ECHNICAL DESCRIPTION (PART B)

COVER PAGE

Part B of the Application Form must be downloaded from the Portal Submission System, completed and then assembled and re-uploaded as PDF in the system. Page 1 with the grey IMPORTANT NOTICE box should be deleted before uploading.

Note: *Please read carefully the conditions set out in the Call document (for open calls: published on the Portal). Pay particular attention to the award criteria; they explain how the application will be evaluated.*

PROJECT	
Project name:	European distribution of transport tickets API
Project acronym:	EUDIT API
Project Duration	24 months
Project Start Date	Signature of the agreement
Retroactive start date Justification:	
Coordinator contact:	[name NAME], [organisation name]

TABLE OF CONTENTS

#@APP-FORM-SMPSTAND@#
#@PRJ-SUM-PS@# [This document is tagged. Do not delete the tags; they are needed for the processing.]

PROJECT SUMMARY

Project summary
The EUDIT project aims to develop a new European standard for digital interfaces (APIs) to improve how transport tickets are distributed across Europe. Today, passengers often face fragmented systems when booking multimodal journeys involving trains, buses, metros, or other modes. This lack of interoperability limits seamless travel and discourages use of sustainable transport options. Building on previous EU-funded work (notably the CoRoM project), the initiative will create a standardized, open, and inclusive API that enables easier access, integration, and sale of transport tickets across different platforms and operators. Led by CEN with support from AFNOR and coordinated with key stakeholders through CEN/TC 278/WG3, the project will ensure alignment with existing EU legislation (such as the TAP/TSI and MMTIS Regulations) and support strategic goals under the EU Green Deal and Sustainable and Smart Mobility Strategy. The resulting standard will boost competition, simplify travel for users, and foster innovation in the European mobility ecosystem.

#§PRJ-SUM-PS§# #@REL-EVA-RE@# #@PRJ-OBJ-PO@#

1. RELEVANCE

1.1 Background and general objectives

Background and general objectives
Describe the background and rationale of the project.
How is the project relevant to the scope of the call? How does the project address the general objectives of the call? What is the project's contribution to the priorities of the call?

The EUDIT project will develop a European standard for ticketing APIs, directly addressing the call's objective to facilitate interoperability among transport stakeholders, improve multimodal ticketing services. The project's objective is to publish a new CEN/TS Technical Specification API covering all modes of transport and stakeholder needs. It aims to enable more options for multimodal tickets Reference Policy and Regulations in alignment with Action 18 of the 2025 Annual Union Work Programme (AUWP) on multimodal and multi-operator ticketing services.

While the original intention was to develop a full European Standard (EN), this is currently not feasible due to the complexity and evolving nature of the transport ticketing ecosystem, which involves diverse stakeholders, varying levels of digital maturity across Member States, and the need for rapid deployment and iterative refinement. Therefore, the funding call aims to support the development of a CEN/TS as a more flexible and timely instrument.

This technical specification will promote interoperability among transport stakeholders, including for first and last-mile connections, enhancing the transparency, accessibility, and efficiency of multimodal ticket distribution across Europe. The specification will address the fragmentation of current distribution APIs (and related data models) used by different transport operators, facilitating the integration of various systems to enable the sale and use of tickets across modes and providers. It will build upon the

foundational work of the CEN CoRoM project and EU Napcore project and existing standards such as Transmodel (EN 12896), NeTEx (TS16614), and SIRI (TS15531), while also ensuring compatibility with rail sector requirements outlined in Directive (EU) 2016/797 and Regulation (EU) No 454/2011.

The 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 through the previous CoRoM project which has produced a CEN/TR "*Guidelines for building multimodal travel purchase APIs based on Transmodel*".That's 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.

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.

The EUDIT 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 a number of 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 resulting CEN/TS will provide a basis for future standardization and will support upcoming EU initiatives such as the Multimodal Digital Mobility Service and the Single Digital Booking and Ticketing Regulation.

The project projects complements the EU projects, offering a way to identify the remaining gaps and to develop a means of ensuring the expected level of interoperability.

Evaluation of project outcomes will focus on the completeness and relevance of the CEN/TS, ensuring it meets operational and policy needs across all modes of transport.

1.2 Needs analysis and specific objectives

Needs analysis and specific objectives

Describe how the objectives of the project are based on a sound needs analysis in line with the specific objectives of the call. What issue/challenge/gap does the project aim to address?

The objectives should be clear, measureable, realistic and achievable within the duration of the project. For each objective, define appropriate indicators for measuring achievement (including a unit of measurement, baseline value and target value).

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. This project is strategic to secure sustainable mobility, to reduce CO_2 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 results of CoRoM 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. CoRoM and NAPCORE projects (ongoing CEF PSA) are paving the way towards this direction. However, technical work to develop an harmonised API is required to go further in the development of standards according to such outcomes and identified area from these EU projects. Therefore, The project EUDIT complements CoRoM activities regarding data standards harmonisation on the domain of distribution API in particular under the multimodal standards.

The EUDIT project's specific objectives are the following :
1. Develop and publish a European Technical Specification (CEN/TS) for a transport ticket distribution API that integrates multiple modes;
2. Ensure the new standard is interoperable with existing national/sectorial APIs (like OSDM, TOMP, etc.) or provide recommendation to achieve such interoperability objective;
3. Achieve stakeholder consensus across rail, road, and other transport modes on the standard.

Such objectives tackle the challenge identified by the call aiming to harmonize or bridge existing API (and related data models) through a common standard API. This will enable multimodal ticket integration across operators and addresses the identified gap where users cannot easily purchase a single ticket for different modes/operators.

Following measurable indicators will make the objectives SMART (Specific, Measurable, Achievable, Relevant, Time-bound) and allow evaluators to gauge the project's ambition and success criteria :
- CEN/TS Technical Specification published (yes/no). Baseline: 0 (no unified API standard exists), Target: 1 (standard published by project end)"
- Number of transport modes covered by EUDIT API. Baseline: each current siloed specifications cover one mode of transport, Target: all major modes (rail, bus, metro, ferry, etc.) included by project's API
- Stakeholder participation or endorsement. Bbaseline: 1. Target : at least 5 countries' experts contribute

#§PRJ-OBJ-PO§# #@COM-PLE-CP@#

1.3 Complementarity with other actions and innovation

Complementarity with other actions and innovation

Explain how the project builds on the results of past activities carried out in the field and describe its innovative aspects. Explain how the activities are complementary to other activities carried out by other organisations.

The project is of significant strategic importance for CEN to strengthen leadership and influence of CEN in multiple mobility subsectors.

The project 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 12i on ITS – Multimodal Services : "Development of European standards for application programming interfaces (APIs) for the distribution of transport tickets, barcodes to enable interoperable ticketing".

Also the 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.

The 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 (Commission Delegated Regulation (EU) 2024/490 amending (EU) 2017/1926 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide Multimodal Travel Information Services).

The previous CoRoM project paved the way to such harmonisation of distribution API by analysing several sectorial and national initiatives (eg. OSDM, TOMP-API, BoB in Sweden, ENTUR API, Ferry Gateway). While OSDM initiatives have advanced standardization in rail ticketing, and TOMP-API covers certain aspects of MaaS, there is no Europe-wide harmonized API tying these together. However, the reference data model Transmodel (EN 12896 series) offer a solid foundation to bring together such initiatives around an harmonised API.

The EUDIT project's innovation is to consolidate and extend such initiatives under a single European standard, ensuring interoperability at a broader scale. The CoRoM project produced technical recommendations for aligning rail and mobility data standards and proposed some Transmodel extensions accordingly; this proposal will take those recommendations forward by formalizing them into a European Standard.

The EUDIT project will also align with the recommendation from the NAPCORE project : "*Guidance to Member States on the Use of Booking APIs with Multimodal Standards in the context of NAPs*".

The ambition of the EUDIT project through the creation of a unified distribution API standard across all modes is a major innovation (since currently only mode-specific or national solutions exist). One key innovation will also be to bring together rail and other modes' standards communities that haven't closely collaborated before.

Involvement of CEN experts from TC278 WG3 is necessary in order to secure the development of this strategic CEN on the development of a European, distribution 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.

The project is related to normative work as the main objective is the development of TC278 WG3 CEN/TS, either via update of existing standards or via proposal of new standards.

#§COM-PLE-CP§# #§REL-EVA-RE§# #@QUA-LIT-QL@# #@CON-MET-CM@#

2. QUALITY

2.1 Concept and methodology

Concept and methodology

Outline the approach and methodology behind the project. Explain why they are the most suitable for achieving the project's objectives.

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 / EN 12896 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 / TS 16614 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.

The combination of CEN's proven consensus process with targeted expert contributions will ensure the standard is both widely accepted and technically sound.

The EUDIT project will be organised around key phases :
(a) Requirements Analysis – collecting and analyzing existing API specifications (OSDM, TOMP-API, etc.) and user needs based on CoRoM outcome;
(b) Drafting the Standard – the project team (PT) creates an initial API specification (possibly as a CEN Technical Specification draft);
(c) Validation/Feedback – circulating the draft to CEN/TC 278 WG3 and stakeholders for comments or testing (e.g. sample implementations or interoperability tests, if feasible);
(d) Finalization and Balloting – refining the draft into a final EN standard for approval and publication.

The new API definitions will be based on Transmodel concepts (ensuring common data definitions) and related extension proposed by CoRoM, use NeTEx for schedule/fare data structures, and SIRI for real-time exchange patterns. This ensures compatibility with existing standards and smooth integration into current systems.

A dedicated task will ensure the API meets rail sector needs by referencing the essential requirements of Directive 2016/797 Annex III (points 1.6.2 and 2.7) and aligning with ERA Technical Document B.5. The team will work closely with rail standards experts (e.g., ERA, UIC) to ensure backward compatibility with the TAP TSI specifications as continuation of CoRoM.

In the first 4-5 months, the project team will gather requirements and define the scope. Working draft of CEN/TS will be issued by S+11 and the final publication by S+24.

#§CON-MET-CM§# #@CON-SOR-CS@#

2.2 Consortium set-up

> **Consortium cooperation and division of roles (if applicable)**
>
> *Describe the participants (Beneficiaries, Affiliated Entities and Associated Partners, if any) and explain how they will work together to implement the project. How will they bring together the necessary expertise? How will they complement each other?*
>
> *In what way does each of the participants contribute to the project? Show that each has a valid role and adequate resources to fulfil that role.*
>
> **Note:** *When building your consortium you should think of organisations that can help you reach objectives and solve problems.*

Key stakeholders will be directly represented in the work of CEN/TC 278 through National Standard Body Delegations. Liaisons will be established with independent European or international European- based organizations that, through its recognized expertise, can provide relevant inputs to the work of CEN/TC 278.

Both the experts and the liaisons affiliated with the CEN/TC 278 will contribute to the deliverables by bringing their knowledge and expertise to the table, participating in meetings, reviewing and contributing to texts and voting on ballots.

CEN and AFNOR will setup a Project Team (PT), whose members will be selected through an open call for experts (see Clause 2.3 for details).

The work plan of the PT will be aligned with the standardisation process in CEN. The PT will co-ordinate the time schedule with the timing of CEN/TC 278 WG 3 Public Transport, where the standards to be updated have been developed in their current versions. The PT will provide draft deliverables in due time before the working group meetings.

This PT will work together closely with CEN/TC 278 WG 3, and with the secretary of CEN/TC 278.

Regular status reports will be provided to WG 3 for information and seeking assistance on issues where required. The PT will consider and take due account of inputs from the WG 3 and its members.

Strong experience in intelligent transport systems for public transport, open IT architecture and interoperability for public transport, distribution API specification and implementation, Transmodel / SIRI / NeTEx is expected as well as strong knowledge or participation in EU projects like DATA4PT, CoRoM and NAPCORE or EU association like ITxPT also expected to secure harmonised global coordination. Any experience in standards mapping, rail related standardisation is welcome as well.

#@WRK-PLA-WP@#

3. WORKPLAN, WORK PACKAGES, ACTIVITIES, RESOURCES AND TIMING

3.1 Work plan

Work plan

Provide a brief description of the overall structure of the work plan (list of work packages or graphical presentation (Pert chart or similar)).

The project includes 2 Work Packages, to be conducted in parallel:

1. project management and coordination,
2. Technical developments of CEN/TS - EUDIT

The relevant activities are listed as follows:

#	Activity	Due date
WP1	Signature of contract between CEN and AFNOR	Start (S)
WP1	Call for experts	S-2
WP1	Selection of the experts for the Project Team (PT)	S-1
WP1	Contracts with subcontractor and Kick-off meeting & Work plan for the Project Team	S+1
WP2	Definition of the deliverable scope (preparation and adoption by CEN members	S+4
WP2	Working draft EFIP (new CEN/TS)	S+11
WP2	Consensus and consolidation – Review of comments from CEN/TC 278 review and EC consultation	S+16
WP2	Preparation of the final draft for formal vote	S+19
WP2	Interim report to EC	S+12
WP2	Finalization of CEN/TS	S+21
WP2	Publication of CEN/TS by CEN (stage code 60.60)	S+23
WP2	Final report to the EC	S+24
WP2	Dissemination and visibility	S+24