

Eurofleets



*Towards an alliance
of European Research Fleets*

Towards an Extended Interoperability

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Eurofleets

**Final Conference
Brussels, RBINS, 13th June Oct 2013**

UTM
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Objectives

Interoperability:

Is the ability of a diverse systems and organizations to **work together (interoperate).**

While the term was initially defined for information technology or systems engineering services to allow for information exchange, a more broad definition takes into account social, political, and organizational factors that impact system to system performance.

EUROFLEETS is being a useful tool making a step forward towards INTEROPERABILITY within the Research Vessels.



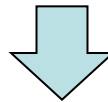
Equipment– data-base

- ❑ **Large Exchangeable Instrumentation (LEXI)**

Comprises details characteristics of large exchangeable instruments from European operators.

- ❑ **Underwater Vehicles**

Comprises details characteristics of underwater vehicles from European operators.



Outcomes: EurOcean combines both data-base into one new Large Exchangeable Instruments (LEXI) database with a new EUOFLEETS look & feel and design.



This new InfoBase is now operational with up-to-date at:
<http://www.eurofleets.eu/lexi/>



Equipment – data-base

EUROFLEETS has achieved to complete from 39 Global and Oceanic class RV's 900 interoperability assessments form LEXIs applicable RVs

The considered LEXIs were: ROVs (10), AUVs (6), Seismics (3), HOVs (2) and Drill Rig (1).

Equipment Type	Responsible Institution
ROV	MI
Seismic	CSIC
AUV	MI
Submersibles	IFREMER & MI
Deepwater drop and towed cameras	IMR
Towed bodies (SSS, SBP, other)	IFREMER & MI
Deep water Multibeam	IMARES
Corers	MI
Other	MI



Information – format & protocols

Operational- En route Information

Where ? Who ? What she is doing ?

- ❑ **Conception** of En-Route Information
- ❑ **Data Model** (Cruise Summary Report, ISO 19115 / SeaDataNet CSR, Ship Summary Report, Core Data Model, Extended Data Model)
- ❑ **Data source formats** (GPS NMEA, AIS Message, NMEA-CSIC Message, IFREMER XML Data Frame)
- ❑ **Data model Codification** (Cruise Summary Report Codification, Ship Summary Report Codification: XML, GML, KML, SensorML)
- ❑ **Data transmission** strategies and protocols (Practical essay): SensorML Code for SSR.



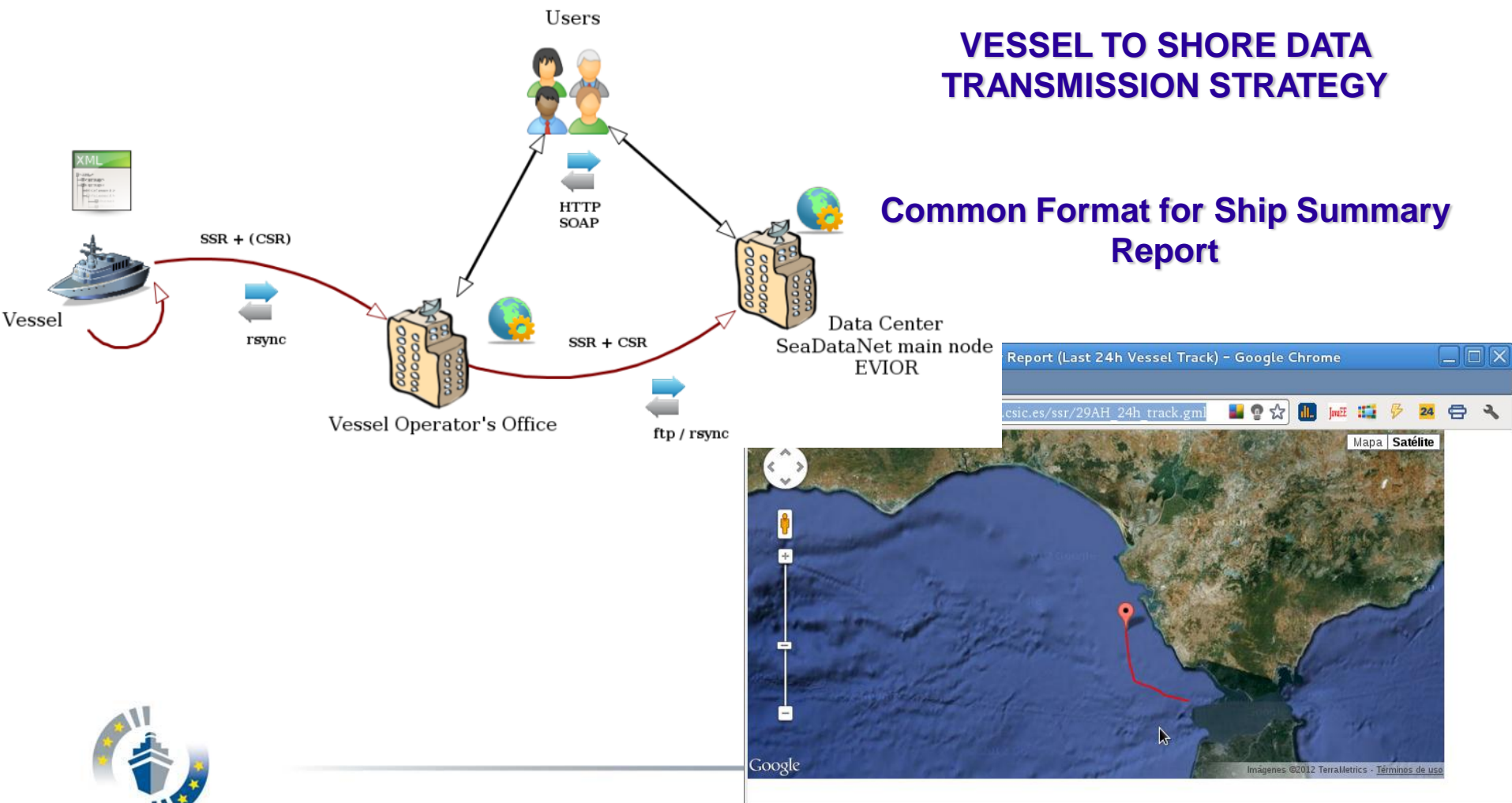
**Outcomes: Ship Summary Report & EVIOR web page.
data interchange from ship to shore station.**



Information – format & protocols

Operational- En route Information

Where ? Who ? What she is doing ?



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Procedures – to interoperate

A common cruise planning, is essential to harmonize, costly marine infrastructures, and to assist cost-efficient optimization use

- ❑ Procedures for RV management and cruise planning in the European countries
- ❑ Guidelines for common standards and harmonized procedures for RV management and cruise planning



Benefit from the EUROFLEETS Calls +



Procedures – to interoperate

A common VOCABULARY, is essential to harmonize information systems and so facilitates interchange of instrumentation

“Use of controlled and agreed terms”

☐ Use of Common Vocabularies recommended for:

- Data and Metadata products
- Document Specification Sheets and Procedure Manuals

☐ Adopt and adapt initiatives focused on use of common vocabularies (SeaDataNet & BODC vocabulary services)



Benefit for system interchange (users and operators)



Procedures – to interoperate

A common CALIBRATION PRACTICES, are essential to harmonize data from similar instrumentation owned and operated by different institutions and so facilitates interchange of instrumentation

“Use of common calibration standards”

- ☐ Ensure data quality and data reliability
- ☐ Enforce the flow of know how between partners



Benefit for system interchange (users and operators)



Operation – Regional Vessels (RRV)

Towards a better coordination of scheduling process for RRV & LEXis

- ☐ To enhance a better approach with the RRVs operators
- ☐ To create an interactive virtual RRV operators Network via Eurofleets / ERVO website,
- ☐ To Transfer the KNOWLEDGE to ERVO forum



**Benefit & Cost optimization for
Regional European Seas**



Summary Conclusions

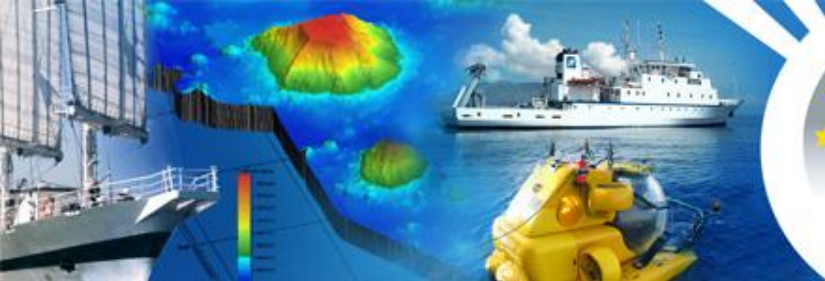
Extended Interoperability:

From an RV's perspective refers to the collaboration ability of cross-border services in marine science and technology, which transfers knowledge and information for citizens, businesses and public administrations

EUROFLEETS has made a step forward towards **INTEROPERABILITY** within the RV's.

- Exchange Lexis versus RV
- Exchange of personnel expertise (training)
- Optimize use of costly RV and Equipment
- Enhance coordination & European response
- Data & procedures online, Ship Summary Report, EVIOR web

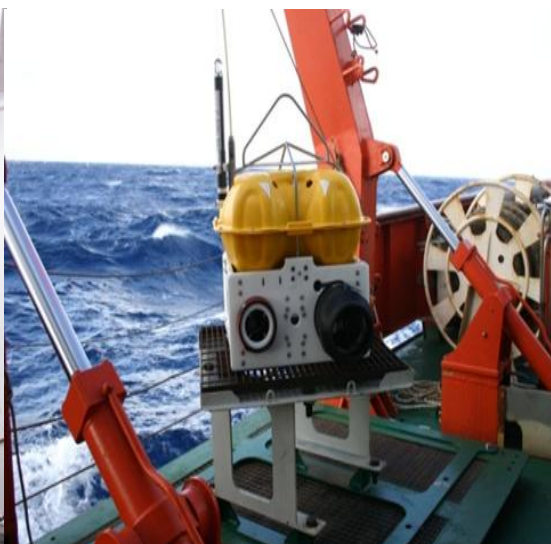
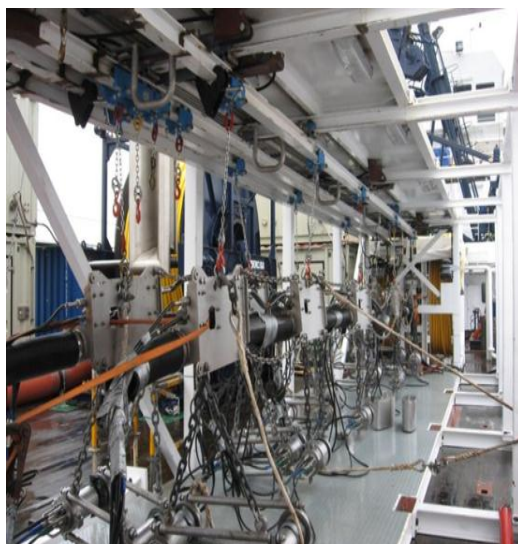




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Thank for you attention



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