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| ToR STF 672 (ISG CDM) |
| Version: 1.1 |
| Author: Bernhard Wehner – Date: 2022-05-10 |
| Last updated by: ETSI Secretariat – Date: 2023-05-25 |
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Terms of Reference –Specialist Task Force Proposal

STF 672 (ISG CDM)

CISE Data Model Release 2 (Domain Extension)

Summary information

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| --- | --- | --- |
| Approval status | Approved by ISG CDM (doc ref: CDM(23)044002)  | **YES** |
| Approved by Board#143 (6-7 June 2023) | **YES** |
| Reference Body | ISG CDM |
| ETSI Funding | **Maximum budget : 21.000 EUR** |
| Minimum of 4 ETSI Members Support | **YES** |
| Time scale | **From** | 2023-10-01 |
| **To** | 2024-07-30 |
| Work Items  | CDM 005 Release 2 “CISE Data Model” (Domain Extension) |
| Board priority | [ETSI STF funding criteria](https://portal.etsi.org/STF/STFs/Funding/ETSIbudget.aspx)

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| --- | --- |
| **Priority Criteria** |  |
| Maintenance of standards in mature domains |  |
| Innovation in mature domains | X |
| Emerging domains for ETSI | X |
| Horizontal activities (quality, security, etc.) |  |
| Societal good / environmental |  |

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Part I – STF Technical Proposal

# Rationale & Objectives

## Rationale

The ISG CDM is standardizing the technical solution of the EU- funded Common Information Sharing Environment for the Maritime Domain (CISE) project. Other EU- funded CISE related projects like the project ANDROMEDA demonstrated that the CISE solution is perfectly adaptable to being used in other public information sharing user communities like the land border control domain. In 2021, the ISG CDM therefore decided to include the land border domain as a reference for the more universal capabilities of the CISE solution by using the land border domain as an example, and incorporating the land border domain into the specifications.

This decision required the update of the WI of ISG CDM to incorporate all necessary modification arising from the land border domain extension, using the ANDROMEDA project results as reference.

In February 2023 the group expert in CISE and ANDROMEDA data model and rapporteur of WI CDM 005 Release 2 reported that he is not able to lead and support the development of this deliverable anymore and therefore, due to the lack of expertise on this topic within the ISG CDM stakeholders, funds for this work are needed.

## Objectives of the work to be executed

It is intended to update the published ISG CDM Work Item 005 “CISE Data Model” to incorporate the additional CISE Data Model entities that result from the domain extension approved by the ISG CDM.

## Previous funded activities in the same domain

The ISG CDM has applied for and received funding for STF 637 “CISE Data Model” in 2022. However, despite the intimate relation that might be implied by the terminology, STF 637 is dedicated to develop a test and validation environment for the CISE maritime dimension, and does not include any work with respect to the domain extension.

## Market impact

## Data sharing is considered a strategic resource and an essential utility for economic progress worldwide. The huge quantity of public data held by the EU both centrally and through the Member States could bring substantial benefits in terms of growth and innovation if mechanisms for safe and secure sharing are introduced. The potential benefits of Government-to-Business (G2B) and Business-to-Government (B2G) data sharing are significant for Europe, as recognised by the EU Data Strategy.

# In the maritime surveillance ecosystem, the exchange of information between the different maritime sectors as identified in EUCISE2020 FP7 project (i.e., Maritime Safety and Security, Border Control, Maritime Pollution and Marine Environment Protection, Fisheries Control, Customs, General Law Enforcement, Defence) is of paramount importance in order to facilitate decision making. This is the case not only within a given country but also among different countries (e.g. Homeland Security and Border Control). The benefit of such information sharing in the maritime sector is not new to this proposal as it has been extensively considered in the COpP project.

# Since the exchange of information between “legacy systems” cannot take place directly for different designs and implementations, there is always the need to deploy gateways/adaptors for letting the stakeholders exchange information “in a standardised way”.

# The same arguments hold true for the domain extension, as it demonstrates that the CISE technology can be readily adapted for use by other public authority user communities, thus reducing or even eliminating the need for separate time and resources consuming investigation. Industry working on information sharing projects in other public security domains will be able to resort to a proven solution that is flexible enough to be adapted to the needs of other domains.

## Consequences if not agreed

Without the approval of this STF proposal, the ISG will not be able to finalize the update of CDM 005 (release 2), the WI that incorporates the most significant elements of the domain extension, namely the additional data model entities identified in the ANDROMEDA project. Without the updated CDM 005, industry involved in information sharing systems between public authorities operating outside the maritime domain will have no reference on how to take into account the required additional data model entities. This might have consequences in terms of interoperability which is essential for a cooperative system and might hamper the deployment of an interoperable information sharing system

# Relation with ETSI strategy and priorities

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| --- | --- |
| **Priority Criteria** | **Rationale** |
| Maintenance of standards in mature domains |  |
| Innovation in mature domains | X |
| Emerging domains for ETSI | X |
| Horizontal activities (quality, security, etc.) |  |
| Societal good / environmental |  |

# ETSI Members Support

|  |  |  |
| --- | --- | --- |
| **#** | **ETSI Member** | **Supporting delegate** |
| 1 | BMWK | Bernhard Wehner |
| 2 | TRAFICOM | Kaisu Heikonen |
| 3 | CNIT | Paolo Pagano |
| 4 | IBM Deutschland | Joachim Beckh |
| 5 | Leonardo Spa | Lorenzo Iapoce |

# Deliverables

## Base documents

|  |  |  |
| --- | --- | --- |
| **Document** | **Title** | **Status** |
| ETSI CDM 005 V1.5.3 | CDM Data Model | Published |

## New deliverables

|  |  |  |  |
| --- | --- | --- | --- |
| **Deliv.** | **Work Item code****Standard number** | **Working title****Scope** | **Expected date for publication** |
| D1 | RGS/CDM-0020 | CDM Data Model Release 2  | July 2024 |

# Maximum budget

## Task summary/Manpower Budget

Provide the budget per task that should be allocated for this STF considering the provision of the expertise for the qualification required

The estimate of the manpower must include the cost for travels which are necessary to attend the working session.

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| **Task short description** | Budget (EUR) |
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| Project Management (T0) | 2.000 |
| ANDROMEDA Investigation (T1) | 3.000 |
| CISE Data Model development (T2) | 15.000 |
| **TOTAL** | 20.000 |

## Travel budget

F2F participation to two plenary CDM sessions: 500 Eur each, 1000 Eur total.

## Other budget line

No other budget will be required

Part II – Details on STF Technical Proposal

# Tasks, Technical Bodies and other stakeholders

## Organization of the work

The work will consist of theoretical structure analysis of existing documentation, and subsequent format transformation and fusion of ANDROMEDA project results into CDM 005 V2.1.1. It is expected that the work will require one expert only. The expert will be therefore responsible for the overall execution of the work, i.e.:

* developing CDM 005 V2.1.1
* providing the required (progress) reports to ISG CDM
* interacting with the ANDROMEDA project stakeholders as well as ISG CDM as needed
* making sure that the work progresses according to the agreed timeline

The work will be supervised and validated by ISG CDM. No steering group will be necessary.

Participation in at least 3 ISG CDM meetings is envisaged. Two F2F meetings are envisaged.

## Tasks for which the STF support is necessary

## In 2021, The ISG CDM noted the positive results of the EU-funded ANDROMEDA project, which demonstrated that the CISE technical solution could readily be used in other information sharing environments outside the maritime domain. The ISG CDM decided to include the land border domain also used by ANDROMEDA as a reference and example for the more universal capabilities of the CISE solution, and to incorporate the land border domain into the CISE specifications. With this, other public authorities in Europe faced with the challenge of cross-sectoral and cross-border information sharing would encounter reference system specification convenient to be easily adapted for their requirements, thus reducing the need for developing own systems and duplicating efforts.

# This decision required the update of the CDM data model (GS CDM 005 V1.5.3) to incorporate all necessary modification arising from the land border domain extension, using the ANDROMEDA project results as reference. Due to the unavailability of experts in ISG CDM, this work requires a dedicated committed resource.

## Other interested ETSI Technical Bodies

None

## Other stakeholders

EU Commission Services (DG MARE, DG GROW, DG MOVE) as both the initiating and funding organisation for CISE and ANDROMEDA.

Part III: Execution of Work

# Work plan, time scale and resources

## Task description

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| --- | --- |
| **Task 0 (T0)** | **Project Management** |
| **Objectives** | Overall management of the STF project in consideration of priorities, deadlines, quality check |
| **Input** | ETSI secretariat for the STF management, ISG CDM for the supervision of the work, review and approval of the output  |
| **Output** | STF progress report (D1.1) and final report (D1.2) to ISG CDM  |
| **Interactions** | ETSI Secretariat, ISG CDM stakeholders |
| **Resources required** | Management skills. |

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| **Task 1 (T1)** | **ANDROMEDA Investigation** |
| **Objectives** | Investigate ANDROMEDA project approach to CISE data model, identify data model entities added to original CISE data mode, and investigate methodology of integration of additional entities into existing data model according to CDM005 V1.5.3. Have a clear concept of* The Methodology used to describe the CISE data model in CDM005 V1.5.3
* The methodology used to describe the additional data model entities identified for use in the land border control domain during the ANDROMEDA project, detailed in ANDROMEDA D3.1
* How to integrate the ANDROMEDA data model entities into CDM005.

. |
| **Input** | CDM005 V1.5.3 ANDROMEDA D3.1 “e-CISE Data Model description“ |
| **Output** | Presentation of results to ISG CDM |
| **Interactions** | Consultation with and guidance by ISG CDM on methodology of work and desired outputConsultation with ANDROMEDA stakeholders on methodology usedConsultation with and approval of ANDROMEDA stakeholders on the use of related ANDROMEDA deliverables. |
| **Resources required** | Expertise in CISE and Data and Service models  |

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| **Task 2 (T2)** | **CDM Data model development** |
| **Objectives** | Update CDM 005 V1.5.3 incorporating the ANDROMEDA land border control domain data model entities, transforming them into the format used in CDM 005 V1.5.3.  |
| **Input** | Results of Task 1 |
| **Output** | Final draft of CDM005 V2.1.1 (D2.1) |
| **Interactions** | Consultation with ISG CDM stakeholders as well as ANDROMEDA project stakeholders as required. |
| **Resources required** | Expertise in CISE and Data and Service models  |

## Milestones

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Cut-Off Date** |
| **A** | T1 completed | **30.11.2023** |
| Reference Body Deliverable |  |
| ETSI Deliverable | STF Progress Report#1 (D1.1) approved by ISG CDM |

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Cut-Off Date** |
| **B** | Stable Draft RGS/CDM-0020 available | **30.04.2024** |
| Reference Body Deliverable | Stable Draft RGS/CDM-0020 (D2.1 S) available for review by ISG CDM. |
| ETSI Deliverable |  |

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| **Milestone** | **Description** | **Cut-Off Date** |
| **C** | T2 completed | **30.06.2024** |
| Reference Body Deliverable | Final Draft RGS/CDM-0020 (D2.1 F) approved by ISG CDM and accepted by the ETSI Secretariat for publication |
| ETSI Deliverable | STF Final Report#2 (D1.2) approved by ISG CDM |

## Task summary

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| --- | --- | --- | --- |
| **Code** | **Task / Milestone**  | Target Date | Estimated Cost (EUR) |
| From | To |
|  | Start of work |  |  |  |
| T0 | Overall management of the STF project | 01.10.2023 | 31.07.2024 | 2000 |
| T1 | ANDROMEDA Investigation | 01.10.2023 | 30.11.2023 | 3000 |
| Milestone A | T1 completed.  |  | 30.11.2023 |  |
| T2 | CDM Data Model Development | 01-12-2023 | 31.07.2024 | 15000 |
| Milestone B  | CDM 005 Stable draft |  | 30.04.2024 |  |
| Milestone C | CDM 005 Final Draft Approved for publication, STF closed |  | 30.06.2024 |  |
| Milestone D | Deliverable published |  | 31.07.2024 |  |
|  | **20000** |



# Expertise required

## Team structure

The STF will be composed of a single expert.

1 participant to ensure the following mix of competences:

|  |  |
| --- | --- |
| **Priority** | **Qualifications and competences** |
| High | Experience in information exchange systems |
| High | Experience in or work for CISE and/or CISE related projects |
| High | Data Modelling |

Part IV: STF performance evaluation criteria

# Performance Indicators

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| --- |
| **Select relevant Performance indicators applicable for these ToR (X)** |
| Contribution from ETSI Members to STF work |
| Direct financial contribution (co-funding) |  |
| Support to the STF 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 | x |
| Contributions/comments received from the reference Reference Bodies | x |
| Contributions/comments received from other Reference Bodies |  |
|  |  |
| **Contribution from the STF to ETSI work** |
| Contributions to Reference Body meetings (number of documents / meetings / participants) | x |
| Contributions to other Reference Bodies |  |
| Presentations in workshops, conferences, stakeholder meetings |  |
|  |  |
| **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  | x |
| Comments received on drafts (e.g. on WEB site, mailing lists, etc.) | x |
|  |  |
| **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 |
|  |  |

Time recording

For reporting purposes, the STF experts shall fill in the time sheet provided by ETSI with the days spent for the performance of the services

During the activity, the STF Leader shall collect the relevant information, as necessary to measure the performance indicators. The result will be presented in the Final Report.

# Document history

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| --- | --- | --- | --- | --- |
|  | **Date** | **Author** | **Status** | **Comments** |
| 1.0 | 2023-05-10 | ISG CDM | Final draft | Submission to ISG CDM for approval |
| 1.1 | 2023-05-25 | ETSI Secretariat | Final draft | Update before Board#143 submission |