



EUCISE2020

EUropean test bed for the maritime Common Information Sharing Environment

C. Matarazzi, ASI, EUCISE2020 Coordinator

MSEsG, Bruxelles, 08/12/2017



EUCISE2020 received funding from the European Union's seventh framework programme under grant agreement no: 608385





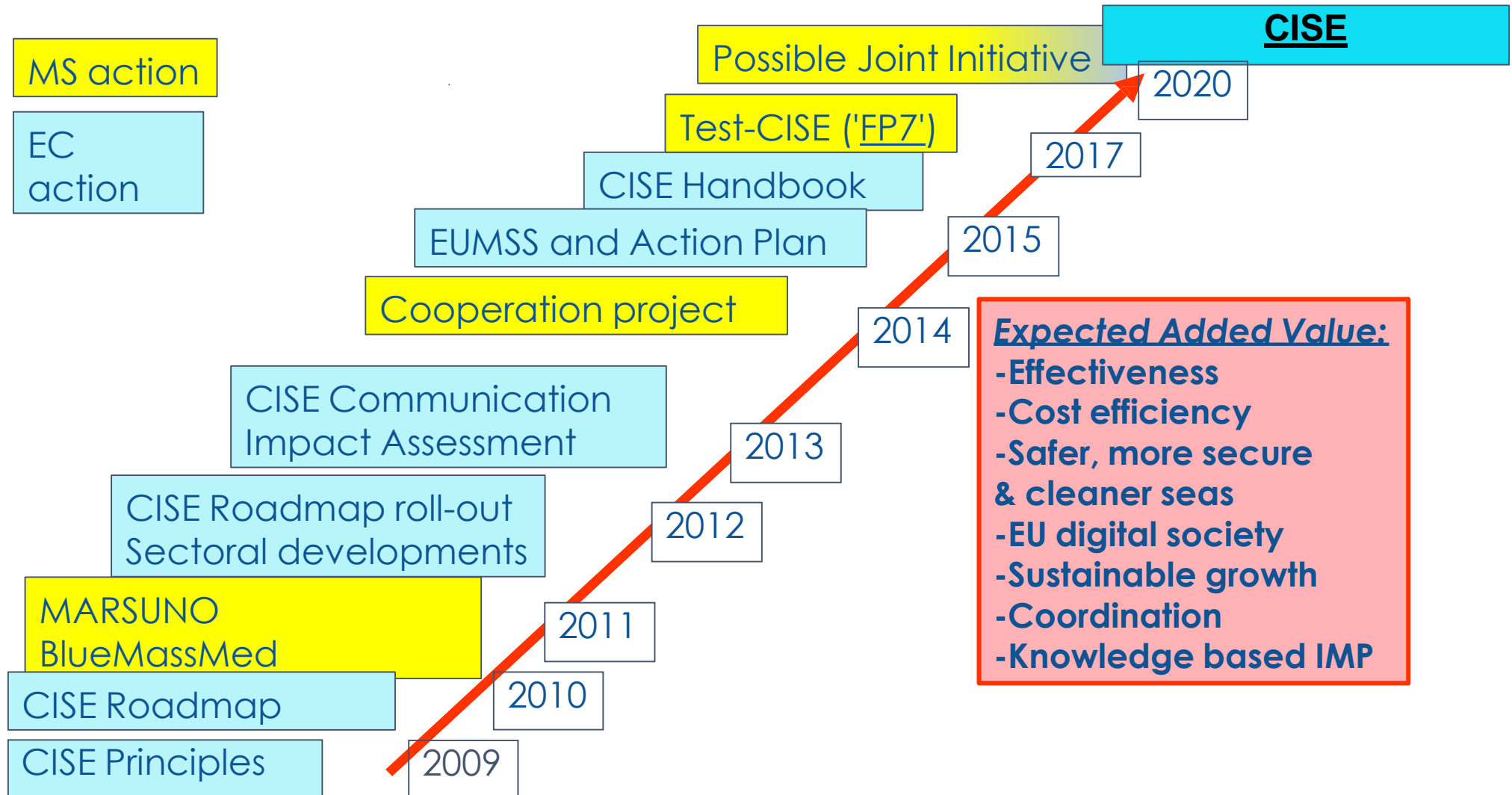
EUCISE 2020 project

- Roadmap and principles
- Development plan and Implementation status
 - WP6 Deployment and Integration
 - WP7 Validation
 - WP8 Assessment
 - WP10 Standardization and IPR
- Conference plan
- Plan the future Bridge to CISE implementation





CISE: Common Information Sharing Environment Cross – Sectorial interoperability for better “Maritime Governance”





EUCISE2020 Principles

- Military/civilian cooperation;
- Management of EU RESTRICTED information through a special channel
- Full decentralization according to CISE Hybrid Architecture: no central system, no central database
- Independence from any system and sensor
- Independence from any national or European architecture
- Firm adherence to standards and open source software
 - Adherence to the CISE data and service models
 - Promoting standardizations groups inside the EU bodies (ETSI)
- Open to new partners and to European Agencies
- IPR management and sharing
- Common technical architecture



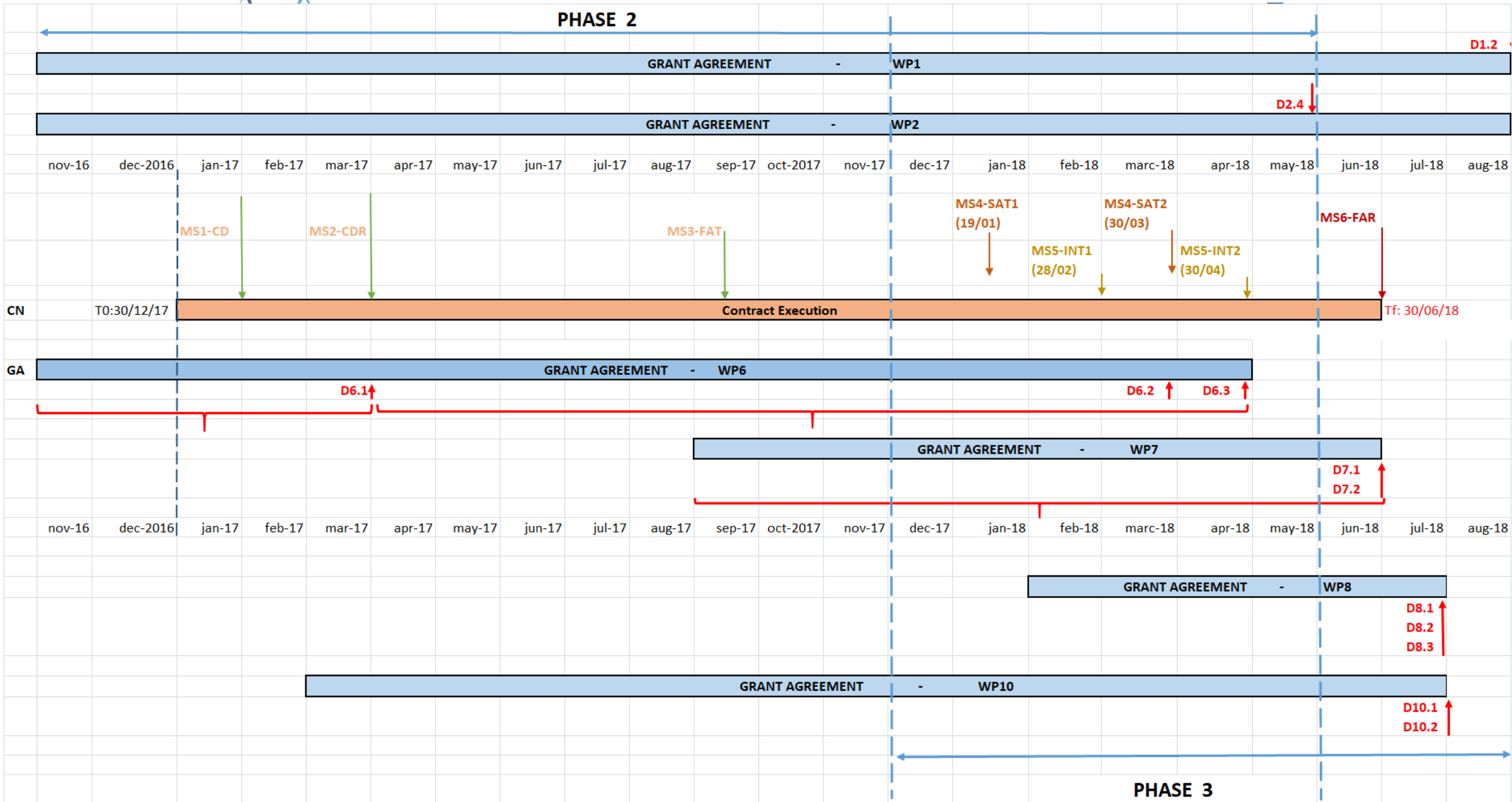


Development plan and Implementation status

- WP6 Deployment and Integration
- WP7 Validation
- WP8 Assessment
- WP10 Standardization and IPR



PHASE 2





WP6 Deployment and Integration

- Software delivered on November 30
- First group of nodes (3) ready for installation
- Installation and test completed in January
- Integration with legacy systems and initial information exchange completed in February
- Second group of nodes (9) installed and integrated as soon as each is ready
- Installation and test of the group completed in March
- Integration with legacy systems completed in April
- End of April information exchange among the 11 nodes and Dissemination Hub





WP6 Deployment and Integration

Nodes define their Access Rights

- Mapping of raw data (i.e. AIS messages, radar tracks, system tracks, alerts, etc.) into the EUCISE2020 Data Model considered complex by the field operators
- Intermediate mapping with the service model
- Final mapping to the CISE Data Model performed in the back office, with technical support of JRC





Guidelines for the Access Rights

Data categories made available on the EUCISE2020 network:

- Open Data, Unclassified: Data free and available to all partners on a voluntary base; at least data publicly available on the Internet
- Open Data available to User Communities, Unclassified: Data made available to specific User Communities on a voluntary base independently by bilateral or multilateral agreements
- Restricted Unclassified Data available to specific partners (confidential information) of each User Community based on existing bilateral or multilateral agreements. The information will not be disclosed by partners
- EU Restricted Data available to specific partners (confidential information) of each User Community through the EU Restricted channel. The information will not be disclosed by partners





Scope of Work Task 6.4 Deployment

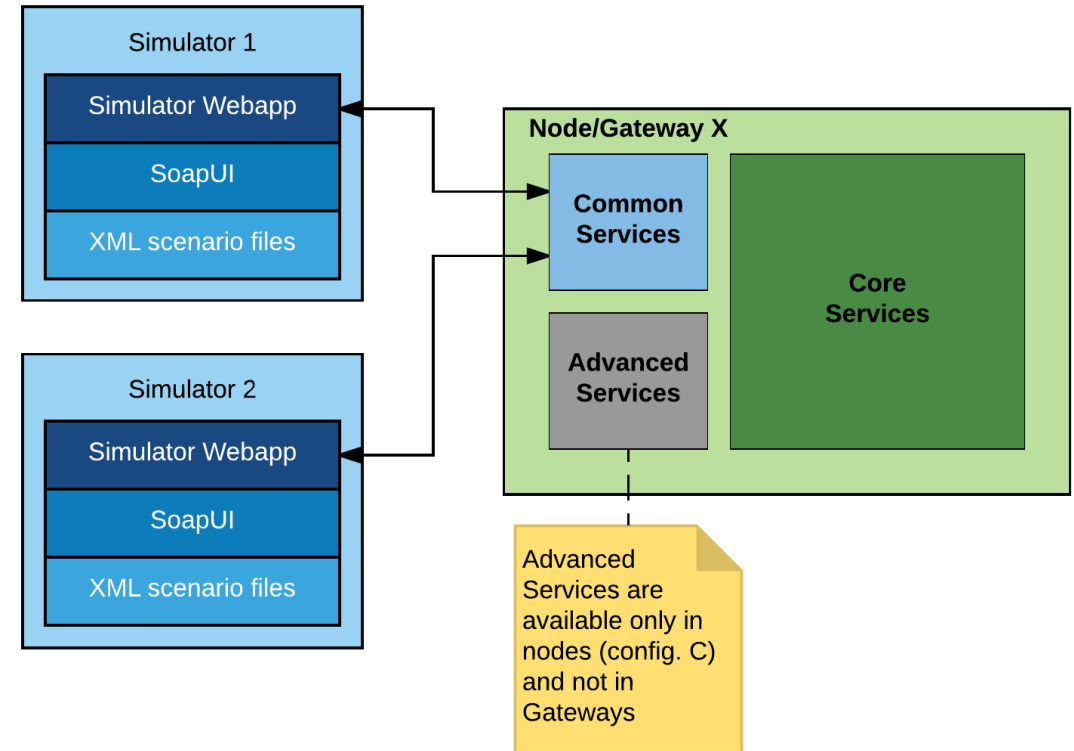
- **Objective:** Installation of EUCISE2020 Software (Common, Core and Advance Service) in the Operating Environment of EUCISE2020 partners participating in Testing Exercises.
- **Reference Contractual Milestone:** SAT
- **Scope of SAT:**
 - ✓ TEST SCENARIO 1: To Validate that EUCISE2020 Software is installed into the Member State Operating Environment
 - ✓ TEST SCENARIO 2: To Validate that information sharing between EUCISE2020 Node/Gateways is correctly implemented within the EUCISE2020 Network



Test Scenario 1 SAT - Environment Configuration

Ref. M16081.02.1019TR Rev.01.00 D1.4

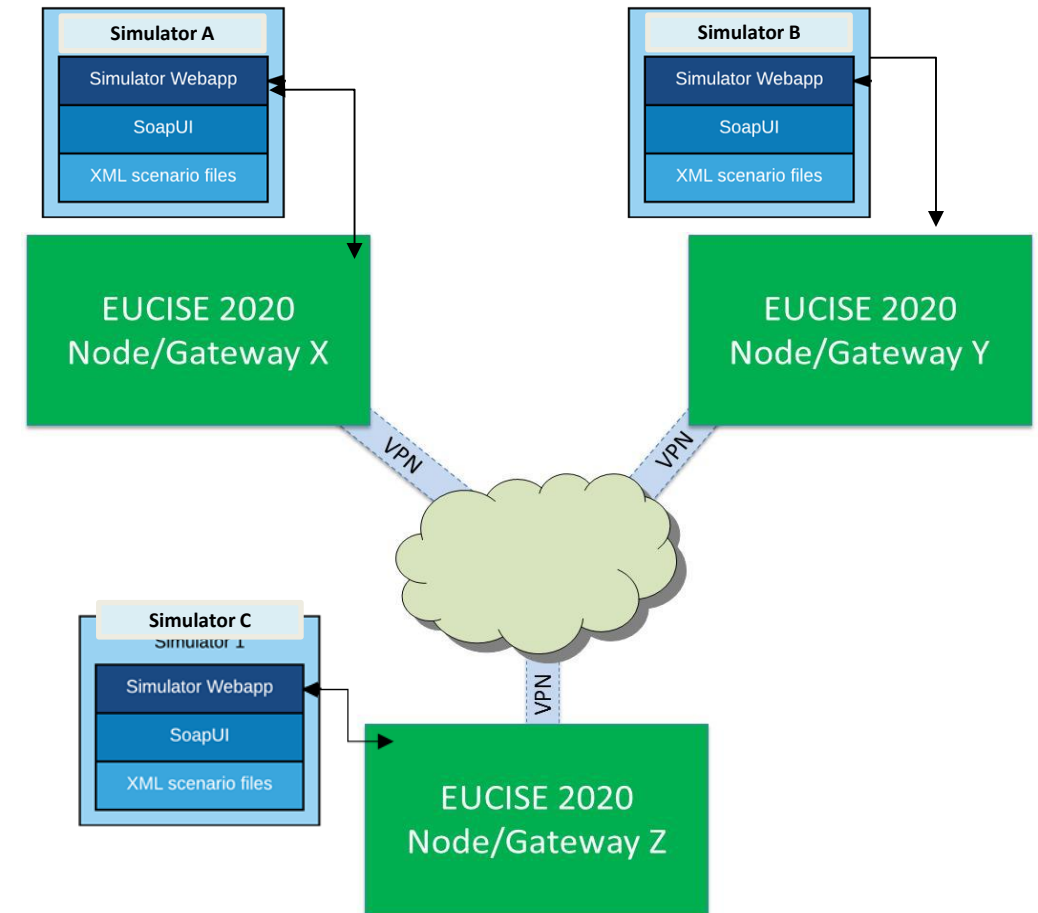
- The environment configuration shall include:
 - ✓ An EUCISE 2020 node element in configuration A/B (Gateway) or C (Node);
 - ✓ Two (2) simulators connected to the EUCISE2020 node. Both simulators shall play the role of “Provider Legacy System” or “Consumer Legacy System” according to the test scenario.
- The test will perform in corresponding environment the FAT test procedures enriched with additional tests covering at least the following areas:
 - ✓ Load Tests;
 - ✓ Performance Tests.



Test Scenario 2 SAT - Environment Configuration

Ref. M16081.02.1019TR Rev.01.00 D1.4

- The environment configuration shall include:
 - ✓ At least three (3) EUCISE 2020 components in configuration A/B (Gateway) or C (Node)
 - ✓ Three (3) simulators (named Simulator A, Simulator B and Simulator C), each of them connected to one of the EUCISE2020 components. Each Simulator shall play the role of “Provider Legacy System” or “Consumer Legacy System” according to the test scenario
- The approach is to perform in corresponding environment test procedures which will ensure the validation of End-to-End information sharing.
- To support the end-to-end tests with applicable operative scenarios, Test Scenario 2 Test Cases shall be based on a sub-set of EUCISE2020 Uses Cases.





WP7 Validation

- Training of validators
 - Training modules developed on Moodle
 - System operators in MS trained to validate the services
- Exercise and Data collection UNCLAS and CLASS (at least 4 MS will exchange EU Restricted data and information)
 - Network will operate for several months producing results
 - System operators will produce evaluations
 - Operation and results logged in files
 - Usage statistics collected
- Assembly Validation Results
 - Results collected and structured for the analysis





WP10 Standardization and IPR Proposal

- Setting up of IGS groups in ETSI to develop formal standards on
 - Technologies and Software
 - Data and service models
- Elaborate guidelines for the operational standardization
- Analyze and propose the governance model for CISE





WP8 Assessment

WP8 will start in February 2018 to perform the following analysis based on the information sharing experience:

- Operational Assessment
- Technological Assessment
- Legal Assessment
- Performance and Cost-Benefit Assessment
- Policy Recommendations





Conference plan

Planned events in 2018

- Workshop on EUMSS and EUCISE2020 with EAS
- Industry day on standardization with ETSI (Feb/Mar)
- VIP Day in North-Baltic seas in April
- Workshop/VIP day in Black Sea during EMD in May
- VIP Day in Atlantic in June
- VIP Day in Mediterranean in June
- Final EUCISE2020 Conference in July





Plan for CISE Implementation

- EUCISE2020 ends in August 2018
- Need to start with the CISE Implementation by February 2018, taking into account recommendations on:
 - Governance
 - IPR
 - Standards
 - Cost factors (operation and maintenance costs; costs for new entrants; costs impacts on current national nodes)





Open points

- Software intellectual property policy
- Recommendations on the CISE governance
- Definition of infrastructure governance after the end of EUCISE2020
- Agreement between the Member States participating in the infrastructure to continue information sharing after the end of EUCISE2020





Position of the EUCISE2020 Consortium

- A precise position has not yet been defined
- The position will be based on the cost-benefit analysis and on the added value of the implemented solution
- The general orientation concerns:
 - Investment protection
 - Adherence to the CISE principles
 - Role of the Member States in the operation





Background information



EUCISE2020 received funding from the European Union's seventh framework programme under grant agreement no: 608385





EU's common foreign and security policy (CFSP) June 2017

Second Report on Implementation of EUMSS

Latest developments involving the EEAS, EDA and the Commission

On CISE (action 2.1.1), the Commission has put great emphasis on ensuring the progress of and necessary coherence between ongoing and new preparatory actions:

- **The EUCISE 2020 POV** project has reached phase 2 — development of the test-bed. The POV consortium will use the test-bed in phase 3 (from November 2017) to validate the CISE solutions, together with the builder (an industry consortium). The project will deliver its final results in the first half of 2018
- **Member States that participated in the EUCISE 2020 project considered it an important step towards completing the roadmap for CISE.** Member States participate in various CISE projects and exercises to improve and enhance interoperability between their various maritime authorities at national level. **The focus is on testing and validating the CISE concept for exchanging data at sectoral, cross-sectoral and cross-border level.**
- Member States are running national research activities and development projects to investigate **options for connecting EUCISE 2020 gateway with national legacy systems**





Cost factors at national level

Some preliminary estimate of costs for new entrants.

The figures will be released by December 2017, based on the experience of the activated 11 nodes/gateways and the almost 20 adaptors:

- For each adaptor approx. 50K€
- Restraint Channel (SW, HW, VPN, Crypto device, Installation) approx. 300K€
- HW node C approx. 60K€
- SW node/gateway installation and engineering approx. 40K€





Concept of EUCISE2020 dissemination hub

Mechanism used to make available the data/information:

- A specific dissemination server will manage the credentials of partners/institutions which asked to access the open data
- The open data made available by all EUCISE2020 nodes will be fused in a unique European maritime picture, using the same fusion function developed for the national C nodes
- The data will be accessed in full or in restricted modes, based on the User Community of the requester
- The server will be hosted by one voluntary partner (Satcen? Or other partners willing to host the server)





Plan for CISE Implementation

EUCISE2020 Consortium highlights the need to plan its engagement with CISE Implementation, taking into account the goal to have CISE operational by 2020.

On behalf of the Project Consortium, the following points are highlighted:

- The need to maintain operational the information exchange infrastructure between the 11 countries participating in the pre-operative CISE phase after the end of EUCISE2020 (August 2018)
- Definition of infrastructure governance criteria implemented
- Protection of the intellectual property of the partners, who financed the pre-operative phase
- Adherence of CISE Implementation to CISE principles, to which EUCISE2020 conformed; in particular:
 - Cross-sector and cross-border exchanges of information
 - Inclusion of all user communities
 - Civilian military cooperation
 - Fully decentralized architecture without centralized databases or monitoring functions
 - Full adherence to functional and technological standards
 - System to system interoperability



EUCISE2020 received funding from the European Union's seventh framework programme under grant agreement no: 608385

