Project Plan CoRoM

Support to the work to be carried out by the European Standardization Organizations (ESOs) for the coordination and standardisation of booking and payment interfaces for rail mobility

PROJECT SUMMARY

Project summary
The objective of CoRoM project is to facilitate the interoperability of data exchanges between the various stakeholders involved in public transport trips, including the "first and last mile" legs of the travel. The work is expected to improve attractiveness and efficiency of the public transport offer and ecosystem across Europe. Specifically, it will address existing lack of interoperability between different data models used by different stakeholders in the public transport ecosystem. The work will focus on (1) ticketing and (2) timetables.

1 RELEVANCE

1.1 Background and general objectives

Background and general objectives
The CoRoM project results from coordination activity led by CEN and CENELEC since the end of 2020. These coordination activities bring together all the relevant European stakeholders in the public transport standardization (the European Commission, UIC, UITP, S2R, Allrail,…). The activities are reaching the pre-normative stage which is why funding is requested at this stage. The goal of the coordination activities was to ensure interoperability between the solutions developed by the different organisations and support interoperability of the rail specific data models with Transmodel (EN12896). The purpose of this initiative was therefore to evaluate potential needs for cross-organizational alignment/coordination and to offer a platform where the appropriate actions could be discussed. CoRoM project is also related to EU regulatory framework: the Sustainable and Smart Mobility Strategy, adopted last December 2020, has a milestone of integrated electronic ticketing facilitating seamless multimodal passenger transport by 2030. The Strategy announced several measures to realise this objective, including the revisions of both TAP TSI and MMTIS (further detailed below) in 2022 (planned adoption Q3/4 2022). The EC has joined the coordination group since March 2021 and has presented a position paper. In this paper, DG MOVE describes feedback they would like to receive from the group to support their Sustainable and Smart Mobility Strategy. CoRoM project complements the EU projects DATA4PT and NAPCORE, offering a way to identify the remaining gaps and to develop a means of ensuring the expected level of interoperability.

1.2 Needs analysis and specific objectives

Needs analysis and specific objectives
In the mobility sector, there is still a lack of interoperability between the IT systems used by the different modes of transport and between stakeholders (operators, authorities and industry players). Several systems have evolved in parallel, without any consistency and interfaces. Two areas strongly impacted by this are (1) ticketing and (2) timetable. Ticketing refers to the purchase of transport ticket. The current lack of interoperability generates, for instance, difficulties for users to purchase single tickets covering different transport modes or different transports operators (or for third party ticket vendor to sell such tickets). Timetable refers to the information needed by passenger to plan and execute their trip as well as the information on the passengers gathered by the service providers. This, for e.g., strongly reduces the attractiveness of shared mobility. Today passenger information is not unified and shared. This is a key challenge to offer smooth and attractive shared mobility. And consequently, these issues around interoperability and multimodality impact societal and environmental challenges. CoRoM is a strategic project to secure sustainable mobility, to reduce CO2 emission and improve the passenger comfort in shared mobility. Also, the objective around modal shift and Mobility as a Service (MaaS) require such interoperable management of mobility data. The activities and intermediate results of DATAPT project showed that the harmonisation and coordination of standardisation activities is key for advancing in the implementation of delegated regulations and increasing the adoption of EU standards by the MS. The harmonisation and coordination of standardisation activities will contribute to the establishment of an interoperable environment across Europe and consequently it will enable multimodal travel information services. DATA4PT and NAPCORE projects (ongoing CEF PSA) are paving the way towards this direction. However, technical work for specific domains such as railway is required to go further in the development of standards according to such outcomes and identified area from these EU projects. Therefore CoRoM project complements NAPCORE activities regarding data standards harmonisation on the domain of Railway in particular under the multimodal standards.

1.3 Complementarity with other actions and innovation — European added value

Complementarity with other actions and innovation
CoRoM project is of significant strategic importance for CEN to strengthen leadership and influence of CEN in multiple mobility subsectors. CoRoM objectives are part of the Rolling plan for ICT standardisation: "*To take full advantage of the benefits that ICT-based systems and applications can bring to the mobility sector it is necessary to ensure interoperability and continuity of the services among the different systems throughout Europe [and] to increase the number of multimodality options and improve travel and traffic management. contributing to the EU's single market, competitiveness and the Green Deal objectives*" In particular action 12 on ITS – Multimodal Services. Also CoRoM project is an answer to EC request based on preliminary workshop initiated in 2021 by CEN-CENELEC in the frame of harmonization of rail and mobility standardisation. CoRoM project will support the Sustainable and Smart Mobility Strategy, adopted last December 2020 and in particular the revisions of both TAP TSI and MMTIS regulations. Other actors in public transport standardization have been challenging CEN in establishing the reference standards in the field. They are investing significant resources to push references to their own documents in European legislation. Multiple pieces of legislation currently supported by CEN standards (MMTIS and TAP TSI regulations) are about to be revised. The CoRoM project includes the delivery of a technical Report to DG MOVE which will be used as feedback by EC when revising the regulations.

Involvement of CEN experts from TC278 WG3 is necessary in order to secure the development of this strategic CEN on Comparison (high level mappings) and recommendation for development of API. In its absence, the report will be developed outside the framework of CEN or with insufficient input from CEN experts, hence leading to the provision of an unbalance and faulty recommendation to EC.

CoRoM project is related to pre-normative work as the main objective is the development of TC278 WG3 standards, either via update of existing standards or via proposal of new standards. This pre-normative work is the result of comparison of the currently available conceptual data models (ontologies) and data exchange standards and other standardisation initiatives.

2 QUALITY

2.1 Concept and methodology

Concept and methodology
The European Commission charged the European Committee for Standardization (CEN) to develop European standardization deliverables to build on the long-term experience with regard to European Standardization. The development of standardization deliverables is subject of the CEN-CENELEC Internal Regulations and further guidance documents that are, if necessary, adapted to meet new needs. The approach involves the management of the Technical Committee to inform and involve the stakeholders and member countries as well as the elaboration of the deliverables by seeking consensus within a fixed time schedule and with appropriate quality checks. In order to involve stakeholders and member countries, national delegates and experts can be appointed for participation in the CEN committees. For projects that require external expertise, tenders are launched to select appropriate subcontractors that will make their contribution to the projects in support of the solid and experiences structure within the CEN committees. CEN/TC 278/WG 3 is the main CEN working group involved in this project as it deals with standardisation of data model and data exchange standard in Public Transport: • Transmodel / EN12896 is the European reference data model for public transport information. provides an abstract model of common public transport concepts and data structures that can be used to build many different kinds of public transport information system, including timetabling, fares, operational management, real time data, journey planning etc • NeTEx / TS16614 is a CEN Technical Standard for exchanging Public Transport schedules and related data including Public Transport network topology, scheduled timetables, fare information and alternative modes. • SIRI / TS 15531 provides an abstract model of common public transport concepts and data structures that enables the exchange of information on transport operations between different computer systems..

2.2 Project teams, staff and experts

Project teams

Name and function	**Role/tasks/professional profile and expertise**
PT leader	The PT leader is responsible for the formal reporting to NEN, leads the work of the PT, acts as the interface to the 'parent body' CEN/TC 278 and manages contacts with other external groups (like EU projects and associations: ITxPT...). • project management • organise and manage the project team • organise and chair physical and e-meetings • organise quality assurance and proofreading of drafts including final draft deliverables.

	responsible for the interim and final reports responsible for reporting to CEN/TC 278 and other groups including EU projects like DATA4PT, NAPCORE and EU associations like ITxPT. The following specific capabilities are required for this role: • Communication • Standardization work procedures
Expert 1: Transmodel expert 1	Two Transmodel experts will participate to manage outcomes from rail coordination activities in line with Transmodel change requests The Transmodel expert 1 is in charge of participating in rail coordination working group and coordination the update of EN 12896 series accordingly. Strong knowledge of CEN/TC 278/WG 3 activities, Transmodel and MMTIS regulation is required. Tasks include: • Participation in rail coordination working groups and meetings; • Contribution in mapping; • Management of Transmodel change requests.
Expert 2: Transmodel expert 2	Two Transmodel experts will participate to manage outcomes from rail coordination activities in line with Transmodel change requests The Transmodel expert 2 is in charge of supporting Transmodel leader 1 with deep contribution in working groups and meeting requesting Transmodel expertise. Strong knowledge of CEN/TC 278/WG 3 activities, Transmodel and MMTIS regulation is required. Tasks include: • Participation in rail coordination working groups and meetings; • Contribution in mapping; • Support of Transmodel Expert 1; • Contribution in Transmodel change requests
Expert 3: NeTEx expert 1	Two NeTEx experts will participate to manage outcomes from rail coordination activities in line with NeTEx change requests. The NeTEx expert 1 is in charge of participating in rail coordination working group and coordination the update of CEN/TS16614 series accordingly. Strong knowledge of CEN/TC 278/WG 3 activities, NeTEx and MMTIS regulation is required. Tasks include: • Participation in rail coordination working groups and meetings • Contribution in mapping • Management of NeTEx change requests
Expert 4: NeTEx expert 2	Two NeTEx experts will participate to manage outcomes from rail coordination activities in line with NeTEx change requests. The NeTEx expert 2 is in charge of supporting NeTEx leader 1 with deep contribution in working groups and meeting requesting NeTEx expertise. Strong knowledge of CEN/TC 278/WG 3 activities, NeTEx and MMTIS regulation is required. Tasks include: • Participation in rail coordination working groups and meetings • Contribution in mapping • Support of NeTEx Expert 1 • Contribution in NeTEx change requests

3 WORKPLAN, WORK PACKAGES, TIMING AND SUBCONTRACTING

3.1 Work plan

Work plan

CoRoM project duration is 36 months. CoRoM project's workplan is structured around Fares, Timetable and Pricing Rules functional areas to identify the gaps on related scopes and where will be specified the technical outcomes. Based on these results, CEN standards update (Transmodel ecosystem) will be proposed.

It is intended that the detailed internal PT work plan will be the first activity of the PT, to be presented for approval according to the terms defined in the contract between NEN and the PT members. The following table shows the external milestones of the project.

Milestone	Description	Time (months)
0	Signature of contract between CEN and the EC	Start (S)
1	Call for experts and selection of the experts for the Project Team (PT). Signature of contracts with the PT experts.	S+4
2	Kick-off meeting & Work plan for the Project Team	S+5
3	Scopes of deliverables (NWIPs)	S+10
4	Interim report	S+12
5	WD Technical Report (TR)	S+12
6	WD Transmodel EN 12896-5 Public transport - Reference data model - Part 5: Fare management	S+24
8	WD NeTEx • CEN/TS 16614-3 Public transport - Network and Timetable Exchange (NeTEx) - Part 3: Public transport fares exchange format	S+24
9	Transmodel EN 12896-5 Public transport - Reference data model - Part 5: Fare management	S+36
10	NeTEx • CEN/TS 16614-3 Public transport - Network and Timetable Exchange (NeTEx) - Part 3: Public transport fares exchange format	S+36
11	Final Technical report	S+36
12	Final technical and Financial reports submitted to EC (project closure)	S+38

4 OTHER

4.1 Ethics

Ethics
All parties, including PT experts, engaged in the development of CEN and ISO standards are requested to recognize the principles of CEN/ISO code of conduct and to behave in accordance with them: 1. Work for the net benefit of the European community 2. Uphold consensus and governance 3. Agree to a clear purpose and scope 4. Participate actively and manage effective representation 5. Escalate and resolve dispute 6. Behave ethically: Delegates, experts and observers act in good faith and with due care and diligence. Delegates, experts and observers avoid collusive, anticompetitive or dominant behaviour. Delegates, experts and observers promote a culture of fair and ethical behaviour. 7. Respect others in meetings: Delegates experts and observers are committed to respecting others and the professional culture of European standardization within CEN. In meetings delegates, experts and observers are committed to: • Conducting themselves in a professional manner • Respecting others and their opinions • Revealing neither the identity nor the affiliation of other participants when using information received but not included in official minutes without prior consent • Accepting decisions of the CEN Technical Board and the respective Technical body they are participating or its parent Technical body • Ensuring that the views of all (including those whose first language is not that of the meeting) are heard and understood. Should a delegate, an expert or an observer demonstrate an undue behaviour the Chair respectively. the Convenor shall remind him/her.