



MARISS GSE

European Maritime Security Services



GMES Services Element Co-location 5
6-8 March 2007, ESA ESRIN, Frascati



MARISS Objectives

Industrial Team

Involved Users (to do what)

Service Portfolio & Covered Areas

Status of Activities

What's next: do we need a scaling up?

Transfer/follow-up of the Portfolio in the GMES Pilot Services

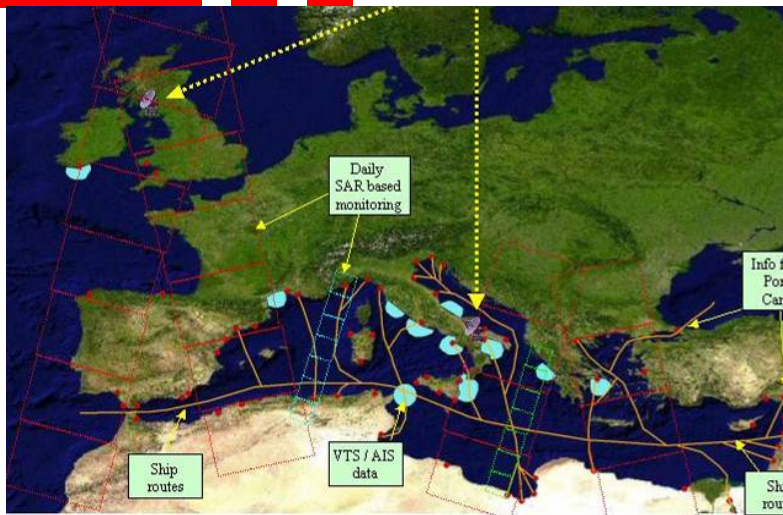
Services and Service Network Status [by the Prime] - up to date, based on Year 1 report 2. User Feedback on the Service portfolio [by Rep of User Executive Board] 3. Future sustainability of the services [by the Prime - should reflect the outcome of the splinter session]

First GMES activity in the area of Security

Prime: Telespazio

Phase 1: Nov. 2005 – Oct. 2006

Phase 2: Dec.2006 – Sept.2007

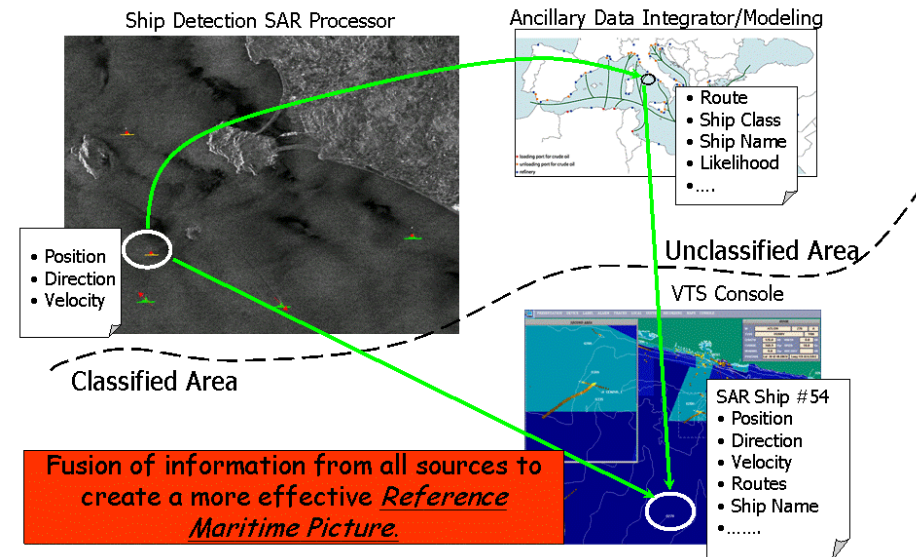


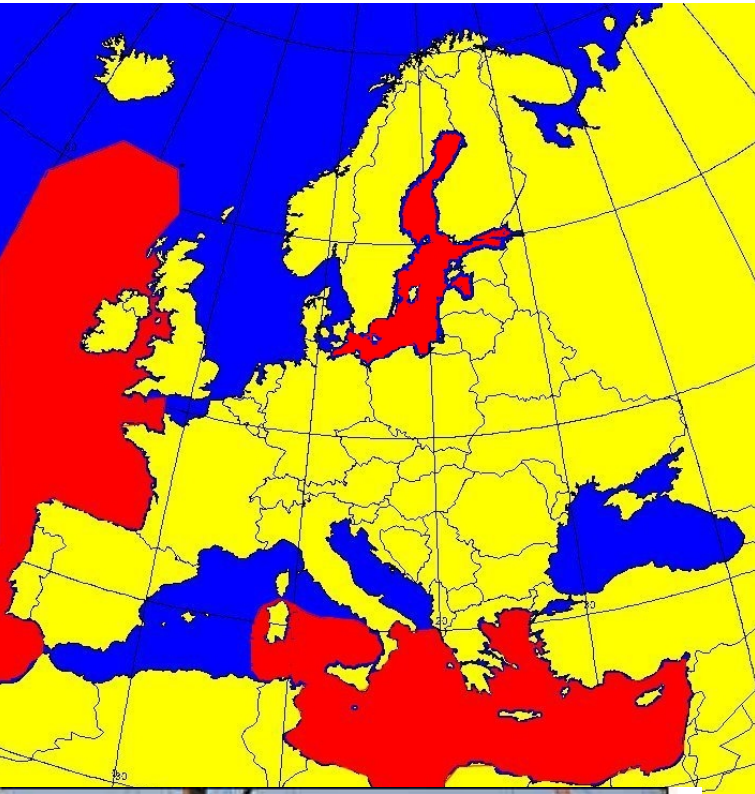
What is Maritime Security in this project ?

- Border Control
- Protection from illegal trafficking.

What services are required ?

- Near Real Time monitoring Services providing “Integrated Vessel Information”
- Offline analysis for intelligence support





Issues:

- Drug smuggling
- Human trafficking
- Arms shipment
- WMD
- Contraband

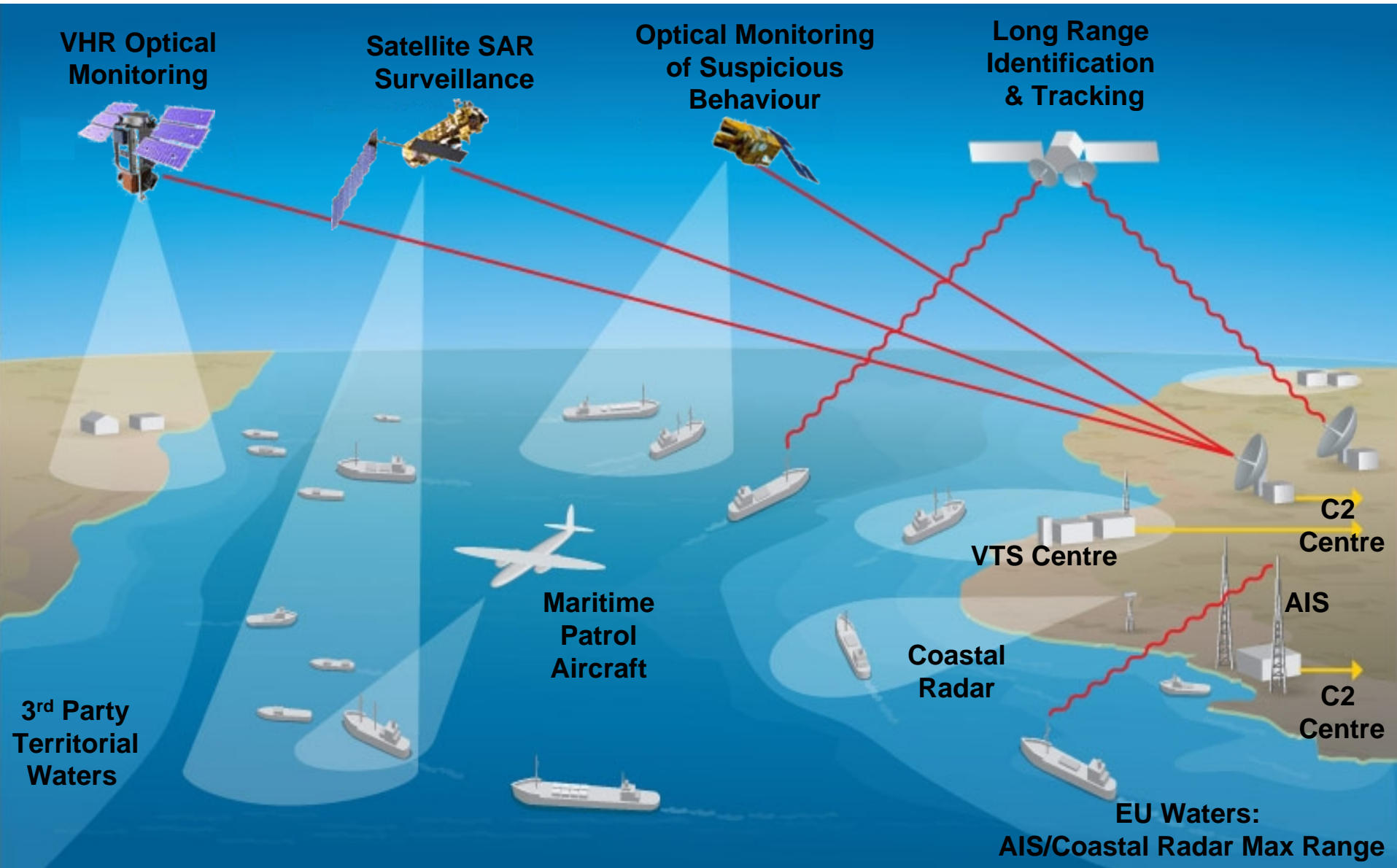
Technologies:

- Coastal surveillance radar
- Airborne patrol
- AIS/VTMS/VDS
- Interception vessels
- Port inspection
- Satellite EO

Policy background:

- UN convention against trans-national organised crime
- Barcelona declaration
- Tampere declaration

MARISS Target: GMES Services for Integrated Maritime Surveillance



Core Users Group

Europe

- Eastern Sea Border Control Center
- FRONTEX

FRANCE

- France Navy
- Directions des Affaires Maritime et Gens de Mer

GREECE

- Hellenic Coast Guard

ITALY

- Italian Coast Guard
- Ministry of Interior Affairs

IRELAND

- Irish Navy

SPAIN

- Guardia Civil
- Puertos del Estado
- Gobierno de Canarias

UK

- HM UK Revenue & Customs

PORTUGAL

- Portuguese Navy
- IPTM
- Regional Government of Azores
- Ports of Azores & Madeira

SWEDISH

- Swedish Coast Guard



Phase 1: “Technology” driven Portfolio

- Vessel detection in Open Sea Areas (AIS Integration)
 - Geographic Scope: GLOBAL, REGIONAL
- Vessel tracking at Sea Borders (Coastal Radar Integration)
 - Geographic Scope: REGIONAL
- Anomaly detection in Specific Critical Areas (Optical data Use)
 - Geographic Scope: LOCAL
- Decision Making Support (Web-GIS distributed multi-temporal info)
 - Geographic Scope: GLOBAL/REGIONAL

These main service classes reflected the main modes of generating added value information from the integration between EO and non-EO maritime products.

Figure da phase 1

MARISS initial demonstration systems installed in operational centres of several users

Presented by Ministero Dell'Interno to FRONTEX for Mediterranean monitoring

Proposed to FRONTEX as part of Canary Islands coordination

Identified within FRONTEX as pilot project to support integration of satellite data within maritime border control

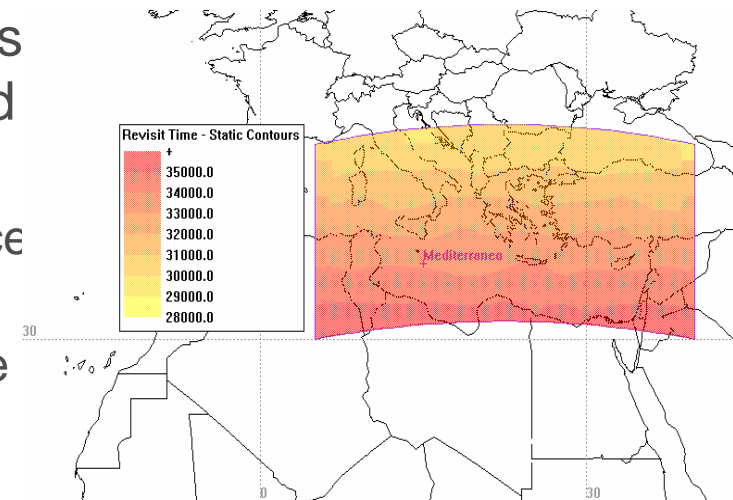
Request for coordination with on-going exercises coordinated by US Defense Intelligence Agency

Dialogue with NATO on-going to ensure coordination with NATO Maritime Domain Awareness activities

Initial dialogue started with European Defence Agency – coordinate with Maritime Surveillance activities

Users positive but pragmatic:

- current service capabilities do not fully meet requirements
 - Performance of satellite surveillance (need Cosmo, TerraSAR etc)
 - Coverage of in-situ monitoring technologies (AIS etc)
- Satellite based NRT surveillance recognised as potential cost effective contribution to improved maritime border control over next 2-3 years:
 - FRONTEX recommendation to MS is to enhance integration of satellite based surveillance
 - medium term plans of several MS are to include satellite based surveillance



Phase 2: “User Mission” driven Portfolio

■ Near Real Time Monitoring Services

- NOW: Down Stream Services
- Regional Coverage
- Strongly integrated in User Systems

■ Strategic Surveillance Services

- Core Services
- Wide Coverage
- Contributing to the Reference Maritime Picture

MARISS Service Portfolio Consolidation Phase:

- Demonstrate significant potential benefits on surveillance systems
- User Community Identification and engagement:
 - Now they have expectations !!
- Set up basic service chains (gaps due to space segment)
- Identify main problems in this field:
 - Data Access
 - Surveillance systems integration
 - Lack of suitable space segment
 - Complexity of the Operational context where these services are used
 - Still not possible to define SLA conditions

After Consolidation Phase

■ MARISS Service Portfolio needs to be enlarged:

- New service time: Vessel Tracking along Global Routes
 - Required by Users both at Trans-National Level (NATO), and at National Level

■ Service definition is still in evolution because of evolving systems\rules in maritime surveillance

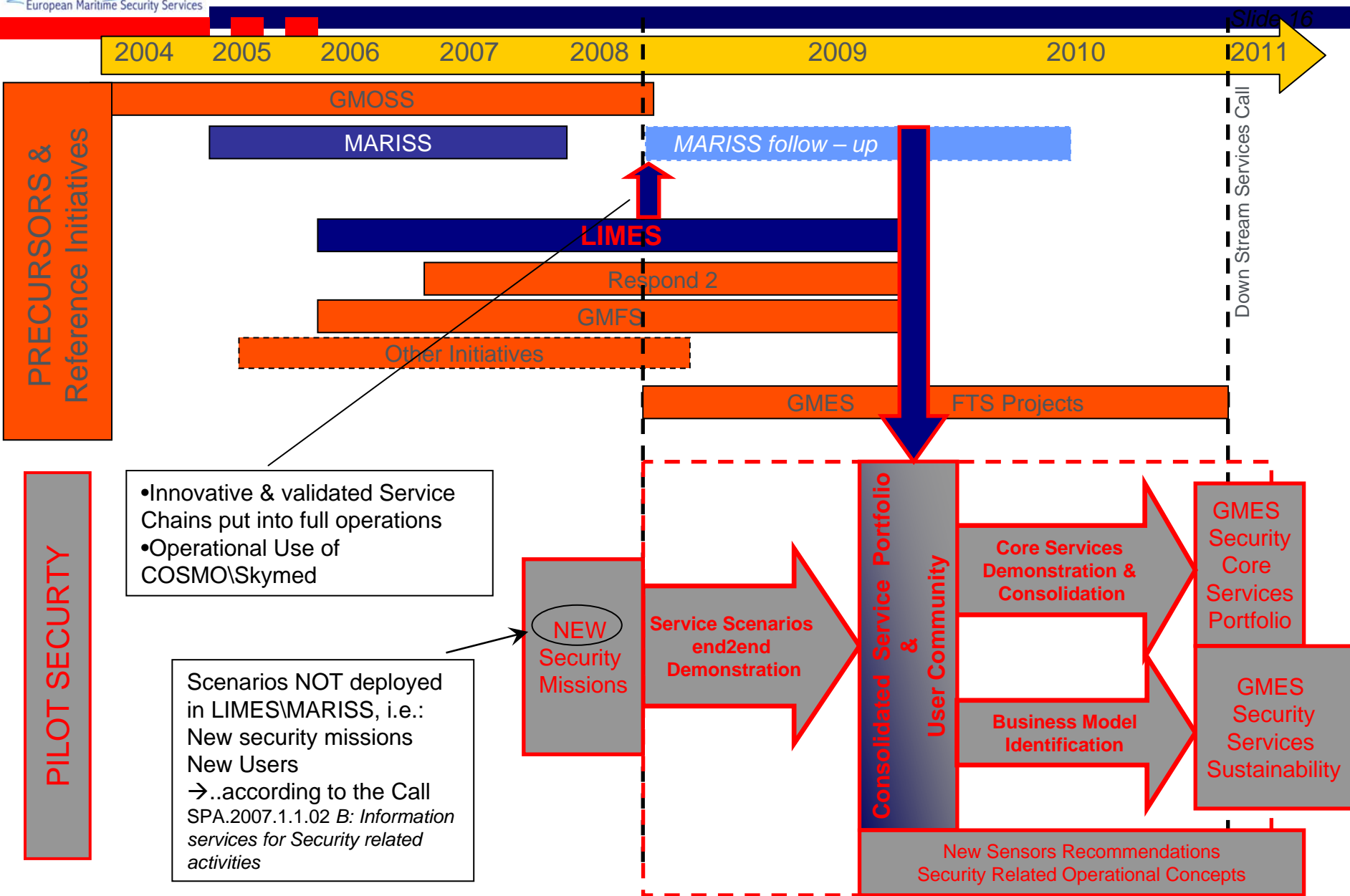
- What does it happen when LRIT will be fully operational?
 - MARISS NRT Services (now D/S services) evolves in Core Services: Wide Maritime Picture Layer

■ The continuity of Operational Service provision has to be guaranteed to keep User Community engagement

■ LIMES Research Results (first phase: mid 2008) need to be immediately put in Operational Context



MARISS follow-up in the Security Dimension of GMES ... "what if" a MARISS scaling-up phase is set up:



MARISS is only a consolidation phase contract – there is no scaling up phase planned within the GSE

LIMES IP addresses validation and algorithm improvement under maritime cluster but does not cover routine service delivery for extended periods

No obvious home for maritime security within current FP7 call:

- non-GMES security call excludes space applications
- Security GMES call user requirements are not defined until WS

However

- significant fraction of service costs relate to data procurement. If data access is paid by FP7, remaining MARISS scaling up costs are significantly reduced
- MARISS areas of interest for border control are limited hence not all MS are affected – can we find an agreement between MS most involved to meet certain level of additional service costs for scaling up?