

# GMV Solutions and Experience in the CISE Ecosystem

4th CISE Virtual Open Day  
December 11<sup>th</sup>, 2025



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# Who we are

# Who We Are

Multinational  
technology  
group



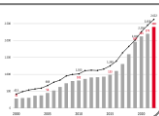
Headquarters in  
Spain (Madrid)

4000 +  
employees

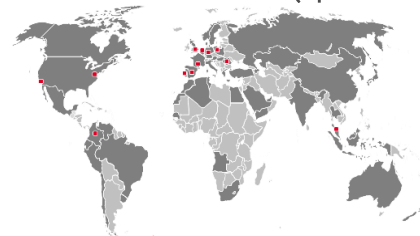


Private equity

500 M€  
Revenues



Premises in 12 countries (ops in 70+)



CMMI level 5



Aeronautics, Defense and Space



Systems  
smart transportation



Information  
Technologies



#1 global provider of  
satellite control centers for  
commercial telecom  
operators (+900 satellite  
missions worldwide)



Responsible for the critical  
security systems of  
European GNSS systems  
(EGNOS and Galileo)  
Primary contractor for the  
Galileo ground control  
segment



Reference provider of  
C4ISR systems

Spanish co-leader of the  
FCAS/NGWS Remote  
Operator Pillar



Leader in Intelligent  
Transportation Systems  
(+100 cities on 5  
continents)

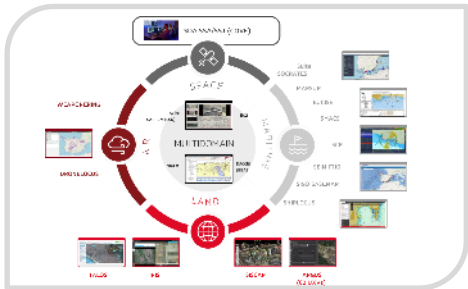
Leader in high-precision and  
safe GNSS positioning for  
autonomous driving



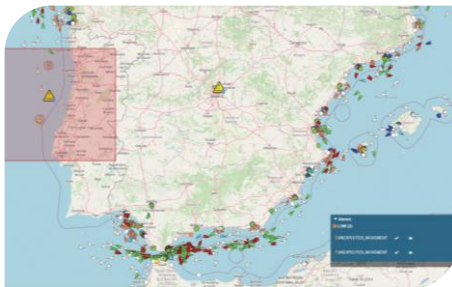
Pioneer in cybersecurity for  
banking and  
communications and a  
leading provider for  
European agencies

World leader in ATM  
cybersecurity protection

# GMV en Defensa y Seguridad



## Multidomain Command and Control



## Multinational ISR interoperability across NATO operations



## Maritime and Border Surveillance Systems

EUROSUR, FRONTEX



## Resilient PNT systems

Mission-critical operations in GNSS-challenged or denied environments



## Safety-critical software and hardware

FCAS, EUROTDRONE, SIRTAP



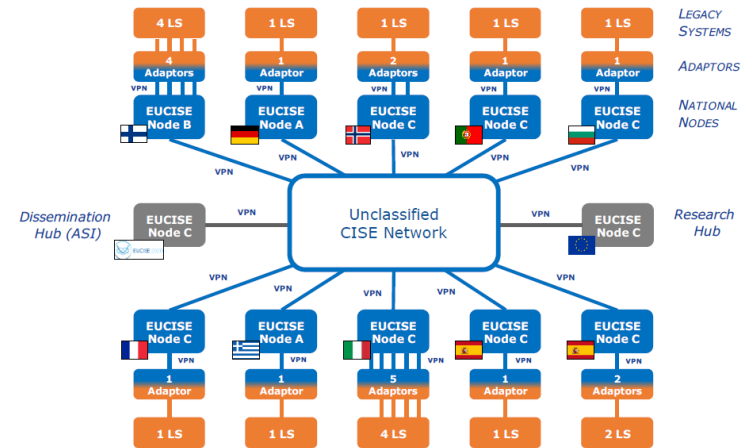
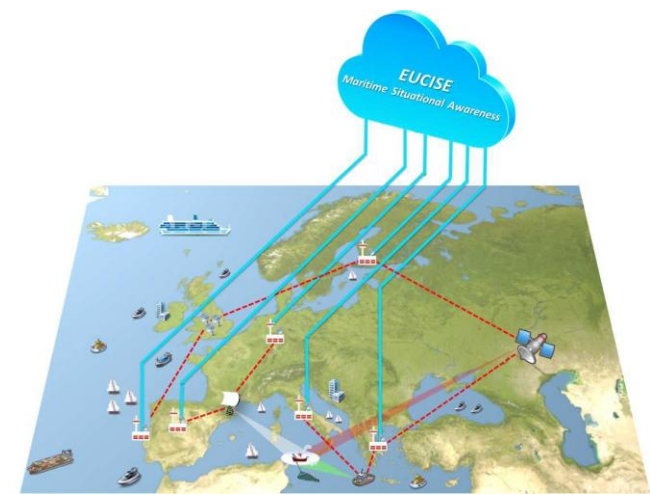
## Cybersecurity of mission-critical systems

EDA, FRONTEX, ESA

# GMV background in CISE

# Background

- EUCISE2020.
- H2020 projects with CISE feature (MARISA, ANDROMESA, PROMENADE)
- Adaptors for national agencies (Navy, Customs, Search and Rescue, Guardia Civil and Fisheries)
- MARSUR CISE bridge.



# GMV solutions for CISE

Who we are

GMV Background in CISE

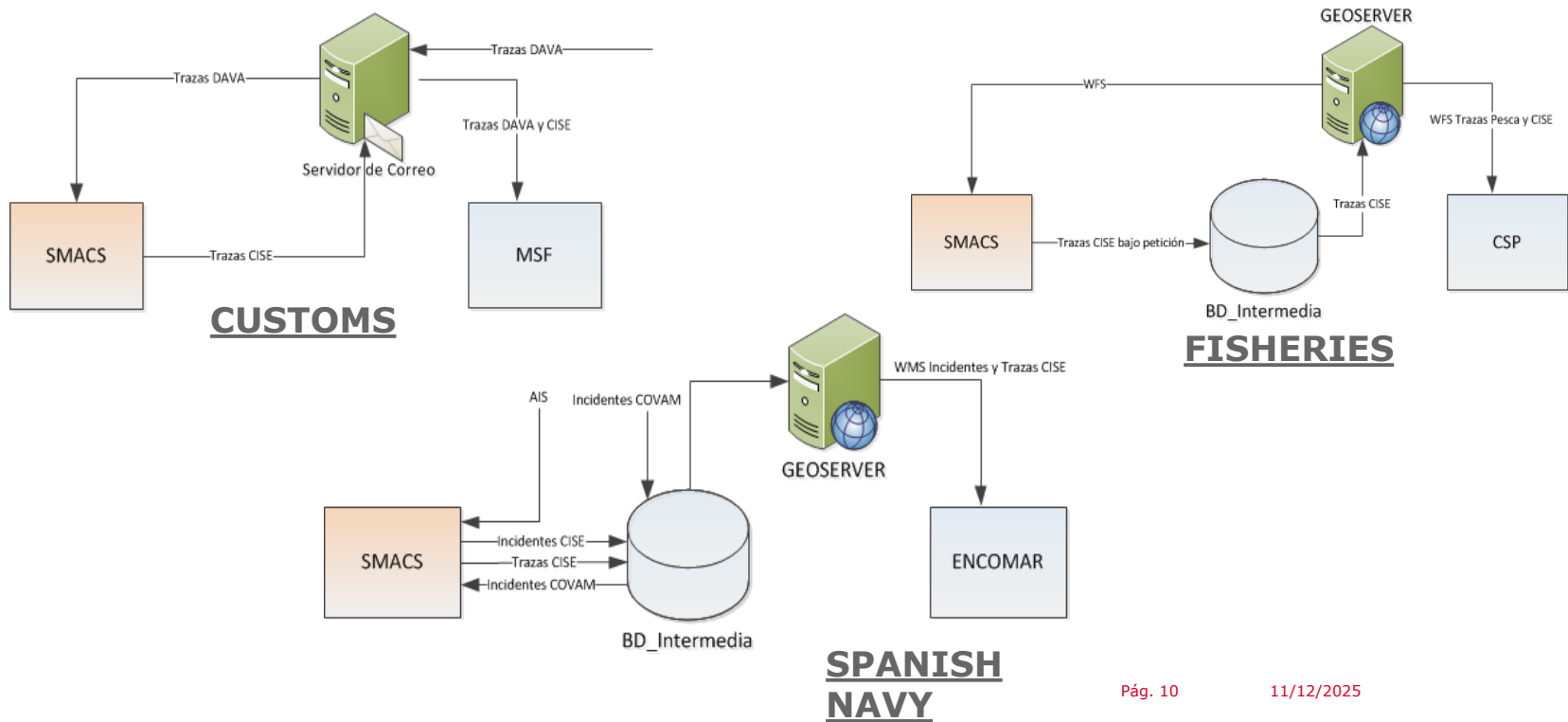
GMV solutions for CISE

Conclusions

# SMACS.

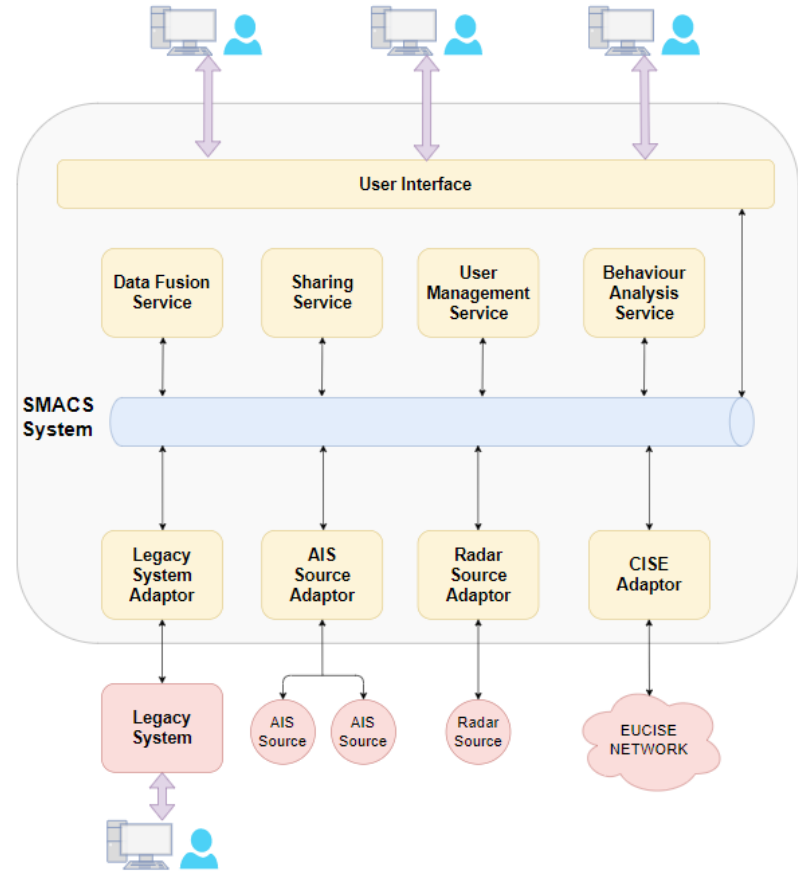
# SMACS. CISE adaptor

CISE adaptor developed by GMV to connect different National agencies (Customs, Fisheries and Spanish Navy without updating the legacy systems).



# SMACS Overview

- SMACS is a system based on **components** loosely coupled and independent.
- Designed to be easily **customizable** to be integrated with any surveillance system.
- Easily **scalable** adding **advanced services** to exploit the information received.
- **Open Source** Technologies.

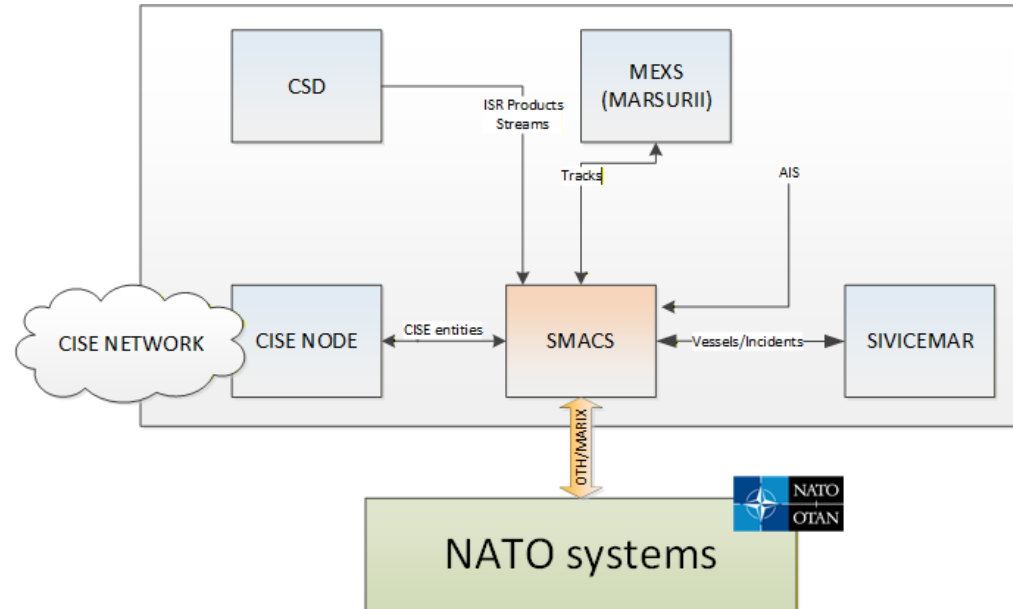


# SMACS roadmap

First version started with the connection from CISE Node to the legacy System.

In the different updates new systems were included, so the current version deployed connect the following systems/networks:

- CISE network.
- AIS.
- MARSUR.
- CSD – JISR system,
- SIVICEMAR – legacy system.
- OTH-GOLD
- MARIX
- NATO systems like MCCIS, NORCCIS...  
Tested in several CWIX exercises.



## EUCISE Entities Support



# EUCISE

## Service Management

- Discover EUCISE services.
- Select services to send requests.
- Subscribe to services.

### Service discovery

Pull

Vessel Service

Discover

Show 10 entries

Search:

	Service ID	Sea Basin	Service Operation	Info	Actions
	prst01-node01.node01.eucise.it.vessel.vesselservice.pull.provider	MEDITERRANEAN	PULL	Already added	

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

### Subscriptions

Show 10 entries

Search:

Service ID	Expiration date	Status	Actions
prst01-node01.node01.eucise.it.vessel.vesselservice.subscribe.provider	29-10-2021	ACTIVE	

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

### Pull

Show 10 entries

Search:

Service ID	Actions
prst01-node01.node01.eucise.it.vessel.vesselservice.pull.provider	

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

# Sharing Information

## One-time or periodic

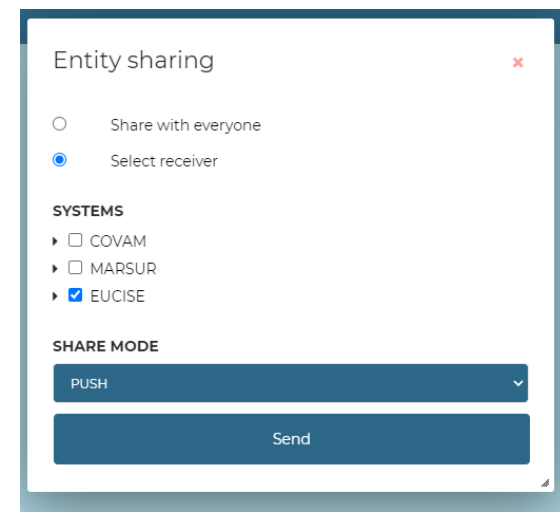
Operator controls what is being shared and to whom.

The information can be shared with all or with specific networks or receivers.

EUCISE has two sharing modes:

- PUSH.
- SUBSCRIBE.

Conditions that entities must meet to be shared.



Entity sharing

☐ Share with everyone

☒ Select receiver

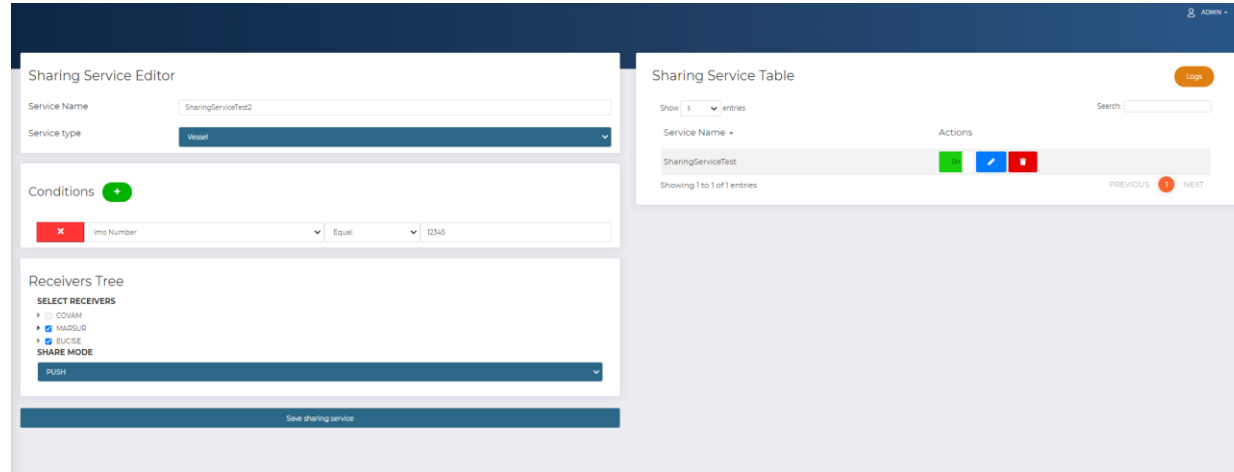
**SYSTEMS**

- ▶ ☐ COVAM
- ▶ ☐ MARSUR
- ▶ ☒ EUCISE

**SHARE MODE**

PUSH

Send



Sharing Service Editor

Service Name: SharingServiceTest2

Service type: Vessel

Conditions: +

imo Number: Equal: 12345

Receivers Tree

**SELECT RECEIVERS**

- ▶ ☐ COVAM
- ▶ ☒ MARSUR
- ▶ ☒ EUCISE

**SHARE MODE**

PUSH

Save sharing service

Sharing Service Table

Show: 5 entries

Search:

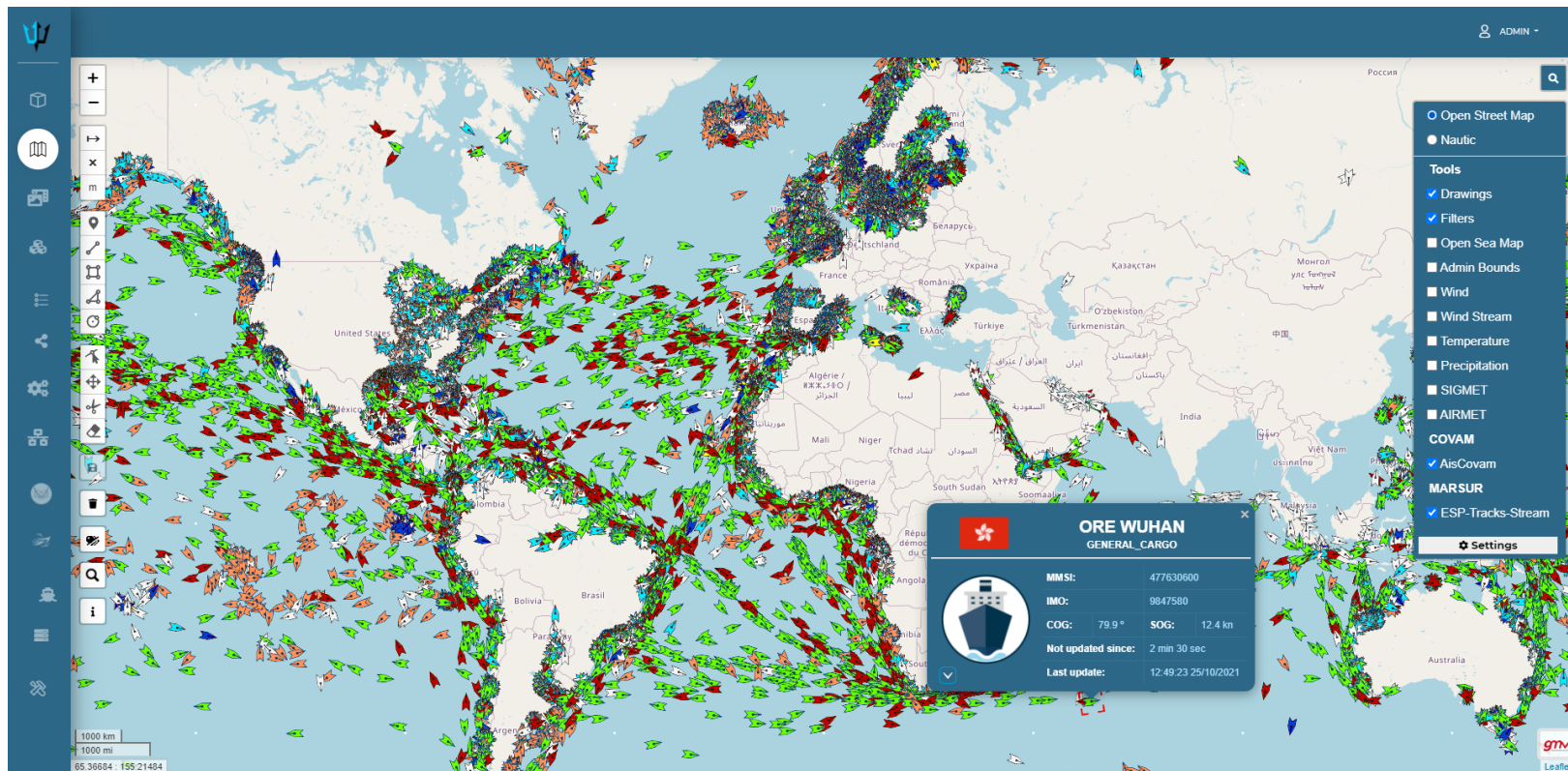
Service Name: SharingServiceTest

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

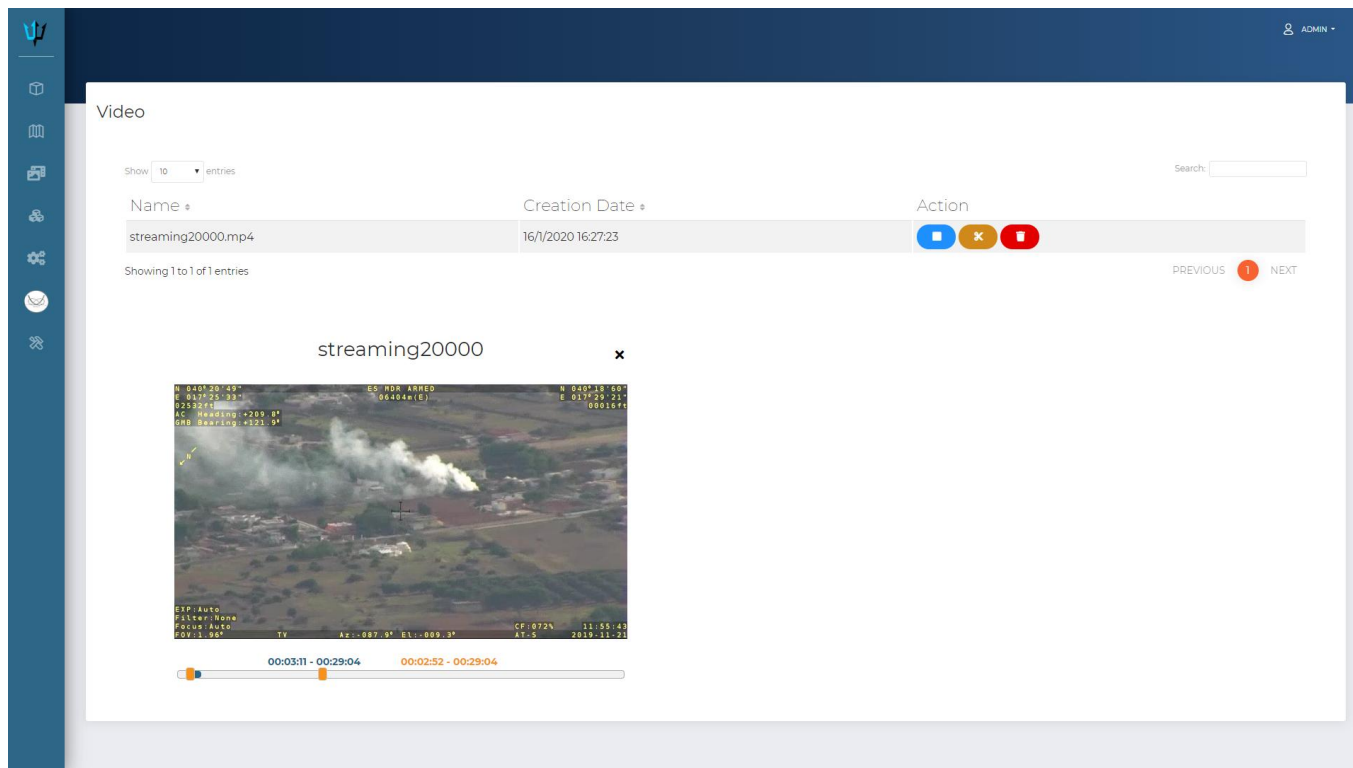
# GUI

High performance. Display > 30.000 tracks in different layers according to the origin.






# Advanced Capabilities

## Video Streaming



The screenshot displays a web-based video management interface. On the left is a dark blue sidebar with icons for home, list, map, and other functions. The main content area has a dark blue header with a user profile icon and the text 'ADMIN'. Below the header, the 'Video' section contains a table of video entries. The table has columns for 'Name', 'Creation Date', and 'Action'. One entry is visible: 'streaming20000.mp4' created on '16/1/2020 16:27:23'. The 'Action' column contains three buttons: a blue play button, a yellow stop button, and a red delete button. Below the table, it says 'Showing 1 to 1 of 1 entries'. To the right of the table is a search bar and navigation links 'PREVIOUS' and 'NEXT'. Below the table, a video player is shown for the selected video 'streaming20000'. The player displays an aerial view of a landscape with smoke rising from a point. The video has a duration of 00:03:11 and is currently at 00:02:52. The player interface includes a progress bar, a volume icon, and a full-screen icon. The video frame has a black border with yellow text overlays providing technical data such as coordinates, altitude, and camera settings.

Name	Creation Date	Action
streaming20000.mp4	16/1/2020 16:27:23	  

Showing 1 to 1 of 1 entries

PREVIOUS **1** NEXT

streaming20000

00:03:11 - 00:29:04 00:02:52 - 00:29:04

# Advanced Capabilities

## Anomaly Behaviour

Create new rule

Type

Entering area

Name:\*

EnteringAreaRule

Included areas:

1

POLYGON ((-10.469971 35.478565, -10.469971 36.511844, -8.4

Add item

Excluded areas:

Add item

Included vessel identifiers:

Add item

Excluded vessel identifiers:

Add item

Priority:\*

VERY\_HIGH

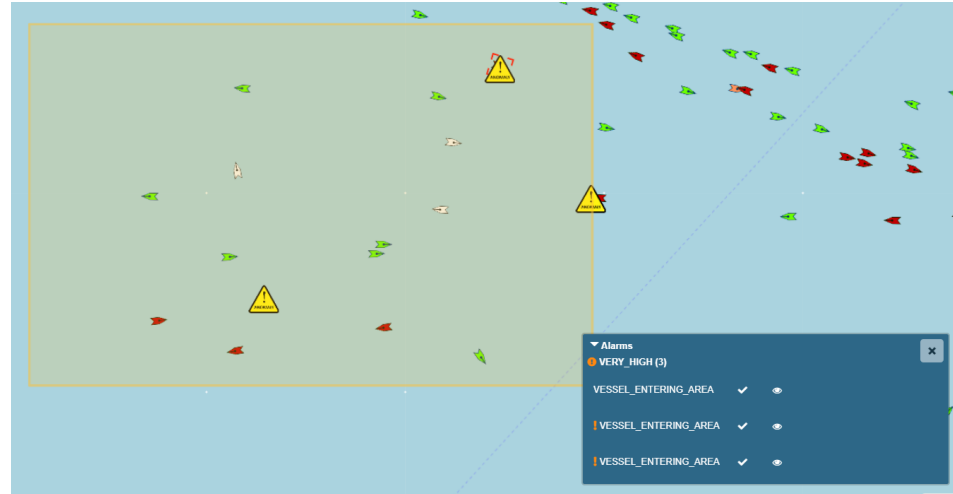
Validity start:

23/10/2021 13:31

Validity end:

27/10/2021 13:31

Submit



# CISE pre-operational services

The pre-operational services are processes that may comprise two or more CISE data model services each, one of which is the main service and the others are complementary.

- **Vessels of Interest list.** A service that intends to address a situation where an authority wants to notify other authorities of a vessel or set of vessels which are considered to be a risk for security or safety reasons, have breached regulation(s) or for other reasons, and the authority would expect to be notified when the vessel is detected.
- **Event reporting.** A service to disseminate and consume relevant information about observed or likely events, considered relevant for safety or security reasons or other coast guard functions. The events may occur on board of seaborne or airborne assets, as well as in locations in the maritime domain.
- **Risk profile.** A service to share risks in particular maritime geographical places (areas and locations) that may affect vessels, activities, or the environment, with other actors that have no access to the systems used in the EU environment for that purpose.

# Next steps

- **Stream management.** Capability to consume and share AIS streaming.
- **Health API.** Local node status, remote nodes, participants, local participants status.

Salud Del nodo Local: OK

Alertas: 0

Última actualización: 10-21-39 01/12/2025 (UTC+1) Actualizar

**Nodos remotos**

Mostrar: 25 registros

Filtros: ☒ Activa ☒ Desconectada ☒ Error

ID de nodo	Autoridad	Estado	Fecha de respuesta (UTC+1)	Acción
bg.nod01	Bulgarian Executive Agency "Maritime Administration"	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
de.nodede	Department of Transportation	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
eu.nodetna	EMSA	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
eu.nodet2	EFCA	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
fi.nodet1	Finnish Border Guard	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
fr.nodet1	SCMair	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
gr.nodogr	Hellenic Navy / CACS	OK	10-21-39 01/12/2025	<span>!</span>
gu.nodogu	Guardia Civil	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
it.nodet1	Italian Coast Guard	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
it.nodet2	Agenzia Spaziale Italiana	ENCONTRADO	10-21-39 01/12/2025	<span>!</span>
si.nodesi	Slovenian Maritime Administration	OK	10-21-39 01/12/2025	<span>!</span>

Mostrando del 1 al 11 de 11 registros

ANTERIOR 1 SIGUIENTE

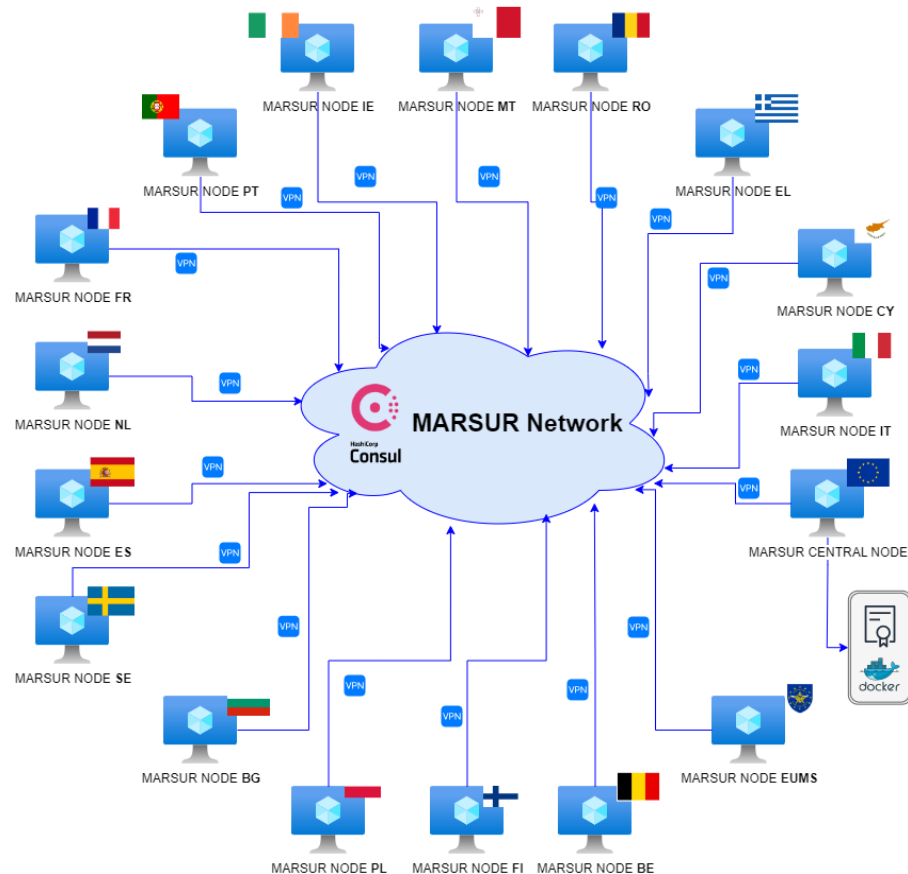
# MARSURIII CISE bridge

# MARSUR III

**Maritime Surveillance (MARSUR)** is one of the longest collaboration projects in the European Union.

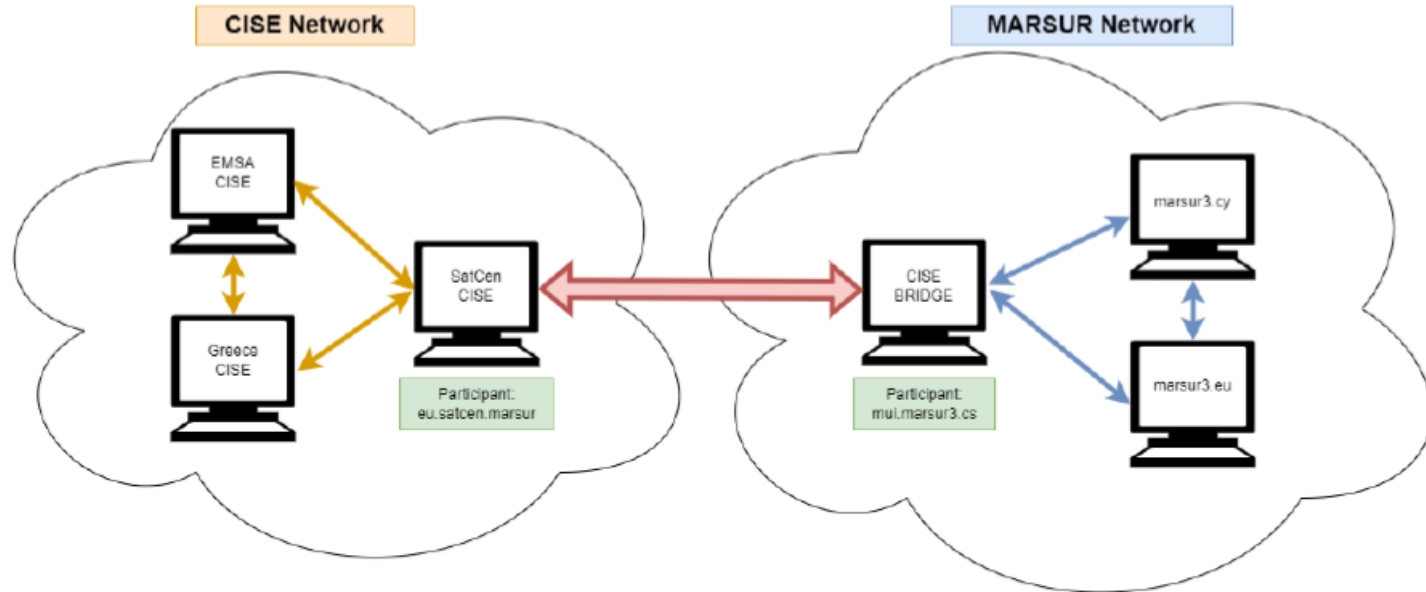
Its aim is to promote the exchange of information between Maritime Operation Centres of European countries in order to effectively create a common Maritime Situational Awareness (MSA).

GMV delivered on 2024 MARSUR III project, deploying MEXS and MUI solutions.



# MARSUR III and CISE

- Both networks are very related. MARSURIII data model is based on CISE data model extending some of the entities.
- CISE bridge deployed at SATCEN for allowing data exchange between both networks.



# CISE Bridge capabilities

- From MARSUR, any node might share information with CISE network. Not with a specific participant.
- From CISE, any participant might share information with MARSUR network. Not with a specific participant.
- CISE bridge, internally, checks its access right matrix and share CISE information only with MARSUR nodes that belongs to the cooperation agreement.
- MARSUR nodes can not share any entities previously received from CISE.

# CISE Bridge next steps

- **Stream management.** Capability to consume and share AIS streaming.
- MARSUR III is going to include **pre-operational services**, so CISE bridge will be updated to support these new capabilities:
  - Subscribe/pull
  - VOI service (report on detection, notification on detection)
  - Risk profile service
  - Event reporting service

# Conclusions

# Conclusions

- GMV has become a reference company in the development and deployment of CISE capabilities in Europe.
- SMACS is a flexible and mature adaptor that can be tailored to each agency's needs.
- MARSUR III and the deployment of the CISE–MARSUR Bridge demonstrate how defence and civil-security networks can converge to build a more integrated European maritime information space.

***Together with the CISE and MARSUR communities, we will keep advancing technology and operational solutions that enable a safer, more connected and more secure maritime domain for Europe***

**Thank you**

David Merino

Head of Maritime Surveillance Division

[dmerino@gmv.com](mailto:dmerino@gmv.com)