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Project Quality Handbook

WP10 - Management

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| <h2>E-CORRIDOR</h2> <p><i>Edge enabled Privacy and Security Platform for Multimodal Transport</i></p> |
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| Dissemination Level | | |
| PU | Public | |
| PP | Restricted to other programme participants (including the Commission Services) | X |
| RE | Restricted to a group specified by the consortium (including the Commission Services) | |
| CO | Confidential, only for members of the consortium (including the Commission Services) | |



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Executive Summary

This document describes the E-CORRIDOR procedures to achieve excellent quality in all the project activities.

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1 Introduction

This report presents the E-CORRIDOR Project Quality Handbook (PQH), underlying standards, and procedures for the conduct of the project activities.

The preparation of this document is based on, among others, the following project material, which can be found on the E-CORRIDOR website¹ or project SVN:

- EC Contract no 883135 and its annexes
- Description of Action
- E-CORRIDOR Consortium Agreement signed by all partners.

Especially, this document provides the following information and related references:

- Project summary (§2)
- Project management (§3),
- Project planning and timetable (§0),
- Documents and publication procedures (§5),
- Project communication mechanisms (§6),
- Project dissemination management (§7),
- Templates (§8),
- Project contact details (Appendix A - Project Contact Details).

As the handbook is supposed to be a “living” document, it will be updated throughout the entire duration of the project to reflect changes and evolution of the project. Therefore, the internal website should always be checked for the most recent version of this document².

¹ www.e-corridor.eu

² Private deliverables may be accessible only through valid credentials.

2 Project Summary

2.1 Consortium Members

| Participant No | Participant Organisation Name | Acronym | Country |
|----------------|--|---------|---------|
| 1 | CONSIGLIO NAZIONALE DELLE RICERCHE | CNR | Italy |
| 2 | MINISTERO DELLO SVILUPPO ECONOMICO | MISE | Italy |
| 3 | HEWLETT PACKARD ITALIANA SRL | HPE | Italy |
| 4 | COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES | CEA | France |
| 5 | CLEM | - | France |
| 6 | AÉROPORT DE PARIS | ADP | France |
| 7 | Pildo Labs | PIL | Spain |
| 8 | UNITED TECHNOLOGIES | UTRC | Ireland |
| 9 | FRAUNHOFER SIT | FhG | Germany |
| 10 | University of PEC | UPEC | France |
| 11 | Waterford Institute of Technology | WIT | Ireland |
| 12 | DIG Distretto per le Tecnologie Ferroviarie, l'Alta Velocità e la Sicurezza delle Reti | DIG | Italy |
| 13 | Factual Consulting | FC | Spain |
| 14 | Association of municipalities for Mobility and Urban Transport | AMTU | Spain |
| 15 | Société nationale des chemin de fer français | SNCF | France |

2.2 Project Abstract

E-CORRIDOR aims at providing a flexible, secure, and privacy-aware framework allowing confidential, distributed and edge enabled security services, like **threat analysis and prevention** as well as **privacy-aware seamless access mechanism** in multi-modal transport systems.

Cyber-attacks targeting our smart devices, our bank accounts, or our new electric and autonomous vehicles, thus, their influence is growing in our everyday life. The need for protection of the cyber world, which often has also a significant convergence with the physical one, requires that both cyber and safety aspects must be managed together. The increased amount of information (and collaboration) allow for better prediction and management of cyberattacks. However, when sharing information, one wishes to retain control of the information, even when this information is shared for prediction of vulnerabilities of just for accessing systems (e.g., a transport one). *There are the need and the opportunity to unleash the power of sharing.*

E-CORRIDOR's **mission** is to define collaborative privacy-aware and edge enabled information sharing, analysis, and protection as a service, for cybersecurity in multimodal transport systems. It will show the applicability of this framework in at least two domains: i) **collaborative and confidential cyber threat management** and ii) **seamless access mechanism in multimodal transport systems**.

For the first domain, E-CORRIDOR acknowledges the transport systems should be considered holistically. Indeed, their digital infrastructures are interconnected and interdependent. Yet there is a

lack of holistic and mainly pan-European approaches for cyber threat management (or at least information sharing and analysis) in those frameworks. However, by using a collaborative and confidential platform for cyber threat management, the main goal of the E-CORRIDOR project, all the stakeholders involved across the transport domains can take full advantage of sharing of cyber threat data, anticipate and therefore strengthen their measures against cyber-attacks in future.

For the second domain, the E-CORRIDOR platform aims to **provide several tools for securing access** to transport channels. Among the technologies, we plan to use is single token management, to offer passengers continuous authentication services, which can help them to save time and make smooth service access in multimodal transport. It would use a passenger's footprint (behaviour) data, biometrics, or multi-biometric data combining with travel data to create a digital record and provide secure authentication in a **privacy-preserving manner**. The technology has the potential to create a seamless journey for passengers by reducing the time taken for security checks, check-in, and boarding at airports, train stations, and car-sharing or other services in multimodal pan-European transport.

A significant innovation is the flexible and controllable protection framework, with improved and localized (edge based) analytics and enhanced control over private data and represent better cyber detection and response capabilities, while still preserving the confidentiality of the provided information.

To achieve this goal, the project aims to create an efficient and flexible framework for secure data analytics where data access and data analytics operations are regulated by multi-stakeholder data-sharing agreements. This is enabled by an edge-based solution that allows a distributed, and hierarchical approach.

We consider several dimensions to this goal:

- Define a collaborative platform with privacy-aware design and edge- enabled information sharing, analysis, and protection as a service, for cybersecurity in multimodal transport systems.
- Apply the framework to specific transport domains as well as in a holistic manner.
- Build a **flexible and controllable cyber threat sharing** data platform to improve cyber-attack **analysis**, and to notify about cyber-attack detection.
- Respect and protect privacy data during data processing thanks to the distributed deployment of the E-CORRIDOR analysis platform.
- Strengthen security, authentication mechanisms, and enable *new security mechanisms and services allowing multimodal seamless privacy-aware access*.

The project consortium combines strong industry players from several sectors, with equally strong research institutions that will deliver high-quality innovation; it is also supported by SMEs and adopters of the technologies developed (as well as a National CERT).

The planned pilots cover:

1. A pilot on multimodal transport information sharing and analysis centre
2. A pilot on airport and train multimodality
3. A pilot on car sharing in a smart city scenario

3 Project Management

This section provides a summary of:

- Project structure (§3.1),
- Consortium bodies (§3.2),
- Project operational procedures (§3.3), and
- Project reporting (§0).

3.1 Project Structure

The E-CORRIDOR project is structured around the following Work Packages:

Table 1: E-CORRIDOR Project structure

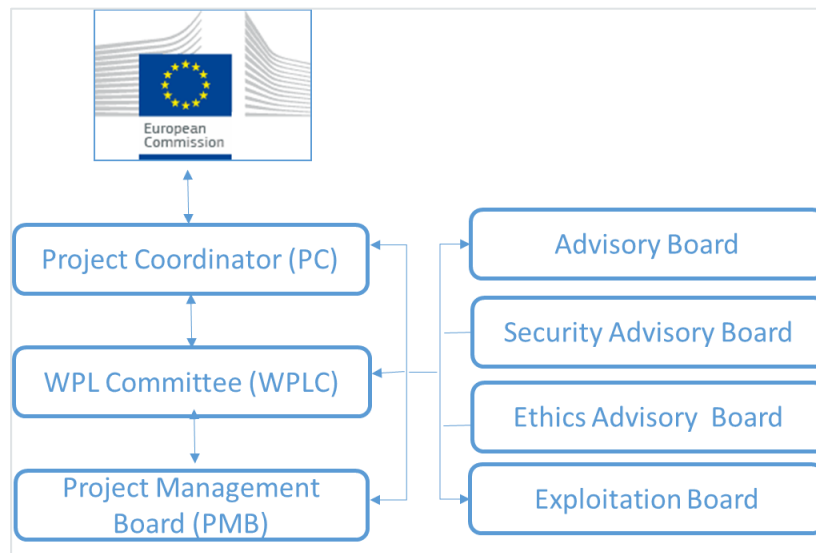
| Work Package No. | Work Package Title | Organization | Person-Months | Start Month | End month |
|------------------|---|--------------|---------------|-------------|-----------|
| WP1 | Ethics | 1 – CNR | 0 | 1 | 36 |
| WP2 | Airport and Train (AT) Pilot | 6 – ADP | 78 | 1 | 36 |
| WP3 | Car Sharing Pilot (S2C) | 5 – CLEM | 103 | 1 | 36 |
| WP4 | Information Sharing and Analytics Centre Pilot (ISAC) | 2 – MISE | 54 | 1 | 36 |
| WP5 | E-CORRIDOR platform: Requirements / Architecture / Implementation and integration | 3 – HPE | 74 | 1 | 36 |
| WP6 | Information Sharing and analytics infrastructures | 1 – CNR | 54 | 1 | 34 |
| WP7 | Data analytics techniques | 8 – UTRC | 93 | 1 | 34 |
| WP8 | Advanced security services | 4 – CEA | 93 | 1 | 34 |
| WP9 | Exploitation, Dissemination, Communication and Standardization | 11 – WIT | 56 | 1 | 36 |
| WP10 | Management | 1 – CNR | 14 | 1 | 36 |
| | | | 619 | | |

3.2 Consortium Bodies

The management structure is tailored to properly coordinate and provide processes to support the successful delivery of the project. Particularly, it aims towards the following major objectives:

- Ensure project progresses within time and budget to achieve the planned milestones and results, with the expected quality and with a constructive partner collaboration attitude;
- Ensure proper treatment of knowledge management, intellectual property rights, and innovation-related activities and manage conflicts between partners, if any;
- Ensure project risks are managed with a structured approach;
- Ensure correct and ethical behaviour is maintained during all partner activities.

Figure 1 depicts the overall management structure. The project organisational structure and the role and responsibilities of each management body are described.



Fabio Martinelli (CNR) serves as the **Project Coordinator (PC)**. He already served as Project Coordinator in other 5 EU FP7/H2020 projects. The PC is the single point of contact with the

Figure 1: Management Structure

European Commission and interacts with the EC Project Officer about all contractual and operational aspects of the project. This includes responsibility for i) representing the project and the Consortium, ii) managing the project, organising and supervising its operations, iii) handling the communication with the EC, including the delivery of the periodic progress reports, iv) proposing the strategic directions to the partners, v) liaison with other projects.

Work Package Leaders (WPLs) are appointed to each work package and their major goal and responsibility are to coordinate the progress of the planned WP tasks. Each Work Package Leader is responsible for i) chairing the kick-off of the WP activities in concert with involved partners, ii) defining an action plan to target the WP objectives, iii) defining the structure of the WP deliverables, iv) handling the internal review and quality processes, including the assembly and checking of the partners' contributions to the deliverables, v) identifying issues and risks, and associated actions in the action plan, vi) organising internal WP communication, such as periodic phone calls, agenda and minutes, vii) interacting with the Project Coordinator on behalf of the WP members.

Project Management Board (PMB) is the formal decision-making body of the Consortium. The PMB has one delegate from each Consortium member and each delegate must be formally appointed by a mandate received by its organisation, associated partner, or subcontractor, to represent its organisation by taking commitments on financial aspects, strategic and critical decisions, or any other negotiation aspects. The Project Coordinator chairs the PMB. This Board meets twice per year.

Work Package Leaders Committee (WPLC) is set up by one representative of each partner managing a work package (i.e. the WPLs). The Scientific/Technical Coordinator (STC) chairs this committee. Each WPL provides a written periodic progress report to the PC and STC (twice a year). This progress report will include the necessary details demonstrating that the work package is progressing according to the plan. This committee will also ensure that the cross WPs issues are properly managed. This committee meets four times per year.

Exploitation Board coordinates the specific exploitation actions of the project and will include both research and industrial experts. This Board meets twice per year.

Advisory Board provides an external view on the project and permits the evaluation of the achievement of its planned objectives as well as a way to promote and enlarge the project activities. It will include a panel of independent members both from the industrial, scientific, technological, and end-users sectors the application domains involved in the project. This Board meets twice per year. The following members agreed already to serve on the Board:

1. R.R. Granadino, (Telefonica Cybersecurity);
2. G. Pozzana (MOVET - Tuscan Mobility Cluster);
3. Ulrich Ahele (FIWARE);
4. Dirk Ulrich Kruger (European Railways Clusters initiative - ERCI);
5. Paolo Santi (MIT Boston Sensible City Lab);
6. Geoffroy Martin (Mov'eo association);
7. George Schwab (AVL SFR);
8. Patrick Mana (EUROCONTROL);
9. Marti Joffre (MaaS catalunia).

Ethics Board is set up to help with ethics-related activities and support the independent **ethics advisor** that will be appointed at the beginning of the project.

The **Security Advisory Board (SAB)** comprises of experts of the consortium about the security-related aspects of the results (including potential confidentiality aspects of these results). The **SAB** is chaired by the PC.

Further, the procedures and tools used for the management of the project are described below.

Consortium Agreement (CA) has been signed by all the partners before the start of the project and before the sign of the contract with the funding entities. Its major goal is to protect each partner's rights and intellectual property rights during the project lifetime. The CA should allow cooperation among the partners without unmanageable conflicts.

Project reporting will be performed by the Project Coordinator by following the specific communication rules of the entities. In particular, we foresee having i) an internal partner progress report every six months, ii) two management reports including cost statements and, if necessary financial audit certificates at months 12 and 36, iii) one technical report at month 26; iv) annual review meetings. The project reporting is done by each partner every 6 months in a written format. The Coordinator monitors the proper usage of resources.

Consortium phone calls will be set up twice a month to track the individual WPs progresses and any possible interaction between WPs. Each WPL will report on the advancement of any issues raised in each WP. The Project Coordinator will circulate the meeting minute.

Consortium meetings will be planned face-to-face every 4 months to examine the project results and plan the next steps towards the planned milestones and in sync with the scheduling. The face-to-face meeting will be hosted by a partner that will take care of the logistic organisation. The meeting will be structured in 3 days and the agenda will be provided in advance by the Project Coordinator: i) Day 1 will start with the introduction of the Project Coordinator on the main conclusions of the former WPLC and the main objective of the meeting. Then the WPLC will discuss the coordination issues and assess the risks of the project implementation. The rest of the agenda will be focused on plenary information and technical discussions. ii) Day 2 agenda will be defined according to the specific

project requirements and each WPL will oversee moderating the discussion of its tasks. iii) Day 3 agenda will cover innovation management practices, like brainstorming, as well as intra-work packages discussion and dependencies. The meeting will end with a formal session of the PMB.

Conflict resolution meetings will be organised by the Project Coordinator only in case partners cannot reach a consensus, as usually project decisions are regulated by the CA and fully agreed by partners. Any Consortium member can ask (in writing) the Project Coordinator for the scheduling of a conflict resolution meeting and this will be organised by the Project Coordinator within 30 days upon receipt of the request and achievement of a quorum. The required quorum is defined in the CA depending on the type of conflict and the number of members involved. Conciliation will be carried out by attempting to reconcile i) within a WP under the chair of the WPL, ii) within WPLC under the chair of Project Coordinator, iii) within PMB under the chair of Project Coordinator, iv) lastly, within PMB supervised by the EC Project Officer. If it becomes necessary to involve the responsible EC Project Officer, a formal request will be submitted by email. The request includes potential solutions and requires an answer within a stated deadline.

Intellectual Property Rights (IPR) management will be regulated by the CA, both during the project execution or later at result exploitation time. Specifically, it will take care of i) confidentially terms, ii) IPR reporting, iii) dispute resolution mechanisms, iv) patenting, v) licenses and sublicenses grants, vi) access rights, vii) results ownership, viii) joint ownership issues.

A **voting system** will be used as a democratic procedure to resolve certain types of issues under the responsibility of the PMB. The exact rules will be part of the Consortium Agreement and will describe the required quorum and criteria for important decisions, such as project contract and partner termination, as well as changes to the project management structure. The PMB is allowed to vote by email and email addresses will be designated at project kick-off via a side-channel (mail or fax).

The **quality assurance process** will ensure the highest quality of the deliverables. Each WP deliverable has a responsible owner, formally appointed by the WPL accountable for the WP. A WP deliverable review process will be set up where at least two peer reviewers from different WPs will commit to providing a detailed revision and feedback to the appointed deliverable owner: the review will start at least three weeks before the deadline. Deliverables will reflect the outcome of the work done and present evidence of the project objective achievements. The Project Coordinator will finally validate each deliverable before submitting it to the EC Project Officer. The PMB will assume the responsibility of ensuring the quality of the overall project results, as well as on project reporting, financial statements, and risk management.

Collaboration tools based on Internet technology will assist the Consortium day-by-day activity. These will include project document repository and project mailing lists, on-line sharing tools, and voice-over-IP during phone calls at a minimum.

3.3 General Operational Procedures

The E-CORRIDOR project convenes meetings of the following types:

- PMB Meetings,
- WPL Committee meetings,
- Working Meetings.

Preferably, meetings of different types will be held in conjunction to save travel costs and time. Where possible and appropriate, telephone conferences may be used to limit traveling and expenses.

The chairperson of a Consortium Body shall convene meetings of that Consortium Body, as listed below.

| | Ordinary Meeting | Additional Meeting |
|---------------------------|-----------------------|---|
| PMB | 3 or 4 times per year | At any time upon written request of the Executive Board or 1/3 of the Members of the General Assembly |
| WPL Committee | Monthly | At any time upon request of WPL Committee |
| Work Packages | Monthly | At any time upon written request of any Member of the respective Work Package |
| Exploitation Board | Once per year | At any time upon request of Board member |
| Advisory Board | Once per year | At any time upon request of Board member |
| Security Board | Once per year | At any time upon request of Board member |

3.3.1 Meeting Invitations and Minutes

The chairperson of a Consortium Body shall give notice in writing of a meeting to each Member of that Consortium Body as soon as possible and no later than the minimum number of days preceding the meeting as indicated below.

| | Ordinary Meeting | Additional Meeting |
|---------------------------|------------------|--------------------|
| PMB | 30 calendar days | 15 calendar days |
| WPL Committee | 30 calendar days | 7 calendar days |
| Exploitation Board | Once per year | 30 calendar days |
| Advisory Board | Once per year | 30 calendar days |
| Security Board | Once per year | 30 calendar days |

The chairperson of a Consortium Body shall prepare and send each Member of that Consortium Body a written (original) agenda no later than the minimum number of days preceding the meeting as indicated below. Additional rules regarding changes to the agenda may further be found in the CA.

| | |
|---------------------------|---|
| General Assembly | 14 calendar days; 10 calendar days for an extraordinary meeting |
| WPL Committee | 7 calendar days |
| Exploitation Board | Once per year |
| Advisory Board | Once per year |
| Security Board | Once per year |

The following rules apply for invitations to meetings and their minutes:

- The chairperson of a Consortium Body will call a meeting, and provide agenda and location information, according to the above timing constraints. Still, to allow timely and good preparations by all participants, the general rule will be to fix a yearly meeting calendar.

- The chairperson of a Consortium Body shall produce written minutes of each meeting which shall be the formal record of all decisions taken. S/he shall send the draft minutes to all Members within fifteen (15) calendar days of the meeting.
- The Minutes shall be considered as accepted if, within fifteen (15) calendar days from sending, no member has objected in writing to the chairperson concerning the accuracy of the draft of the minutes.
- The chairperson shall send the accepted minutes to all the Members of the Consortium Body and to the Coordinator, who shall safeguard them.
- If requested the Coordinator shall provide authenticated duplicates to Parties.

3.3.2 Other Meetings

Next to the project working meetings, Review Meetings will be held at least at the end of each reporting period (see §0). The European Commission requests the Review Meetings. The EC together with the Project Coordinator determines the date, agenda, duration, and location.

The E-Corridor project will also participate as far as possible in concertation meetings organized by the EC.

3.3.3 Project Calendar

The Project Management Team will maintain a Project Calendar, containing all relevant events of project meetings, reviews, reporting deadlines, and major deadlines (e.g., availability of deliverables). It is everyone's responsibility to keep this calendar up-to-date and to inform the Project Coordinator of changes. External or public events will also be put on the public part of the website. Private and public Project Calendars are available on the Private and Public E-CORRIDOR websites, respectively.

3.3.4 Plenary meetings Schedule

The following table summarizes the meeting schedule for pre-planned working meetings.

| Meeting | Date / Organizer | Main objective |
|-------------------------|--|---|
| Year 1 | | |
| Kick-off Meeting | Virtual, July 6, 2020, organizer CNR | <ul style="list-style-type: none"> ▪ Set up of management bodies and procedures ▪ WPs Kick off |
| Plenary meeting | Virtual, October 21, 2020, organizer CNR | <ul style="list-style-type: none"> • Functional and Non-Functional requirements of E-CORRIDOR architecture and Pilots; • Use cases and User Stories of E-CORRIDOR Pilots • Dissemination and Exploitation strategies |
| Plenary meeting | | <ul style="list-style-type: none"> • Progress in all the WPs |
| Plenary meeting | | <ul style="list-style-type: none"> • Progress in all the WPs |
| Year 2 | | |
| Plenary meeting | | <ul style="list-style-type: none"> • Progress in all the WPs |

| Deliverable | Deliverable name | WP | Lead | Type | Dissemination level | Delivery date |
|-------------|---|----|------|--------|---------------------|---------------|
| D1.2 | POPD - Requirement No. 2 | 1 | CNR | Report | CO | 1 |
| D10.1 | Project quality handbook | 10 | CNR | Report | PU | 6 |
| D10.2 | Risk management plan | 10 | CNR | Report | CO | 6 |
| D2.1 | Requirements for the AT Pilot | 2 | ADP | Report | PU | 6 |
| D3.1 | Requirements for the S2C Pilot | 3 | CLEM | Report | PU | 6 |
| D4.1 | Requirements for the ISAC Pilot | 4 | MISE | Report | PU | 6 |
| D5.1 | Requirements for E-CORRIDOR Architecture | 5 | HPE | Report | PU | 6 |
| D1.1 | H - Requirement No. 1 | 1 | CNR | Report | CO | 12 |
| D10.3 | First periodic annual project progress report | 10 | CNR | Report | PU | 12 |
| D2.2 | Design and Architecture for the AT Pilot | 2 | ADP | Report | PU | 12 |
| D3.2 | Design and Architecture for the S2C Pilot | 3 | CLEM | Report | PU | 12 |
| D4.2 | Design and Architecture for the ISAC Pilot | 4 | MISE | Report | PU | 12 |
| D5.2 | First version of E-CORRIDOR Architecture | 5 | HPE | Report | PU | 12 |
| D6.1 | Sharing and Analytics Infrastructures requirements and architecture | 6 | CNR | Report | PU | 12 |
| D7.1 | Data Analytics techniques requirements and architecture | 7 | UTRC | Report | PU | 12 |
| D8.1 | Advanced Security Services requirements and architecture | 8 | CEA | Report | PU | 12 |
| D9.1 | First exploitation and dissemination plan | 9 | WIT | Report | CO | 12 |
| D9.2 | First exploitation and dissemination report | 9 | WIT | Report | PU | 12 |
| D10.4 | Second periodic annual project progress report | 1 | CNR | Report | PU | 24 |
| D5.3 | First version of the E-CORRIDOR platform and testbed | 5 | HPE | OTHER | PU | 24 |
| D5.4 | Final Reference Architecture | 5 | HPE | Report | PU | 24 |
| D6.2 | Sharing and Analytics Infrastructures first maturation | 6 | CNR | OTHER | PU | 24 |
| D7.2 | Data Analytics techniques first maturation | 7 | UTRC | OTHER | PU | 24 |
| D8.2 | Advanced Security Services first maturation | 8 | CEA | OTHER | PU | 24 |
| D9.3 | Second exploitation and dissemination report | 9 | WIT | Report | PU | 24 |
| D2.3 | First implementation, test, and validations of the AT Pilot | 2 | ADP | OTHER | PU | 26 |
| D3.3 | First implementation, test, and validations of the S2C Pilot | 3 | CLEM | OTHER | PU | 26 |
| D4.3 | First implementation, test, and validations of the ISAC Pilot | 4 | MISE | OTHER | PU | 26 |
| D6.3 | Sharing and Analytics Infrastructures final maturation | 6 | CNR | OTHER | PU | 34 |
| D7.3 | Data Analytics Components final maturation | 7 | UTRC | OTHER | PU | 34 |
| D8.3 | Advanced Security Services final maturation | 8 | CEA | OTHER | PU | 34 |
| D10.5 | Third periodic annual project progress report | 10 | CNR | Report | PU | 36 |
| D2.4 | Final implementation, test, and validations of the AT Pilot | 2 | ADP | OTHER | PU | 36 |
| D3.4 | Final implementation, test, and validations of the S2C Pilot | 3 | CLEM | OTHER | PU | 36 |
| D4.4 | Final implementation, test, and validations of the ISAC Pilot | 4 | MISE | OTHER | PU | 36 |

| | | | | | | |
|------|---|---|-----|-----------|----|----|
| D5.5 | Final version of the E-CORRIDOR platform and testbed | 5 | HPE | OTHE R | PU | 36 |
| D9.4 | Final exploitation and dissemination report and plan for the future | 9 | WIT | Report | PU | 36 |

3.4 *Project Reporting*

3.4.1 Reporting Periods

The following reporting periods are distinguished in the Project:

- P1: from month 1 to month 12 (1st Jun. 2020 – 30th May 2021)
- P2: from month 13 to month 36 (1st June 2021 – 30th May 2023)

All the Project deliverables (see §3.4.2) shall be submitted immediately after the ending period.

Strict planning is established to produce each deliverable to ensure quality and timely delivery. The planning for report deliverables shall account for:

- (i) Production of the outline (5 months before the formal delivery date the Table of Content must be ready),
- (ii) Collaborative authoring of the documents,
- (iii) Appointment of reviewers,
- (iv) Release of a draft for internal review (1 month before the formal delivery date),
- (v) Revision of the document according to reviews, and deliver it on time,
- (vi) The planning is to be set by the partner in charge of the delivery (“Lead Participant” in §3.4.2).

In addition to the above annual progress reports, internal progress reports will be asked per partner to give the PMB an early indication if enough progress is being made or problems have arisen, to enable them to take timely measures. These internal progress reports (both financial and activity reports) must be sent to the Coordinator every 6 months and will serve as input for the 2 activity and 2 management reports. Templates for all reports can be downloaded from the internal Web site - section Deliverables (See §6).

3.4.2 Project Deliverables

The following table lists the Project Deliverables, as agreed with the Commission in the Descriptions of Action (DoA).

4 Project Planning and Timetable

This section summarizes:

- The Project milestones (§4.1), and
- The Project Gantt chart (§4.2).

4.1 Major Milestones – Full Duration

| Milestone number | Milestone name | Related work package(s) | Estimated date | Means of verification |
|------------------|---|-------------------------|----------------|----------------------------|
| M1 | Elicitation of E-CORRIDOR requirements. | 2-5 | 6 | WPs deliverables ready |
| M2 | First version of the overall E-CORRIDOR architecture. | 5 | 12 | WPs deliverables ready |
| M3 | Setup of the running Pilots. | 2-4 | 18 | Initial software available |
| M4 | First Version of integrated platform and Pilots. | 2-6 | 24 | WPs deliverables ready |
| M5 | First Validation of the Pilots and the E-CORRIDOR platform. | 2-9 | 26 | WPs deliverables ready |
| M6 | Final Version of integrated infrastructure and Pilots. | 2-8 | 34 | WPs deliverables ready |
| M7 | Final Validation of the Pilots and the E-CORRIDOR platform. | 2-9 | 36 | WPs deliverables ready |

4.2 Gantt Chart

| GANTT | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | | |
|--|---|---|---|---|---|----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| Milestones | | | | | | M1 | | | | | | M2 | | | | | | M3 | | | | | | M4 | M5 | | | | | | | | | M6 | M7 | | | |
| WP10 Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 10.1 Project coordination | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 10.2 Administrative and financial management | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 10.3 Risk management | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 10.4 Collaboration with the other projects in the cluster | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WP2 Airport and Train (AT) Pilot implementation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 2.1 Airport and Train Pilot Requirements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 2.2 Pilot Design and Integration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 2.3 Pilot Experimental Validation and Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WP3 Smart City and Car Sharing (S2C) Pilot implementation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 3.1 S2C Pilot requirements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 3.2 S2C Pilot design and Integration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 3.3 S2C Pilot Experimental Validation and Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WP4 Information Sharing and Analytics Centre (ISAC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 4.1 ISAC Pilot Requirements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 4.2 ISAC Pilot Design and Integration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 4.3 ISAC Pilot Experimental Validation and Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WP5 E-CORRIDOR platform: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 5.1 Requirements for E-CORRIDOR platform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 5.2 E-CORRIDOR platform architecture | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 5.3 E-CORRIDOR Platform vulnerability protection measures | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 5.4 E-CORRIDOR platform implementation, integration, and testbed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 5.5 Exploiting synergies among the Pilots and easing the integration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WP6 Information Sharing and analytics infrastructures | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 6.1 Data Sharing Agreements Infrastructure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T 6.2 Data Collection and Usage Enforcement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

5 Documents and Publication Procedures

This section provides a summary of procedures for:

- Documents production (§5.1),
- Quality assurance (§5.2),
- Paper publications (§5.3),
- Intellectual property rights (§5.4),
- Privacy of test participants (§5.5), and
- Archiving (§5.6).

5.1 Documents Production

5.1.1 Deliverables

Public documents and/or Project Deliverables should be readable by outsiders. Care should be taken of writing enough introduction, problem description, executive summary, etc. It should also be made sure that no (company) confidential information is in there. When using pictures, they should all be well legible when printed in black and white, unless more colour is adding value to the quality of the report. Finally, it should be made sure that *all* authors are mentioned.

Each deliverable and document have a lifecycle of 4 phases: *Outline*, *Draft*, *Under internal review*, and *Accepted* (within Consortium). Each deliverable goes under two internal reviews.

The outline for each review must be ready 5 months prior to the final date. Two months prior to the final date an almost complete draft version should be available. One month prior to the final date of delivery, the deliverables should go under internal review.

The table below indicates the mandatory dates for each document and deliverable, for which “Due dates” have to be defined, at which the corresponding deliverable will have to be received by the MST.

| Reports Versioning (x=1,2,3,...) | Outline (0.x) | Draft (1.x) | Under internal review (2.x) | Accepted (3.x) |
|-------------------------------------|---|---|--|----------------|
| Date | 5 months to the final date, the table of contents is ready with editorial responsibilities agreed upon among partners | 2 months prior a readable complete draft is available | 1 month prior to the final date (duration of review two weeks) | Final date |

5.1.2 Document File Naming

To have a consistent way of documentation and archiving, the project should adopt the following standardized file naming conventions:

E-Corridor_<WP>_<NAME>_<VERSION >_<DATE>_<INITIALS>.<EXT>

where:

<WP> Work-package or management identifier, e.g., ‘wp1’, ‘wp2’, etc.

- <NAME> Description of the document
 <VERSION> Version identifier (optional except for deliverables where abovementioned versioning applies)
 <DATE> Date in the “yyyymmdd” format, e.g., 20170331
 <INITIALS> Person name initials or acronym of the issuing Partner
 <EXT> File name extension, e.g., docx or pdf

Use only the English alphabet and separate the words with underscores (‘_’); spaces (‘ ’) must NOT be used.

An example of file nomenclature is:

[E-CORRIDOR_WP1_D1.1_v3_20171206_CNR.docx](#)

5.1.3 Document Exchange

The following document exchange format conventions will be used:

- For distribution, all partners must use email, or any other electronic medium supplied by the PMB;
- For document processing, either *MS-Office* or *Latex* shall be used, where for each document its editor oversees setting the file format in agreement with all the authors;
- For figures/graphs, preferably do not use postscript, use TIFF for public documents, otherwise PNG, GIF, JPG and BMP;
- To facilitate final editing and layout, E-CORRIDOR templates must be used;
- E-CORRIDOR templates shall further be used for any communication with the EC (e.g., for deliverables).

5.2 Quality Assurance

Quality assurance (QA) measures are applied to all activities of the project. The following QA measures in particular apply:

- E-CORRIDOR documents (management reports, project deliverables, etc.) must pass two QA iterations:
 - To reach the status “Proposed for Approval”, documents need to be reviewed and approved by project members other than the author(s) of the document;
 - To receive the status “Accepted”, documents need to be formally approved by the respective management team, where it needs to be ensured that the review comments have been considered to the satisfaction of the reviewers.
- Internal Results and Deliverables to the EC shall be reviewed and approved by the PC + PLB+ WPLC.
- Publications of project results (other than Project Deliverables) shall follow the procedure introduced in the next section. In the case where the paper is peer-reviewed, then internal review within the E-CORRIDOR consortium may be skipped.
- Reviewers have to communicate their review comments in written form to the author(s) of the document; the author(s) have to keep track of the history of the document (incl. processing of the review comments received) in one of its appendices or changelog sections.
- When applicable electronic annotation should be employed.

- Besides, the PMB may ask for a review team consisting of (external) experts in the field.

5.3 Procedure for Paper Publications

Procedure for abstract/full paper submission for publication (journal, conference proceedings, book, and so on) is as follows:

1. Under the *Grant Agreement (N.883135 - E-CORRIDOR)* → *Chapter 4 (RIGHTS AND OBLIGATIONS OF THE PARTIES)* → *Section 3* → *Subsection 3* → *Article 29*, in case the paper involves material from beneficiaries who are not authors, the full content of the abstract must be sent to all partners 45 days before the deadline for submission.
2. Partners have 30 days to review the abstract and can hold the abstract submission or request to revise the abstract. The absence of reaction will be considered as consent.
3. Send the full conference/journal paper to all partners ONE week before submission (in case – as above- the paper involves material from beneficiaries who are not authors).
4. Partners have 5 days to react to the content of the full conference paper and can request revisions of the full conference paper. Again, the absence of reaction will be considered as consent
5. The authors have 2 days left for changing the full conference paper before the deadline for submission.
6. EC-support must be explicitly acknowledged, using, for instance, the following sentence:
This project has received funding from the European Union's Horizon 2020 research and innovation programme DS 2018-2019-2020 as part of the E-Corridor project (www.e-corridor.eu) under grant agreement No 883135.
7. Send an accepted copy of the publication to the PC for delivery.

5.4 Procedure for Intellectual Property Rights (IPR)

Patents are normally dealt with within the organizations of the Partners separately or collectively in case of joint ownership, considered the GA, the general conditions of the EU contract on IPR, and the specific rules foreseen in the CA. Partners, who want to patent foreground knowledge, which is the content of a publication, should act pro-actively to protect this knowledge.

IPR will be regularly put on the agenda of the PMB and Exploitation board.

5.5 Procedure for Privacy of Test Participants

In case the assessment of project results involves test participants, participants must give explicit approval for their participation on (user) tests, focus groups, etc., and can always revoke this approval. Test results normally will be de-personalized for publications, i.e., no reference to specific individuals will be given. When specific data of an individual is used in a publication, for example, a picture or a quote, written permission to publish is needed from the participant. This permission to publish personal results is separate from the approval to participate in the original test(s). The main author of the article is responsible for gathering this permission before publication. The full name and/or address details of test participants should never be published.

5.6 *Project Archive*

All relevant papers (documents, action lists, etc.) of the project are stored on the Internal Project Website. Cost statements are archived by the coordinator. The archive accepts only commonly used WWW document formats including PDF, HTML, and Microsoft Office (Word, PowerPoint, Excel, Project) formats. The information stored on the website is accessible for all Partners. The website is maintained by the coordinator when the material is electronically available. However, all partners shall actively participate in either uploading relevant documents on the website or forwarding electronic copies to the PMT for archiving.

Public E-CORRIDOR documents (PU deliverables and published papers) are further made available from the E-CORRIDOR public site (www.e-corridor.eu), after the EC official approval. Besides, the EC's guidelines and the grant agreements for open access and data management will be respected.

6 Project Communication Mechanisms

All partners will actively and timely inform the project management team about changes in their coordinators, contact persons, or changes in any other information needed for executing the project. Contact details may be found in Appendix A - Project Contact Details.

The following facilitators are managed by the Coordinator team to facilitate communication within the Consortium and beyond:

- Mailing Lists (§6.1),
- E-CORRIDOR public Website (§6.2).
- SVN (§6.3).

6.1 Mailing Lists

Specific e-mail reflector lists support e-mail communication. The Coordinator maintains the e-mail reflectors for the project; the following reflectors have been created so far.

| E-mail reflector | Description | Addressees |
|--|-------------------------------|---------------------|
| e-corridor@iit.cnr.it | The main working mailing list | All project members |

The mailing list e-corridor@iit.cnr.it has 10 subtopics: i.e., WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8, WP9, WP10.

All these lists are closed. Only CNR people can add registrants, and then only members that are subscribed to a list can send/receive e-mails. To prevent an avalanche of unsolicited messages, senders are to carefully target their messages to the narrowest audience as reasonably possible.

6.2 Project Website

The public Website provides an overview of the E-CORRIDOR project (i.e., introduces objectives, consortium, ongoing research) and further access to the latest public material released by the consortium (i.e., publications, etc.). Events related to the project as well as the latest news are also released regularly. The public E-CORRIDOR website is located at: www.e-corridor.eu/. All the partners are demanded to keep it updated with the latest information on their activities, including publications, and events. WP Leaders are also demanded to keep updated their relative sections in the public project web sites describing the work done in the WP.

6.3 SVN

The SVN repository is located at <https://svn-security.iit.cnr.it/svn-multi/>. Access credentials will be assigned to each partner. For technical support and questions contact the PC. The SVN shall be used for software/programs, as well as working versions of deliverables that require frequent changes.

7 Project Dissemination Management

All partners aim to ensure the full exploitation of E-CORRIDOR results as well as the delivery of innovation to the market, and to relate it to international standardisation/certification activities and initiatives focusing on ICT security. To achieve these goals, WP9 - Exploitation, Dissemination, Communication and Standardization of E-CORRIDOR will define in agreement with the consortium partners and effective dissemination strategy, in order to maximize the results and achievements of the project throughout both scientific and industrial channels. To assist the management and coordination of the dissemination activities in the project, this section provides a summary of procedures for managing dissemination.

7.1 Dissemination Tracking Documents

All partners will actively and timely inform the project management team about their dissemination exploitation, communication and standardization activities that relevant to E-CORRIDOR. **The following forms (in the form of Microsoft Excel .xlsx and stored in the project SVN) have been created by the management and dissemination teams to ease the dissemination planning and tracking.**

E-CORRIDOR Events Tracking: This is a form shareable with all the members of the projects to keep track of important events relevant to E-CORRIDOR. The form contains information such as the event name, date, location, domain, web link, and E-CORRIDOR'S role and attendees. The purpose of using this form is twofold: 1) to help partners to communicate the information about potential events and planning for them; 2) to assist partners and management team in tracking the dissemination activities and maximize the impacts of E-CORRIDOR's innovation results.

E-CORRIDOR Target Conferences: This is a form for tracking all the upcoming academic conferences and conference papers published by E-CORRIDOR partners. This form is more for publication planning purposes since lots of academic conferences have deadlines for paper submission. Having this form can help partners to plan ahead for any conference publications.

E-CORRIDOR Target Journals: This is a form for tracking all the scientific journals with cybersecurity-relevant topics and journal papers published by E-CORRIDOR partners. The aim of this form is to ease finding proper journals for publishing partners' research results.

All the partners are encouraged to keep these forms updated with the latest information on their dissemination, publication and innovation activities. Also, by maintaining these forms, partners can have more chances for communication and collaboration on relevant dissemination and research, and the project can reach the widest spectrum of stakeholders from the scientific and industrial community, and the general audience to ensure the maximum impact.

7.2 Procedure for dissemination planning and tracking

Within E-CORRIDOR, the procedure for dissemination planning and tracking is suggested as follows:


1. The partners who plan to host or attend a dissemination event should update the E-CORRIDOR Events Tracking form to document in detail all the event info, and share this information to all the partners prior to the event.
2. WP9 partners check the event information and provide support and resources (such as social media channels and news/event calendar on the E-CORRIDOR public website) for generating and disseminating relevant news.
3. In case that the event information is not well documented prior to the event, partners should timely update the form with detailed information.
4. WP9 partners should regularly check the status of dissemination actives and update the dissemination plan accordingly.

8 Templates

Under the folder “Templates” of the E-CORRIDOR SVN service, each partner of the project can download the template to use when delivering E-Corridor documents or presentations.

8.1 Deliverables

Partners user the following front-page template to prepare E-Corridor deliverables:



D 10.1

+

Project Quality Handbook

WP10 - Management

E-CORRIDOR

Edge enabled Privacy and Security Platform for Multimodal Transport

Due date of deliverable: 30/11/2020
Actual submission date: 30/11/2020


30/11/2020
Version 1.0

Responsible partner: CNR

Editor: Fabio Martinelli

E-mail address: fabio.martinelli@iit.cnr.it

| Project co-funded by the European Union within the Horizon 2020 Framework Programme | | |
|---|---|----------|
| Dissemination Level | | |
| PU | Public | |
| PP | Restricted to other programme participants (including the Commission Services) | X |
| RE | Restricted to a group specified by the consortium (including the Commission Services) | |
| CO | Confidential, only for members of the consortium (including the Commission Services) | |



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Figure 2: Main-page deliverable template

To preserve and have a uniform structure of the content within deliverables issued by different partners, we list in the following a set of rules that should be respected when deliverables are written and subsequently reviewed:

- Captions in Figures and Tables are mandatory;
- *Date of delivery* and *Actual date* must respect delivery time-table;
- Sections and subsection should not start at the end of the page;
- Figures should be always within margins;
- Font styles must remain the same as prescribed in the deliverable template;
- Deliverables must have the *Table of Contents* and *Executive Summary*;
- References in the text should be active and hyperlinked;
- Tables should have the following layout:

Table 2: Test caption

| Title 1 | Title 2 |
|---------|---------|
| test | test |
| test | test |

8.2 Presentations

During project meetings or when disseminating E-CORRIDOR information, partners should use the presentation template available on SVN in the “Template” folder. In the following, it is shown an image of the main-page template to be used by partners to prepare the E-CORRIDOR presentation:

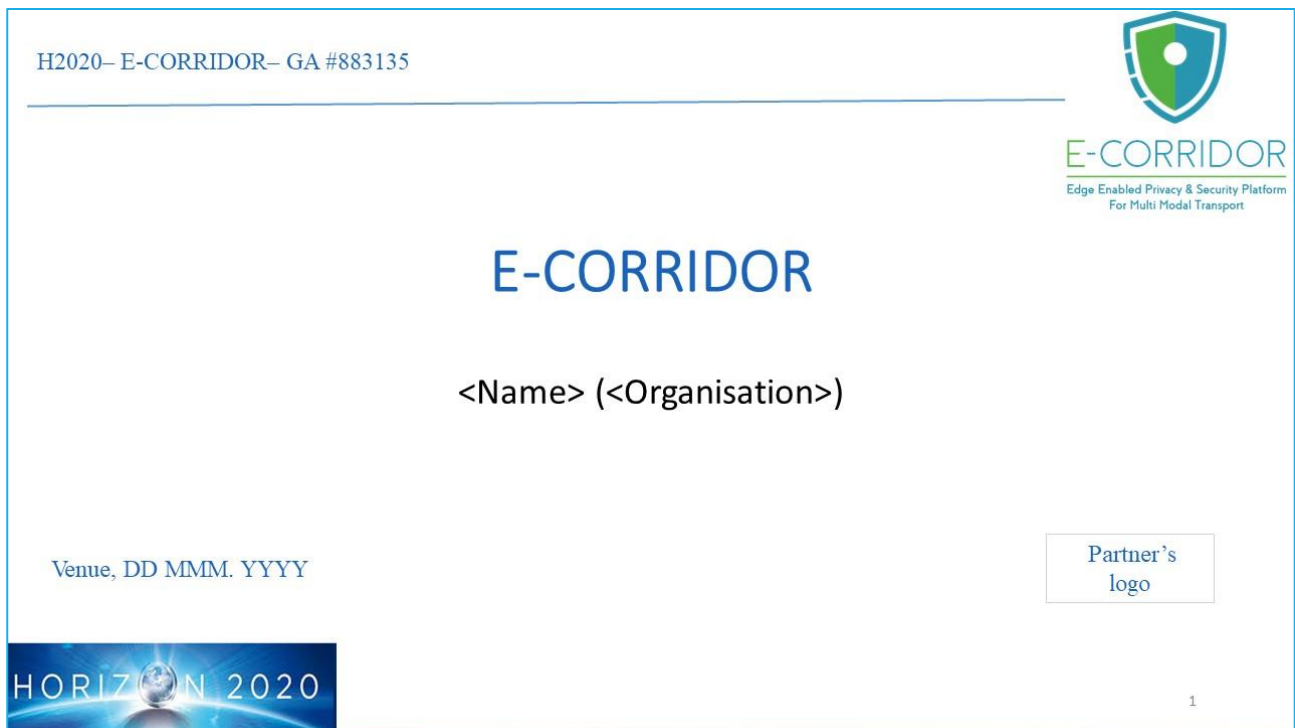


Figure 3: Main-page presentation template

Appendix A - Project Contact Details

A.1 Project Coordinator (PC)

| | |
|----------------|--|
| Name | Fabio Martinelli |
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A.2 EC Project Officer (PO)

| | |
|-------------------|--|
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A.3 Work Package Leaders Committee (WPLC)

| WP1 | Org. | Name | E-mail |
|-----|----------|------------------|--|
| 1 | 1 – CNR | Fabio Martinelli | fabio.martinelli@iit.cnr.it |
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