Common Information Sharing Environment (CISE)

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Stimulating innovation
Supporting legislation

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Common Information Sharing Environment (CISE) for maritime surveillance

The CISE aims at creating a political, cultural, legal and technical environment to enable information sharing between existing and future surveillance systems and networks.

Interoperability between systems should be established in a decentralized way using modern technologies. It will give all concerned authorities access to the information needed for their missions at sea based on the ‘need to know’ and ‘responsibility to share’ principles.
Policy background

• Commission Communication on an Integrated Maritime Policy for the European Union and Action Plan, presented on 10 October 2007;
• Presidency Conclusions of the European Council on 14 December 2007;
• Council Conclusions on the Integrated Maritime policy on 8 December 2008;
• Council conclusions on integration of maritime surveillance Brussels, 17 November 2009;
• COM(2010) 854 final of 20.10.2010: Communication on a 'Draft Roadmap towards establishing the Common Environment for the surveillance of the EU maritime domain';
• the “Limassol Declaration” on 7 October 2012.
CISE - Guiding principles

1. CISE must allow interlinking any public authority in the EU and in the EEA involved in maritime surveillance.
2. CISE must increase maritime awareness based on need-to-know and responsibility-to-share principles.
3. CISE must privilege a decentralised approach at EU-level.
4. CISE must allow interoperability among civilian and military information systems.
5. CISE must allow interoperability among information systems at the European, national, sectorial and regional level.
6. CISE must privilege reuse of existing tools and technologies.
7. CISE must allow seamless and secure exchanges of any type of information relevant for maritime surveillance.
8. CISE must be sector neutral.
9. CISE must make it possible for information providers to change their service offering.
Maritime Surveillance
So much information…but not always shared!

Reporting
- SSAS
- GMDSS
- Fax
- AIS
- LRIT
- Satellite AIS
- Radio
- VMS
- VTS

Intelligence
- HUMINT
- SIGINT
- IMINT
- COMINT

Platforms
- Coastal
- Airborne
- UAS
- Ship-borne
- UUV
- Satellite

Sensors
- Radar
- Visual
- Acoustic
- ELINT
- FLIR
- SONAR
- ISAR
- HF-radar

Data bases
- Ship registers
- Ports info
- Fishing licenses
- Marine data
- Criminal registers
- European Atlas of the Seas
CISE Technical Advisory Group (TAG)
All Users’ Communities (sectors) and Agencies are represented in TAG

MEMBER STATES’ Authorities

- Enhanced information sharing
- Enhanced situational awareness
- Enhanced cooperation at sea

- BORDER CONTROL (Frontex)
- DEFENCE (EDA)
- MARINE ENVIRONMENT (EEA)
- FISHERIES CONTROL (EFCA)
- GENERAL LAW ENFORCEMENT (Europol, MAOC-N, CeCLAD-M)
- CUSTOMS
- MARITIME SAFETY AND SECURITY (EMSA)

CISE
Information GAP today

New Access
Improved Access
Presently Accessed
Owned Data
European Interoperability Framework Levels

- **Policy alignment**
  - Integration, best practices, new applications, build community, standards

- **Legal**
  - Priorities / standards for core and domain-specific information

- **Organisational**

- **Semantic**

- **Technical**
  - Re-usable technical solutions, standards, guidelines

- **Technical community**
  - Technical documentation, collaborative platform
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<th>Architectural Building Blocks</th>
<th>Core CISE</th>
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<td>Single authority at Member State level (manages the service Catalogue)</td>
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<td>Single authority at Member State level and Sea Basin level</td>
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<td><strong>Integrated maritime awareness pictures model</strong></td>
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<td>Data classification levels &amp; Access profiles</td>
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<td><strong>Technical Specifications</strong></td>
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<td>Messaging protocol</td>
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<td>Correlation and fusion rules</td>
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<td>Service discovery specification</td>
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<td><strong>Reference implement.</strong></td>
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<td>Gateway (for data exchange)</td>
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<td>Service discovery coordinator</td>
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<td><strong>Services</strong></td>
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<tr>
<td>Catalogue of CISE (technical) services</td>
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**Interoperability Agreements:**

- EU-wide CISE interoperability agreement
- Voluntary action
- EU-wide CISE interoperability agreement (voluntary to use)
Use Cases

Cooperation Project
(> 50 Admin.
11 Countries)

FP7
POV

Impact Assessment

White Paper
followed up by
Legislation

Technological Study

CISE Core functionalities

Existing Landscape

Vision

Options

Requirements

2012
1 July 2013

2013

2016

2020

CISE

Legal

Economic

Social

Environmental

Joint Research Centre
Reaching semantic (interoperability) agreements on common semantics is a complex and demanding process. It cannot be performed in an ad hoc fashion.

The Cooperation Project will develop (in just 1 year) common data models, code-lists and identifiers to facilitate the exchange of information among public administrations and EU agencies.
CISE & INSPIRE

• Reusing methodologies & best practices
• Reusing and/or extending data models
• Standardization
Thank you for your attention

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