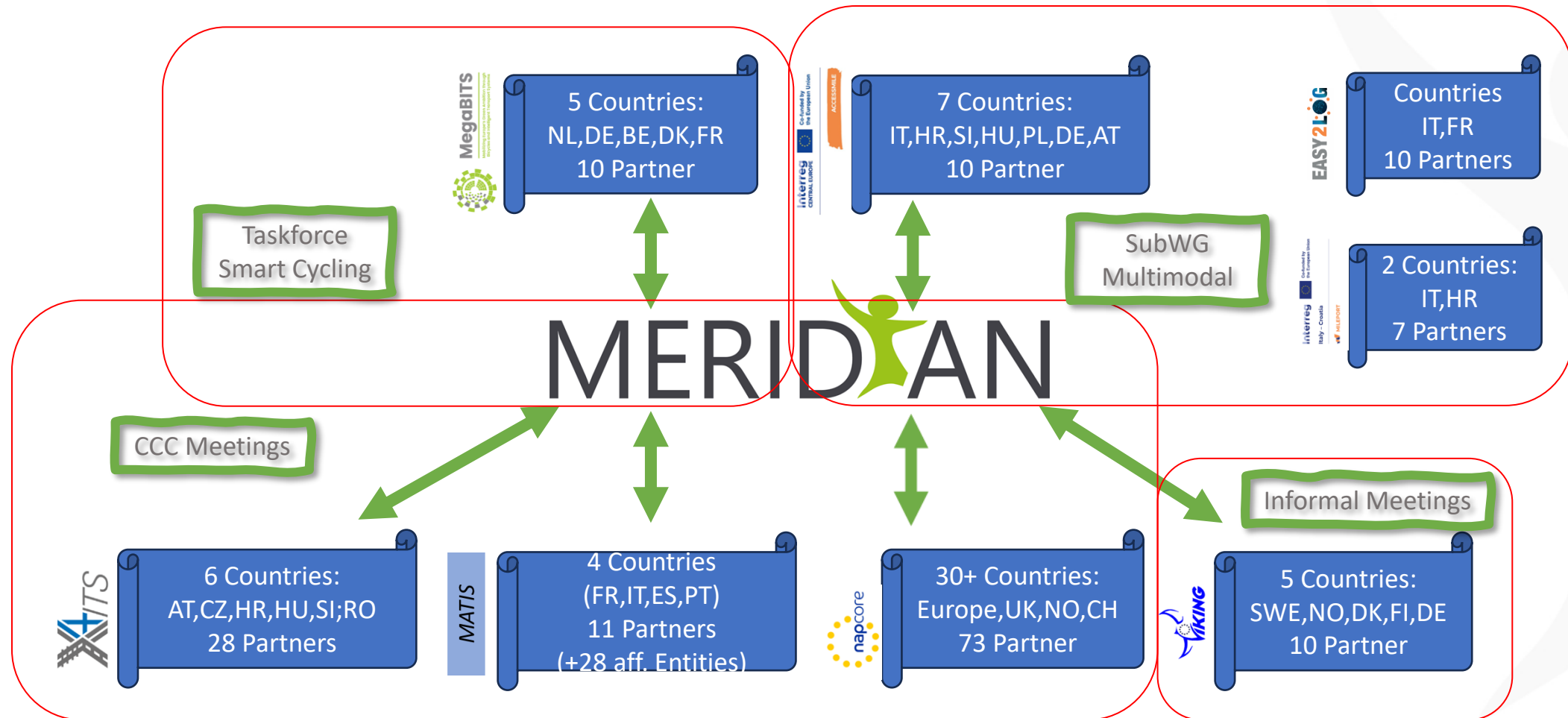
- ▶ **79% of the Milestones and 63% of the Deliverables have been successfully completed**
(as of: Oct. 2024)
- ▶ **MERIDIAN experts met to discuss**
 - Smart Cycling (series of workshops of taskforce ‘Smart Cycling’)
 - TMP & data exchange Brennero corridor (series of workshops of WG digital corridor management)
 - “AI in mobility” (workshop WG digital infrastructure)
 - “Digitalisation of ports and freight transport” (workshop WG Multimodal)
- ▶ **Events**
 - C-ITS & Mobilidata / Ghent, Belgium
 - C-ITS solutions for Road Assistance, Emergency vehicles, Police, Bikes, farming equipment / Frankfurt, Germany
 - Digital corridor management “Truck parking explained” / Frankfurt, Germany
 - Steering committees in Riga, Latvia and Trento, Italy with visits of TCC’s
- ▶ **Cooperation agreements**
 - X4ITS | Focus: Cross-Border Cooperation
 - MEGAbits | Focus: Smart cycling taskforce
 - MATIS | Focus: Cooperation between corridor projects

2024 - Events

Event & Location	Topics
On-site visit Frankfurt, Germany	 Truck-Parking explained
Experts' Workshop Brussels, Belgium	 Meeting the C-ITS experts of MERIDIAN Part1
Experts' Workshop <i>tbd</i> (Italy or Germany)	 TMP exchange in the Brennero corridor - DE,IT,AT,(CH)
Steering Committee Meeting in Latvia	 Working groups & project administration
Experts' Workshop Multimodal Services	 Digitalization of ports and freight transport
Experts' Workshop Knowledge Building	 Artificial Intelligence
Experts' Workshop C-ITS Frankfurt, Germany	 Meeting the C-ITS experts of MERIDIAN Part2
Steering Committee Meeting in Italy	 Working groups & project administration
Experts' Workshop Multimodal Services	C-ITS & Multimodal Services – Challenges (Cities vs. Ports)
Expert's Workshop Smart Cycling	topic to be announced

*If you're interested in joining one of our **workshops**, please contact us: info@meridian-corridors.eu*

Cross Corridor Cooperation



Outlook 2025

- ▶ **MERIDIAN will officially request an extension of the project**
- ▶ **MERIDIAN experts will meet to discuss**
 - Smart Cycling (series of workshops of taskforce 'Smart Cycling')
 - TMP & data exchange Brennero corridor (series of workshops of WG digital corridor management)
 - "Cybersecurity in mobility" (workshop WG digital infrastructure)
 - ...(workshop WG Multimodal)
 - Delivery of high-quality data to the NAPs (in cooperation with NAPCORE)
- ▶ **Events**
 - C-ITS & urban nodes (Traffic Center Amsterdam) / Amsterdam, Netherlands
 - Safety Priority Services / ..., Netherlands
 - ITS Congress Seville, Spain
 - Steering committees in Utrecht, Netherlands and Seville, Spain with visits of TCC's
- ▶ **Cooperation agreements**
 - SCALE
 - Upcoming corridor projects

Thank you for your attention!

*For more information and engagement, please visit www.meridian-corridors.eu
and/or contact us via info@meridian-corridors.eu*





SUSTAINABLE AND SMART MOBILITY
FOR MEDITERRANEAN ATLANTIC ARC

Mobility Data Day

Turin, 7th November 2024

- 1 – MATIS Identity Card**
- 2 – History & Partnership**
- 3 – Key figures & Expected Impacts**
- 4 – Tasks**
- 5 – Flagship Data Collection projects**

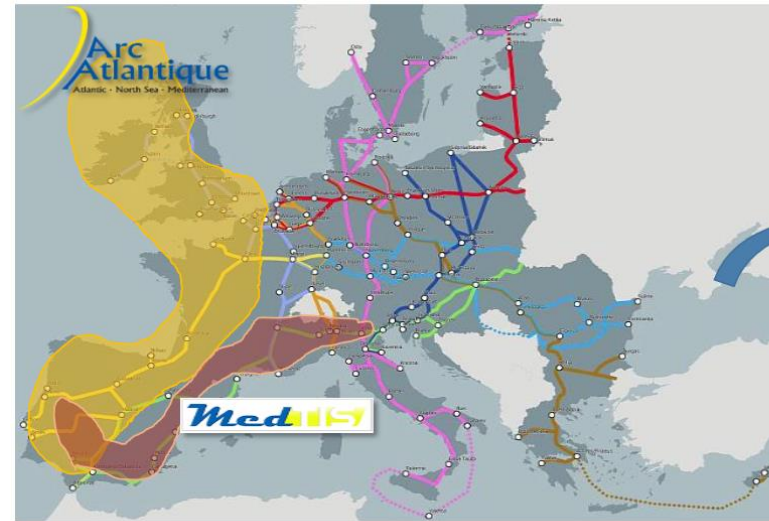


SUSTAINABLE AND SMART MOBILITY
FOR MEDITERRANEAN ATLANTIC ARC

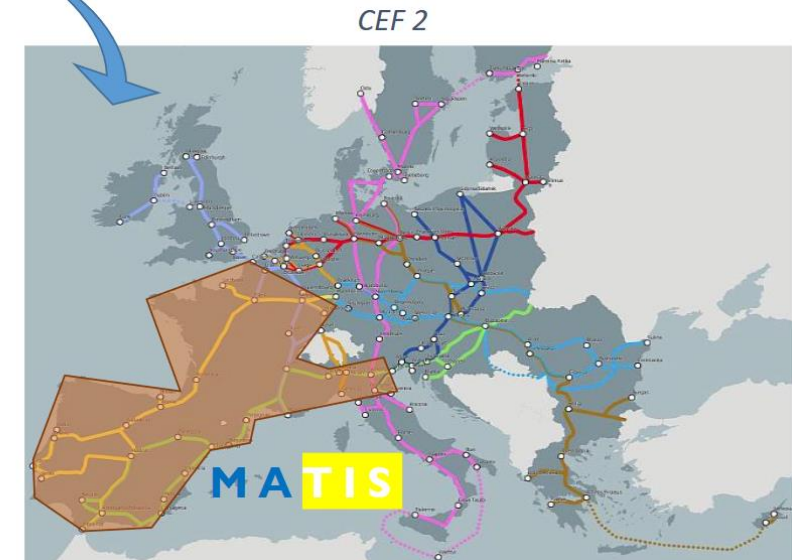
PROJECT NUMBER	101122786
PROJECT ACRONYM	22-EU-TG-MATIS
NAME	MATIS : Mediterranean-Atlantic Transport Intelligent Systems
CALL / TYPE OF ACTION	CEF-T-2022-SIMOBGEN-ITS-WORKS
GRANTING AUTHORITY	CINEA
PROJECT OFFICER	Pedro SAMPAIO Pedro.SAMPAIO@ec.europa.eu
STARTING DATE / END DATE	19 January 2023 – 18 January 2027
DURATION	48 months
BUDGET	124.000.000,00€
MAXIMUM GRANT AMOUNT	62.000.000,00€ (50%)
REPORTING PERIODS (2)	M1 – M24 / M25 – M48

2 former projects:

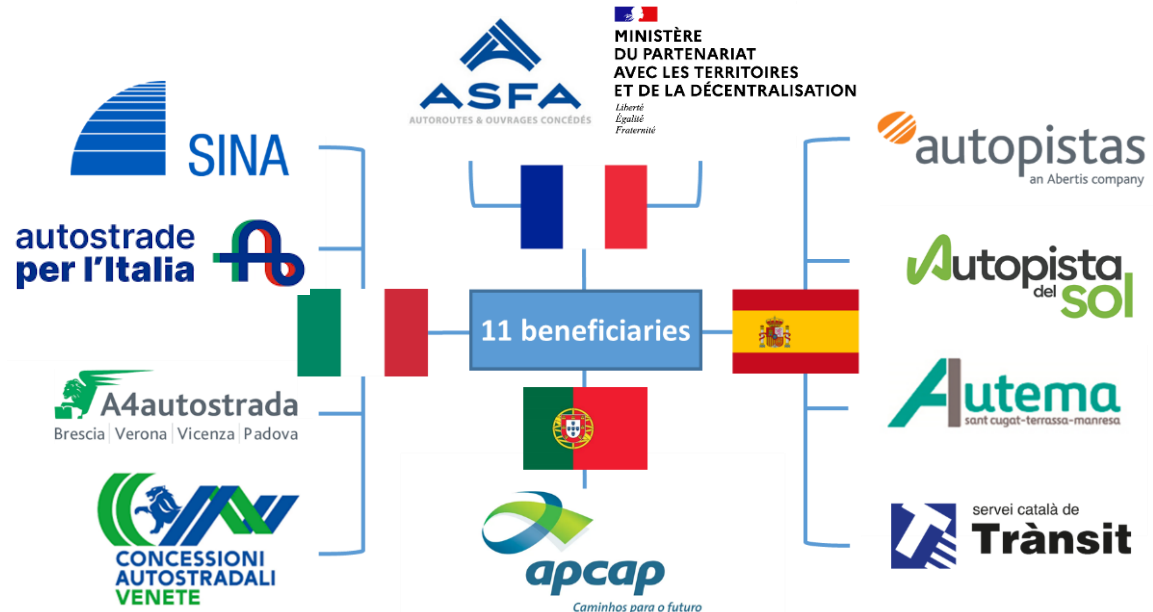
- Arc Atlantic I & II
- MedTIS 1 & 2



CEF 1



CEF 2



39 partners:

- 11 beneficiaries
- 28 affiliated entities

8.000km of the TEN-T
core network and
10.000km of the
comprehensive network

4 countries
France, Italy, Spain
and Portugal

89 ITS individual
projects

3 TEN-T corridors:
Mediterranean,
Atlantic, North-Sea
Mediterranean

3.000km deployed on TEN-T
network enhancing road
safety

10.000km deployed on
TEN-T network reducing
congestion and thus
contributing to
decarbonize road traffic

3.500km deployed on
TEN-T network
enhancing traveler
information services

3.000km deployed on
TEN-T network
enhancing operations
and securing service
delivery

**3 % reduction of lost hours
for road users during
congestion on main
strategic bottlenecks of the
corridor** (considering the same level of traffic along
time)

**3 % reduction CO2
emissions on main
strategic bottlenecks
of the corridor**
(considering the same level of traffic along time)

TRAFFIC MANAGEMENT SERVICES AND TRAFFIC MANAGEMENT PLANS, INCLUDING CROSS-BORDER PLANS

- 1.New equipment for data capture and traffic control
- 2.New intelligent vehicle tracking systems, speed detection systems and traffic counting systems
- 3.New intelligent tools and software for assisting TMC operators in simulating, predicting travel time and monitoring traffic flows and level of service
- 4.Field traffic management systems and equipment

USER SERVICES AND INFORMATION

- 1.Enhancing national data exchange and access points for data
- 2.Web portal and App for traffic and travel information
- 3.New generation field equipment for traffic information

ROAD SAFETY

- 1.Advanced incident detection systems, including ghost vehicles detection
- 2.New hazardous goods tracking systems
- 3.New dynamic control systems for measuring weight of vehicles
- 4.New dynamic control systems for measuring height of vehicles
- 5.ITS equipment to enhance tunnel safety
- 6.Detection systems of weather conditions for increased safety
- 7.Equipment for increased safety in a sensitive section
- 8.New generation SOS services

OPERATIONS AND SECURING SERVICE DELIVERY

- 1.Systems for supervision, remote control and data acquisition
- 2.Cybersecurity for ITS systems protection
- 3.High performance IT network for increased ITS resilience
- 4.New generation radio communication systems

C-ITS DEPLOYMENTS TOWARDS THE CONNECTED AND AUTOMATED MOBILITY

FRANCE FR 131

New video/AID system on A43

ITALY IT 135 - IT 144

New video/AID systems, using AI, notably to detect ghost vehicles

SPAIN SP 111

New Traffic and weather data collection system on Pyrenean axis

PORTUGAL PT 162 - PT 152

New AID system in tunnels

Weather data collection system



THANK YOU !

Coordinator (ASFA): Alessandra PIPITONE FEDERICO alessandra.pipitonefederico@autoroutes.fr



X4ITS – Central Europe Cross border Cooperation for ITS

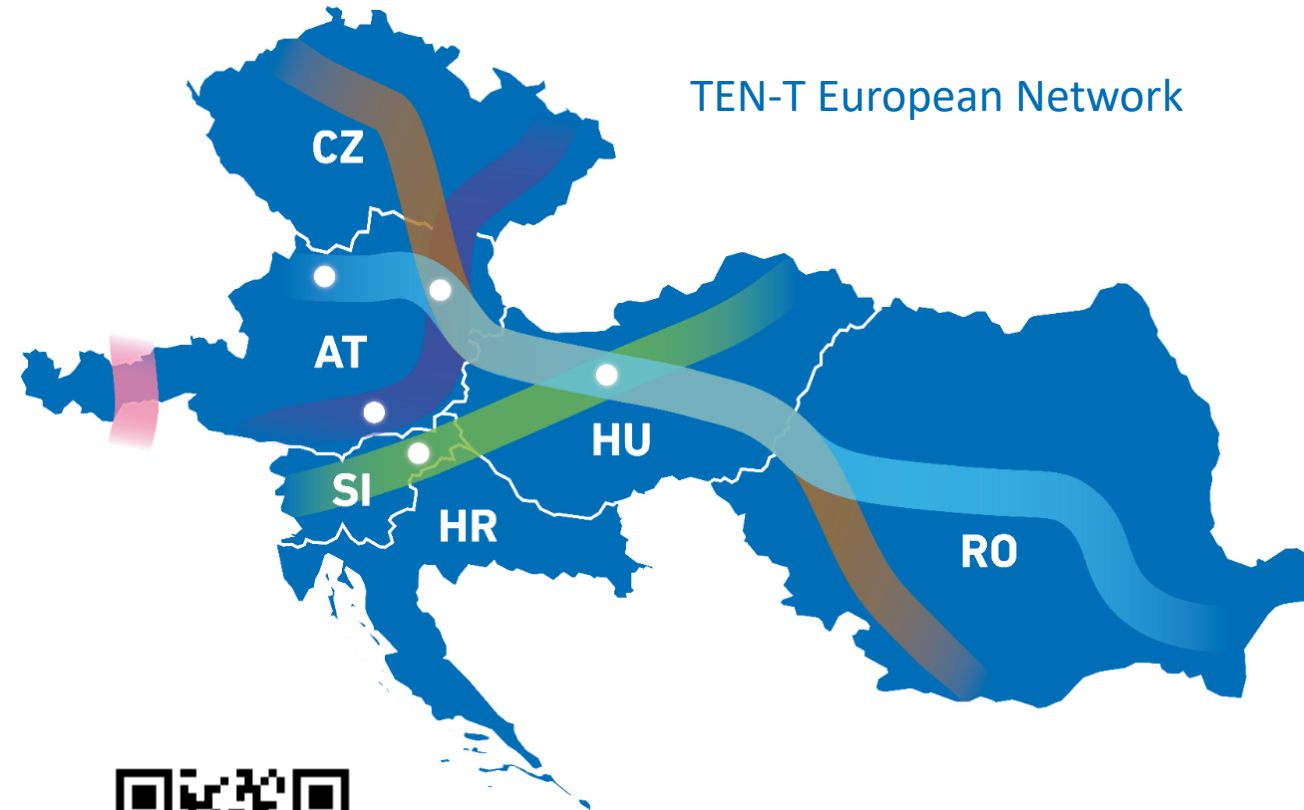
NAPCORE Mobility Data Days 2024

Presented by Benjamin Witsch

About X4ITS



- Call CEF-T-2022 SIMOBGEN
 - Follow up of CROCODILE
- Runtime 2023 - 2027
- Budget 64.5 million €
 - EU contribution 50%
- 6 Member States – 28 Partners
 - Austria, Croatia, Czech Republic, Hungary, Romania, Slovenia



<https://x4its.eu/>



LinkedIn



ASFINAG

 Bundesministerium
Klimaschutz, Umwelt,
Energie, Mobilität,
Innovation und Technologie

LAND  KÄRNTEN

 **INSTITUT FÜR TECHNOLOGIE
UND ALTERNATIVE MOBILITÄT**


KLAGENFURT
AM WÖRTHERRSEE

Klagenfurt
mobil

austriatech

L_nz

SURAAA
Smart Urban Region Austria Alps Adriatic

Austria

 **LAND
SALZBURG**

 **VERKEHRSAUSKUNFT
ÖSTERREICH**

 **Stadt
Wien**

 **WIENER LINIEN**

DARS **Slovenia**



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA INFRASTRUKTURO



Mestna občina Ljubljana
City of Ljubljana



Ministerstvo dopravy

oltis group



ŘEDITELSTVÍ
SILNIC
A DÁLNIC

Czechia



BUDAPEST  KÖZÚT


ÉPÍTÉSI ÉS KÖZLEKEDÉSI
MINISZTERIUM

Hungary



Romania



Croatia



REPUBLIC OF CROATIA
Ministry of the Sea, Transport
and Infrastructure

BINA *istra*

**HRVATSKE
CESTE**



**HRVATSKE
AUTOCESTE**

Objectives - X4ITS

- *Overall goal – improved cross-border cooperation, deployment project*
- Objectives
 - Improve cross-border traffic and transport
 - implementing harmonised and synchronised ITS applications (high level road network)
 - Implementing C-ITS usecases in urban areas linked to high level road network
 - Increased focus on secondary road network and multimodality
 - Availability of data and optimized data exchange



Outcomes



Planned installation of
Roadside Units

108



Planned installation of
Onboard Units

50



Planned implemented or
replaced Variable Message
Signs

200



Planned kilometres of
TEN-T roads equipped with
roadside data collection
equipment

1,138

Planned kilometres of
secondary roads equipped
with roadside data
collection equipment

643



Planned implemented or
replaced CCTV cameras

724



Planned multimodal or
urban hubs equipped with
digital infrastructure

5

Planned kilometres of
secondary road network
equipped with digital
infrastructure

50

Relations / Connections



- Close contact with organizations in the project and Austrian cities
- Good cooperation with other corridor projects (MERIDIAN / MATIS), joint workshop list
- Consideration of C-Roads specifications / inclusion of X4ITS use cases at C-Roads user meetings
- Consideration of NAPCORE recommendations regarding requirements for NAP upgrade

Austrian Use Case – Enhance Data Exchange



- C-ITS use cases implemented in three Austrian cities based on C-Roads specifications
- Focus on interoperability and harmonization of Austrian National Access Point
- Upgrade the NAP with NAPCORE recommendations
 - Functionalities and interface from NAP Reference Architecture
 - Using recommended Data Standards (e.g. mobility DCAT-AP)
- Preparation for future activities like connecting the NAP with (E)MDS

Cooperations and Awards



- Danube Strategy Flagship project 2024



- Joint Declaration of intent on the collaboration between X4ITS and MERIDIAN - June 2024
- On **NAPCORE MMDs** Joint Declaration between X4ITS and MATIS

Follow up strategies and use of results



- Implementation of C-Roads specifications in national pilots - Feedback loop on the C-Roads platform
- Further follow-up project possible for submission to CEF Transport 2025
- Implementation in neighboring countries e.g. NAP upgrades according to NAPCORE recommendations
- Further C-ITS use cases in urban areas
- Connection of urban nodes - multi-modal ITS
- Further follow-up project also conceivable with regard to “data collection”

Linked In



Website



Stay in Touch

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Benjamin Witsch

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<https://x4its.eu>



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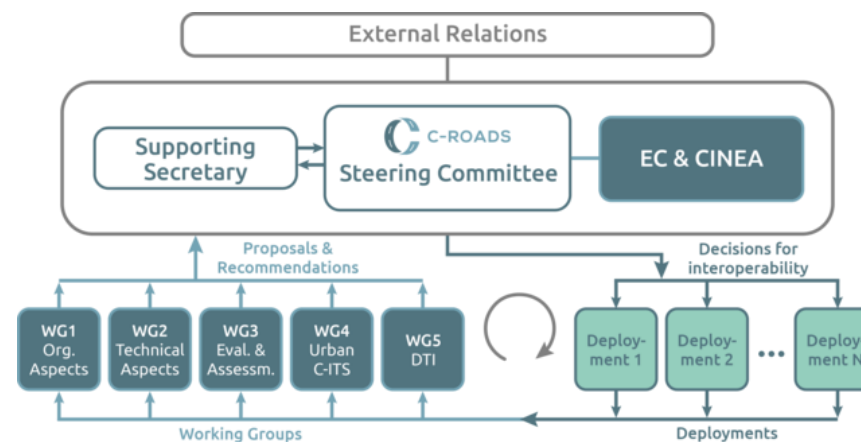
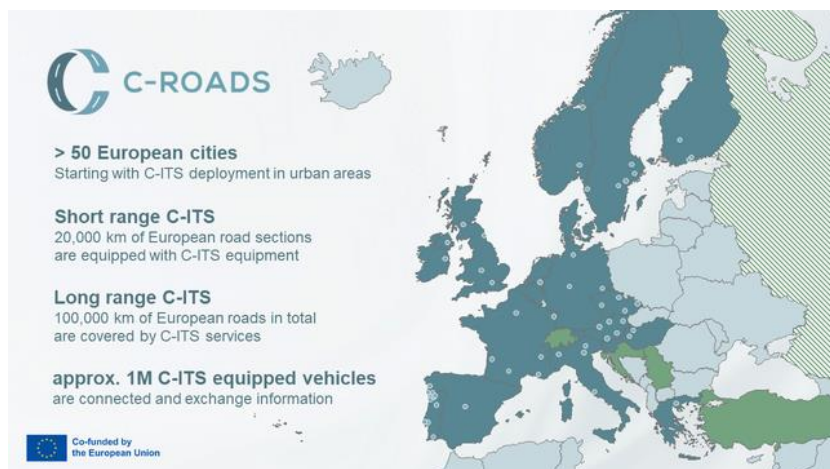
C-ROADS / NAPCORE COLLABORATION AGREEMENT

Fabrizio Paoletti, Autostrade per l'Italia - C-ROADS

NAPCORE MDD 2024 6-7 Nov 2024, Turin



C-Roads Project overview

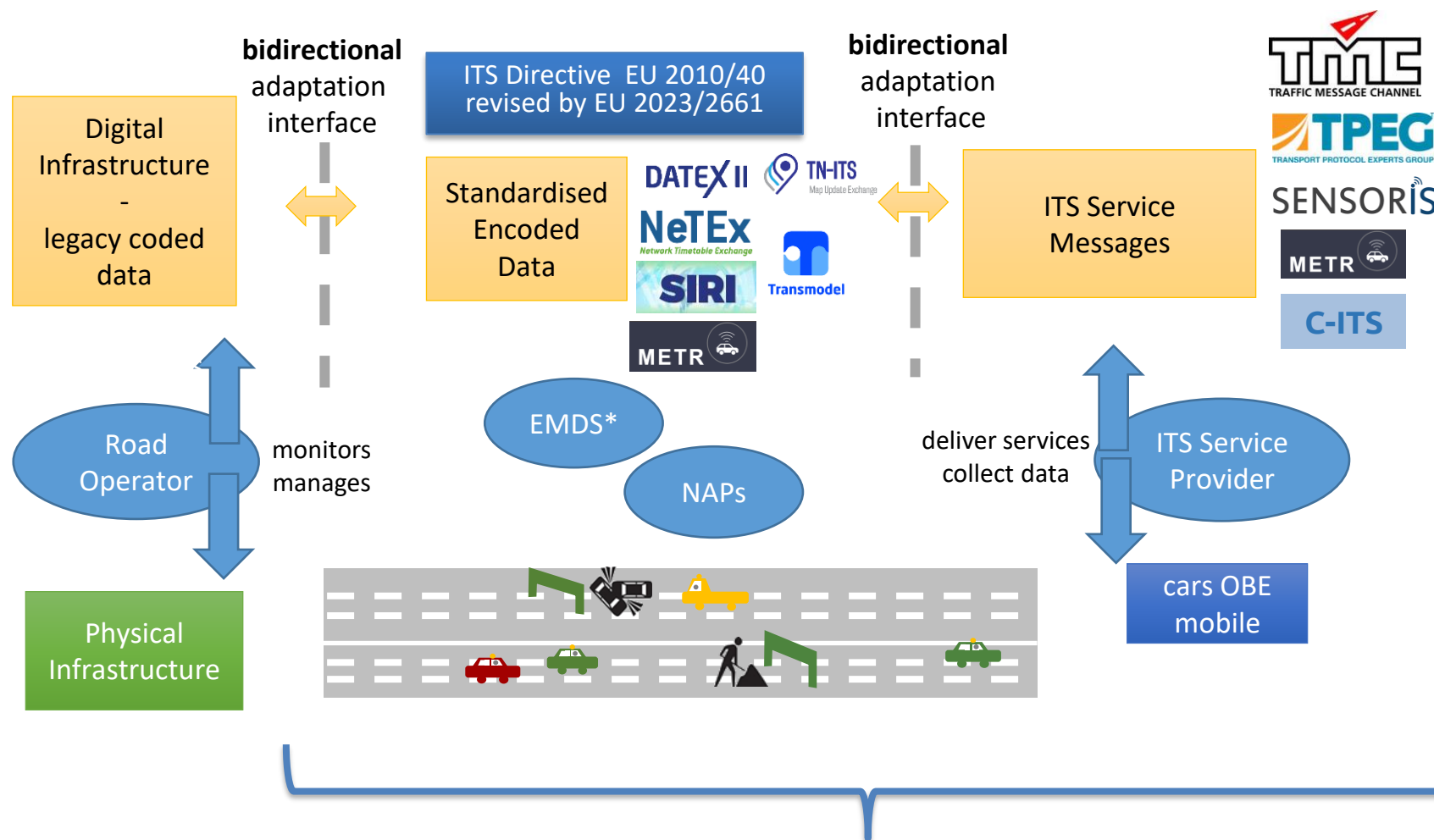


- Through the C-Roads Platform, authorities and road operators join together to harmonise the deployment activities of cooperative intelligent transport systems (C-ITS) across Europe.
- The goal is to achieve the deployment of interoperable cross-border C-ITS services for road users.

C Road achievements

- Services and Use Case Definition
- C ITS Message profiling to deliver C ITS Services
- Implemented and tested interoperability of C ITS Services among the several deployment Services
- Supported and deployed the EU C-ITS security credential management system
- Described various Evaluation criteria and supported the Evaluation of ITS Service in EU

ITS Regulatory Context in Europe: NAP-Centric vision



Objective: Overall ITS Interoperable & Trusted Domain

Communication channels characteristics

Diversification and number of standards

ITS subdomains and communication interfaces characteristics are shaped by «Exchange domain», «Communication channel» & «technology», «Application»

Data Exchange Domain	Supplier	Client	Communication channel	Content	Application purpose
DATEX II	TCC / SP	TCC / SP	Internet, broadband, public or VPN Secured, encryption, compression, TLS signed etc. (all allowed IP based exchange technologies)	road operator based description	traffic information, traffic management
C ITS	V / I	V / I	low latency, reduced bandwidth, mobile, public, signed	vehicle observation based description	vehicle safety, vehicle automated driving, navigation assistance
TPEG	SP	OEM / Automotive / Radio	mobile, DAB, secured, encrypted, signed	traveller observation based description	traveller information, navigation assistant
METR	TCC/SP	OEM / Automotive	tbd: mobile, DAB, secured, signed,	traffic regulation	vehicle automated driving

NAPCORE C Roads Collaboration

Overview of tasks

1) **Role of data in traffic management processes**

Facilitate knowledge sharing and create a common understanding e.g. using the same data for several services, processing of data for traffic management purposes, etc..)

2) **C-ITS ecosystem and the NAP ecosystem**

Bring clarity on how they are linked to each other and how they could complement each other.

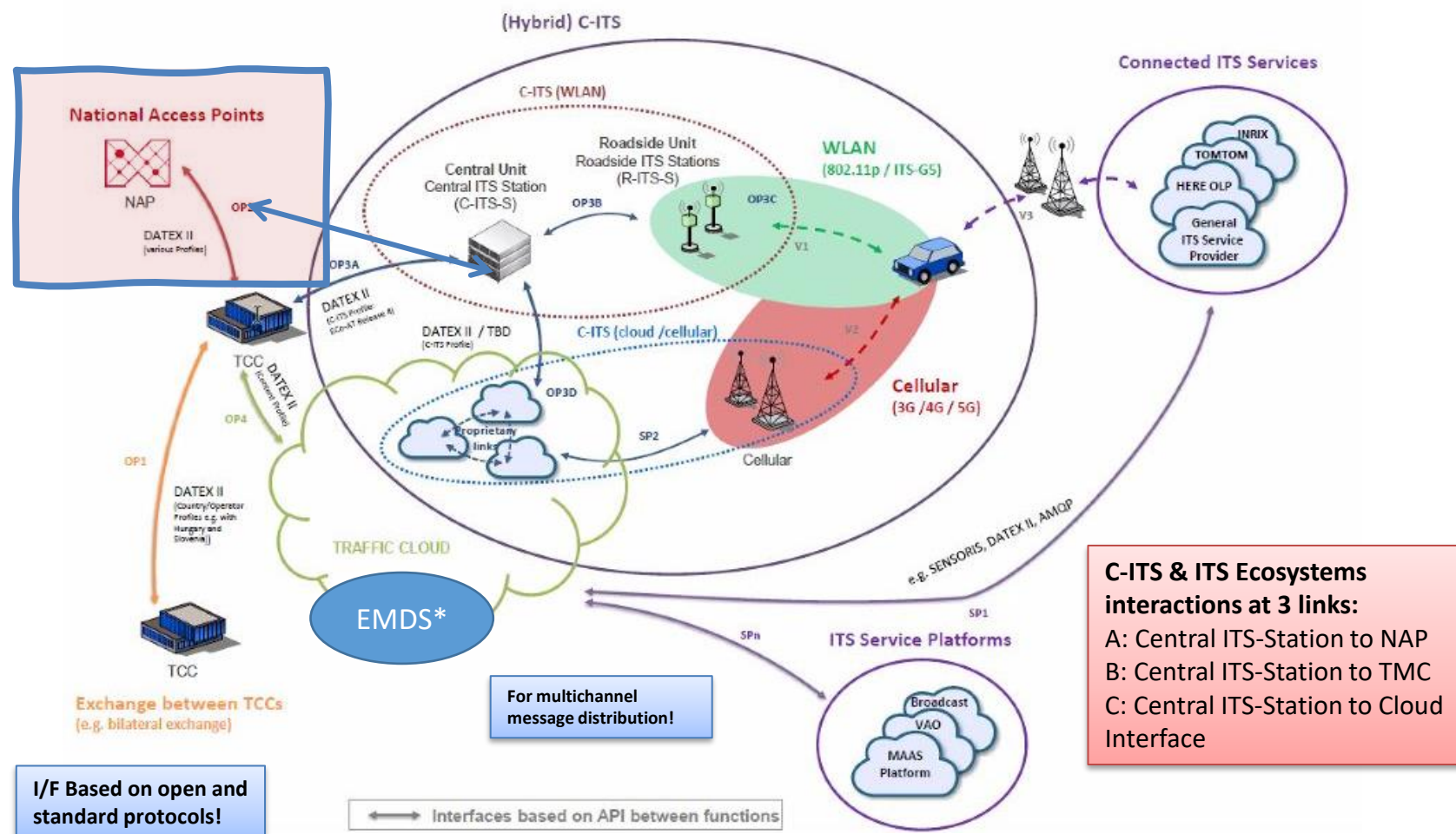
3) **Standards in NAPCORE and C-Roads**

Analyse standards and **identify the best use** for supporting various mobility networks and their services (including data)

4) **Data Quality and criteria**

Facilitate knowledge sharing and create a common understanding
Bringing quality frameworks into practice

Analysis among NAP and C ITS interfaces *



* work in progress

Next steps

- Ⓒ Assessment of Tasks objectives
- Ⓒ Proposal for future works to further C Roads-NAPCORE collaboration (after C Roads Extended approval)



- Ⓒ NOTE: Standards Interoperability task: today's collaboration among TISA, NAPCORE, DATEX II, C-Roads, Car2Car, DFRS to be strengthened



THANK YOU!

Fabrizio Paoletti
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autostrade
per l'Italia



Co-financed by the European Union
Connecting Europe Facility



NAPCORE Update

June 2024

Timo Hoffmann

NAPCORE General Secretary



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the European Union

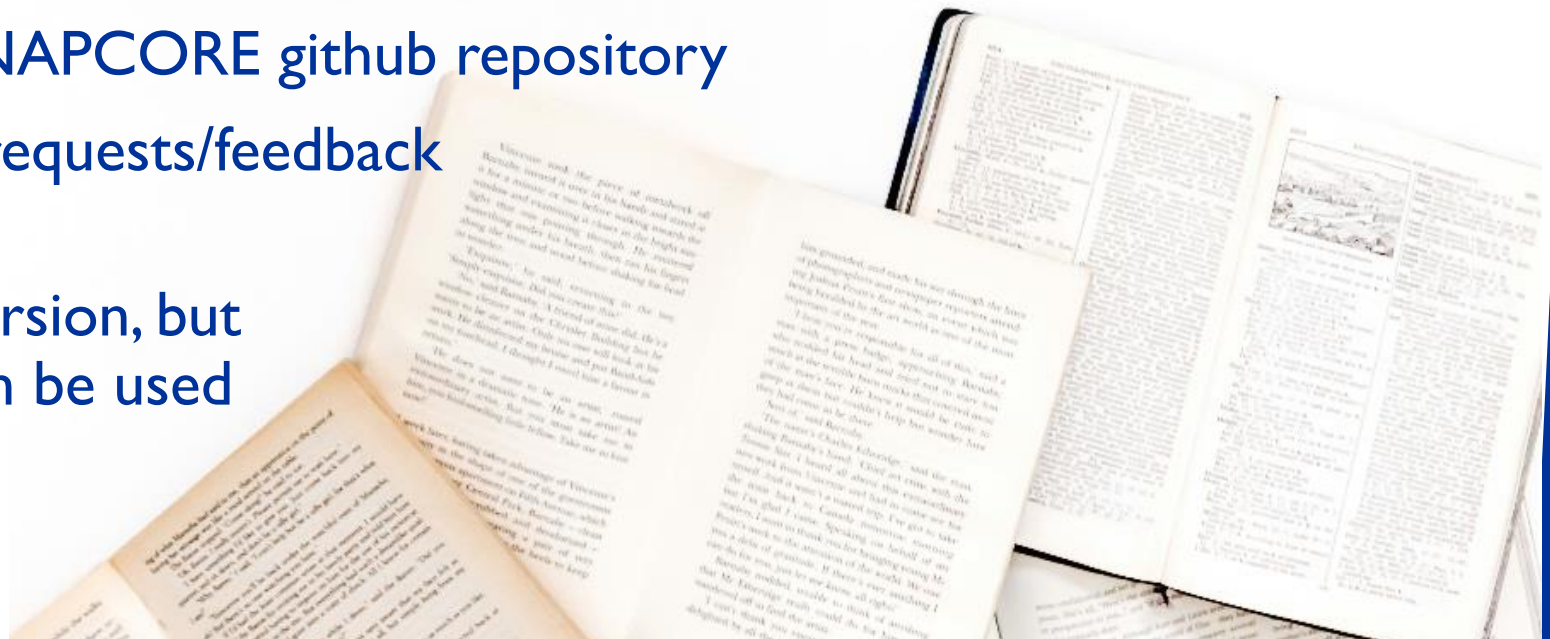
A few updates from NAPCORE... mobilityDCAT-AP

- A mobility extension for the DCAT application profile for data portals in Europe
- mobilityDCAT-AP - Version 1.0.1 released
- NAPCORE recommendation for use in NAPs but also other mobility data portals & platforms
- More info: <https://napcore.eu/metadata/>
- Message to all stakeholders:
 - please promote the use of this metadata catalogue for all mobility data portals & platforms globally (not only EU Member State NAPs)
 - if you encounter or hear of any problems with it or have suggestions for new functionalities, please submit as issues (guideline is available)



ITS Data Dictionary

- Common data dictionary for all data categories mentioned in the Delegated Regulations of the ITS Directive
- For “speaking the same language”
- NAPCORE internal reviews in the past
- Publication (for parts on RTTI, SRTI, SSTEP) in May 2024
- MMTIS part to be published in November or December 2024
- Publication under a (new) NAPCORE github repository
- For versioning and change requests/feedback (guideline available)
- Living document: no final version, but “mostly stable” versions can be used for referencing



Cooperation Agreement on SRTI with TISA, DFRS, C-Roads, C2CCC

- Cooperation Agreement between NAPCORE / DATEX II and
 - TISA
 - Data for Road Safety
 - C-Roads
 - Car 2 Car Communication Consortium
- Topic: Safety Related Traffic Information (SRTI) standardization
- Signed at the Connecting Europe Days in Brussels on 4 April



Cooperation Agreement

between the

Traveller Information Services Association (TISA)

and the

National Access Point Coordination Organisation
for Europe (NAPCORE)

and the

DATEX II community as part of NAPCORE (DATEX II)

and the

Data for Road Safety initiative (DFRS)

and the

Car 2 Car Communication Consortium (C2C-CC)

and the

C-Roads platform (C-ROADS)

4 GENERAL AGREEMENTS BETWEEN THE PARTIES

The Parties agree to:

- I. Accept joint ownership of the work results produced under this Agreement
- II. Continue to work on the harmonization of SRTI message sets and any supplementary documentation;
- III. Participate actively in joint activities, such as working group or task forces, to improve and extend the Work
- IV. Support strategic actions that facilitate interoperability within the ITS ecosystem and support the SRTI related delegated regulations within Europe
- V. Strive to include further ITS or related standards or organizations into the harmonization of SRTI message sets;
- VI. Promote the outcomes of the Parties' work under this Agreement;
- VII. Foster collaboration in the area of ITS between the Parties and their membership organizations

DATEX II, DFRS, C2C-CC and C-ROADS have come together to collaborate on Intelligent Traffic Systems (ITS);
have agreed to enter into a collaborative agreement in which its member
working and exchange;
enter into a Cooperation Agreement (the "Agreement") setting forth
by the collaboration.
DATEX II, DFRS, C2C-CC and C-ROADS (hereinafter collectively re-
ferred to as the "Party") have entered into this Agreement to jointly work on
the Safety for Safety Related Traffic Information (SRTI).



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Cooperation Agreement with POLIS

- Cooperation Agreement between NAPCORE and POLIS signed at the Connecting Europe Days in Brussels on 3 April 2024
- Goal: strengthening relation to urban and regional level to better facilitate data provision (and use)

Cooperation Agreement on the co-operation and dialogue between POLIS and NAPCORE

The revision of the Delegated Regulations (EU) on the provision of EU-wide multimodal travel information services (2017/1926) as well as the provision of EU-wide real-time traffic information services (2022/670) foresees the expansion of the mandatory provision of multimodal travel information services and real-time traffic information services to the general road network. Hence, also cities and regional areas gradually move into NAPCORE's field of attention. The topic of data provision in urban and regional settings, however, proves to be challenging, since the field is characterised by a great number of stakeholders with varying needs, highly diverse structures and modes of data and service provision.

In discussions at both the EU and national levels, cities and regions often find themselves overlooked, despite being directly affected by legislative obligations developed at these higher echelons. This disparity underscores the pressing need for these entities to have a more influential role in shaping discussions and decisions that directly impact their unique needs and concerns.

Recognising the mutual interest in addressing the complexities of data provision in urban and regional settings, NAPCORE and POLIS seek to establish a cooperative framework. The cooperation agreement aims not only to comprehend the structures, needs, and requirements of data and service providers at the urban level but also to bridge the gap between the different levels of action, fostering a collaborative environment that facilitates efficient data provision in cities and regions.

Agreement Objectives

- Specifically, the Cooperation Agreement between NAPCORE and POLIS aims to:
- Assess structures, requirements and needs of cities in order to support efficient data provision in urban areas and regions
 - Develop a strategy on how to get access to urban stakeholders and react on their needs
 - Increase the level of dialogue with new stakeholders (data and service providers) operating on the urban level and create synergies in terms of data provision
 - Create and disseminate information and training material, e.g. on data formats such as NeTEx, Siri, DATEX II
 - Ensure that cities and regions affiliated with POLIS have improved access to NAPCORE outcomes and resources

POLIS is the leading network of European cities and regions working together to develop innovative technologies and policies for local transport. The objective is to improve local transport through integrated strategies that address the economic, social and environmental dimensions of transport. To this end, the exchange of experiences and the transfer of knowledge between European local and regional authorities is supported. Moreover, POLIS facilitates the dialogue between local and regional authorities and other mobility stakeholders such as industry, research centres and universities, and NGOs. In addition, POLIS fosters cooperation and partnerships across Europe with the aim of making research and innovation in transport accessible to cities and regions. The participation of members in European projects is actively supported. POLIS also provides decision makers with the necessary information and tools for making sustainable mobility a reality.

Future of NAPCORE

- Original runtime of NAPCORE is approaching soon (end of 2024)
- Prolongment until end of June 2025 approved
- Need to continue is seen and obvious (ITS Directive Article 5)
- Currently planning for continuation/follow-up project with a timeframe until end of 2027 (=> “NAPCORE-X” proposal as second funding phase of NAPCORE)
- Some adaptations are foreseen, mainly: Stronger multimodal focus
- Also: setup of long-term governance structure

WG1	General Management & Administration	Coordination & Management	Internal Alignment				
WG2	Multimodal Mobility	Domain & Community Management	EU IDs for MM Access Nodes	Multimodal Data Availability on the NAPs	Multimodal Data Re-use		
WG3	Road & Traffic	Domain & Community Management	Domain Themes				
WG4	Data Standards & Architecture	Ecosystem Architecture NAP Interoperability	Multimodal Standards	Road & Traffic Data Standards	METR	Metadata Specifications	
WG5	Data Provision & Use	Monitoring	Tools	Data Quality	Reporting (MS support)	Data Provision Deployment Support	
WG6	Compliance Assessment & National Bodies	National Body Coordination	Operational Support to NBs (ENBOSS)	National Body Harmonisation And Alignment			
WG7	Governance & Strategy	Steering Committee & Advisory Board	Strategy	Long-term Governance			
WG8	Dissemination & Communication	Dissemination & Comm. Managment	NAP Support Center	Events	Website, Social Media & Service Desk	Academy & Training	

Agenda

Session time: 9:00-10:30

Moderation: Damaris Anna Gruber (AustriaTech/NAPCORE)

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- 7. Panel discussion**
- 8. Q&A with the audience**

Panel Discussion and Q&A with the audience

- How can partners in the corridor projects benefit from the results of the harmonisation projects?
- How do we get the handbooks/guidelines etc. to partners who are not involved in the harmonisation projects?
- How can the harmonisation projects benefit from experiences of implementations?
- Can corridor projects be used to increase the amount of data provided to NAPs?
- How can corridor projects support the introduction of data quality standards?

Joint Declaration



SUSTAINABLE AND SMART MOBILITY
FOR MEDITERRANEAN ATLANTIC ARC



Joint Declaration



SUSTAINABLE AND SMART MOBILITY
FOR MEDITERRANEAN ATLANTIC ARC

