TECHNICAL 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 specifications for Cycling infrastructure data
Project acronym:	CyclInfra
Project Duration	24 months
Project Start Date	Signature of the agreement
Retroactive start date Justification:	N/A
Coordinator contact:	Kursley ALAIRY, CCMC

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#@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 objective of the Cyclinfra project is to facilitate the data exchange and re-use of digital machine-readable cycling network data. It will also help achieve a broader main objective to enhance the appeal of cycling by providing accurate geographic data on cycling infrastructure. Specifically, it will support better cyclists' information by making sure that cycling network and infrastructure will be included in any trip planning solutions, either dedicated to cycling or multimodal mobility. And, it will be a concrete step forward to bridge the European Cycling Declaration with existing European regulations such as the Commission Delegated Regulation (EU) 2017/1926 (amended by (amended by the Delegated Regulation (EU) 2024/490) with regard to the provision of EU-wide multimodal travel information services and the Commission Delegated Regulation (EU) 2022/670 of 2 February 2022 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services.

#§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 European Commission's Annual Work Programme 2025 (Action 74) sets a priority for developing European standards in three areas of cycling data: **cyclist behaviour**, **counting data**, and **cycling network attributes**. The topics 9, 11, and 15 included in the EISMEA Call SMP-STAND-2025-ESOS-01-IBA aim to fill critical gaps in data standardisation to support real-time route planning, infrastructure optimization, and multimodal travel information services. This proposal targets the cycling infrastructure definition (topic 15). The Cyclinfra project is based on the results from the work done by the Cycling task force of the EU co-funded project NAPCORE. The task force produced a report on the state of the art of data sharing for cycling and how to take it further with standardisation activities.

The main objective of the report was to make sure that cycling is included in all standardisation activities. It pursued the overarching goal support real-time route planning, optimise cycling infrastructure, and improve traffic management by exchanging data on cycling networks, parking, and cyclist behaviour. It will assist mobility planners, route developers, and transport models.

The Cyclinfra project directly relates to the EU regulatory framework:

- The European Declaration on Cycling (C/2024/2377);
- Directive (EU) 2023/2661 of the European Parliament and of the Council of 22 November 2023 amending Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport, also referred to as the ITS Directive;
- Commission Delegated Regulation (EU) 2022/670 of 2 February 2022 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services;
- Commission Delegated Regulation (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 (amended by Commission Delegated Regulation (EU) 2024/490 of 29 November 2023);
- Regulation (EU) 2021/1058 on the European Regional Development Fund and on the Cohesion Fund.

The work to be carried out will directly support the development of European standards for cycling networks by improving how cycling-specific infrastructure—such as cycle tracks and greenways — is represented and updated in digital formats. This is essential to fully integrating cycling into the multimodal transport data ecosystem and ensuring that such data can be shared effectively through National Access Points (NAPs), in line with initiatives such as NAPCORE and NAPCORE X.

A number of relevant European Standards (EN) and Technical Specifications (TS) already exist, many of which were developed under Mandate M/546 on Urban ITS, following Commission Decision (EU) 2016/209. These include, for example, a Technical Specification for the exchange of changes in road attributes, which is referenced in Regulation (EU) 2022/670 and enables the provision of static road data for real-time traffic information services. In addition, standards such as EN 12896 (Transmodel), CEN/TS 16614 (NeTEx), and CEN/TS 15531 (SIRI) provide a robust foundation for data interoperability and exchange in the public transport domain. These deliverables support Priority Actions “a” and “b” of the ITS Directive and offer a useful basis for potential extensions to include cycling data.

However, these standards were not originally developed with cycling infrastructure in mind. Both CEN/TC 278/WG 3 (Multimodal Travel Information Services – MMTIS) and CEN/TC 278/WG 7 (TN-ITS) have expressed interest in extending their deliverables to better incorporate cycling, yet it remains unclear how and to what extent these standards would need to be revised. There is currently no consolidated overview of how cycling is treated across existing CEN deliverables, nor of the specific technical or legal adjustments needed to align this content with the relevant EU legislation, particularly the ITS Directive and its delegated regulations.

For this reason, the development of a new European Standard (EN) at this stage is not feasible. The standardisation process is time-consuming and resource-intensive, requiring consensus across stakeholders and detailed knowledge of existing standards. Initiating an EN without first identifying the gaps, overlaps, and required extensions would be premature and inefficient. Moreover, any modifications to existing deliverables must be aligned with European legislation, which cannot be done without a thorough preparatory assessment.

Therefore, as a necessary first step, the CyclInfra project proposes the development of a CEN Technical Report (CEN/TR). This report will provide a comprehensive gap analysis of the relevant CEN deliverables, assess how they currently address — or fail to address — cycling infrastructure, and make concrete recommendations for future standardisation. It will also examine what is required to align these deliverables with EU policy and legal requirements. The

CEN/TR will form the basis for well-targeted, effective updates to the standards, ensuring that future work is evidence-based, efficient, and aligned with both technical needs and regulatory obligations.

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).

Cycling data collection from automatic counters, smartphone applications, infrastructure databases, parking providers, bike-share operators etc. has developed very dynamically. These data are vital for planners, for example to monitor real-life cyclist flows and evaluate projects, but also for developers of route planners helping make cycling more attractive, for example, by combining precise and up-to-date geographic data on cycling infrastructure, including parking, that is compatible across Europe with real-time information on road closures, congestion or availability of cycle parking. Currently, this is complicated by the lack of common standards for data collection and provision for infrastructure data, counting data and all other data types.

Some progress has been made towards establishing coordinated methodologies and standards for collecting, storing and disseminating data in Europe. The ITS Directive (2010/40/EU) requires that EU Member States must establish National Access Points (NAP) for mobility data, while Delegated Regulation 2017/1926 on EU-wide multimodal travel information services includes specifications on cycling data categories to be published on these NAPs.

An identified objective is “to enhance the appeal of cycling by providing accurate **geodata** on cycling infrastructure, such as cycling network”. It is important to keep a link with the existing standards or specifications already developed to support the abovementioned delegated regulations but also those that are used by the regulations adopted for the INSPIRE directive (2007/7/EC), especially the Commission regulation No (EU) 1089/2010 implementing it as regards interoperability of spatial data sets and services, specifically § 7.7 of Annex I about “Road transport network”.

As specified in the ITS Directive, this objective can be seen as belonging to the priority action 1.3.2 “The definition of the necessary requirements to make road, traffic and relevant travel and multimodal infrastructure data used for digital maps accurate and available, where possible, to digital map producers and service providers”.

It is however unclear whether a new specification is to be developed, or which standards (or parts of) are to be modified or be complemented, and which types of modification/complement are to be undertaken, being either data model extensions or modifications, new ontology and/or exchange schemas. It is therefore necessary to undertake a gap analysis through a Technical Report to answer all these questions.

Therefore, the Cyclinfra project will look into providing standardisation low-hanging fruits with the preparation of development and extension for existing standards to represent:

- Cycling infrastructure data, including as the very minimum the type of infrastructure, its surface and width, which will mainly impact CEN/TS 17268 “Intelligent transport systems - ITS spatial data - Data exchange on changes in road attributes”;

- Cycling parking options and their services, to be included in trip planning and multimodal journeys for all cyclists, which will impact more specifically EN 12896-2 “Public transport - Reference data model - Part 2: Public transport network” and EN 12896-10 “Public transport - Reference data model - Part 10: Alternative Modes”, and CEN/TS 16614-1” Public transport - Network and Timetable Exchange (NeTEx) - Part 1: Public transport network topology exchange format” and CEN/TS 16614-5 “Public transport - Network and timetable exchange (NeTEx) - Part 5: Alternative modes exchange format”.

- Concretely, the project acts as a foundational step toward the systematic revision and enhancement of:CEN/TS 17268 “Intelligent transport systems – ITS spatial data – Data exchange on changes in road attributes”,
- EN 12896-2 “Public transport – Reference data model – Part 2: Public transport network”,
- EN 12896-10 “Public transport – Reference data model – Part 10: Alternative modes”,
- CEN/TS 16614-1 “Public transport – Network and Timetable Exchange (NeTEx) – Partt 1: Public transport network topology exchange format”,
- CEN/TS 16614-1 “Public transport – Network and Timetable Exchange (NeTEx) – Partt 1: Public transport network topology exchange format”.

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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 Cyclinfra project builds on the foundations laid by several EU initiatives, particularly NAPCORE and its extension NAPCORE X. These projects have focused on establishing National Access Points (NAPs) and data standardisation frameworks across Europe. Cyclinfra complements these efforts by specifically addressing the **cycling infrastructure domain**, a gap not fully covered in existing standardisation activities.

Cyclinfra introduces several **innovative aspects**:

It will develop a Technical Report containing proposals for future common European data standards for cycling infrastructure, ensuring consistent and interoperable data sharing across all stakeholders.

The project will also facilitate the development of conversion tools, enabling interoperability between existing national standards and the new common European standards.

Additionally, Cyclinfra will assess how to create or adapt conversion methods to and from OpenStreetMap (OSM), enhancing the usability and accessibility of cycling data for various applications.

The project is closely aligned with the **Cycling Task Force of NAPCORE X**, which will act as a sounding board and subject-matter expert group, ensuring that the standards developed are well adapted to the real-world needs of European cycling communities and industry stakeholders.

Furthermore, Cyclinfra complements other EU-funded projects like **MERIDIAN** and **MegaBITS**, integrating their findings and deliverables related to data sharing practices. This avoids duplication and maximises synergies by building on their insights and tailoring them to the specific context of cycling infrastructure.

By connecting and expanding on these prior efforts, Cyclinfra provides a targeted, innovative solution for harmonising and enhancing cycling data accessibility at the European level.

#§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 Committee for Standardization (CEN) will be tasked with developing European standardization deliverables, building on its extensive long-term experience in European standardization. The development process is governed by the CEN-CENELEC Internal Regulations and supplementary guidance documents, which are adapted when necessary to meet evolving needs.

The envisaged work will be carried out under the responsibility of CEN/TC 278 “Intelligent Transport Systems”, particularly Working Group 7 “ITS Spatial Data”, in cooperation with Working Group 3 “Public Transport”. As CEN is recognized as a European Standardization Organization (ESO) under Regulation (EU) 1025/2012, and given that the relevant deliverables fall within the scope of CEN/TC 278, their development within the CEN standardization system is appropriate and ensures consistency with established processes.

The CEN approach involves the active management of the Technical Committee and the convenors of the relevant Working Groups to inform and involve stakeholders and member countries. Deliverables are elaborated through consensus-building, within a fixed timeline, and are subject to quality assurance measures. To enable broad participation, national delegates and experts may be appointed to join the work of the CEN committees. For projects requiring external expertise (e.g., research activities), tenders may be launched to select suitable subcontractors, who contribute to the project and complement the experienced structure within the Technical Committee.

This approach is particularly well suited to achieving the project’s objectives because it leverages an established and transparent standardization framework recognized across Europe, ensuring the deliverables have wide acceptance and applicability. The involvement of diverse stakeholders, including national representatives and domain experts, guarantees that the standards reflect a comprehensive consensus and practical relevance. Furthermore, working within the CEN system ensures alignment with existing European transport and ITS policies, which is crucial for harmonization and interoperability of cycling infrastructure and ITS spatial data across member states. The combination of formalized procedures, stakeholder engagement, expert input, and quality assurance optimizes the efficiency, relevance, and impact of the project’s outcomes.

WG 3 has developed the following deliverables among others:

- The EN 12896 series about “Public transport – Reference data model” ,
- The CEN/TS 15531 series “Service interface for real-time information (SIRI) ,
- The CEN/TS 16614 series “Public transport – Network and Timetable Exchange (NeTEx)”);

WG 7 has developed the following deliverable among others:

- CEN/TS 17268 “Intelligent transport systems – ITS spatial data – Data exchange on changes in road attributes”.

In addition, the Cyclinfra project will also rely on the expertise of members of the Cycling task force of NAPCORE-X, especially the two associations European Cyclists’ Federation (ECF) and Cycling Industries Europe (CIE) .

#§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.*

Beneficiary: CEN.

Affiliated Entity: AFNOR

The proposed project will be implemented through a well-structured and complementary consortium consisting of CEN (Beneficiary) and AFNOR (Affiliated Entity).

CEN, as the European Committee for Standardization, provides the overarching platform for standardisation and coordination of technical committees, including CEN/TC 278 on Intelligent Transport Systems (ITS). Its role is essential in ensuring that the project outcomes align with existing European standardisation frameworks.

AFNOR, a CEN member and national standardisation body, will lead the project management, coordination, and administrative follow-up. AFNOR ensures the secretariat function for the relevant CEN/TC 278 working groups and will act as the operational lead throughout the project.

CEN and AFNOR will jointly establish a Project Team (PT) dedicated to the technical development of the deliverable covered in this proposal. The PT members will be selected through an open call for experts (see Clause 2.3), ensuring inclusion of the necessary technical expertise not already available within the consortium. Expertise sought includes (but is not limited to):

- Intelligent transport systems for public and urban transport
- Geographic information systems (GIS) and INSPIRE
- Multimodal travel information services (MMTIS)
- Cycling

This multidisciplinary composition will ensure the PT is equipped to address the technical, spatial, and multimodal aspects of the cycling network standard preparation, aligning it with existing ITS infrastructure and data models.

The work of the PT will be closely aligned with the formal CEN standardisation process, particularly with the activities of CEN/TC 278/WG 3 (Public Transport) and WG 7 (ITS Spatial Data).

The work plan of the PT will be synchronised with the meeting schedules and deliverable timelines of WG 3 and WG 7, ensuring that all draft texts and proposed updates are submitted in time for review and consensus-building.

Key stakeholders will be directly involved through National Standardization Body (NSB) delegations in CEN/TC 278, ensuring national and sectoral perspectives are integrated. In addition, liaisons will be established with independent European or international organisations, whose recognised expertise will provide valuable input to the deliverables.

Both technical experts and liaison representatives will:

- Participate in meetings;
- Review and contribute to draft standards;
- Engage in consensus-building and decision-making processes;
- Vote on formal ballots during the development cycle.

A Steering Committee, coordinated by AFNOR, will be established to monitor the project’s progress and ensure adherence to milestones and quality objectives.

The project team (PT) will submit regular status reports to the relevant working groups (WG 3 and WG 7), seeking guidance or technical input when needed.

Feedback from working group experts will be considered carefully to ensure that the deliverable reflects the state-of-the-art and stakeholder consensus.

#@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, coordination and communication,
2. Technical developments of CEN/TR - EFIP

The relevant activities are listed as follows:

No	Activity	Due date
WP1	Signature of contract between CEN and EC	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 CyclInfra (new CEN/TR)	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/TR	S+21
WP2	Publication of CEN/TR by CEN (stage code 60.60)	S+23
WP2	Final report to the EC	S+24
WP2	Dissemination and visibility	S+24