Working Programme 2024

Milestone Overview and Work Items

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☐	To be revised by partners involved in the preparation of the document
☐	For review/ approval by the Core Alignment Team and Peer Reviewers
☐	For approval by the NAPCORE Steering Committee
☒	Final
☐	Updated/revised final version (e.g., when a second version of Milestone is published)

Abstract

This is the NAPCORE Working Programme 2024, containing the overview table of milestones and working items towards the remaining milestones of NAPCORE.

Abbreviations

Abbreviation	Meaning
AFIR	Alternative Fuels Infrastructure Regulation
CAT	Core Alignment Team
C-ITS	Cooperative Intelligent Transport Systems
EC	European Commission
EPICS	European Platform on ITS and C-ITS Services
ITS	Intelligent Transport Systems
LoS	Level of Service
MDMS	Multimodal Digital Mobility Services
MMTIS	Multimodal Travel Information Services
NAP	National Access Point
NAPCORE	National Access Point Coordination Organisation for Europe
NB	National Body
NIS	Network and Information Security
RTTI	Real-Time Traffic Information
SC, SCOM	Steering Committee
SCS	Steering Committee Support
SRTI	Safety Related Traffic Information
SSTP	Safe and Secure Truck Parking
SWG	Sub-working Group
TEN-T	Trans-European Transport Network
WG	Working Group
WP	Working Programme

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Overview of the Working Programme 2024

This Working Programme is designed to address all outstanding tasks within NAPCORE until the project's conclusion. The Action Plans from the previous 2023 Working Programme (MS.1.2) have been integrated into the work items of the Working Group (WG). Significant cross-cutting activities have been included within the framework of WG1.

In essence, the Working Programme for 2024 comprises two key components:

1. **Overview Table of forthcoming Milestones**
2. **Work Items**

The Overview Table of Milestones serves as a dynamic document regularly updated through the Milestone tracking process, which is an integral part of the risk and quality management task within S.1. This information is shared regularly with the EC DG MOVE through a dedicated SharePoint channel established in 2022.

The Work Items encompass all necessary tasks to accomplish the remaining NAPCORE Milestones and achieve the project's objectives as outlined in the Grant Agreement. It's important to note that certain Milestones may require more time than originally anticipated. In such cases, this delay will be duly documented and may result in a formal request for a project extension.

1. Overview Table of Milestones

The following is the overview table of the NAPCORE Milestones as defined by the Grant Agreement, but updated in the following way:

1. Includes only forthcoming Milestones. Completed Milestones are reflected in Progress Reports and S1's Milestone status overview.
2. The status of the Milestone is indicated, including completion date, or the forecasted new completion date if different from the originally indicated completion date.
3. Changes/Updates to forthcoming Milestones that have been described in the previous Working Programmes (MS.1.1, MS.1.2) are reflected in this list. This includes e.g. splits of Milestones into two individual Milestones, name changes of Milestones, and updates in the completion dates.

It is important to note, that this list as printed here is as of 21 November 2023. The Milestones' status changes regularly as NAPCORE progresses: Milestones will be completed, and might be postponed, or otherwise changed. Forthcoming changes are not reflected in this version of the table in this document, as this Working Programme 2024 document will remain stable after SCOM approval. The working version of the Milestone status overview table is a "live" document of which snapshots will be shared in regular intervals throughout the year 2024 with DG MOVE for information and task/Milestone tracking purposes. The live document can be sorted according to Milestone number, completion status, or other criteria. In this document, the Milestones are ordered by their planned submission date in the Working Programme 2024.

Milestone number	Milestone name	WG	Short name of lead beneficiary	External Milestone (Y/N)	Delivery date (GA)	Delivery date (WP 2024)
M4.4.2	mobilityDCAT-AP governance & maintenance structures	SWG4.4	DE-BASt	N	NA	Jan-24
M3.5	Fourth report on NAP data availability	WG3	GR	Y	Sep-23	Feb-24
MS.1.6	Project Progress Report 2023	S1	DE-BASt	Y	Nov-23	Feb-24
MS.1.10	NAPCORE – EU Commission communication summary	S1	DE-BASt	N	Nov-23	Feb-24
MS.1.14	Core Alignment Team report of main activities and decisions	S1	DE-BASt	N	Nov-23	Feb-24
MS.1.18	Financial Statement 2023	S1	DE-BASt	N	Feb-24	Feb-24
MH.2.2	Actions needed and recommendations reported in Project Progress Report 2023	H2	NL	Y	Nov-23	Feb-24
M4.0.2	Roadmap for harmonisation tasks incl. qualitative impact assessment	WG4	FR	N	Jun-22	Feb-24
M4.3.3	Report on gaps, overlaps of standards for multimodal data exchange	SWG4.3	ITxPT	Y	Nov-23	Mar-24
M1.3	Develop strategy and structure for future long-term governance of the NAP/ NB platform	WG1	DE-BASt	Y	Dec-23	Mar-24
M2.6	A first demonstrator with real-world use of data and different Levels of Service – 1st round	WG2	PT-IMT	Y	Dec-22	Mar-24
M2.7	An updated list of requirements concerning (the use of) data standards, reference profiles and metadata to be handed over to SWGs on standardisation and/or standardisation organisations.	WG2	PT-IMT	Y	Dec-23	Mar-24
M2.9	Harmonisation of EU NAP architectures and first layout of potential NAP federation	WG2	PT-IMT	Y	Dec-23	Mar-24

M5.9	National Body Reference Architecture defined and agreed	WG5	AT-ATE	N	Dec-23	Mar-24
M5.10	Prototypical multi-national compliance assessment demonstrated	WG5	AT-ATE	Y	Jul-24	Mar-24
M4.1.402	Version 3.5 with accompanying RRP's and RSP's	SWG4.1	NL	Y	Dec-23	May-24
MH.1.9	Steering Committee Meeting	H1	AT-ATE	Y	Jun-24	Jun-24
M3.6	Fifth report on NAP data availability	WG3	GR	Y	Mar-24	Jun-24
M4.1.303	DATEX II user forum	SWG4.1	NL	Y	Jun-24	Jun-24
M4.1.308	Masterclass DATEX II Programme	SWG4.1	NL	Y	Jun-24	Jun-24
M4.2.5	Technical specifications	SWG4.2	ERTICO	Y	Jun-24	Jun-24
M4.1.407	Standardisation proposals (via ITS rolling workplan) 2025	SWG4.1	NL	Y	Sep-24	Sep-24
M4.2.9	Recommendations for DG MOVE for TN-ITS deployment in EU Member States	SWG4.2	ERTICO	N	Sep-24	Sep-24
M4.3.5	Mapping of multimodal data standards and recommendations	SWG4.3	ITxPT	Y	Sep-24	Sep-24
MH.1.10	Final report on strategic exchange, cooperation and collaboration with externals and relevant stakeholder	H1	AT-ATE	Y	Oct-24	Oct-24
M1.1-2024	Develop strategic position and a common strategy for EU policies and developments	WG1	DE-BASt	Y		Oct-24
MH.3.5	Final NAPCORE Multi-Day Event	H3	IT	Y	Nov-24	Nov-24
MH.1.11	Steering Committee Meeting	H1	AT-ATE	Y	Dec-24	Dec-24
MH.3.9	2024 Dissemination activity report (separate or as part of project progress report)	H3	IT	N	Dec-24	Dec-24

M1.4	Agreement on the long-term governance structure for the continuous operation of NAPCORE related tasks	WG1	DE-BASt	Y	Dec-24	Dec-24
M2.10	At least two further demonstrators with real-world use of data and different Levels of Service – 2nd round	WG2	PT-IMT	Y	Dec-24	Dec-24
M3.7	Final report on NAP data availability	WG3	GR	Y	Dec-24	Dec-24
M3.8	A set of Quality Frameworks for the assessment of NAP (meta)data quality	WG3	GR	Y	Mar-23	Dec-24
M3.9	Quality Framework application guideline	WG3	GR	Y	Jun-24	Dec-24
M3.10	Technical options for data access and visualisation	WG3	GR	Y	Dec-24	Dec-24
M3.11	Terms and conditions for data reuse (incl. GDPR implications)	WG3	GR	Y	Jun-24	Dec-24
M3.12	European NAPs added value scenarios in key application areas	WG3	GR	Y	Dec-24	Dec-24
M3.13	Final training material for NAP content and accessibility and training events' completion	WG3	GR	N	Dec-24	Dec-24
M4.1.207	Final report 2024	SWG4.1	NL	Y	Dec-24	Dec-24
M4.1.304	Enhanced user documentation on profiles	SWG4.1	NL	Y	Dec-24	Dec-24
M4.1.313	Report on provided support, dissemination, education, and training	SWG4.1	NL	N	Dec-24	Dec-24
M4.1.403	Version 3.6 / 4.0 with accompanying RRP's and RSP's	SWG4.1	NL	Y	Dec-24	Dec-24
M4.1.606	Annual inventory of new topics	SWG4.1	NL	N	Dec-24	Dec-24
M4.2.7	Guide on ensuring potential deployment of trust, quality, integrity, and security of data established. Concepts of data evaluation tools (update).	SWG4.2	Cyprus	Y	Dec-24	Dec-24
M4.2.12	TN-ITS network meeting reports	SWG4.2	ERTICO	Y	Jun-24	Dec-24

M4.2.13	TN-ITS network meeting reports	SWG4.2	ERTICO	Y	NA	Dec-24
M2.11	NAP reference architecture	WG2	PT-IMT	N	TBD	Dec-24
M4.0.3	Update of Roadmap	WG4	FR	N	Jun-23	Dec-24
M4.4.3	First revision of mobilityDCAT-AP	SWG4.4	DE-BASt	N	Oct-23	Dec-24
M5.8	Strategies and actions for non-compliance defined	WG5	AT-ATE	N	Dec-23	Dec-24
MS.1.7	Final Project Report	S1	DE-BASt	Y	Nov-24	Feb-25
MS.1.11	NAPCORE – EU Commission communication summary	S1	DE-BASt	N	Nov-24	Feb-25
MS.1.15	Core Alignment Team report of main activities and decisions	S1	DE-BASt	N	Nov-24	Feb-25
MS.1.19	Financial Statement 2024	S1	DE-BASt	N	Feb-25	Feb-25
MH.2.3	Actions needed and recommendations reported in Final Project Report	H2	NL	Y	Nov-24	Feb-25

2. Work Items

In this section, all work items toward milestones are listed that are not already covered in Action Plans in the previous section.

2.1 Work Items of S.1

Work Item	S.1.1.1: Financial Reporting for 2023
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	All partners
Start:	12/2023
End:	2/2024
Output Milestone:	MS.1.18 "Financial Statement 2023"
Description:	Managing internal financial reporting as well as official financial reporting to the EC

Inputs:	Actions:	Outputs:
• Every partner's financial records	• Create financial statements • Submit to Project Coordinator • Check and validate financial statements for validity • Identify missing supporting documents and records • Consolidate the financial reports into a joint financial report	• Financial Statements as required by Grant Agreement (MS.1.18)

Work Item	S.1.1.2: Financial Reporting for 2024
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	All partners
Start:	12/2024
End:	2/2025
Output Milestone:	MS.1.19 "Financial Statement 2024"
Description:	Managing internal financial reporting as well as official financial reporting to the EC

Inputs:	Actions:	Outputs:
• Every partner's financial records	• Create financial statements • Submit to Project Coordinator • Check and validate financial statements for validity • Identify missing supporting documents and records • Consolidate the financial reports into a joint financial report	• Financial Statements as required by Grant Agreement (MS.1.19)

Work Item	S.1.1.3: NAPCORE Project Management
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	AT-ATE, NL, IT, PT-IMT, GR, FR, ERTICO, ITxPT
Start:	Ongoing
End:	Ongoing
Output Milestone:	-
Description:	Strategic alignment of WG objectives, tracking milestones, risk and quality management

Inputs:
- Internal and external milestones
- Progress Reports and financial statements
- CAT Meetings
- Quality and Risk management plan (MS.1.8)

Actions:
- Monitor the expenses versus the budget
- Milestone and project status monitoring
- Risk identification and tracking
- Escalation management
- Set up and generate project templates, procedures, and tooling
- Operate and support project collaboration tools

Outputs:
- Topics for CAT meetings
- Final external Milestones, following review process
- Escalated issues for communication with SCOM

Work Item	S.1.1.4: Progress reporting
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	-
Start:	12/2023
End:	02/2024
Output Milestone:	MS.1.6 "Project Progress Report 2023"
Description:	Managing internal progress reporting as well as official progress reporting to the EC

Inputs:
- Requirements for progress reporting from Grant Agreement
- Input from all partners
- Input from all Activity chairs

Actions:
- Track submissions for progress report
- Consolidate submissions to create a consolidated NAPCORE project progress report

Outputs:
- Project Progress Report (MS.1.6)

Work Item	S.1.1.5: Progress reporting
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	-
Start:	12/2024
End:	02/2025
Output Milestone:	MS.1.7 "Project Progress Report 2024"
Description:	Managing internal progress reporting as well as official progress reporting to the EC

Inputs:		Actions:		Outputs:
• Requirements for progress reporting from Grant Agreement • Input from all partners • Input from all Activity chairs	→	• Track submissions for progress report • Consolidate submissions to create a consolidated NAPCORE project progress report	→	• Project Progress Report (MS.1.7)

Work Item	S.1.2.1: Communications with the European Commission
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	AT
Start:	ongoing
End:	ongoing
Output Milestone:	MS.1.10 "NAPCORE – EU Commission communication summary"
Description:	Inputs, actions, and outputs are detailed below.

Inputs:		Actions:		Outputs:
• Mail communication • Decisions of the SCOM • Decisions of the CAT • External Milestones of the Activities/ (S)WGs	→	• Communication or meetings with the Project Officer of the EU Commission • Communications or meetings with other EU Commission staff	→	• Notes/ minutes from meetings and calls • Feedback from the European Commission • Chapter (MS.1.11 MS.1.12) in Project Progress Report (MS.1.6)

Work Item	S.1.3.1: Internal Alignment - Core Alignment Team Meetings
Lead:	DE (BASt) / Project Secretariat
Contributing partners:	AT-ATE, NL, IT, PT-IMT, GR, FR, ERTICO, ITxPT
Start:	ongoing
End:	ongoing
Output Milestone:	-
Description:	Inputs, actions, and outputs are detailed below.

Inputs:		Actions:		Outputs:
• Via chairs of all NAPCORE Activities and (S)WGs	→	• Write meeting minutes • Identify issues to be addressed and track them • Discuss options to resolve • Decide on actions to take	→	• Meeting minutes including documentation of decisions • Summaries (MS.1.14, MS.1.15) in progress reports

S.1 Milestones 2024:

The following S.1 Milestones remain and will be completed by the end of the project lifetime:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
MS.1.6	Progress Report 2023	11/2023	02/2024	Report	x
MS.1.7	Final Project Report	11/2024	02/2025	Report	x
MS.1.10	NAPCORE EU Commission Communication summary	11/2023	02/2024	Summary in progress report	
MS.1.11	NAPCORE EU Commission Communication summary	11/2024	02/2025	Summary in final report	
MS.1.14	Core Alignment Team Report of main activities and decisions	11/2023	02/2024	Summary in progress report	
MS.1.15	Core Alignment Team Report of main activities and decisions	11/2024	02/2025	Summary in final report	
MS.1.18	Financial Statement 2023	11/2023	02/2024	Financial statement	
MS.1.19	Financial Statement 2024	11/2024	02/2025	Financial statement	

2.2 Work Items of H.1

Work Item	Steering Committee Meeting
Lead:	AT
Contributing partners:	CAT, H.1 Active partners, NAPCORE Chairperson, SCOM Members
Start:	4 times a year (March, June, September, December)
End:	4 times a year (e.g., Thursday, 14th March 2024 (virtual), Tuesday, 11th June 2024 (physical), Tuesday, 24th September 2024 (virtual), Tuesday, 10th December 2024 (virtual))
Output Milestone:	MH.1.9 (06/2024), MH.1.11 (12/2024)
Description:	NAPCORE Steering Committee Meetings are arranged by Horizontal Activity H.1 Steering Committee Support, which as well prepares the agenda and minutes, in accordance with the chairperson. Decision points need to be clearly indicated in the agenda and supporting documents need to be delivered beforehand.

Inputs:	→	Actions:	→	Outputs:
• Decision Points • Activity/WG Inputs		• Organisation of a physical Steering Committee Meeting: • Discussion and strategic alignment on all decision points in the CAT • Elaboration of agenda as well as preparation of decision points and supporting documents in H.1 Working meeting • Send out agenda and decision points to chairperson • Send out agenda and decision points to SCOM • NAPCORE Steering Committee Meeting • Elaboration of minutes • Approval of meeting minutes		• (Physical meetings are organised) • Approved decision points and supporting documents for the SCOM in CAT • Draft agenda, decision points and supporting documents for the SCOM in H.1 working meeting • Decision on all points in SCOM • Send out of elaborated meeting minutes • Steering Committee Meeting minutes are approved

Work Item	Identify further strategic relevant issues to set up Cooperation Agreements
Lead:	AT
Contributing partners:	H.1 Active Partners
Start:	ongoing
End:	ongoing
Output Milestone:	MH1.10 (10/2024)
Description:	Inputs, actions, and outputs are detailed below.

Inputs:	→	Actions:	→	Outputs:
• Identification of key domains, topics, or gaps within NAPCORE. • Determination of relevant associations for potential cooperation (with support of NAPCORE's H.2 activity) • Assessment of request for Cooperation Agreements		• Identify suitable links to relevant stakeholders • Get in contact with the related stakeholders and discuss possible content of a cooperation agreement • Set up cooperation agreements (e.g. SRTI/TISA, POLIS, …) • Signature process		• Possible partners for Cooperation Agreements • Signed Cooperation Agreements

Work Item	Advisory Board Meetings
Lead:	AT
Contributing partners:	H.1 Active Partners
Start:	2 times a year

End:	2 times a year
Output Milestone:	-
Description:	The Advisory Board is an advising body for solicited and unsolicited advice to the NAPCORE Steering Committee and NAPCORE Activities regarding the project and its interactions in the European ITS ecosystem. The main task of the Advisory Board is to give overall non-binding strategic advice to serve the common objectives and vision of NAPCORE.

Inputs:
- Define strategic questions out of NAPCORE activities/ WGs
- Specific Milestone reports, dedicated to Advisory Board

Actions:
- (Organisation of a physical Meeting)
- Discussion and strategic alignment on strategic questions in the CAT
- Elaboration of agenda as well as preparation of strategic questions (supporting documents) in H.1 Working meeting
- Send out agenda and decision points to AB
- NAPCORE Advisory Board Meeting
- Post-preparation and Elaboration of minutes
- Approval of meeting minutes

Outputs:
- Solicited and unsolicited advice to the NAPCORE Steering Committee and NAPCORE Activities

Work Item	Regular management of the Advisory Board Members List
Lead:	AT
Contributing partners:	
Start:	ongoing
End:	ongoing
Output Milestone:	-
Description:	Keeping the Advisory Board Members List up to date

Inputs:
- Advisory Board members

Actions:
- Management of List

Outputs:
- Updated Advisory Board Members List

H.1 Milestones 2024:

The following H.1 Milestones remain and will be completed in the remaining project lifetime:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS

MH.1.9	Steering Committee Meeting	06/2024	06/2024	Steering Committee Meeting minutes	X
MH.1.10	Final report on strategic exchange, cooperation and collaboration with externals and relevant stakeholder	10/2024	10/2024	Report available and approved by Steering Committee	X
MH.1.11	Steering Committee Meeting	12/2024	12/2024	Steering Committee Meeting minutes	X

2.3 Work Items of H.2

Inputs:	Actions:	Outputs:
Internal • WG 1: ongoing • WG 2: overview of gaps and actions needed (6/2022) • WG 3: Data content existing gaps (6/2022) • WG 3: data quality assessment report (3/2023) • WG 4: change requests (12/2021, '22, '23) • WG 4: Inventory future work/net topics (12/2022, '23, '24) • WG 4: Report on gaps, overlaps standards for multimodal data exchange (11/2023) • WG 5: Strategies and actions to address (12/2022) • CAT meetings **External** • EU policy papers / EU website • Mobility Data Space concepts and documents • Revised ITS Directive and DR's • Sustainable and Smart Mobility Strategy 2020 • European Data Strategy • H2020/CEF funded projects • Other Platforms (CCAM, C-Roads, MaaS Alliance, …) • other	• Create template for the list of relevant internal and external sources and topics (Policy/action, innovation, WG, relation to NAPCORE / NAP / NB • also: relevance, stakes and stakeholders, contact persons • Define "Gap" criteria • Define criteria for structuring / categorising Gaps • Identify internal gaps (other WGs) • Identify gaps based on external sources (Meeting representatives from the EU Commission, Interview/talk with relevant stakeholders (EC, Advisory board, MS etc.) • Create list of "Gaps" and structure them	• Template for listing relevant sources and topics • List of gap identification criteria (relevance, for who) • List of gap structuring criteria (priorities, recipient) • Yearly document with a structured / categorised list of further topics and gaps to be addressed within NAPCORE and/or else

Task leader/task	Active	Follower	I cannot contribute
2022: NL **2023: NL** **2024: NL**	AT, CZ, FR, DE-AB, GR, IT, LV, RO, SI	BE, HR, CY, DK, EE, FI, DE-Bast, GR-EG, HU, LT, LU, MT, PL, PT, ES, SE, UITP, ITxPT	
Create template for the list of relevant internal and external sources and topics.	Task leader (NL) + AT + IT	-	
Define "Gap" criteria	GR + RO	-	
Define criteria for structuring / categorising Gaps	CZ + LV	-	
Identify/monitor internal gaps (other WGs) 1. **monitor WG1** 2. **monitor WG2** 3. **monitor WG3** 4. **monitor WG4** 5. **monitor WG5** 6. **monitor CAT/SCOM**	 RO SI LV / GR FR AT NL	-	
Identify gaps based on external sources	n/a in 2022	-	
Create list of "Gaps" and structure them	Task leader + AT, FR, CZ		
Review Gap list	All	All	
Participate in task meetings	All	-	
Participate in bi-annual progress meetings (combined task/activity meeting)	All	All	

H.2 Milestones 2024:

The following H.2 Milestones remain and will be completed in the remaining project lifetime:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
MH.2.2	Actions needed and recommendations reported in Project Progress Report 2023	11/2023	02/2024	Text in report with reference to Milestone	
MH.2.3	Actions needed and recommendations reported in Final Project Report	11/2024	02/2025	Text in final report with reference to Milestone	x

2.4 Work Items of H.3

Work Item	Final NAPCORE Multi-Day Event
Lead:	IT
Contributing partners:	Active partners H.3: IT/HR/CY/CZ/FR/DE-BASt/GR/HU/NL/MT/RO/SI/UITP/ITxTP
Start:	01/2024
End:	11/2024
Output Milestone:	M.H.3.5
Description:	M.H.3.5 - Organisation of the final NAPCORE multi-day event in Italy

Inputs:	Actions:	Outputs:
• Final NAPCORE Multi-Day Event	• Organise the event and plan the sessions • Present the results achieved in the project as well as benefits and challenges • Take a glance into the future of NAPCORE • Discuss current and future policies concerning the strategies promoted by the European Commission • Ensure interaction with stakeholders, experts, data providers, data users and related communities • Involve representatives of the Ministry and the Implementing Bodies of the hosting country • Promote interactions among participants during opening session/Social event/closing session for initiatives concerning NAPs	• Proceedings of the event: publication, articles, highlights, news, posts • Share experiences, use cases and good practices, together with external stakeholders, to reinforce European cooperation • Create and keep open an information channel in both directions with stakeholders, experts, data providers, data users and related communities • Organisation of technical visits during the event • Networking of participants

Work Item	2024 Dissemination activity report (separate or as part of project progress report)
Lead:	IT
Contributing partners:	Active partners H.3: IT/HR/CY/CZ/FR/DE-BASt/GR/HU/NL/MT/RO/SI/UITP/ITxTP
Start:	01/2024
End:	12/2024
Output Milestone:	MH3.9
Description:	MH.3.9 - Writing of the Dissemination report on the activities carried out during the 2024

Inputs:		Actions:		Outputs:
2024 Dissemination activity report (separate or as part of project progress report)	➡	• Consider and report all main topics discussed in the activity • Focus on the activities developed • Collection of contributions from partners • Report the cooperation with other (s)WG leaders for activity of dissemination • Presentation of trainings and dedicated workshops • Mention the internal and external support of trainings	➡	• Report on all dissemination activities and on the main progresses in collaboration with WGs • Develop appropriate communication tools (improvement of website, communities on specific topics, production of a cartoon) • Establishment of a link to other European initiatives • Show the results of trainings and workshops

Planned NAPCORE dissemination activities/events 2024

DATE	EVENT	LOCATION	Reason for visiting	Description of planned NAPCORE activity
15-18 April	TRA 2024	Dublin (Ireland)	Biggest event of the transport research community. Coordination with related research projects	Attending with a limited number of delegates. Speakers in sessions (planned)
16-19 April	Intertraffic 2024	Amsterdam (The Netherlands)	At Intertraffiic is possible to experience the latest solutions in the field of traffic industry with all the experts in the field and to discover the latest trends in infrastructure, traffic management, smart mobility, road safety and parking	It is planned a slot for NAPCORE for 60 minutes on April 17
14 - 16 May	IT-Trans 2024	Karlsruhe (Germany)	Preparing the new focus on topics like urban mobility, public transportation and multimodal.	Large UITP participation (not on NAPCORE budget). ITxPT presence is also planned. Potentially booth space at UITP booth. Limited (1-2 persons) NAPCORE participants as speakers and visitors.
16-20 September	ITS World Congress 2024	Dubai (UAE)	Biggest ITS related event in 2024 worldwide. European ITS stakeholder community will also attend.	Potentially small booth space at ERTICO booth. Limited (1-2 persons) participation from NAPCORE.

November	POLIS Annual Conference	Germany	Preparing the new focus on topics like urban mobility, public transportation and multimodal.	Limited (2-3 persons) participation from NAPCORE.

H.3 Milestones 2024:

The following H.3 Milestones remain and will be completed in the remaining project lifetime:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
MH.3.5	Final NAPCORE Multi-Day Event	11/2024	11/2024	Event programme and attendee list	x
MH3.9	2024 Dissemination activity report	11/2024	12/2024	Report submitted to Steering Committee	

2.5 Work Items of WG1

Task 1.1 "Strategy towards EU policies and developments"

Work Item	1.1: Update of Strategy toward EU policies and developments MS
Lead:	DE (BASt)
Main contributing partners:	DE, DK, CH, BE, AT-ATE, AT-ASFINAG, SE, RO, UITP, NO, FR, NL, GR-NTUA, HU, ES, CZ
Start:	1/2024
End:	10/2024
Output Milestone:	M1.1-2024 "NAPCORE strategic position and a common strategy for EU policies and developments - 2024"
Description:	The initial M1.1 document only contained (next to a common position on the ITS Directive revision) an overview of relevant EU policies and developments together with a prioritisation and planned actions towards those, it is foreseen to continue the work begun and both monitor ongoing developments and consolidate a strategic positioning and actions regarding the most important and urgent policies and developments on EU level.

Inputs:
- M1.1-2023 milestone document
- Prioritised list of EU policies and developments

Actions:
- Monitor for new EU policies and developments and add to and prioritise in tracking list
- Track ongoing developments of EU policies and developments

Outputs:
- Updated MS document "NAPCORE Strategy towards EU policies and developments - 2024" (M1.1-2024)

	• Discuss and agree on actions regarding highest prioritised EU policies and developments • Carry out those actions • Report on those actions and positions in updated MS document M1.1-2024		

In WG1's M1.1-2023, the following areas ("Action Groups") have been defined for actions in 2024:

Action Group	EU Policy area(s)/topic(s)	Lead / Main contributor(s)
1	ITS Directive 2010/40/EU (incl. Revision 2022)	DK
2	MMTIS, Delegated Reg. (EU) 2017/1926 (incl. revision 2023)	BE
3	AFIR Regulation	HU, NL, AT
4	RTTI, Delegated Reg. (EU) 2015/962 (incl. revision 2022 - 2022/670)	NL
5	Mobility Data Space, incl. • High-Value Datasets • Data Governance Act • EDIC	DE-BASt, FR, NL
6	SRTI, Delegated Reg. (EU) 886/2013	AT-ASFINAG
7	• Cybersecurity Act • NIS Directive	NO
8	CEN Standardization	CH
9	Safe and Secure Truck Parking, Delegated Reg. (EU) 885/2013	CZ, RO
10	General Data Protection Regulation (GDPR) (Regulation 2016/679)	LV
11	Artificial Intelligence Act	CH
12	The New EU Urban Mobility Framework	AT

Furthermore, and in addition to actions in these Action Groups, there are four defined NAPCORE Ambassador Teams, that will be active in their respective field with their own, largely agile, plans of actions:

- Mobility-as-a-Service MaaS
- Cycling and cycling infrastructure data
- Alternative Fuels
- Parking (data)

Specifically on Parking data, the NAPCORE Parking Ambassadors will, jointly with the activities WG1 and WG4 with its subworking groups, align the different data exchange standards (DATEX II / TRANSMODEL-NeTEx / APDS) related to parking data and ensure the coordination of the developments and updates.

Task 1.2 "Strategy towards stakeholders and activities (non-EU policy related)"

Work Item	1.2: Strategy towards stakeholders and activities
Lead:	RO-ITS
Main contributing partners:	DE-BASt, DK, ES, GR, NL, UITP
Start:	10/2022
End:	3/2024

Output Milestone:	M1.2 "Develop strategic position and a common strategy for cooperation with global players and related activities"
Description:	Goal of this work item is to create the M1.2 document on a strategic position and common strategy for cooperation with global players and related activities. It serves to identify and monitor existing and upcoming organisations, projects, activities or initiatives in the mobility data and data exchange domain outside of the EU policy related activities, to consider or incorporate relevant or valuable results, e.g. via regular liaisons. A common communication guideline shall be established, especially towards global players and international organisations and activities.

Task 1.3 "Future and sustainable governance structure of the NAP/ NB platform"

Work Item	1.3: Future and sustainable governance structure of NAPCORE
Lead:	AT-ATE
Main contributing partners:	BE, DE (BASt), AT-ASFINAG, CZ, ES, GR, NL, HR, HR-CESTE, RO-NCRIA, UITP
Start:	10/2022
End:	03/2024
Output Milestone:	M1.3 "Develop strategy and structure for future long-term governance of NAPCORE" M1.4 "Agreement on the long-term governance structure for the continuous operation of NAPCORE related tasks"
Description:	The runtime of the NAPs is not limited according to the ITS Directive and its Delegated Regulations. Also, the work needed to ensure continued harmonised and coordinated operation of the European NAPs will not be finished – there will always be a need to improve interoperability, work on standards and recommendations, discuss data quality improvement campaigns etc. This is stark contrast to the limited runtime that NAPCORE has in the framework of the current CEF PSA project. This task is to develop a position and strategy for NAPCORE for a suitable long(er) term operation including the governance structure and setup needed for that.

Originally the Milestone M1.4 was called "Long-term governance structure is implemented". However, in the various discussions that were held within NAPCORE (WG1, CAT, SCOM), the NAPCORE Advisory Board and DG MOVE within the work of Task 1.3, it has become apparent, that any long-term structure would not be (and would not need to be) fully implemented by the end of 2024. Rather an approach is taken (to be further outlined in M1.3) that would focus on re-submitting a proposal for a follow-up project. During this time, a thorough definition, setup and implementation phase of a long-term governance structure can be undertaken. By the end of 2024, the end of the runtime of the current CEF PSA project, this task will rather prepare a decision and get SCOM approval for how the long-term governance structure shall look like going forward. Furthermore, M1.4 will detail out "survival strategies" for periods with funding gaps.

Inputs:	→	Actions:	→	Outputs:
M1.1		• Collect experiences of NAPCORE partners that are international organisations about the pros and cons of becoming a Belgian AISBL or similar • Evaluate possibilities regarding prolonging current CEF PSA project • Evaluate possibilities regarding a new DG MOVE call that would suit for a "NAPCORE 2.0" project • Evaluate other possibilities for organisational, administrative, and financial setup for a continuation of NAPCORE • Document the outcome of the analysis and provide options for a governance structure in M1.3 Newly arising tasks that should be taken care of in 2023 according to T1.3 working programme: • Identify essential elements/roles to allow a continuation of the coordination mechanism of NAPCORE (in case of gap in funding)		• M1.3 "Strategy and structure for future long-term governance of NAPCORE"

Inputs:	→	Actions:	→	Outputs:
• M1.3 • M1.1		• Identify the best fit of organisation structure as basis for the development of an implementation plan • Develop implementation plan for a long-term governance structure (incl. strategy, tasks, cost, financing etc.) • Discuss implementation plan with stakeholders (Member States, EC, Advisory Board…)		• M1.4 "Agreement on the long-term governance structure for the continuous operation of NAPCORE related tasks"; due date: December 2024

WG1 Milestones 2024:

The following WG1 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M1.1-2024	NAPCORE strategic position and a common strategy for EU policies and developments - 2024	Not in GA	10/2024	Updated MS document "NAPCORE Strategy towards	

				EU policies and developments - 2024" (M1.1-2024)	
M1.2	Develop strategic position and a common strategy for cooperation with major stakeholders and related activities	09/2022	03/2024	Report	x
M1.3	Develop strategy and structure for future long-term governance of the NAP/ NB platform	12/2023	03/2024	Report	x
M1.4	Agreement on the long-term governance structure for the continuous operation of NAPCORE related tasks	12/2024	12/2024	Report	x

2.6 Work Items of WG2

Work Item	2.1.4 Repository of documents of experiences with the preparation and deployment of individual NAPs
Lead:	NL
Contributing partners:	CZ, DK, GR, HU, NL, PL, PT, AT, IT, CY, MT, ES
Start:	11/2021
End:	12/2024
Output Milestone:	-
Description:	This task will facilitate the storage and accessibility to relevant documents capturing experiences with the preparation and deployment of individual NAPs. The repository will be managed by a NAPCORE organisation, nominated by the Activity Management Team.

Inputs:	Actions:	Outputs:
• Current experiences from Member States NAP pre-studies • NAP reference architectures • NAP KPI impact assessments	• Set up a process for collection, storage, and access to the documents. The initial set of documents will include the desk research material and the tasks results. • 2nd LoS Self-assessment Workshop	• Repository of documents of experiences with the preparation and deployment of individual NAPs • 2nd NAP LoS Self-Assessment - results

		• Update of the NAP LoS KPI Framework		

Work Item	2.2.1 Identification of gaps and list of requirements
Lead:	PT
Contributing partners:	AT, BE, CY, DE, DK, FR, GR, IT, ~~LT,~~ MT, NL,
Start:	11/2021
End:	03/2024
Output Milestone:	M2.4 Report - A list of requirements concerning (the use of) data standards, reference profiles and metadata to be handed over to SWGs on standardisation and/or standardisation organisations. M2.7 An updated list of requirements concerning (the use of) data standards, reference profiles and metadata to be handed over to SWGs on standardisation and/or standardisation organisations.
Description:	This work item intends to identify the gaps and requirements related to data standards, reference profiles and metadata.

Inputs:
- Survey from task 3.1
- Previous development on data standards – reports and outcomes from WG4 (sWG4.1, sWG4.2, sWG4.3)
- Reference profiles from NeTEx, DATEX II and SIRI
- Coordinated Metadata Catalogue
- Report from sWG4.4: "Requirements Analysis for a new Metadata Specification"

Actions:
- Comparison of existing requirements of data standards (WG4's subWG4.3 Transmodel, SIRI, and NeTEx, and WG4's DATEX II), open data, reference profiles, and metadata
- Identification of requirements and shortcomings of data standards (WG4's subWG4.3 Transmodel, SIRI, and NeTEx, and WG4's DATEX II), reference profiles, and metadata
- Handover of prioritised lists of requirements, shortcomings, and recommendations for data standards (WG4's subWG4.3 Transmodel, SIRI, and NeTEx, and WG4's DATEX II), reference profiles, and metadata to WG3, WG4, and standardisation bodies (EC, CEN, ISO, etc.)

Outputs:
- A list of requirements concerning (the use of) data standards, open data, reference profiles and metadata, developed on a regular annual basis, to be handed over to SWGs on standardisation and/or standardisation organisations, taking data quality into account
- Provide recommendations (e.g. position papers) on standardisation gaps to EC, CEN, ISO, etc.
- Recommendations for WG4 and Steering Committee (act. 1.3) concerning standards to be used and reference profiles

Work Item	2.2.2 Analysis of possible implications deriving from the "common EU data space" and the "mobility data space"
Lead:	PT
Contributing partners:	AT, BE, DE, ITxPT, IT, MT, NL, PT
Start:	01/2023
End:	12/2024
Output Milestone:	-
Description:	This work item aims to assess the implications of implementing data spaces such as the common EU data space and the mobility data spaces

Inputs:	Actions:	Outputs:
• Not identified	• Look into possible implications from the developments of the 'common EU data space' and 'mobility data space'	• Will be used in subtask 2.4.5

Work Item	2.2.3 Interoperability and support
Lead:	PT
Contributing partners:	AT, BE, CZ, DE, FR, ITxPT, MT, NL, NPRA
Start:	11/2021
End:	12/2024
Output Milestone:	-
Description:	This work item aims to identify useful information for service interoperability and to develop support tools for NAPs

Inputs:	Actions:	Outputs:
• Outputs and conclusions from Milestones M2.4 and M2.7 (Work item 2.2.1)	• Identification of basic and recommended reference data sets supported by member states for service interoperability • Identification of basic and recommended delivery processes supported by member states for service interoperability • Creation and maintenance of technical artefacts and support tools for NAP relevant standards and NAP development (such as the tools developed for DATEX UVAR m2m readable formats) • Inventory and prioritisation of short comings concerning (the use of) data standards, reference profiles and	• Provide a list of recommended and basic reference data sets supported by member states for service interoperability • Provide a list of recommended and basic delivery processes supported by member states for service interoperability • Make available Support Tools for NAPs (e.g. UVARBox), in cooperation with WG4 on standardisation and with NAPCORE Secretariat for centralised dissemination

	metadata, + link with CEN TC278 WG3 (ITS Public Transport where are specified TRANSMODEL/SIRI/NeTEx) for recommendations on standardisation gaps, hampering the interoperability of NAPs, in collaboration with SWG4.3		

Work Item	2.3.1 Work plan definition and task alignment
Lead:	CZ
Contributing partners:	AT, BE, CY, DE, DK, GR, HU, MT, NL, PT
Start:	11/2021
End:	12/2024
Output Milestone:	-
Description:	This task aims to develop goals to be achieved by the NAP architecture and to plan and adapt annual workplan.

Inputs:	Actions:	Outputs:
• Other WPs outputs • CAT recommendations • Yearly outputs from Work-items of WG2 • Project FRAME NEXT materials	• Develop annual work plan • Discuss what we want to achieve with NAP Architecture, how it is going to be used, what shall be put focus on • Analyse task interdependencies, dependencies with other WPs, liaise and report and govern the task.	• Work Plan (annually updated) • Key findings on NAP operators targets on Architecture • A roadmap for development of NAP architectures • Task alignment resolutions

Work Item	2.3.2 Analysis of common elements in NAP architectures
Lead:	CZ
Contributing partners:	AT, BE, CY, DE, DK, GR, IT, MT, NL, NPRA, PT
Start:	06/2022
End:	12/2024
Output Milestone:	M2.9 "Harmonisation of EU NAP architectures and first layout of potential NAP federation"
Description:	The task aims at definition of the requirements for the NAP architecture (from existing NAPs and from data sharing communities), pathfinding of how harmonisation shall be approached for the benefit of operators and users. Identification of common NAP elements by comparison of different approaches. Definition of how FRAME architecture shall be used and adapted. The task focus is analytical to provide input to task 2.3.3. It is worth mentioning that this activity requires continuous maintenance.

Inputs:	Actions:	Outputs:
• Analyses of the level of services (task 2.1) • Analyses of standards needed (task 2.2) • Best practices from demonstrators • Analyses on demand Problem solutions from demonstrator work	• Set common structure for NAP architecture analysis • Identify and compare current NAP architectures • Review new developments in B2B and B2G mobility data sharing/exchange • Identify requirements from strategic documents (WG1) that affect NAP Architecture • Identify requirements from each key application area (NAPs, data, data sharing principles, standards) • Set up relationship with WGs where development of key concepts shall take place (WG2-WG4) • Find out where and how a common NAP reference architecture should be able to support NAP operators and users. • Define necessary changes of FRAME Architecture to reach the requested level of service interoperability	• NAP Architecture types, use and requirements, including the demonstrators. • NAPCORE work packages review and its impact on architecture • Recommendations for NAP FRAME architecture • M2.9 Harmonisation of EU NAP architectures and first layout of potential NAP federation

Work Item	2.3.3 Development of the NAP reference architecture
Lead:	CZ
Contributing partners:	AT, BE, CY, DE, DK, GR, IT, MT, NL, NPRA, PT
Start:	01/2023
End:	12/2024
Output Milestone:	M2.11 "NAP reference architecture"
Description:	This is the main task where development of practical outputs will happen. Task focuses on development of several types of NAP reference architectures, based on the NAP typology. Each architecture focuses on requirements and user needs, functional and physical views as present in the FRAME approach and tools. Also, other architecture products could be developed: interface identification and definition, cost and benefit analysis, communications view, set of recommendations etc. The common elements like terminology, specific requirements, data concepts shall be further defined in this task. The harmonisation focuses on taking concepts from other WGs and setting a common, mutually agreed, reference (i.e. only harmonisation is done here). This Milestone is not "final", as the reference architecture shall evolve according to the changes in the NAP ecosystem.

Inputs:	Actions:	Outputs:
- Architecture developed by FRAME Project - Architecture developed by US DOT - EU-EIP support materials - Recommendations and analyses from (task 2.3.1) - Analyses of level of services (task 2.1) - Analyses of standards needed (task 2.2) - Best practices from demonstrators - Input from ISO and CEN standardisation activities	- Development of user needs and functional requirements - Support other WGs in harmonisation and pathfinding tasks related to common elements. - Development of common Architecture outputs (artefacts) used for harmonisation purposes (terminology, classification, common definitions, minimum requirements etc.) - Development of common architecture for different levels of NAP (i.e., physical view with interfaces, standards, organisational view, roles, agreements, responsibilities) - Aligning with cyber security architecture based on Archimate - Initiation and supervision of development of output architecture materials in other WGs	- NAP Functional requirements and user needs - NAP common artefacts (classes, definitions, plans, checklists) - Model architectures, including draft outputs - M2.11 NAP reference architecture Milestone

Work Item	2.3.4 Support the NAP Architecture user community
Lead:	AT
Contributing partners:	BE, CY, CZ, DE, DK, MT
Start:	06/2023
End:	12/2024
Output Milestone:	-
Description:	This task is for maintaining and updating NAP architecture documents, creating webinars promoting the use of NAP Architecture tools including level of services framework promoting use of roadmap to interoperability based on gaps and analyses from other tasks.

Inputs:
- Previous activities in task 2.3
- Materials developed by FRAME Project
- Materials developed by other parties (i.e. Arc-IT the US national ITS architecture)
- EU-EIP support materials

Actions:
- Update materials supporting the interoperability created by task 2.1
- Support the use of architecture tools and materials between project members
- Creations of the content of architecture presentations, webinars
- Fulfil review by NAP users and process an update routine

Outputs:
- NAP reference architecture webinars.
- Methodology for architecture use, user guide, feedback guide and interoperability documents guide

Work Item	2.3.5 Maintenance of the NAP Architecture tools
Lead:	AT
Contributing partners:	BE, CY, CZ, DE, DK, MT
Start:	06/2023
End:	12/2024
Output Milestone:	-
Description:	This task focuses on the maintenance and further development of the architecture tools created or adopted (FRAME) by project NAPCORE. The tool is the reference architecture model and toolboxes and other essential interoperability tools developed by other tasks (e.g., WG2.1.)

Inputs:
- Tools and approaches from FRAME project
- Tools from NAPCORE project
- Tools from DATEX II projects

Actions:
- Set up the maintenance infrastructure
- Review of the available tools for architecture description and for interoperability support

Outputs:
- Tools review and development plan (roadmap)
- Issues and progress report (user feedback)

• EU-EIP support materials • Webinars and Architect community help • Tools and approaches by US DOT in architecture creation • Governance structures and infrastructure used within the project NAPOCORE	• Further development of tools based on the roadmap and user experience • Develop and implement governance • Develop a roadmap for tools development • Define and implement change management process including integration of internal and external feedback	• Maintenance infrastructure setup, with governance and change management

Work Item	**2.4.1 Interoperability support of the NAP demonstrators**
Lead:	CZ
Contributing partners:	AT, BE, CY, DE, DK, FI, GR, ITxPT, LT, MT, NL, NRPA, PL, PT
Start:	11/2021
End:	12/2024
Output Milestone:	-
Description:	This is a horizontal Work-item that will develop activities throughout the NAPCORE project

Inputs: • Developments from task 2.1 – Definitions of levels of service (Milestones 2.1 and 2.2) • Developments from task 2.2 – Milestones M2.4 and M2.7 • Developments from task 3.4 - Data Exchange Vision to be streamlined with the WG2 cross-border demonstrator activities-M3.14 • Developments from task 4.4.4 - A conceptualisation for a cross-border metadata registry, resulting in a WG2 planned demonstrator • Developments on the demonstrators: outcomes from the work items 2.4.2, 2.4.3 and 2.4.4	Actions: • Conceptualisation of the NAP demonstrators (during 2022) • Support, monitoring, and validation of the development of Interoperable NAP demonstrators in Work-items 2.4.1, 2.4.2, 2.4.3 and 2.4.4. • Evaluation and assessment of these interoperability demonstrators, lessons learnt, recommendations	Outputs: • Agreed structure and content of the demonstrator deliverables • Lessons learnt and recommendations to the NAP reference architecture in form of guidance for data considerations, NAP technology choices, etc.

Work Item	2.4.2 Interoperable NAP demonstrator with real world use of the NAP information
Lead:	DK
Contributing partners:	AT, BE, DE, ES, ITxPT, LT, MT, NL, PT
Start:	06/2022
End:	03/2024
Output Milestone:	M2.6 A first demonstrator with real-world use of data and different Levels of Service – 1st round
Description:	This Work-item represents the development of the first demonstrator with real-world use of data and different Levels of Service.

Inputs:	Actions:	Outputs:
• Levels of Service definition and assessment: Task 2.1 – Milestone M2.1	• Definition and Operationalisation of interoperability demonstrators that make real world use of the NAP information, to test scenarios, e.g. cross-border, intermodal scenarios, a mix of urban and inter-urban environments, or continuity of services based upon already harmonised data sets or stable data profiles (e.g. UVAR)	• The first interoperable demonstrator with real-world use of data and different Levels of Service (Reinforcing collaboration with T2.1)

Work Item	2.4.3 Interoperable NAP demonstrator of a marketplace or clearing house NAP
Lead:	NL
Contributing partners:	AT, DE, MT
Start:	01/2023
End:	12/2024
Output Milestone:	M2.10 At least two further demonstrators with real-world use of data and different Levels of Service – 2nd round
Description:	This work item represents the development of the second demonstrator with real-world use of data and different Levels of Service.

Inputs:	Actions:	Outputs:
• Levels of Service definition and assessment: Task 2.1 – Milestone M2.1	• Definition and Operationalisation of interoperability	• The second interoperable demonstrator with real-

	demonstrators to test the development of a marketplace or clearing house NAP		world use of data of a marketplace or clearing house NAP and different LoS (Reinforcing collaboration with T2.1)

Work Item	2.4.4 Interoperable NAP demonstrator with Metadata
Lead:	DE
Contributing partners:	PT, IT, CY
Start:	01/2023
End:	06/2024
Output Milestone:	M2.10 At least two further demonstrators with real-world use of data and different Levels of Service – 2nd round
Description:	This work item represents the development of the third demonstrator with real-world use of data and different Levels of Service.

Inputs:
- Levels of Service definition and assessment: Task 2.1 – Milestone M2.1
- mobilityDCAT-AP specification by SWG 4.4

Actions:
- Requirement analysis and conceptualisation for a Metadata Demonstrator, in cooperation with subWG4.4
- Mapping of existing metadata from selected NAPS to mobilityDCAT-AP
- and deployment of different modules and features for a Metadata demonstrator

Outputs:
- The third interoperability demonstrators with real-world use of data with metadata aggregator and different Levels of Service (Reinforcing collaboration with T2.1)
- Showcase/demo of Metadata demonstrator
- Documentation of Metadata demonstrator

Work Item	2.4.5 European Access Point (EAP)
Lead:	PT
Contributing partners:	AT, CY, DK, LT, MT
Start:	03/2023
End:	12/2024
Output Milestone:	
Description:	This work item represents the development of an interoperability demonstrator of a European Access Point

Inputs:
- Report from Task 2.1 – Milestone M2.1.
- Task 2.2 – Milestones M2.4 and M2.7: list of requirements for metadata
- Reports from sWG4.4: analysis on NAP's Metadata

Actions:
- Elaborate concept and (optional) interoperability demonstrator of a European Access Point (EAP), allowing visibility of NAP datasets from multiple countries in one platform. As prime dataset candidates for such

Outputs:
- Paper on data accessibility and discoverability

	demonstrator - Safety Related Traffic Information or the UVARs, expected soon to be in the scope of the RTTI Delegated Regulation.		

Work Item	2.4.6 Alternative Fuels Demonstrator
Lead:	PT
Contributing partners:	
Start:	01/2023
End:	12/2024
Output Milestone:	-
Description:	This Work Item represents the development of the fourth demonstrator focused on alternative fuels data

Inputs:		Actions:		Outputs:
• Documents from IDACS • Outcomes from work item 2.4.1 • Inputs from the Metadata demonstrator (work item 2.4.4)	➡	• Explore the required elements for the development of a common EU Access Point for alternative fuels data, creating a common interface that would act as a data gateway linking all MS NAPs in a single web platform • The demonstrator should explore how both static and dynamic could be made available and accessible at European level, without creating storing duplicities with Member States' NAPs repositories, considering NAP format and need for harmonisation (linked to other WG activities). • The demonstrator should consider EAFO as the web platform that would host this common EU Access Point in the future, which as part of its current development and evolution would be equipped with the corresponding technical elements to this end	➡	• The conceptualisation and development of a demonstrator for alternative fuels data • Elaboration of technical guidance and recommendations in support of a subsequent technical implementation

WG2 Milestones 2024:

The following WG2 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M2.6	A first demonstrator with real-world use of data and different Levels of Service – 1st round	12/2022	03/2024	Report	x
M2.7	An updated list of requirements concerning (the use of) data standards, reference profiles and metadata to be handed over to SWGs on standardisation and/or standardisation organisations.	12/2023	03/2024	Report	x
M2.9	Harmonisation of EU NAP architectures and first layout of potential NAP federation	12/2023	03/2024	Report	x
M2.10	At least two further demonstrators with real-world use of data and different Levels of Service – 2nd round	12/2024	12/2024	NAP demonstrators operational	x
M2.11	NAP reference architecture	12/2024	12/2024	TBD	x

2.7 Work Items of WG3

Work Item	3.1.1 NAP monitoring
Lead:	RO
Contributing partners:	AT, HR, CY, CZ, FI, UITP, FR, GR, HU, LV, LT, ITxPT, LU, PT, ES, NPRA
Start:	11/2021
End:	12/2024
Output Milestone:	M3.5 "Fourth report on NAP data availability" M3.6 "Fifth report on NAP data availability" M3.7 "Final report on NAP data availability"
Description:	Monitoring of European NAPs in terms of NAP status, data and metadata availability, geographical coverage, implemented data formats/standards, implemented NAP architectures, licensing models, usage of NAPs, as well as the level of compliance assessment.

Inputs:	Actions:	Outputs:
• Results and methodology of the EU EIP project • Intermediate results of NAP monitoring survey • Consultation with active participants (meetings) • Feedback from other parties	• Analysis and adjustment of the structure and content of NAP monitoring survey's questionnaire • Collection of responses from all MSs • Design and development of an operational tool supporting NAP monitoring	• Operational and interactive tool supporting the NAP monitoring activity • NAP monitoring and data availability results (online + report summarizing key outcomes)

Work Item	3.1.2 Data dictionary activity
Lead:	GR
Contributing partners:	AT, BE, DE, CY, CZ, NL, FR, GR, IT, ITxPT, NO, PT, RO, SE, ERTICO, UK
Start:	01/2023
End:	02/2024
Output Milestone:	Update and maintenance of content of M3.1a "Data content requirements, existing gaps, data dictionaries and supporting material"
Description:	Development of a list of all data categories mentioned in the Annexes of the DRs supplementing the ITS Directive and provision of an initial, definition and description of critical aspects of each data category.

Inputs:	Actions:	Outputs:
• Delegated Regulations No. 885/2013, 886/2013, 2015/962, 2017/1926, and 2022/670 supplementing the ITS Directive (2010/40/EU) • Documents published by standardization communities (e.g., DATEXII, TN-ITS, TRANSMODEL) • Consultation with active participants (meetings) • On-line content of existing NAP publications and relevant literature	• Analysis of existing and updated Delegated Regulation supplementing the ITS Directive • Review and analysis of on-line material about ITS/mobility services and relevant data categories • Workshops with ITS experts and members of data standardization communities	• First draft of data dictionary document focusing on the approach that has been adopted for its development (=M3.1a) • Update and maintenance of the data dictionary document

Work Item	3.2.1 Development of Quality Frameworks
Lead:	DE-BASt
Contributing partners:	AT, BE, CZ, EE, FI, UITP, FR, GR, HU, LT, ERTICO, ITxPT, NL, RO
Start:	11/2021
End:	12/2024
Output Milestone:	M3.8 "A set of Quality Frameworks for the assessment of NAP (meta)data quality"
Description:	Preparation and provision of new/enhanced Quality Frameworks

Inputs:		Actions:		Outputs:
• Existing data Quality Frameworks (EU EIP and others) • Consultation with active participants (meetings) • Exchange of know-how among active participants • Review of literature and relevant pilot projects on data quality	→	• Review of existing Quality Frameworks, literature, pilot projects • Prioritise ITS thematic areas and stages of the ITS value chain to be supported by Quality Frameworks • Elaboration of several new/enhanced Quality Frameworks • Stakeholder involvement, e.g., via Ambassadors, to back-up and validate the Quality Frameworks • Interaction with WG5 (to support National Body processes)	→	• Context and scoping of Quality Frameworks (internal document) • A set of Quality Frameworks for different data domains and use cases (=M3.8) • Stakeholder workshops about quality

Work Item	3.2.2 Application of Quality Frameworks
Lead:	DE-BASt
Contributing partners:	AT, BE, CZ, EE, FI, UITP, FR, GR, HU, LT, ERTICO, ITxPT, NL, RO
Start:	06/2023
End:	12/2024
Output Milestone:	M3.9 "Quality Framework application guideline"
Description:	Examples and recommendations for quality assessments based on the Quality Frameworks

Inputs:		Actions:		Outputs:
• Quality Frameworks (Work Item 3.2.1) • Consultation with active participants (meetings) • Exchange of know-how among active participants • NAP (meta)data sets (sample)	→	• Case studies using (meta)data exchanged through NAPs • Workshops for discussing the application of the Quality Frameworks • Pilot-like quality assessments based on Quality Frameworks	→	• Recommendations for assessing NAP (meta)data quality • Provision of example quality assessment results • Report "Quality Framework application guideline" (=M3.9)

Work Item	3.3.1 Technical options for data visualisation
Lead:	GR
Contributing partners:	AT, HR, CY, CZ, DK, EE, UITP, DE-BASt, RO, NPRA
Start:	01/2023
End:	12/2024
Output Milestone:	M3.10 "Technical options for data access and visualisation"
Description:	Elaboration of technical options for NAP data visualisation.

Inputs:		Actions:		Outputs:
• Existing NAP publications and datasets (sample)	→	• Understand NAP data access variations	→	• Description of technical options for NAP data

• Available (open source) solutions, libraries, or platforms for data visualisation • Consultation with active participants (meetings)	• Underline potential barriers • Review and assess available solutions, libraries, or platforms for data visualization • Elaborate technical options for NAP data visualisation	access and visualisation (=M3.10)

Work Item	3.3.2 Terms and conditions for data reuse
Lead:	GR
Contributing partners:	AT, HR, CY, CZ, DK, EE, UITP, DE-BASt, RO, NPRA
Start:	11/2022
End:	12/2024
Output Milestone:	M3.11 "Terms and conditions for data reuse (incl. GDPR implications)"
Description:	Recording and harmonisation of NAP licensing frameworks, analysis of GDPR implications on NAPs, and support of fair data exchange.

Inputs:	Actions:	Outputs:
• European NAP publications and datasets • Online material and literature • Policy documents • Consultation with active participants (meetings)	• Recording and understanding of licensing frameworks utilised by European NAPs • Identify commonly used licenses and existing challenges • Analysis of policy documents about GDPR • Support harmonised data licensing and GDPR compliance • Analysis of possible approaches for evaluating reasonable cost of data • Investigate data provider/consumer perspectives • Support FAIR principles	• Overview and key aspects of NAP data licensing • Overview and key aspects of GDPR compliance • Guidelines for fair data exchange

Work Item	3.4.1 NAP added value scenarios
Lead:	GR
Contributing partners:	HR, CY, CZ, FI, UITP, DE-BASt, NL, RO
Start:	01/2023
End:	12/2024
Output Milestone:	M3.12 "European NAPs added value scenarios in key application areas"
Description:	Technical demonstrations of NAP added value scenarios.

Inputs:		Actions:		Outputs:
• European NAP publications and datasets • Previous projects on ITS domain • Relevant literature and online material • Consultation with active participants (meetings)	➡	• Definition and analysis of key application areas of ITS • Definition of prioritised use cases • Identification of data collection mechanisms • Implementation of prioritised use cases • Sharing of best practices and recorded experiences	➡	• Demonstrated NAP added value scenarios and use cases (=M3.12)

Work Item	3.5.1 Training
Lead:	GR
Contributing partners:	CY, CZ, DE-BASt, NL, RO
Start:	01/2023
End:	12/2024
Output Milestone:	M3.13 "Final training material for NAP content and accessibility and training events' completion"
Description:	Development of training material and support of training events building upon the acquired knowledge.

Inputs:		Actions:		Outputs:
• Results of previous work items • Consultation with active participants (meetings) • Training needs	➡	• Determination of training purpose, target audience, and adopted training methods • Definition of the format of training material • Development of training material	➡	• Training material • Support training events

WG3 Milestones 2024:

The following WG3 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M3.5	Fourth report on NAP data availability	09/2023	03/2024	Report available and handed over to coordinator	x
M3.6	Fifth report on NAP data availability	03/2024	08/2024	Report available and handed over to coordinator	x

M3.7	Final report on NAP data availability	12/2024	12/2024	Report available and handed over to coordinator	x
M3.8	A set of Quality Frameworks for the assessment of NAP (meta)data quality	06/2024	12/2024	Report available and handed over to coordinator	x
M3.9	Quality Framework application guideline	12/2024	12/2024	Report available and handed over to coordinator	x
M3.10	Technical options for data access and visualisation	12/2024	12/2024	Tools and report available and handed over to coordinator	x
M3.11	Terms and conditions for data reuse (incl. GDPR implications)	12/2024	12/2024	Report available and handed over to coordinator	x
M3.12	European NAPs added value scenarios in key application areas	12/2024	12/2024	Report available and handed over to coordinator	x
M3.13	Final training material for NAP content and accessibility and training events' completion	12/2024	12/2024	Training events executed. Report available and handed over to coordinator.	

2.8 Work Items of WG4

Work Item	4.0.1 Coordination task: alignment and harmonisation of data standards
Lead:	FR
Contributing partners:	SWGs 4.1, 4.2, 4.3, 4.4 (Harmonization tasks)
Start:	04/2021
End:	12/2024
Output Milestone:	M4.0.2 – Roadmap for harmonisation tasks incl. qualitative impact assessment M4.0.3 – Update of the roadmap for harmonisation tasks
Description:	This task is aiming at the coordination between the different data standards approaches and the definition of a common roadmap for data standardisation and publication. This task produces the milestones identified at WG4 level. WG4 will particularly aim at joining forces towards a shared vision and effective collaboration between standards with the objective of getting a common basis to support a use case, in the context of

the merging of DATEX II and TN-ITS and the new standard mobilityDCAT-AP on metadata. Parking data and real-time traffic information, including multimodal traffic information are specifically concerned.

Inputs:	Actions:	Outputs:
• Work and reports from SWGs (incl. ecosystem of the standards) • Elements from other WGs and milestones such as WG2, WG3 and WG5 • Elements from third parties, such as European associations (EPA for parking data) • WG4 Governance document	• Create a taskforce to draft the milestones (end 2022/early 2023) • Cross-review work and reports from SWGs, integrate them into the milestones or plan further work needed at WG4 level, such as on parking standards in relation with parking Ambassadors & EPA • Develop a methodology to identify harmonisation priorities	• WG4 Milestones • Identification and edition of other deliverables • Interaction with standards organisation at WG4 level • Collection of best practices of harmonization inside SWGs

Work Item	Liaison with standardisation organisations (especially CEN)
Lead:	FR (WG4 leader)
Contributing partners:	SWGs 4.1, 4.2, 4.3, 4.4 harmonization tasks' leaders
Start:	01/2023
End:	12/2024
Output Milestone:	-
Description:	Organisation of the liaison with standardisation organisations

Inputs:	Actions:	Outputs:
• Actual cooperation between WG4 and SWGs with CEN and ISO • M4.0.2 "Roadmap for alignment and harmonization" • Contacts with CEN/TC278	• Analysis of contribution to standardisation bodies/organisations	• Aligned position towards standardisation bodies/organisations • Proposal for formalisation of relationship towards CEN & ISO (to be decided by SCOM)

WG4 Milestones 2024:

The following WG4 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of	Indicative date of	Means of verification	Ext. MS

		completion (GA)	completion (current)		
M4.0.2	Roadmap for harmonisation tasks incl. qualitative impact assessment	06/2022	02/2024	Roadmap in Project Progress Report	
M4.0.3	Update of Roadmap	06/2023	12/2024	Roadmap in Project Progress Report	

2.9 Work Items of SWG4.1

Work Item	SWG4.1. Final report
Lead:	NL: NDW
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK Followers: BG, CH, DK, EE, FI, LU, LV, MT PL, SK
Start:	8/2023
End:	12/2024
Output Milestone:	External milestone M4.1.207
Description:	Final report

Inputs:		Actions:		Outputs:
Progress reports and milestones	➡	Create overview and report of all achievements of SWG 4.1 DATEX II in NAPCORE	➡	MS 4.1.207

Work Item	T.4.1.1: Contribution to alignment and harmonisation Task (WG4)
Lead:	FR: CEREMA
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK Followers: BG, CH, DK, EE, FI, LU, LV, MT, PL, SK
Start:	Ongoing
End:	Ongoing
Output Milestone:	Contribution to M.4.0.3 "Update of Roadmap for harmonisation tasks including qualitative impact assessment"
Description:	

Inputs:		Actions:		Outputs:
The initial roadmap defined in M.4.0.2 All active partners and followers Active involvement from Partner organisations: • C-Roads • TISA • Car2Car • DFRS • APDS	➡	• Review of the previous roadmap M.4.0.2 • Desktop research and partners input for new standardisation activities to be considered. That affect SWG 4.1 DATEX II work • Updates on the priorities and WI's to be taken onboard of SWG 4.1 • Prioritisation of the activities that should take place for the alignment and coordination	➡	Identification of priorities related to SWG4.1. reflected in M4.1.102 Consistent input – report for M.4.0.3 (WG4-Task 4.2. Roadmap for harmonization) WI definitions for later sprints in 2024-2025 in T4.1.4- T4.1.5 and/or T4.1.6

• Proposal for liaisons to be built and/or to be maintained outside NAPCORE partners. • Agree with the road traffic data partners (C-Roads, TISA, Car2Car, DFRS) on alignment work and uptake of the tasks agreed regarding road data specific specifications	that will take up the change proposals in M4.1.603 and/or M4.1.406

Work Item	4.1.1.1 Identification of gaps and overlaps of existing standards
Lead:	PT: Armis
Contributing partners:	Active partners: NL, FR
Start:	ongoing
End:	11/2023
Output Milestone:	M4.3.3 Report on gaps, overlaps of standards for multimodal data exchange
Description:	

Inputs:	Actions:	Outputs:
WG 2: gaps and overlaps in standards	Define WI's to be launched regarding SWG 4.1 scope of gaps to cover.	WI definitions for later sprints in 2024-2025 in T4.1.4- T4.1.5 and/or T4.1.6 that will take up the change proposals in M4.1.603 and/or M4.1.406

Work Item:	T.4.1.E1 Trust and data authenticity & Cyber security
Lead:	IT: Autostrade
Contributing partners:	Active: DE, IT, NL, Observe: CZ, GR, GR-EG, RO, PT, FR NO, RO, SE, UK
Start:	ongoing
End:	Mid-2024
Output Milestone:	M4.1.603 and/or M4.1.406 and/or M4.1.605
Description:	Cybersecurity as such and the demand for Trust and data-authenticity in the value chain bring new requirements on all levels of the DATEX II data-exchange. This work item collects requirements from the field and derives requirements regarding the information model, the encodings supported, as well as the exchange layer of DATEX II.

Inputs:	Actions:	Outputs:
Member state use-cases providing requirements regarding trust and data-authenticity Joint view on this from WG4 up to what level to align between standards.	Collect and assess trust and data-authenticity approaches in related domains like C-ITS, TN-ITS, MMTIS and (mobility) dataspaces to be adopted by DATEX II	WI definitions for later sprints in 2024-2025 in T4.1.4- T4.1.5 and/or T4.1.6 that will take up the change proposals in M4.1.603 and/or

			M4.1.406 and/or M4.1.605

Work Item:	T.4.1.E4 Harmonised European contribution to METR developments
Lead:	NL: NDW
Contributing partners:	Active: NO, NL, ... Observe: ....
Start:	11-2023
End:	ongoing
Output Milestone:	
Description:	METR is a strategic development to standardise the production of digitalised rules of the road, a combination of traffic laws, traffic regulations and other legislative measures affecting the accessibility of public infrastructure for vehicles in the widest meaning. Several technical building blocks exist, but the way they should be used is not standardised. In order to create a trustworthy data provision which is interoperable across any jurisdiction, a standardised framework that creates this trust is defined by the METR standards. As OEMs operate on a global scale, standardisation takes place at ISO, where EU input is required to bring the specifics of the European legal context with regard to the rules of the road. METR concepts already contribute to today's challenges of interoperable and scalable provision of traffic regulatory data. Regarding automated driving and transport, it is a crucial building block to make those vehicles behave according to the law. This work item aims at creating awareness in Europe on this development and contribute to the standards to ensure a proper support of the EU specifics in the resulting METR set of standards.

Inputs:		Actions:		Outputs:
Member state use-cases providing requirements regarding METR in Europe ISO draft standards METR working group.		Awareness and engagement creation in EU member states. Collect and assess EU requirements and transform them into requirements for the ISO standards. Manage the interoperability and semantical equivalence with existing domain standards in CEN like DATEX II and TN-ITS		Agreed coherent EU contribution plan of partners to the METR development work. Harmonised coherent EU requirements and contributions to the METR contributions

Work Item	T.4.1.3 User support
Lead:	NL: NDW
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK
Start:	01/2024
End:	12/2024

Output Milestone:	M4.1.303 DATEX II user forum M4.1.310 Report on provided support, dissemination, education, and training update 2024 M4.1.308 Masterclass DATEX II Programme M4.1.404 Accompanying RRP's and RSP's for DATEX II v3.6
Description:	In 2024 the annual DATEX II User forum will be an in-person setup and planned for October 2024. As such the forum will address best practises of deployment as well as a series of sessions addressing the usual target groups of developers, information architects and managers on the relevant data themes in NAPCORE, such as Cycling data community, EV Charging point operators, Traffic management etc. The User Forum fits in a wider program of to be provided education and training, which will be enrolled and offered in various sessions throughout the year. Masterclasses aiming to enable thematic country-coaches in providing the interface between the local deployments and the DATEX II organisation is key focal point for this year. In terms of user support in 2023 the website www.datex2.eu will be filled, better fitting the current status of DATEX II as core standard in the EU delegations, giving better access to information and support of the data themes in a use case driven approach as front of the DATEX II academy. In 2024 version 3.6 of DATEX II will be published containing updates of the finalised work on the parts that are under revision in 2023, (see T4.1.4). In this task the supporting documentation and related reference profiles are created and published.

Inputs:		Actions:		Outputs:
Training and education plan DATEX II H3 Outreach and training plan	→	Develop or update required training material	→	Given trainings reported in M.4.1.310 Masterclass DATEX II programme M4.1.308
		Run the DATEX II academy	→	User statistics Update 2024
		Organise DATEX II User Forum	→	User Forum
Requirements D2 partners, and supported stakeholder communities	→	Update of the D2 website	→	New www.datex2.eu , reported Update 2024
DATEX II Version 3.6	→	Create Recommended Reference profiles for the updated parts of DATEX II v3.6	→	Profiles available in the DATEX II webtool
DATEX II Version 3.6	→	Create documentation for the updated parts of DATEX II v3.6 and the RRP's	→	Documentation available on docs.datex2.eu (M4.1.204)

Work Item	T.4.1.4.1 Functional domain developments Support Delegated regulations and ITS Directive
Lead:	PT: Armis
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK
Start:	Ongoing
End:	Ongoing
Output Milestone:	M4.1.407
Description:	With the revision of the ITS Directive and the Delegated regulations, new requirements will emerge regarding our standards and RRP's to digitally support the aims of the new Directive. In collaboration with WG2 this impact will be assessed, and this WI will define the requirements for modification to

the DATEX II ecosystem of Standards, Reference Profiles and accompanying documentation and training materials.

Inputs:		Actions:		Outputs:
WG2 gaps and overlaps WG4 harmonisation roadmap	→	Requirement engineering on Support new datasets RTTI DR2022 670 as well as the impact of the 2023 amendment of the ITS Directive. Based on these specify the drafts for standardisation and/or documentation.	→	Change requests to support new datasets Feedback loop design WI definitions for later sprints in 2024-2025 that will take up the change proposals or are taken onboard in M4.1.407

Work Item	T.4.1.4.2 Functional domain developments Support Traffic Management Developments
Lead:	PT: Armis
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK
Start:	Ongoing
End:	Ongoing
Output Milestone:	
Description:	The WI addresses the extensions and improvements required to enhance the support of the Traffic management developments throughout Europe, including the collaboration between traffic management centres of different road network type operators as well as the dynamic cooperation with private sector actors according to the SOCTARES 2.0 and TM2.0 concepts.

Inputs:		Actions:		Outputs:
from all active partners: requirements about: • Urban TM use cases • Asset management use cases • C-ITS data requirements in DATEX II	→	Requirement engineering and define change requests to the relevant DATEX II artefacts in terms of standards and documentation.	→	Change requests to part 8 TMP and possibly part 3: situation publication. WI definitions for later sprints in 2024-2025 that will take up the change proposals or are taken onboard in M4.1.407

Work Item	T.4.1.4.3 Functional domain developments Support Traffic and travel Data provision developments
Lead:	PT: Armis
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK
Start:	Ongoing
End:	Ongoing
Output Milestone:	DATEX II version 3.6 or profiles
Description:	Apart from the specific mentioned data categories in the delegated regulations or traffic management scope, there are specific themes that are supported by DATEX II, but don't fit not by nature in that scope. An example is the support of information provision to cyclists.

Inputs:		Actions:		Outputs:
Requirements from the cycling community based on the work of the Cycling Ambassador	➡	Requirement engineering and define change requests to the relevant DATEX II artefacts in terms of standards and documentation.	➡	Change requests to relevant parts. WI definitions for later sprints in 2023-2024 that will take up the change proposals or are taken onboard in M4.1.606 and/or M4.1.406

Work Item	T.4.1.4.4 Maintenance of standards
Lead:	UK: NH
Contributing partners:	Active partners: AT, BE, CY, CZ, DE, ES, FR, UK, GR, GR-EG, IT, NL, NO, PT, RO, SE, SL, UK
Start:	Ongoing
End:	Ongoing
Output Milestone:	M4.1.403 and M4.1.407
Description:	The DATEX II standards have two scopes: the CEN 16157 series addressing the content of the data (now spread over 12 parts) And in ISO are the standards for the way of exchanging the data laid down in ISO TS 19468 and TS 14827-4. All standards and parts are maintained in the Task according to the CEN/ISO revision formalities. In 2024 the last parts of CEN 16157 will be revised to the version 3.0 methodology. In parallel the work on the V4 specifications has started, as it is known that the V3 data will be compatible with the V4 specifications by nature. So a client that implements V4 specs, can also process V3 encoded data.

Inputs:		Actions:		Outputs:
Requirements for version 3 revisions on: - Traffic regulations (alignment with TN-ITS) - Status and fault Stemming from: - systematic reviews - reported errors and bugs	➡	Requirement engineering and define change requests to the relevant DATEX II artefacts in terms of standards and documentation.	➡	DATEX II v 3.6 Drafts to CEN regarding these parts: Part 11: Traffic Regulations Part 14: TN-ITS
Inputs: User requirements from the common DAETX II community in combination with the domain specific community requirements.	➡	Actions: Based on stakeholder community consultation the new methodology is stable and will be laid down in a draft part1 to CEN Based on requirement engineering and stakeholder consultation the revisions of the parts 2, 3 and 7 start and	➡	Outputs: DATEX II v 4.0 Part 1: methodology Part 2: location referencing Part 3: situation publication Part 7: Common Part 4: VMS

	later in 2024 the work on part 4 starts.

Work Item	T.4.1.5 Methodology
Lead:	DE: BAST
Contributing partners:	Active partners: DE, IT, NL, PT, SE, UK
Start:	Ongoing
End:	Ongoing
Output Milestone:	-
Description:	The DATEX II methodology is the basis of the DATEX II data models, defining the modelling rules and concepts. It defines the UML building blocks that can be used and how these are to be used. Within a major version methodology is always stable. A constraint is that some problems or new requirements cannot be addressed as these ask for changes in the methodology causing compatibility issues. Therefore, methodology can be extended with features that do not break compatibility, but nothing can be modified in a major version.

Inputs:	Actions:	Outputs:
Requirements demanding methodology changes on: - open issues - enhanced Open-API support - linked (open) data - trust and data-authenticity - support message brokers/queuing	Requirement engineering and define change requests to Methodology	proposal for standardisation if any.

Work Item	T.4.1.6 Data Encoding and transfer
Lead:	IT: Autostrade
Contributing partners:	All active partners
Start:	Ongoing
End:	Ongoing
Output Milestone:	M4.1.606 and/or M4.1.406
Description:	Data encoding and transfer addresses the way the data is transferred from data supplier to data consumer. It is known as DATEX II Exchange. It addresses not only the technology of exchange (platform specific specifications) but also the logical patterns that are to be respected in order to achieve reliable information exchange, fitting the requirements of the use case. These can vary from a simple "give me what you have now" to an advanced guaranteed delivery and traceability of the information provision with or without enhanced feedback patterns to enable negotiation about activating ITS services between partners.

Inputs: Requirements from active partners with regard to Traffic management developments	➡	Actions: Assess impact of proposals. Draft standardisation proposals deriving from the requirements.	➡	Outputs: Change requests to relevant parts. WI definitions for later sprints in 2023-2024 that will take up the change proposals or are taken onboard in M4.1.606 and/or M4.1.406

SWG4.1 Milestones 2024:

The following SWG4.1 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M4.1.207	Final report 2024	12/2024	12/2024		x
M4.1.303	DATEX II user forum	10/2024	10/2024		x
M4.1.304	Enhanced user documentation on profiles	12/2024	12/2024		x
M4.1.308	Masterclass DATEX II Programme	06/2024	06/2024		x
M4.1.309	DATEX II webtool supporting full RAV scope	06/2022 => 05/2024	05/2024		
M4.1.402	Version 3.5 with accompanying RRP's and RSP's	12/2023	05/2024		x
M4.1.403	Version 3.6 / 4.0 with accompanying RRP's and RSP's	12/2024	12/2024		x
M4.1.407	Standardisation proposals (via ITS rolling workplan) 2025	09/2024	09/2024		x
M4.1.606	Annual inventory of new topics	12/2024	12/2024		

2.10 Work Items of SWG4.2

Task 4.2.1 Alignment and harmonisation

Work Item	SWG4.2.1.2 Alignment and harmonisation; the definition of a roadmap for harmonisation.
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	M4.2.3 (4.2.2 is not defined) update
Description:	Task 4.2.1.2 is part of a common task across the four NAPCORE SWGs and aims to support to align and harmonise the different data standards. The coordination between the SWGs is the responsibility of the French Ministry of Transport and the detailed approach and expected results are described in a dedicated work plan.

Inputs:	Actions:	Outputs:
• SWG4.0 result: Roadmap for Alignment (M4.0.2) • DATEX TN-ITS cooperation agreement on Governance & Branding and Technical harmonisation (2023) (Declaration of Lisbon) • NAPCORE work groups on key topics (e.g. Cycling) • NAPCORE Milestones on Data Dictionary and Quality Framework • CEN Work Items on revision of standards/technical specifications • New EU regulation(s)	• Follow up on items outlined in DATEX TN-ITS merger roadmap. Provide guidance to task 4.2.3 (specifications). Support 2024 standardization efforts where needed (both CEN TS 17268 & CEN TS 16157 Part 11) for which work items will have been launched. Provide support for actions outlined in the Cooperation Agreement & offer guidance to relevant stakeholders to work towards consensus on topics and actions • Interact with SWG4.3 and SWG4.4 to explore alignment opportunities cfr. DATEX/TN-ITS • Address key NAPCORE work items, e.g. data dictionary and quality framework(s) • Address alignment of emerging/key items as cycling, … • Address impact of new European regulation on alignment, e.g. revised ITS Directive and Delegated Regulations	• Stakeholder support for following topics: • Achieve merger DATEX / TN-ITS according to Lisbon Declaration • Support the revision of TN-ITS TS 17268 by CEN (to be finalised in 2024) • Alignment with SWG4.3 • Contributions to key NAPCORE topics as data dictionary, quality framework, new items (cycling) • Position on impact of alignment of revised ITS Directive • Supporting milestones as M4.2.5, M4.2.7, M4.2.9 and M4.2.9

Task 4.2.2. Management and coordination

Work Item	SWG4.2.2.2 Management and coordination-Management of Working group
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	-
Description:	Daily management, administration, monitoring, and reporting Meeting set up: bi-weekly online meetings or at least one time per month with SWG group responsible people

Inputs:	Actions:	Outputs:
• Weekly follow-up list • TN-ITS /NAPCORE internal ERTICO meeting • TN-ITS management weekly meeting • TN-ITS monthly board meeting • NAPCORE monthly task leader meeting	• Management of working group • Daily project management • Organising and executing a TN-ITS focused Member States assembly • TN-ITS association NAPCORE support • Continuation and further Establishment of creating liaisons, support, and promotion of the activity • Account management of the membership	• Follow up lists of tasks • Reporting to CAT, SC NAPCORE • ASR every year • General Assembly • Updated admin • Budget control • Updated membership

Work Item	SWG4.2.2.3 Management and coordination-Organising and executing a TN-ITS focused Member States Assembly
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	-
Description:	Consists of representatives of the Member States involved in the SWG • Participates in the definition of requirement, priorities and change requests of the Sub Working Groups • Approves annual progress of the Sub Working Groups Serves as a coordinated TN-ITS input preparation for attendance to WG1 (NAP& NB platform strategy and governance) • Serves as a coordinated TN-ITS input and potential attendance to task S.1.3, Internal alignment and H.2.3 Advisory Board • Meeting set up: 2 times a year physical or hybrid meeting (T4.2.2.3) • Workflow: invitation, agenda, meeting, report

Inputs:		Actions:		Outputs:
• Terms of Reference TN-ITS • Yearly NAPCORE results • TN-ITS strategy and roadmap • TN-ITS ToR (terms of Reference)	→	• 2 times per year General Assembly • quarterly partner meetings	→	• Minutes of these events

Work Item	SWG4.2.2.4 Management and coordination-TN-ITS association NAPCORE support
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	-
Description:	• Provide dissemination support and guidance to the NAPCORE project, from the TN-ITS community as a multi stakeholder membership, including the industry and service providers, especially focusing on cooperation and trust elements between public and private stakeholders. • Approve the definition of requirements, priorities and change requests, in line with the TN-ITS association roadmaps • Meeting set up: Dedicated action within TN-ITS forum (T4.2.2.4) • Workflow: report at the TN-ITS GA at least 1 time a year.

Inputs:		Actions:		Outputs:
• NAPCORE WGs, in particular SWG4.2 results • Advisory Board and Steering Committee	→	• Create CAT inputs • Create SC inputs	→	• CAT and SC agreements

Work Item	SWG4.2.2.5Management and coordination-Continuation and further Establishment of creating liaisons, support, and promotion of the activity
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	-
Description:	Identify emerging (road) data sharing initiatives within the EU NAPCORE partners and propose interaction/alignment with them to the TN-ITS focused member state assembly. • Meeting set up: ad hoc (T4.2.2.5) • Workflow: Maintain Active overview & calendar online in local SharePoint site

Inputs:		Actions:		Outputs:
• TN-ITS roadmap	→	• Strategic communications guidance • Accounts • Continuation and enhancing relationships (OADF, SENSORIS, POLIS,…)	→	• Minutes of the meetings

Task 4.2.3 Specifications

Work Item	SWG4.2.3 Specifications:
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	06/2024
Output Milestone:	M4.2.5
Description:	This task addresses the further development of the TN-ITS technical specifications. It covers the envisaged harmonisation across SWGs, the exploration of new data sharing methods, the procedures & governance for the maintenance of the technical specifications, the support to service implementers of the technical specification, incl. tools & recommendations.

Inputs:		Actions:		Outputs:
• M4.2.4 • Results from 4.2.1 (alignment) • Guidance from SWG 4.0 alignment on CEN/ISO standardisation • NAPCORE priority applications	→	• New methods explored, tried, assessed • Updated maintenance approach in place • NAPCORE harmonised data specifications • Guidance to (new) service deployment • Specifically to the TN-ITS/DATEXII merger: the alignment in coding of the +/- 80 identified items and the implementation in the spec; preparation for the embodiment of TN-ITS in the DATEX part X	→	• Reports • Update specifications • Aligned specifications • Report/support guide • Contribution to SWG4.0 position on CEN/ISO standardisation

Task 4.2.4 TN-ITS enhancements in relation to the data sharing supply chain

Work Item	SWG4.2.4.1 TN-ITS enhancements in relation to the data sharing supply chain: Build up the Trust basis and ensure quality, integrity, and security
Lead:	Cyprus
Contributing partners:	Active partners: BE-FL, HR, CZ, FI, HU, IT, SL, NPRA, ERTICO, CY

Start:	Ongoing
End:	12/2024
Output Milestone:	M4.2.7
Description:	Establish a technical expert team with the NAPCORE Member States to research, make an inventory and perform an assessment of data trust related items and mechanisms, suitable to serve the bidirectional TN-ITS data exchange purposes within the complete data exchange chains: • Producer – publisher (NAP) – processor – consumers of data • Consumers of data – processor – producer (feedback loop) • Research the most optimal quality system that can be applied to TN-ITS services, based on the inputs performed by the EU-EIP D4.1. • Define the quality levels for an identified quality system • Assess new applications in view of the data attributes and services provided by TN-ITS (e.g. ISA, automation) • Defining the Trust Assessment method (see next workplan)

Inputs:	Actions:	Outputs:
• D5.5 TN-ITS Go • ISA-FIT Helmond project • ERTICO innovation platform TM2.0 results 2023 • Insights from the Mobility Data Space studies • M4.2.6	• Trust identification • Identify the potential for certifications - Workshops, (2 /year) to develop the results • Consolidation of all the insights and information gathered to develop a logical deduction, resulting in more detailed assessment methods for data quality aspects such as trust, quality, integrity, sovereignty, and security across the data chain. The objective is to identify potential areas for certifications (Trust and Quality) and explore the possibility of additional TN-ITS data and services to support the trust assessment method.	• Documentation of related actions M4.2.7

Work Item	SWG4.2.4.2 TN-ITS enhancements in relation to the data sharing supply chain: Develop and deploy a data quality assessment methodology
Lead:	Cyprus
Contributing partners:	Active partners: BE-FL, HR, CZ, FI, HU, IT, SL, NPRA, ERTICO, CY
Start:	Ongoing
End:	12/2024
Output Milestone:	M4.2.7
Description:	This task will develop a generic data quality assessment methodology, considering all aspects of the TN-ITS data space, some of those based upon the document of the EU-EIP forum, in its activity 4.1. This activity has described a detailed analysis to address data quality, related to Real Time

Traffic Information (RTTI). It also describes methods to maintain the data quality
- Meeting set up: online or hybrid workshops
- Workflow: This task is a further progression on the evolution methodology TN-ITS GO Deliverable D4.1 The task will take this background into account in its specific deployment to TN-ITS data space. Specifically, a clear co-operation with WG3 of NAPCORE will be established to ensure the alignment and coherence within the total NAPCORE.

Inputs:		Actions		Outputs:
• M4.2.6	→	• EUEIP model liaison with WG3.2, CY is active in WG3 and follows T3.2 • Define the quality assessment methodology based on WG3.2 • Define a deployment approach for quality assessment • Workshop: critical evaluation of quality frameworks with respect to TN-ITS data chain • Identify relevant data assessment models • Define minimum level of quality for TN-ITS data, in terms of accuracy, completeness, reliability, relevance and timeliness • Evaluate data quality assessment tools (performance, features, reliability, conformance, serviceability) ... might need to collaborate with WG5 • Workshop: critical evaluation and design of tool for TN-ITS • Focus on defining requirements, identifying tools and best practices for deploying data evaluation tools for the TN-ITS standard trust assessment method. • Address the quality system and define levels of implementation for the necessary tools to ensure the data aspects of the TN-ITS data chain.	→	• Documentation of related actions M4.2.7

Task 4.2.5 Engage the European NAPCORE Member States community

Work Item	SWG4.2.5.1 Create a methodology to assess the actual status and future expectations of the Member States interested to TN-ITS
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	09/2024
Output Milestone:	M4.2.9

Description:	Analyze the results of the survey and address customized proposal for going forward to a number of priority Member States

Inputs:		Actions:		Outputs:
• M4.2.1, M4.2.3, M4.2.6 and 4.2.7, M4.2.8	➡	• Develop a workshop script for analysing and nudging authorities to consider TN-ITS services and /or improvements	➡	• Documented output • Workshop script

Work Item	SWG4.2.5.2 Engage the European NAPCORE Member States community; Deploy the assessment to each new MS
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	08/2024
Output Milestone:	M4.2.9
Description:	• Define a customized offer how TN-ITS can help MS to adapt TN-ITS • Deploy these offers via a MS roadshow

Inputs:		Actions:		Outputs:
• M4.2.1, M4.2.3, M4.2.6 and 4.2.7, M4.2.8	➡	• Develop customised offers to MS • Organise local workshops with the authorities (involving major cities) • Use the consolidated output as consultancy to EU commission on how to continue /improve services across Europe	➡	• Dedicated MS action plans • Results of workshops (Documents) • Consolidated consultancy on further EU progress on TN-ITS (Input to related CEF calls?

Task 4.2.6 TN-ITS focused dissemination and communication

Editorial calendar, regular newsletter, website update

Work Item	SWG4.2.6.1 TN-ITS focused dissemination and communication; Ensure a good communication of the project and the dissemination of the acquired knowledge
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	M4.2.12 &M4.2.13
Description:	• Act as single point of contact for maintaining a repository of support materials. • Make proposals to the TN-ITS focused member state assembly concerning promotion of TN-ITS technical specifications & raising awareness via relevant media. • Meeting set up: Monthly follow up with task contributors

	• Workflow:
	   • maintain an active editorial calendar in the online local SharePoint
	   • Meeting set up: online or hybrid workshops

Inputs:	→	Actions:	→	Outputs:
• M4.2.11		• TN-ITS network meetings • Maintain website • TN-ITS bi-monthly newsletter • Congresses (e.g. ITS World congress Dubai) • Papers, articles • Social media (LinkedIn)		• Updated report • M4.2.12(13)

Work Item	SWG4.2.6.1 TN-ITS focused dissemination and communication - Maintaining an active TN-ITS expert community
Lead:	ERTICO
Contributing partners:	Active partners: BE-FL, HR, CY, CZ, FI, HU, IT, SL, NPRA
Start:	Ongoing
End:	12/2024
Output Milestone:	M4.2.12&13

Description:	• Act as single point of contact for maintaining a repository of support materials.
	• Make proposals to the TN-ITS focused member state assembly concerning promotion of TN-ITS technical specifications & raising awareness via relevant media.
	• Meeting set up: Monthly follow up with task contributors
	• Workflow:
	   • Meeting set up: online or hybrid workshops
	   • Analyse results of TN-ITS GO on how MS implemented the service and what type of problems they encountered -> Formulate a survey to get info from MS, Publish, get results, and analyse the survey response. Make a synthesis and verify the outcome with the MS

Inputs:	→	Actions:	→	Outputs:
• M4.2.10 • Quarterly partner meetings 2022 and 2023 • Existing dissemination materials		• Maintain an active editorial calendar in the online local SharePoint site • Organise regular meetings (bi-yearly) with the TN-ITS experts and interested Member States to exchange lessons learned • Membership yearly GA • Quarterly partner workshops		• Maintained and executed editorial calendar • Report on all activities, publications, meetings etc. • M4.2.12 &13

SWG4.2 Milestones 2024:

The following SWG4.2 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M4.2.5	Technical specifications	06/2024	06/2024	Availability of doc	x
M4.2.7	Guide on ensuring potential deployment of trust, quality, integrity, and security of data established. Concepts of data evaluation tools (update).	12/2024	12/2024	Availability of doc	x
M4.2.9	Recommendations for DG MOVE for TN-ITS deployment in EU Member States	09/2024	09/2024	Availability of doc	
M4.2.12&13 (combined)	TN-ITS network meeting reports	07/2024 => 12/2024	12/2024	Availability of doc	x
M4.2.13	TN-ITS network meeting reports	12/2024	12/2024	Availability of doc	x

2.11   Work Items of SWG4.3

4.3.1 - Contribution to alignment and harmonisation Task (WG4)

Work Item	T.4.3.1: Contribution to alignment and harmonisation Task (WG4)
Lead:	ITxPT, UITP
Contributing partners:	Active partners: CZ, FI, FR, DE-BASt, GR, IT, NL, RO, SI, NPRA Followers: AT, BE, HR, CY, DK, LU, MT, PL, PT, SK, GR-EG, HU, IE, LV, LT
Start:	04/2023
End:	09/2024
Output Milestone:	Contribution to "M4.0.2 – Roadmap for harmonisation tasks incl. qualitative impact assessment" and "M4.0.3 – Update of the roadmap for harmonisation tasks"
Description:	Inputs, actions, and outputs described below.

Inputs:		Actions:		Outputs:
• The initial roadmap defined in M.4.0.1 • DG MOVE		• Review of the previous roadmap M.4.0.1 • Active contribution in M4.0.2 and 4.0.3. • Desktop research and partners input for new		• Identification of priorities related to subWG4.3. • Consistent input – report for M4.0.2 and M4.0.3

	standardisation activities to be considered. • Updates on the priorities for multimodal data - Prioritisation of the activities that should take place for the alignment and coordination • Proposal for liaisons to be built and/or to be maintained	

4.3.2 - Identification of gaps and overlaps of existing standards and guidance to Member States on the use of multimodal data standards

Work Item	4.3.2.1 Identification of gaps and overlaps of existing standards
Lead:	ITxPT, UITP
Contributing partners:	Active partners: CZ, FI, FR, DE-BASt, GR, IT, NL, RO, SI, NPRA
Start:	ongoing
End:	03/2024
Output Milestone:	M4.3.3 Report on gaps, overlaps of standards for multimodal data exchange
Description:	Inputs, actions, and outputs described below.

Inputs:	Actions:	Outputs:
• Involvement of national experts from active contributors is expected. • Areas of involvement: 1. Liaison is built with TOMP API 2. French (national) initiatives on MaaS APIs & NAP implementation 3. Nordic countries initiatives involving BoB 4. Cycling Industries 5. Parking (EPA)	• Building liaisons based on the decided WG4 roadmap. • Analysis and comparison of existing standards: functional scope, data elements, data producers, data consumers • Participation in meetings, exchanging information, collect documentation, organise bilateral meetings with the relevant stakeholders.	• Report on the results of the liaisons (what is the status of the standardisation work that you are assigned to follow? What challenges are raised? What documentation is available. • Report on standards analysis based on relevant liaisons, including data categories and data flows. • Identification of gaps and overlaps • Document "Guidance to Member States on the Use of Booking APIs with Multimodal Standards in the context of NAPs".

Work Item	4.3.2.2 Guidance to Member States on the use of multimodal data standards
Lead:	ITxPT
Contributing partners:	Active partners: CZ, FI, FR, DE-BASt, GR, IT, NL, RO, SI, NPRA Followers: AT, BE, HR, CY, DK, LU, MT, PL, PT, SK, GR-EG, HU, IE, LV, LT
Start:	03/2024
End:	12/2024
Output Milestone:	-
Description:	It includes the collection of input and the preparation and delivery of training events & material.

Inputs:	Actions:	Outputs:
• All active partners and followers • WG3 relevant deliverables (M3.2 report on NAP data availability and M3.1) • WG4 relevant deliverables • M4.3.3 Report on gaps, overlaps of standards for multimodal data exchange	• Collection of use cases per existing/under development standard • Analysis of results of WG3 reports on data availability and NAPs progress • Analysis of WG4 outputs • Collection of needs on guidance and training material	• Definition of functional use cases including data elements, data producers, data consumers • Definition of type of material, channels, and methods of providing guidance • Deliver training programme - material and events - link with H.3

4.3.3 - Mapping of different standards for multimodal data and standard update recommendations

Work Item	4.3.3 Mapping of multimodal data standards and recommendations
Lead:	ITxPT, UITP
Contributing partners:	Active partners: CZ, FI, FR, DE-BASt, GR, IT, NL, RO, SI, NPRA
Start:	06/2023
End:	09/2024
Output Milestone:	M4.3.5 Mapping of multimodal data standards and recommendations
Description:	Inputs, actions, and outputs described below.

Inputs:	Actions:	Outputs:
• T.4.3.2 results • Discussions with WG4.1 and external stakeholders (e.g. EPA)	• Identification of relevant standards to be mapped • Analysis of data elements and mapping • Recommendation for peer-to-peer standards mapping • Recommendation for standards update	• Select the standards relevant for a mapping based on gaps & overlaps deliverable M4.3.3 • Crosscheck each data elements and related term & definition • Guideline to map peer to peer standards

				• Guideline to update standards according to mapping outcomes

SWG4.3 Milestones 2024:

The following SWG4.3 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M4.3.3	Report on gaps, overlaps of standards for multimodal data exchange	11/2023	03/2024	Report	x
M4.3.5	Mapping of multimodal data standards and recommendations	09/2024	09/2024	Report	x

2.12 Work Items of SWG4.4

Work Item	4.4.3.1 mobilityDCAT-AP governance & maintenance structures
Lead:	NL
Contributing partners:	DE, CZ
Start:	09/2022
End:	01/2024
Output Milestone:	M4.4.2
Description:	Inputs, actions, and outputs described below.

Inputs:
- Best practices on governance & maintenance of (meta)data standards (e.g., based on DATEX II, DCAT-AP…)

Actions:
Conceptualisation on governance & maintenance for mobilityDCAT-AP, including:
- *What organisational & technical structure?*
- *How to receive, store & process incoming issues and comments about mobilityDCAT-AP)?*
- *How to discuss and approve resolutions?*

Outputs:
- Concept paper about governance & maintenance structures (= M4.4.2)
- Inauguration of a "mobilityDCAT-AP back office", including a news announcement

Work Item	4.4.3.3 Support & dissemination to NAP operators
Lead:	GR
Contributing partners:	DE, IT, CH, NO
Start:	02/2023
End:	02/2024
Output Milestone:	-
Description:	Inputs, actions, and outputs described below.

Inputs:
- Best practices on support & dissemination of (meta)data standards (e.g., based on DATEX II, DCAT-AP…)
- Collected issues & questions regarding deployment and practice of mobilityDCAT-AP

Actions:
- Conceptualisation on support & dissemination (Which contents? Which communication channels?)
- Collection of contents & outputs regarding support & dissemination items

Outputs:
- Consensus on contents & communication channels
- "mobilityDCAT-AP Accompanying Guideline" (online guideline) as a first concrete support action

Work Item	4.4.3.4 First revision of mobilityDCAT-AP
Lead:	SE/DE
Contributing partners:	CZ, DE, SE, IT
Start:	09/2023
End:	12/2024
Output Milestone:	M4.4.3
Description:	Inputs, actions, and outputs described below.

Inputs:
- Review of mobilityDCAT-AP v1.0, including incoming user issues and question
- mobilityDCAT-AP user workshop (online)

Actions:
- Update of conceptual model; RDF vocabularies; and accompanying docs

Outputs:
- Revised mobilityDCAT-AP specification, including all artifacts
- Online announcement about new version of mobilityDCAT-AP (= milestone 4.4.3)

SWG4.4 Milestones 2024:

The following SWG4.4 Milestones remain and will be completed by the end of the project:

MS #	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS

M4.4.2	mobilityDCAT-AP governance & maintenance structures	11/2023	01/2024	Concept paper	
M4.4.3	First revision of mobilityDCAT-AP	10/2023 => 09/2024	12/2024	Online Announcement	

2.13 Work Items of WG5

The objective of this Working Group is to harmonise the compliance assessment of National Bodies/National Authorities for the Delegated Regulations (EU) No 885/2013, No 886/2013, No 2015/962, and No 2017/1926. In 2022, WG5 elaborated harmonised forms for the Self-Declarations as well as for Compliance Assessment and recommendations for the content of accompanying documents. Harmonised process drafts for Compliance Assessment and Random Inspections were discussed and agreed on. Additionally, a maturity level classification for National Bodies/Competent Authorities was developed with templates and recommendations for the reporting procedures. The results were documented in M5.2 and M5.3. In 2023 pilot trials were carried out, to examine the recommendations on practicability and new sets of templates and forms will be released including the adaptations. The Work Programme builds up on these results and is differentiated into continuous activities and specific activities, to reflect the difference between specific tasks. The specific activities are those, where new outputs are developed, and specific tasks are newly created.

Specific Activities address issues related to the creation of semi-automated tools to digitally support, simplify, and optimise the compliance assessment process as well as the electronic support of Compliance Assessment. For internationally operating companies that also undergo the compliance assessment process, strategies for multinational compliance assessment methods should be assessed.

Moreover, the activities focus on the process of evaluating the outcomes of compliance assessment. For this purpose, criteria must be found to evaluate the results of the random inspections and the compliance assessment process as well as the self-declaration forms. Furthermore, actions and strategies must be identified to be able to impose sanctions on non-compliant behaviour of the stakeholders. In this respect, a distinction must be made as to whether non-compliant behaviour was carried out once, several times, knowingly, or unknowingly. Additionally, the strategies and actions to accelerate the provision of data on the NAPs will be put in place.

NAPCORE WG5 Working Programme 2024
Specific Activities

Task	Activities	Lead	MS	2024 Q1	Q2	Q3	Q4
Semi-automated tools & electronical implementation of Compliance Assessment	Provide recommendations to the respective (Sub-) Working Groups (e.g. WG4 – DATEXII, MMTIS standards …).	BE / DE		▓			
	Write implementations guidelines for electronic CA procresses and forms	BE / DE		▓			
Prototypical multi-national compliance assessment demonstrated	Set up prototypical process for multi-national CA demonstrator	NL / DE		▓			
	Evaluate the results of the demonstrator, work out recommendations and document results in milestone report	NL / DE	M5.10	▓			
Evaluation	Define an evaluation process and evaluation criteria concerning the outcome of the random inspections and compliance assessment	CZ/HR		▓			
	Define an evaluation process and evaluation criteria concerning the outcome of the implementation of common self-declaration forms	CZ/HR		▓			
	Define an evaluation process and evaluation criteria concerning the usability of the defined quality and evaluation criteria for CA	CZ/HR		▓			
	Carry out the evaluation process	CZ/HR		▓	▓	▓	
	Report on the evaluation results, identify gaps and define improvement measures	CZ/HR				▓	▓
Strategies and actions for non-compliance defined	Analyse NB/NA and national legislation related to options in regard to non-compliance (Questionnaire)	GR/LT		▓			
	Work out opportunities of action in case of non-compliance	GR/LT			▓		
	Draft a process for handling non-compliance cases	GR/LT			▓		
	Define mitigation measures/sanctions/other consequences to avoid non-compliance (once/repeatedly/repeatedly illegitimate)	GR/LT				▓	
	Evaluation of the measures and their effectiveness in achieving the set objectives	GR/LT	M5.8			▓	
Accelerate the provision of data on the NAPs	Develop consulting material for organisations (E.g. FAQ, …) concerning the requirements of the Delegated Regulations	RO/PT		▓			
	Develop suitable measures to implement the defined strategies and actions	RO/PT		▓			
	Carry out defined measures for implementing the strategies and actions	RO/PT		▓	▓		
	Set-up an information campaign in cooperation with Act H.3	RO/PT		▓			
	Carry out the information campaign (targeted to international organisations)	RO/PT		▓	▓		

The Continuous Activities differ from the Specific Activities in the design of the work programme. Specific activities have a clear definition of objectives to be achieved, whereas continuous activities are not intended to produce new knowledge, but to extend, expand and update existing results. Important topics here include updating the contact lists of the national bodies/competent authorities. The refinement of compliance assessment and self-declaration documents to the knowledge gained from pilot trials. There is a need for continuous updating of methods and strategies based on the results collected during the progress monitoring process. From the feedback, the quality and evaluation criteria as well as the communication with the relevant stakeholders, insights can ultimately be gained and the need for improvement identified.

NAPCORE WG5 Working Programme 2024
Continous Activities

Task	Activities	Lead	2024			
			Q1	Q2	Q3	Q4
Status of National Bodies / Competent Authorities	Regular update of NB/CA contact list on the website	AT			▦	
	Collecting evaluation according to maturity levels of NB/CA	AT			▦	
Continuous adaptation according to the results of final evaluation	Adapt CA/SD forms related to the outcome of final evaluation	AT			▦	▦
	Adapt CA/RI related to the outcome of final evaluation	FI			▦	▦
	Adapt quality & evaluation criteria to the outcome of final evaluation	CZ			▦	▦
Progress monitoring	Carry out the progress monitoring	AT			▦	
	Report on the progress, identify gaps and define improvement measures	AT				▦
Improvement	Collect suggested improvements	AT	▦			
	Communicate the requested improvements to the related tasks	AT	▦			
	Self-declaration Forms	AT	▦			
	Compliance Assessment Form & Process/Random Inspection Process	AT	▦			
	Quality & Evaluation criteria	AT	▦			

WG5 Milestones 2024:

The following WG5 Milestones remain and will be completed by the end of the project:

MS #	Resp.	Milestone Description	Indicative date of completion (GA)	Indicative date of completion (current)	Means of verification	Ext. MS
M5.8	5.5	Strategies and actions for non-compliance defined	12/2023	12/2024	Report submitted to Steering Committee	X
M5.9	5.1	National Body Reference Architecture defined and agreed	12/2023	03/2024	Architecture accepted by Steering Committee	
M5.10	5.5	Prototypical multi-national compliance assessment demonstrated	6/2024	03/2024	Report submitted to Steering Committee	X