|  |
| --- |
| ToR TTF T037 (Ref. Body TC RT) |
| Version: 0.6 |
| Author: Pierre TANE – Date: 2023-08-25 |
| Last updated by: ETSI Secretariat– Date: 2024-02-21 |
| page 1 of 12 |

Terms of Reference –Testing Task Force Proposal

TTF T037 (Ref. Body TC RT)

FRMCS MCX conformance test cases

Summary information

|  |  |  |
| --- | --- | --- |
| Approval status | Approved by Ref. Body (doc ref: RT(24)092023) | **YES** |
| Reference Body | Ref. Body TC RT |
| ETSI Funding | **Maximum budget : 68 000 EUR** |
| Minimum of 4 ETSI Members Support | **YES** |
| Time scale | **From** | 2024-04-15 |
| **To** | 2025-06-30 |
| Work Items  | *DTS/RT-0065 FRMCS service stratum definition* |
| TTF Roadmap reference | TTF 2023 |

Part I –TTF Technical Proposal

# Rationale & Objectives

## Rationale

The Future Railway Mobile Communication System (FRMCS) will succeed GSM-R as one of the essential elements of the European Railway Traffic Management System (ERTMS). It will support railway digitalisation and service innovation. FRMCS notably leverages a 5G system as well as the 3GPP Mission Critical Services Framework (MCX) as key building blocks.

Critical communication community have a strong requirement for conformance testing and certification. The multi-vendor market gives benefits both to the users in terms of compatible equipment, competitive pricing, and faster market take-up. To meet these objectives for critical communications equipment – various testing initiatives like ETSI PlugtestsTM, conformance testing, field testing and certification testing are needed.

The proposed TTF would naturally complement the work undertaken by TTF T028 with conformance tests issued from railway requirements. The proposed TTF would also benefit future ETSI PlugtestsTM organized around MCX interoperability. In the mid-term, it would likewise benefit and support the industrial testing and validation programme (referred to as “MORANE 2”) planned to validate the UIC FRMCS v2 specifications and associated TS developed in TC RT. In the long term, it would also be useful for MCX system deployments as part of FRMCS deployments.

## Objectives of the work to be executed

The objective of this TTF is to develop the conformance test cases for railway related MCX features based on 3GPP RAN5 working group methodology.

The proposed TTF has been built with consideration for TTF T028 which it complements with railway requirements. As such, considering TTF T028 already features the basic MC interconnection and interworking with non-MC systems and considering R18 contents, the list of features that we identified as candidates for the FRMCS TTF would be:

* TC MCover5GS including UE/server operations over 5GS
* TC MCPTT (client & server sides): multi-talker control, ad hoc group emergency alert, ad hoc group communication
* TC MCData (client & server sides) : IPConnectivity
* TC common (client & server sides): functional alias, Mission Critical interconnection & migration (for what is not covered by TTF T028)

The timeline considered for the proposed TTF would be in 2024-2025.

## Previous funded activities in the same domain

TC RT has not benefited from TTF support during the last 5 years.

TC RT is currently developing ETSI TS 103 792 (GSM-R / FRMCS interworking) with support from STF 647 but this is not directly related to MCX conformance tests.

## Consequences if not agreed

The proposed TTF is a natural complement to TTF T028.

The ability to demonstrate that MCX implementations conform to the standard is a key tenet in support of telecom interoperability and, in a railway context, in support of railway interoperability. Thorough conformance testing will increase the level of confidence that equipment from various suppliers is conformed to the standards and will interoperate. This is particularly relevant in an European context due to very frequent cross-border operations. Having conformance tests related to railway requirements consistent with the conformance tests produced by TTF T028 would benefit the ETSI PlugtestsTM organized around MCX and, in turn, offer an access to larger market opportunities to the MCX vendor community.

Not accepting the TTF would require redundant efforts by members of the railway community as well as a less cohesive test suite for the MCX vendor community (to refer to for their development) and for the FRMCS implementers (to validate future deployments). The timing of the proposed TTF would be in line with the needs of the “MORANE 2” industrial testing and validation programme, thus providing additional timely benefits.

# ETSI Members Support

|  |  |  |
| --- | --- | --- |
| **#** | **ETSI Member** | **Supporting delegate** |
| 1 | UIC | Dan Mandoc |
| 2 | Deutsche Bahn | Fang-Chun Kuo |
| 3 | Funkwerk | Alexander Ende |
| 4 | SBB | Massimiliano Rizzato |
| 5 | SNCF Réseau | Hadjer Touati, Christian Daniel |
| 6 | Trafikverket | Pipsa Hallner |

# Deliverables

## Base documents

|  |  |  |
| --- | --- | --- |
| **Document** | **Title** | **Status** |
| ETSI TS 103 765-2 | FRMCS service stratum | Early Draft |
| ETSI TS 123 280 | Common functional architecture to support mission critical services; Stage 2 | published |
| ETSI TS 123 281 | Functional architecture and information flows to support Mission Critical Video (MCVideo); Stage 2 | published |
| ETSI TS 123 282 | Functional architecture and information flows to support Mission Critical Data (MCData); Stage 2 | published |
| ETSI TS 123 379 | Functional architecture and information flows to support Mission Critical Push To Talk (MCPTT); Stage 2 | published |
| ETSI TS 124 281 | Mission Critical Video (MCVideo) signalling control; Protocol specification | published |
| ETSI TS 124 282 | Mission Critical Data (MCData) signalling control; Protocol specification | published |
| ETSI TS 124 379 | Mission Critical Push To Talk (MCPTT) call control; Protocol specification | published |
| ETSI TS 124 380 | Mission Critical Push To Talk (MCPTT) floor control; Protocol specification | published |
| ETSI TS 124 481 | Mission Critical Services (MCS) group management; Protocol specification | published |
| ETSI TS 124 482 | Mission Critical Services (MCS) identity management; Protocol specification | published |
| ETSI TS 124 484 | Mission Critical Services (MCS) configuration management; Protocol specification | published |
| ETSI TS 124 581 | Mission Critical Video (MCVideo) media plane control; Protocol specification | published |
| ETSI TS 124 582 | Mission Critical Data (MCData) media plane control; Protocol specification | published |
| ETSI TS 133 180 | Security of the mission critical service | published |

## New deliverables

|  |  |  |  |
| --- | --- | --- | --- |
| **Deliv.** | **Work Item code****Standard number** | **Working title** | **Expected date for publication** |
| D1 | DTS/RT-0090 | Railway telecommunications (RT); Common Test Environment for Mission Critical Services Over 5GS | 30-06-2025 |
| D2 |

|  |  |
| --- | --- |
|

|  |
| --- |
| DTS/RT-0091 |

 |

 | Railway telecommunications (RT); FRMCS conformance specification | 30-06-2025 |
| D3 |

|  |  |
| --- | --- |
| DTS/RT-0092 |   |

 | Railway telecommunications (RT); FRMCS conformance specification; Test Applicability and Implementation Conformance Statement (ICS) proforma specification | 30-06-2025 |

# Maximum budget

## Task summary/Manpower Budget

|  |  |
| --- | --- |
| **Task short description** | Budget (EUR) |
|
| Project Management | CTI |
| Development of MCover5GS including UE/server operations over 5GS and Contribution to 3GPP RAN5 | 25 000 |
| Development of conformance test cases for MCX Railways related features and Contribution to 3GPP RAN5* TC MCPTT (client & server sides): multi-talker control, ad hoc group emergency alert, ad hoc group communication
* TC MCData (client & server sides): IP Connectivity
* TC common (client & server sides): functional alias, MC interconnection & migration
 | 43 000 |
| **TOTAL** | **68 000** |

## Travel budget

Not applicable.

## Other budget line

Not applicable.

Part II – Details on TTF Technical Proposal

# Tasks, Technical Bodies and other stakeholders

## Organization of the work

ETSI CTI will plan the work of the TTF members, ensuring that the timescales of the TTF deliverables are met.

Organising TTF meetings to discuss the drafts, recording any major issues and resolutions of the TTF, identifying, and progressing the actions of TTF members

Report to TC TCCE Working Groups as appropriate on the work of the TTF.

Represent, or arrange for other TTF members to represent the TTF at other external meetings as appropriate.

## Other interested ETSI Technical Bodies

3GPP (3rd Generation Partnership Project) is partnership project between seven regional telecommunication associations. The project covers cellular telecommunications network technologies, including radio access, the core transport network, and service capabilities - including work on codecs, security, quality of service - and thus provides complete system specifications.

3GPP RAN5 works on the specification of conformance testing at the Radio interface for the User Equipment.

ETSI TC RT is responsible for the development and maintenance of standards related to GSM-R (GSM™ for railways) as well as Next Generation Radio for Rail (NG2R). The Technical Committee Rail Telecommunications is developing and maintaining ETSI standards related to GSM-R as required by the applicable European Legislation.

## Other stakeholders

The Critical Communications Association (TCCA) is a Limited Company and is registered in the United Kingdom. TCCA represents all standardised mobile critical communications technologies and complementary applications. Members are drawn from end users, operators, industry and other stakeholders across the globe. TCCA believes in and promotes the principle of open and competitive markets worldwide using open standards and harmonised spectrum. The Association maintains and enhances the TETRA Professional Mobile Radio (PMR) standard and drives the development of common global mobile standards for critical broadband.

Global Certification Forum (GCF) is a non-profit, global membership driven organisation offering mobile and IoT certification programmes based on conformity to agreed standards. It provides assurance of device-network interoperability, reduction in testing costs and accelerated time-to-market.

GCF provides certification solutions for devices based on 3GPP and other relevant industry standards.

Union Internationale des Chemins de Fer (UIC) is the worldwide professional association representing the railway sector and promoting rail transport. UIC is the asso­ciation for technical cooperation amongst railways and coordinates the sector’s position as it negotiates its evolving relationship with the supply industry and research and develops needs in order to draw full advantage of potential interest to railway companies.

Part III: Execution of Work

# Work plan, time scale and resources

## Task description

|  |  |
| --- | --- |
| **Task #0** | **Project Management** |
| **Objectives** | * Technical lead of the TTF
* Manage the resources assigned to this project
* Chair periodic meetings of the TTF
* Ensure that the project stays on track and meets all milestone delivery dates
* Identify if/when there are impediments that may affect the delivery of the project at an early stage so that stakeholders can help mitigate potential risks
 |
| **Input** | Periodic meetings of this TTF, the tasks and schedule in this TTF. |
| **Output** | * Progress reports, including report to the TC RT after each meeting summarizing the current status of this TTF.
* Progress Reports
* Final Report
 |
| **Interactions** | TC RT will be consulted for guidance throughout the TTF. There will be regular interactions between the experts and the TC RT as well as with the stakeholders |
| **Resources required** | (See Budget Validation Table 4.1) |

|  |  |
| --- | --- |
| **Task #1** | **Development of MCover5GS including UE/server operations over 5GS** |
| **Objectives** | Development of MCover5GS including UE/server operations over 5GS |
| **Input** | Existing base technical specifications based on 3GPP Release-18 |
| **Output** | Development of MCover5GS including UE/server operations over 5GS and contribution to 3GPP RAN5 |
| **Interactions** | Regular interaction between the experts, 3GPP RAN5 and the TC RT |
| **Resources required** | (See Budget Validation Table 4.1) |

|  |  |
| --- | --- |
| **Task #2** | **Development of conformance test cases for MCX Railways related features and ICS** |
| **Objectives** | Development of conformance test cases for MCX Railways related features and ICS* TC MCPTT (client & server sides): multi-talker control, ad hoc group emergency alert, ad hoc group communication
* TC MCData (client & server sides): IP Connectivity
* TC common (client & server sides): functional alias, MC interconnection & migration
 |
| **Input** | Existing base technical specifications based on 3GPP Release-18 |
| **Output** | Development of conformance test cases for MCX Railways related features mentioned in objectives and ICS |
| **Interactions** | Regular interaction between the experts and the TC RT |
| **Resources required** | (See Budget Validation Table 4.1) |

|  |  |
| --- | --- |
| **Task #3** | **Contribution of Prose CRs to 3GPP RAN5** |
| **Objectives** | Developed conformance test cases for MCX Railways related features shall be contributed to 3GPP RAN5. Prose CRs shall be submitted to 3GPP RAN5 for approval. |
| **Input** | FRMCS Conformance Test Cases based on 3GPP Release-18 |
| **Output** | Test Cases approved by 3GPP RAN5 |
| **Interactions** | Regular interaction between the experts and 3GPP RAN5 |
| **Resources required** | (See Budget Validation Table 4.1) |

## Milestones

**Milestone A – Stable draft of MCover5GS including UE/server operations over 5GS and approved in 3GPP RAN5**

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Cut-Off Date** |
| **A** | Stable draft of MCover5GS including UE/server operations over 5GS and approved in 3GPP RAN5 | 2024-09-20 |
| Reference Body Deliverable | Stable draft of MCover5GS including UE/server operations over 5GS and approved in 3GPP RAN5D1 - Progress report approved by TC RT and Stable drafts to be available for TC RT review |
| ETSI Deliverable | Stable Drafts are available for review for TC RT two weeks before the meeting.Report on progress and Stable drafts accepted by TC RT |

**Milestone B – Stable draft of conformance test cases for MCX Railways related features and ICS**

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Cut-Off Date** |
| **B** | Stable draft of conformance test cases for MCX Railways related features and ICS | 2025-03-05 |
| Reference Body Deliverable | D2+D3 Stable draft of conformance test cases for MCX Railways related features and ICS Progress report approved by TC RT and Stable drafts to be available for TC RT review |
| ETSI Deliverable | Stable Drafts are available for review for TC RT two weeks before the meeting.Progress report approved by TC RT and Stable drafts to be available for TC RT review  |

**Milestone C –Test Cases approved by 3GPP RAN5**

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Cut-Off Date** |
| **C** | Test Cases approved by 3GPP RAN5 | 2025-05-31 |
| Reference Body Deliverable | Conformance test cases approved by 3GPP RAN5Deliverables and final report to be approved by TC RT |
| ETSI Deliverable | Deliverables and final report to be approved by TC RT |

**Milestone D – Final Report, final drafts approved by TC RT**

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Cut-Off Date** |
| **D** | All Deliverables published.TTF closed | 2025-06-30 |
| Reference Body Deliverable | All Deliverables published.TTF closed  |
| ETSI Deliverable | All Deliverables published.TTF closed |

## Task summary

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Task / Milestone**  | Target Date | Estimated Cost (EUR) |
| From | To |
|  | Start of work | 04-2025 |  |  |
| T0 | Project Management | 04-2024 | 06-2025 | CTI |
| T1 | Development of MCover5GS including UE/server operations over 5GS | 04-2024 | 09-2024 |  |
| Milestone A | Progress report#1 approved by TC RT and D1: DTS/RT-0090 Stable draft available for review by TC RT |  | 31-10-2024 | 25000 |
| T2 | Development of conformance test cases for MCX Railways related features and ICS | 10-2024 | 02-2025 |  |
| Milestone*B* | Progress report#2 approved by TC RT D2 DTS/RT-0091+D3: DTS/RT-0092 Stable drafts of conformance test cases for MCX Railways related features and ICS available for review by TC RT |  | 30-03-2025 | 25000 |
| T3 | Contribution of Prose CRs to 3GPP RAN5 | 10-2024 | 05-2025 |  |
| Milestone*C* | Test Cases approved by 3GPP RAN5 and Deliverables and final report to be approved by TC RT |  | 31-05-2025 | 10000 |
| Milestone*D* | Deliverables published, TTF closed |  | 30-06-2025 | 8000 |
|  | **68000** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task/ Mil.** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** |  | **J** | **F** | **M** | **A** | **M** | **J** |
| T0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| T1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| T2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MB |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| T3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Expertise required

## Team structure

2-3 participants to ensure the following mix of competences:

|  |  |
| --- | --- |
| **Priority** | **Qualifications and competences** |
| High | expert knowledge of Mission Critical Services |
| High | expert knowledge of FRMCS |
| High | expert knowledge in 3GPP RAN5 conformance testing |
| High | expert knowledge of 3GPP RAN5 Mission Critical Services test cases |
| High |  expert knowledge of SIP protocols, IMS, SDP, HTTP, XML, RTP, RTCP, MSRP, MIKEY-SAKKE, 5G |
| Low |  expert knowledge of TTCN-3 |

Part IV: TTF performance evaluation criteria

# Performance Indicators

|  |
| --- |
| **Select relevant Performance indicators applicable for these ToR (X)** |
| Contribution from ETSI Members to TTF work |
| Direct financial contribution (co-funding) |  |
| Support to the TTF work (e.g., provision of test–beds, organization of workshops, events) |  |
| Steering Group meetings (number of meetings / participants / duration) |  |
| Number of delegates directly involved in the review of the deliverables |  |
| Contributions/comments received from the TC RT | X |
| Contributions/comments received from other Reference Bodies |  |
|  |  |
| **Contribution from the TTF to ETSI work** |
| Contributions to Reference Body meetings (number of documents / meetings / participants) | X |
| Contributions to other Reference Bodies | X |
| Presentations in workshops, conferences, stakeholder meetings | X |
|  |  |
| **Liaison with other stakeholders** |
| Stakeholder participation in the project (category, business area) |  |
| Cooperation with other standardization bodies |  |
| Potential interest of new members to join ETSI |  |
| Liaison to identify requirements and raise awareness on ETSI deliverables  |  |
| Comments received on drafts (e.g. on WEB site, mailing lists, etc.) |  |
|  |  |
| **Quality of deliverables** |
| Approval of deliverables according to schedule | X |
| Respect of time scale, with reference to start/end dates in the approved ToR | X |
| Comments from Quality review by Reference Body | X |
| Comments from Quality review by ETSI Secretariat | X |
|  |  |

# Document history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Date** | **Author** | **Status** | **Comments** |
| 0.1 | 2024-01-10 | Saurav Arora | Stable Draft |  |
| 0.2 | 2024-01-17 | Saurav Arora | Stable Draft |  |
| 0.3 | 2024-01-18 | Saurav Arora | Stable Draft |  |
| 0.4 | 2024-02-06 | Saurav Arora | Stable Draft | WIs added |
| 0.5  | 2024-02-13 | ETSI Secretariat | Approved by TC RT | Update before IKOM |
| 0.6 | 2024-02-21 | ETSI Secretariat | Final | Update before CL publication |

**Annex I Response to the Request for Proposals
CfE – TTF T037 (REFERENCE BODY TC RT)**

**Deadline: ~~18 March~~ 22 April 2024**

|  |
| --- |
| **Contractor information \*** |
|  |
| **Contractor name \*:***Indicate the Company/Organization Name* |  |
|  |
| **Contact person for the technical aspects** | **Contact person for Decision on ETSI financial offer to this project (if any)** |
| Title |  | Title |  |
| First name |  | First name |  |
| Last name  |  | Last name  |  |
| Role |  | Role |  |
| e-mail |  | e-mail |  |
| Phone |  | Phone |  |
|  |
|  | **Yes** | **No** |
| Do you or any employee of your Company/Organization hold an elected or appointed position in the Reference Body requesting the TTF. | oIndicate in which position:----------------------------------- | o |
| **If you are self-employed candidate:**Do you currently have other contracts in progress with ETSI? | o | o  |

All fields marked with an asterix (\*) are mandatory

**1.1 Introduction**

A short presentation of the technical structure responsible for this activity, e.g.:

* Business area, number of employees, link to WEB site,
* Department(s)/team(s)/experts in charge of the technical activities related to this Project,
* Reference to products/services of your Company/Organization or supporting Member to which the standards developed by this Project will apply,
* Motivation for your Company/Organization or supporting Member to participate in this Project.

**1.2 Proposed approach**

**Proposed contribution to tasks & related cost**

Identify the tasks to which your Company/Organization is proposing to contribute by filling-in the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task\_****No** | **Tasks\_Description** | **Max\_Budget\_****Allocated\_in\_Euro** | **Amount\_in\_Euro\_****(mandatory)** | **%\_of\_whole****Task\_(mandatory)** |
| 00 | Project Management | 0 | . | . |
| 01 | Development of MCover5GS including UE/server operations over 5GS | 25000 | . | . |
| 02 | Development of conformance test cases for MCX Railways related features and ICS | 25000 | . | . |
| 03 | Contribution of Prose CRs to 3GPP RAN5 | 18000 | . | . |
|  | **TOTAL** | **68000** |  |  |

***Amount in Euro (mandatory)***: *Indicate the price offered for your contribution to the task(s)*

***% of whole task (mandatory)***:  *Indicate to which percentage of the execution of the whole task your offer corresponds*

Provide a description of the proposed approach, competences, reference to related activities:

* Explain which part of the task is corresponding to the requested percentage that your Company/Organization will handle,
* Explain the scope that your Company/Organization will cover,
* Explain your approach to the management of the quality and,
* Explain your approach to the management of the risks and their mitigation,
* Describe and justify the proposed costs to achieve this project objectives.

**Annex II Terms and Conditions
CfE – TTF T037 (REFERENCE BODY TC RT)**

**Deadline: 22 April 2024**

**2.1 Submission of Proposals**

All proposals in response to this CfE shall be submitted before the deadline indicated in thisCollective Letter, using exclusively the WEB application on the ETSI Portal at the following address: <https://portal.etsi.org/cfe>.

Proposals shall be composed of Curriculum Vitae of the proposed service providers’ personnel and the Annex I of this CfE duly filled-out.

Proposals that will be partial or incomplete at the deadline will not be accepted.

The Terms and Conditions in this Annex will apply.

**2.2 Modification and Withdrawal of Proposals**

Applicants may, without prejudice to themselves, modify or withdraw their proposal by written request, provided that the request is received by ETSI prior to the due date and time, at the address to which their proposal was submitted. The applicant may submit a new proposal provided that such new proposal is received prior to the deadline for responding which is specified in this Collective Letter.

**2.3 Assessment of Proposals**

The ETSI Director-General, in consultation with the Reference Body Chairman, is responsible for the selection of the service providers that will be contracted to perform this Project work. The ETSI Director-General and the Reference Body Chairman may be assisted by a Selection Panel to assess the applications received and make the final decision.

As per article 1.10.4 of the ETSI Directives, the Director-General may discard proposals that could be identified as creating potential conflict of interest.

The ETSI Secretariat will only communicate to the applicants the result of the selection (accepted or not accepted). Should applicants need more information on the rationale for the selection, they must address a formal request to the ETSI Director-General.

The following evaluation criteria will be applied to all proposals, in order of priority:

* Evidence that the applicant has the necessary structure and expertise to ensure delivery
* Reference to current or previous activities in the specific technical domain of this project
* Critical review of the most efficient way to achieve the objectives in this Project ToR
* Effective proposed approach/methodology for the execution of the tasks
* Implementation schedule
* Clear pricing policy

Compliance with the first two (2) criteria is mandatory.

Proposals that are not considered compliant with these criteria will be discarded.

Priority will be given to technical quality of the proposals. Pricing considerations will be taken into account to ensure that the best value for money is achieved. Compatibility with the maximum budget allocated to this Project will be verified before placing a Service Contract.

Following the assessment process, ETSI reserves the right to grant contracts to other than the cheapest proposals, to accept or reject any offer completely or in part, or to reject all proposals, without providing the reasons. If no offer is accepted, ETSI may decide to abandon the work or proceed in any other manner ETSI may select.

**2.4 IPR and confidentiality Agreements**

The information provided in this CfE, as well as the fact that the applicant has received the CfE, is considered confidential and protected under copyright laws. The applicant may not discuss, share, or use the information in this CfE for any purpose other than the response to this CfE.

ETSI will not disclose the content of any proposals to other applicants or any other party, with the exception of the persons involved in the assessment process described in §2.3 above.

However, ETSI reserves the right to make use of the information provided in this proposal to improve this project definition for the purpose of this CfE or any other manner in which ETSI may decide to proceed to select the service providers.

If successful, the applicant will be required to sign a Service Contract, which includes IPR and Confidentiality clauses aligned with the relevant policies in the ETSI Directives.

**2.5 Preparation cost**

ETSI will not be responsible for any costs or expenses that the applicant may incur in preparing and/or submitting the proposal.

**2.6 Service Contract**

A Service Contract will be proposed to the applicants that will be selected to perform the work.

Details on the Terms and Conditions of this contract can be found on the ETSI Portal, at the following address: <https://portal.etsi.org/STF/STFs/Contracts.aspx>