



BluemassMed
BLUE MARITIME SURVEILLANCE SYSTEM MED



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Pilot Project for the Integration of Maritime Surveillance on the Mediterranean Area and its Atlantic Approaches

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BluemassMed Fundamentals

- Context and challenges
- Added Value of Satellite Services
- Organization, management and figures
- Objective and Principles of Cooperation
- Accomplishments
- Success factors

Context and challenges

European initiatives for maritime security

Maritime surveillance is a *sine qua non* for prevention and response to security incidents.

Comprehensive approach to surveillance: Integration through a Common Information Sharing Environment (**CISE**) under the **Integrated Maritime Policy** for the EU

- Political**: Internal Security Strategy - The basis for concerted action to address common security challenges (border management component most relevant in the maritime domain)
- Regulatory**: mainly maritime transport legislation - Extensive legislation by IMO and EU to address ships' and port security
- Technical**: Building new surveillance capabilities **mainly based on satellite technologies** (GMES, satellite imagery, Galileo, LRIT, SAT-AIS...)

Context and challenges

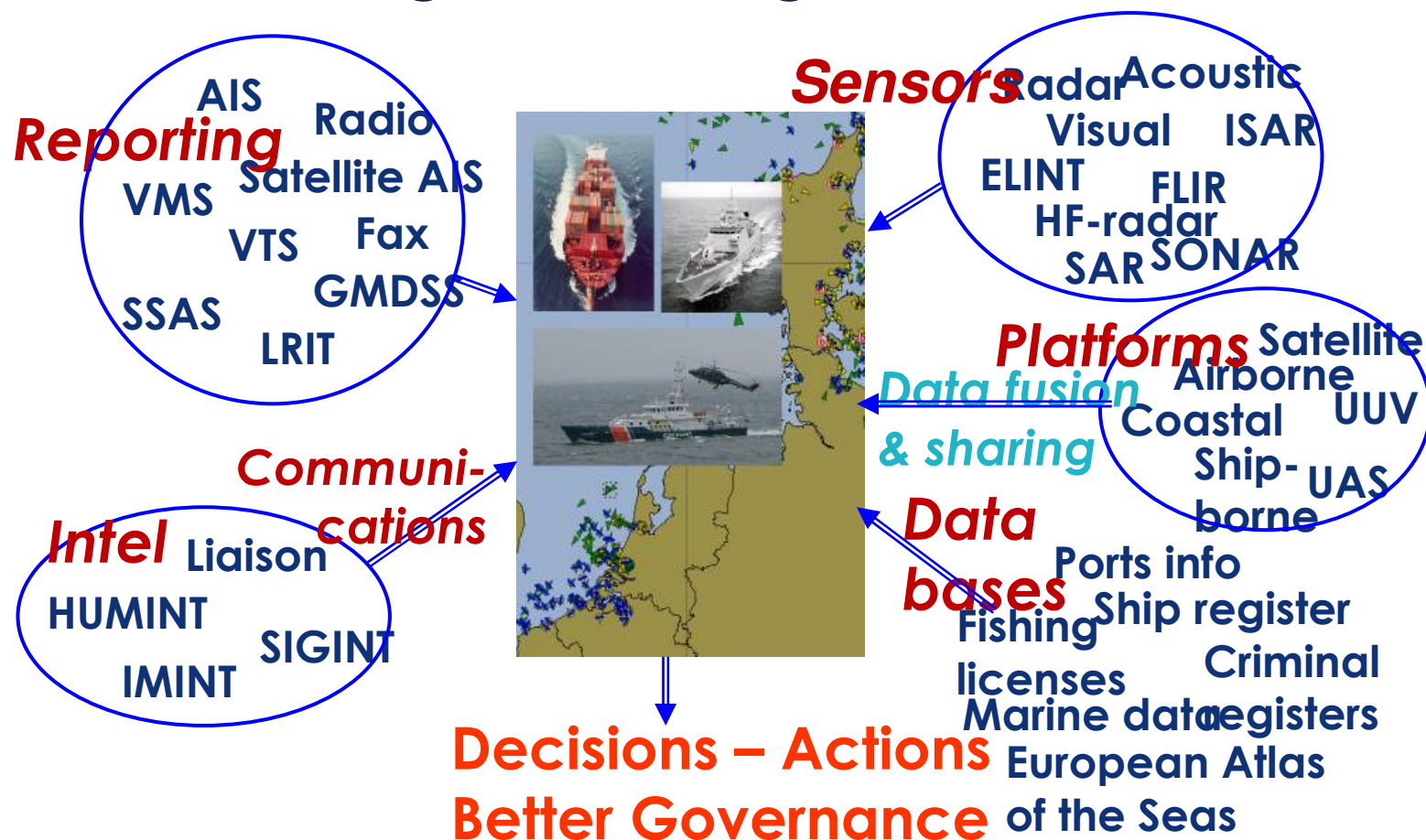
Surveillance activities are carried out by States but most of the activities and threats that they address are transnational in nature. Within most States surveillance activities concerning fisheries, the environment, policing of the seas including traffic monitoring, or border control fall under the responsibility of several different enforcement agencies operating independently from each other.

The aim of integrated maritime surveillance is to generate a situational awareness of activities at sea, impacting on

- maritime safety and security,
- border control,
- maritime pollution and marine environment,
- fisheries control,
- general law enforcement,
- defence
- trade and economy

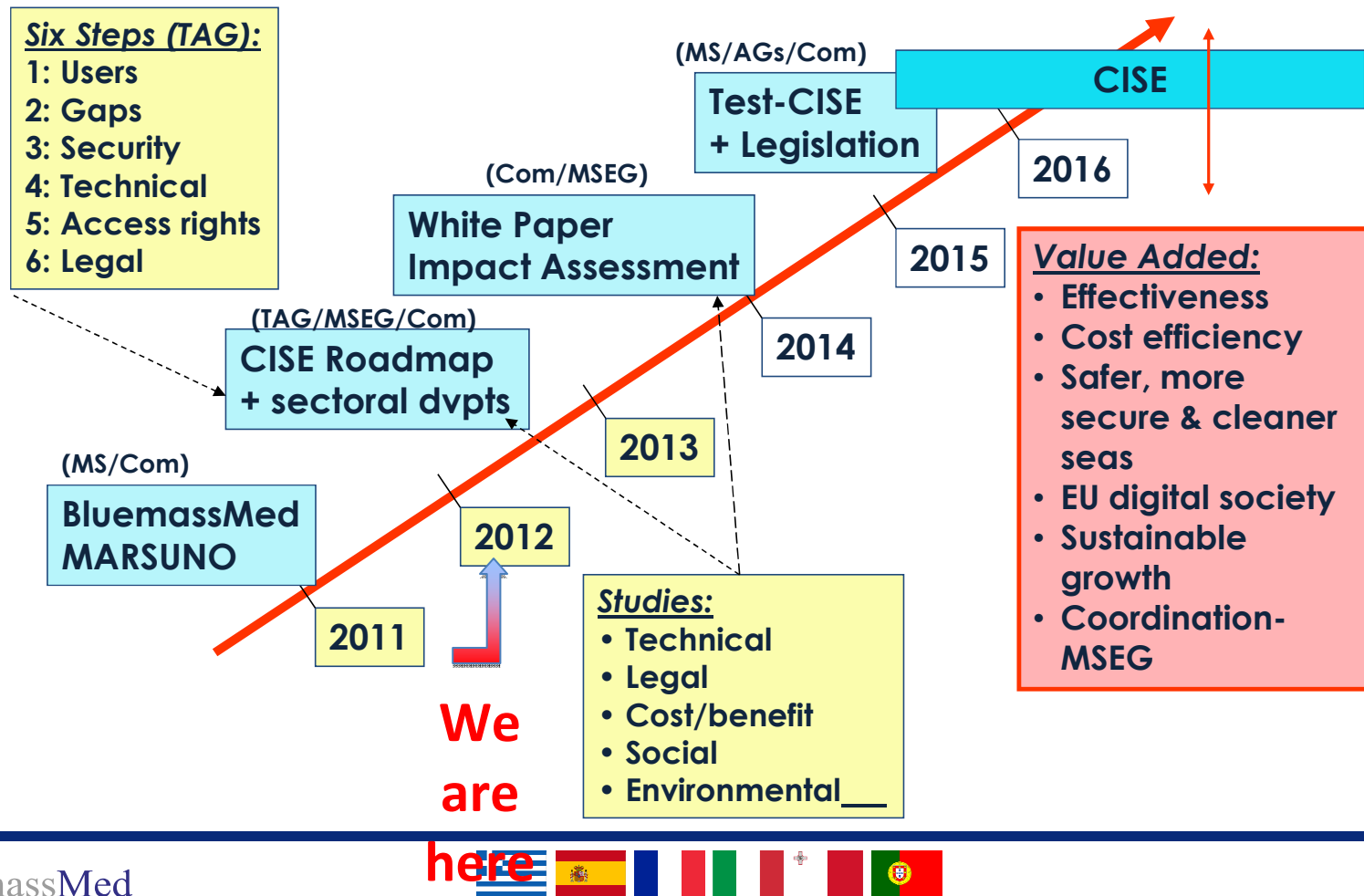
Context and challenges

The Big Technological Picture



Context and challenges

CISE Roadmap:



Added Value of Satellite Services

The current state of satellite technologies and infrastructures allows integration of satellite services in the maritime surveillance systems, with important benefits:

- Global coverage to supplement the coastal surveillance systems
- Achieve knowledge of all coastal and open-seas activities relevant to national security
- Provide continuous support for the Safety of Life at Sea, and the contrast of law infringement
- Deliver unique maritime picture through radar / AIS data fusion and SAR tasking for Maritime Surveillance
- Provide continuous analysis of the health level of the seas

Organization, management and figures

- Partners and Participants: 6 Member States (GR, FR, IT, MT, PT, SP), 37 National Administrations Partners, about 170 Participants in Working Groups
- Management:
 - Decision process by *consensus*
 - Steering Group co-chaired by IT & FR
- Organization: 4 Working Groups: UWG (SP), TWG (IT), LWG (PT), CWG (FR)
- Deliverables in 2 Years: User Requirements, Legal Aspects, Technical Requirements for the Future Architecture, Demonstrator, Recommendations
- Duration: 2,5 years
- Cost: ~ 10 MEURO in cash and Human Resources

Objective and Principles of Cooperation

Objective

achieve the sharing of maritime information and a better cooperation between the administrations of the participating States.

Principles of cooperation

Partners agreed on **Fundamental Principles**:

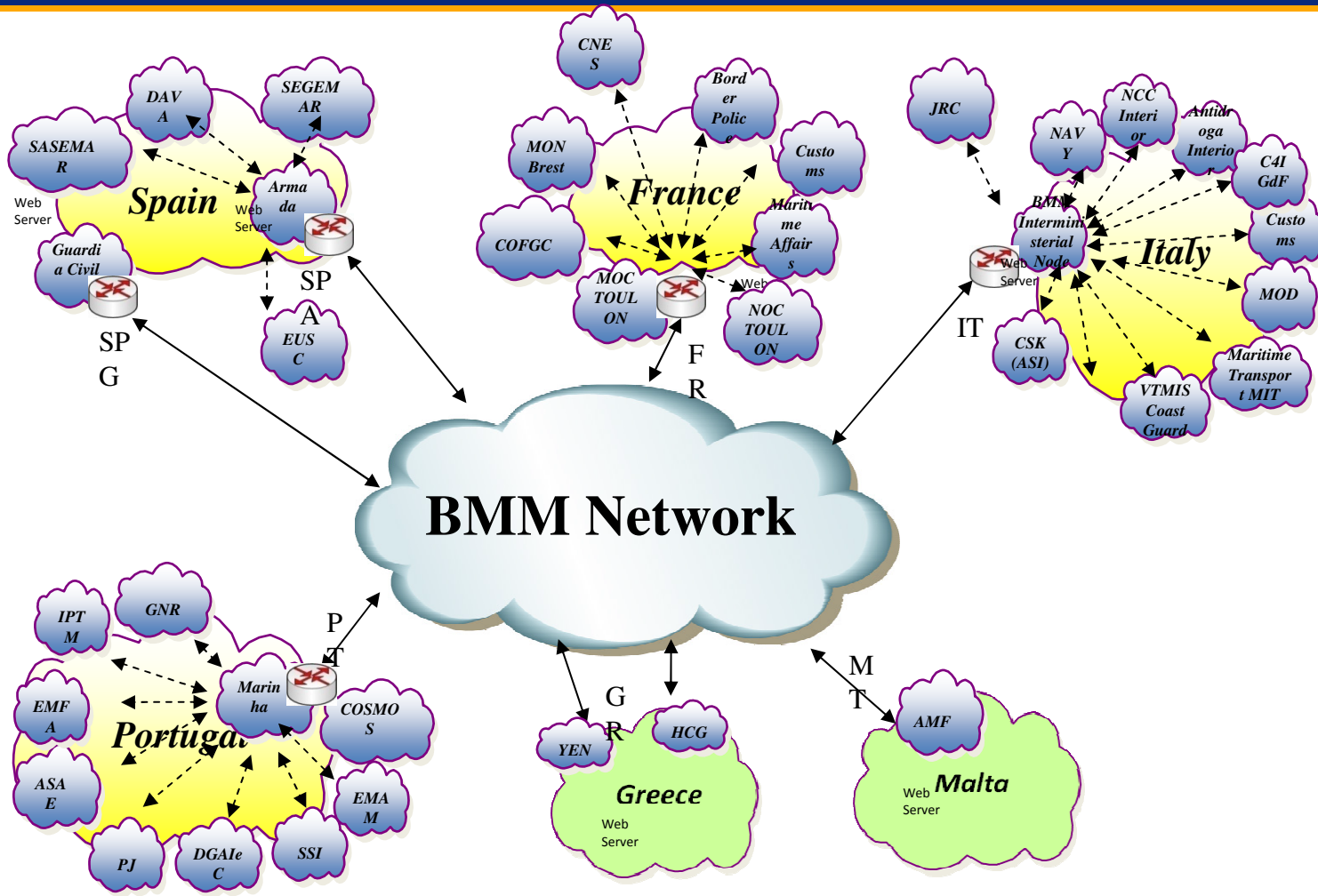
- **willing to exchange data, additional information and services**
- **able to decide when to share or not to share** (time, space, subject, etc...)
- **want to exchange basic data in order to obtain a “Shared Common Basic Maritime Picture” (SCBMP)**
- SCBMP will help all partners to **enhance their own user oriented maritime Situational Awareness**
- Partners are open to share more information (sensitive) and services with some selected partners, on the basis of control and security rules.
- BMM is a **decentralized solution**, information is stored by the owner of the information.

Accomplishments

Achieved:

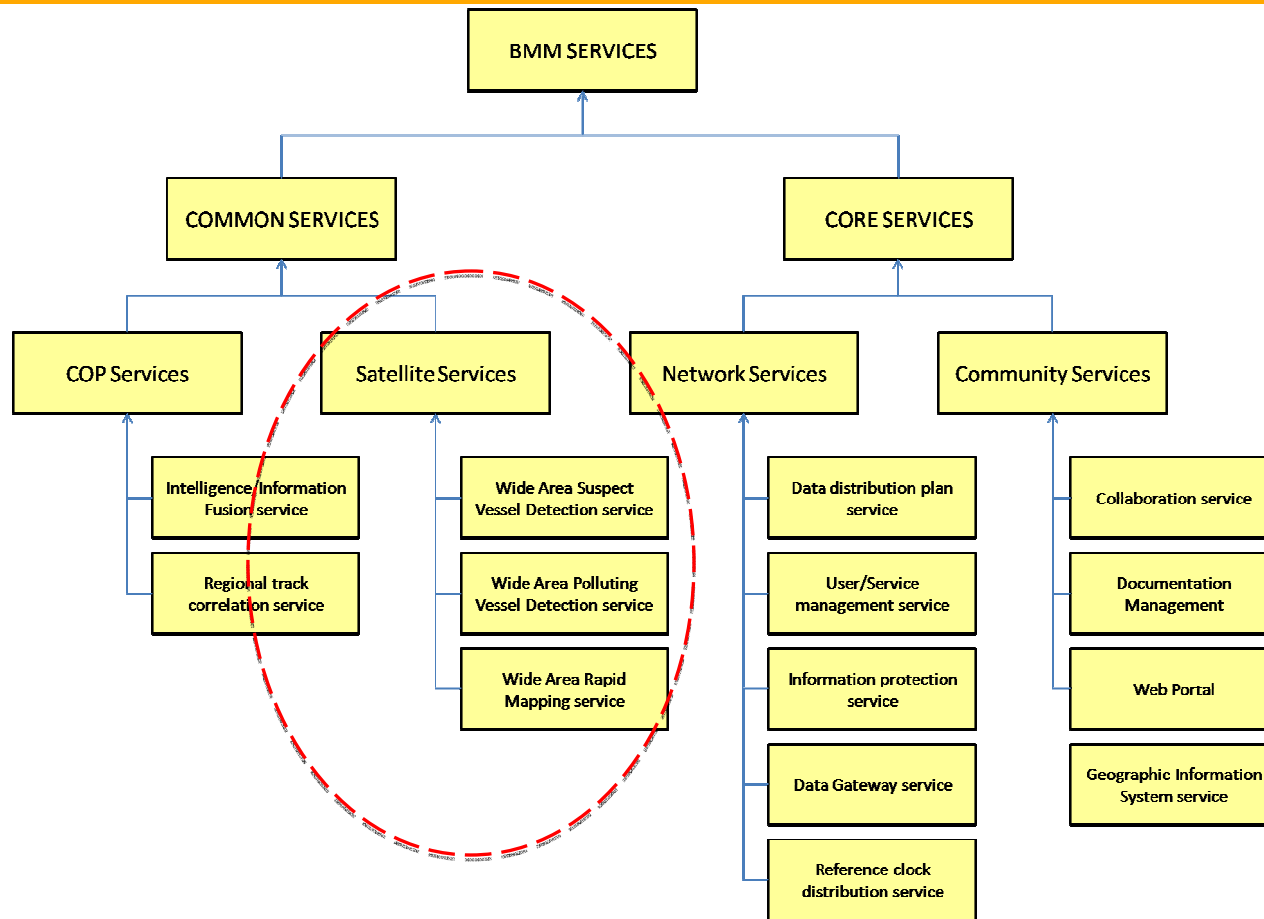
- ✓ Map of Data available to Users
- ✓ Legal Constraints to the Exchange
- ✓ Map of Needed Data
- ✓ User Requirement for Information Sharing
- ✓ Proposed architecture
- ✓ BluemassMed network, nodes and services, including satellite services

Accomplishments BluemassMed Network



Accomplishments

BluemassMed Service Taxonomy



Satellite services:

- First delivery of satellite services
- Integrated in the operational value chain
- Proactive approach based on the continuous elaboration of images and signals

Success factors

User perspective:

- Direct involvement of MS; direct responsibility to Users; personal involvement of expert; direct cross-sector and cross-border contacts: cooperation and trust among users
- National integrated maritime strategy and PoCs
- Regional development
- DG MARE support

Technical perspective:

Manage dynamic complexity through simplicity (abstraction):

- SOA architecture
- Cross-sector and cross-border integration of data and services from conventional and satellite platforms
- Voluntary contributions
- Open Source technologies
- Decentralization
- Independence