

SECTOR

*Secure European Common information space
for the interoperability of first Responders and police
authorities*

Jana Mauthner

Organisation sponsors:



Project Scope

Ethical and Societal Impact Assessment
Dissemination

Project Implementation

2014-2015

Inventory and analyses of
European CCM processes,
systems and data

2014 – 2015

Scenario Definition and
Common Information
Space Concept Design

2015 – 2016

(Iterative)
CIS development

2016

Demonstration and
Validation

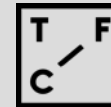
07/2014
Phase I

09/2014
Phase II

05/2015
Phase III

06/2016
Phase IV

Organisation sponsors:



Objectives and Timeline

- ✓ Create Pan-European inventory and analysis of past critical events and consequences
- ✓ Understand involvement of crisis management organisations
- ✓ Understand information sharing practices, standards and tools
- ✓ Support CCM Processing
- ✓ Respect operational procedures and legal requirements
- ✓ Develop a flexible CIS interoperable infrastructure

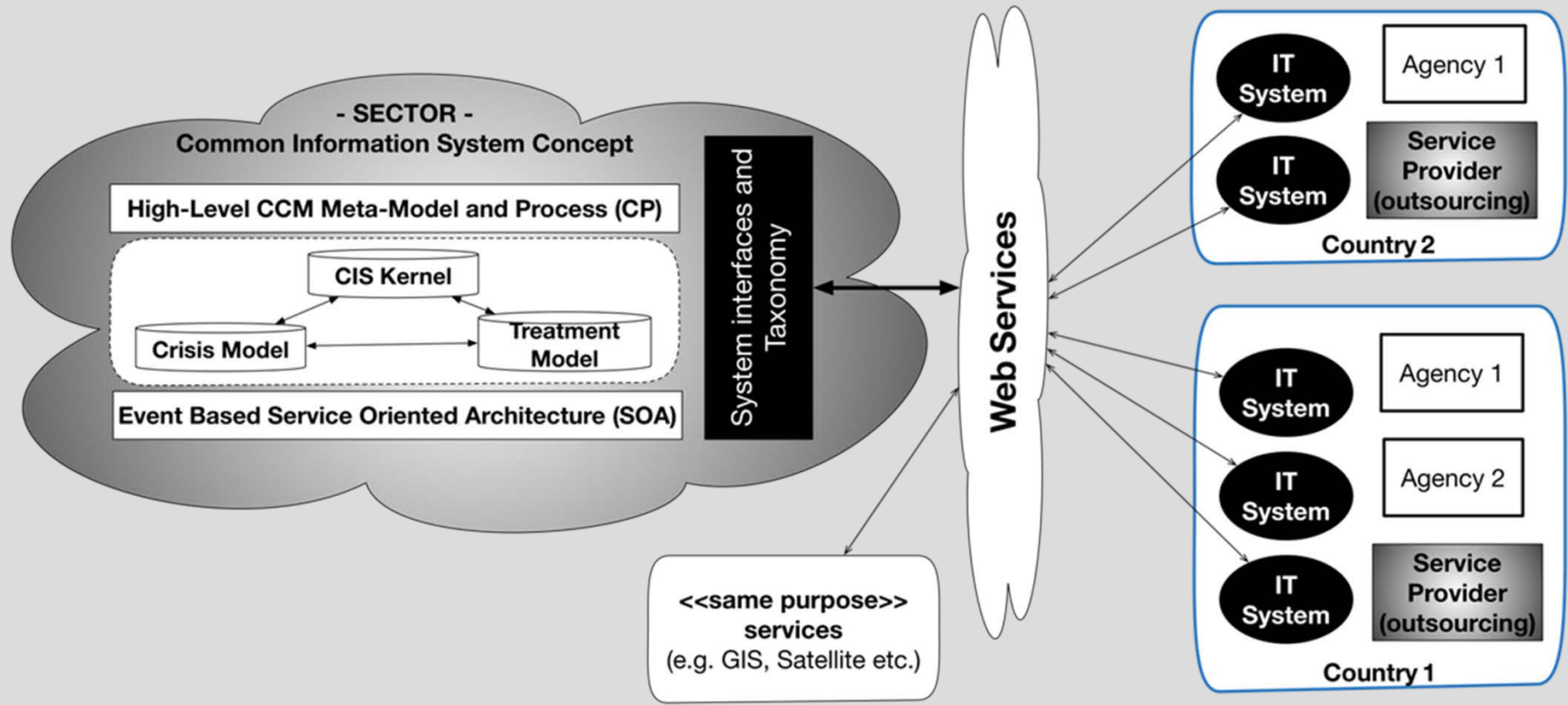


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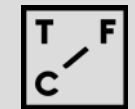




CIS Concept

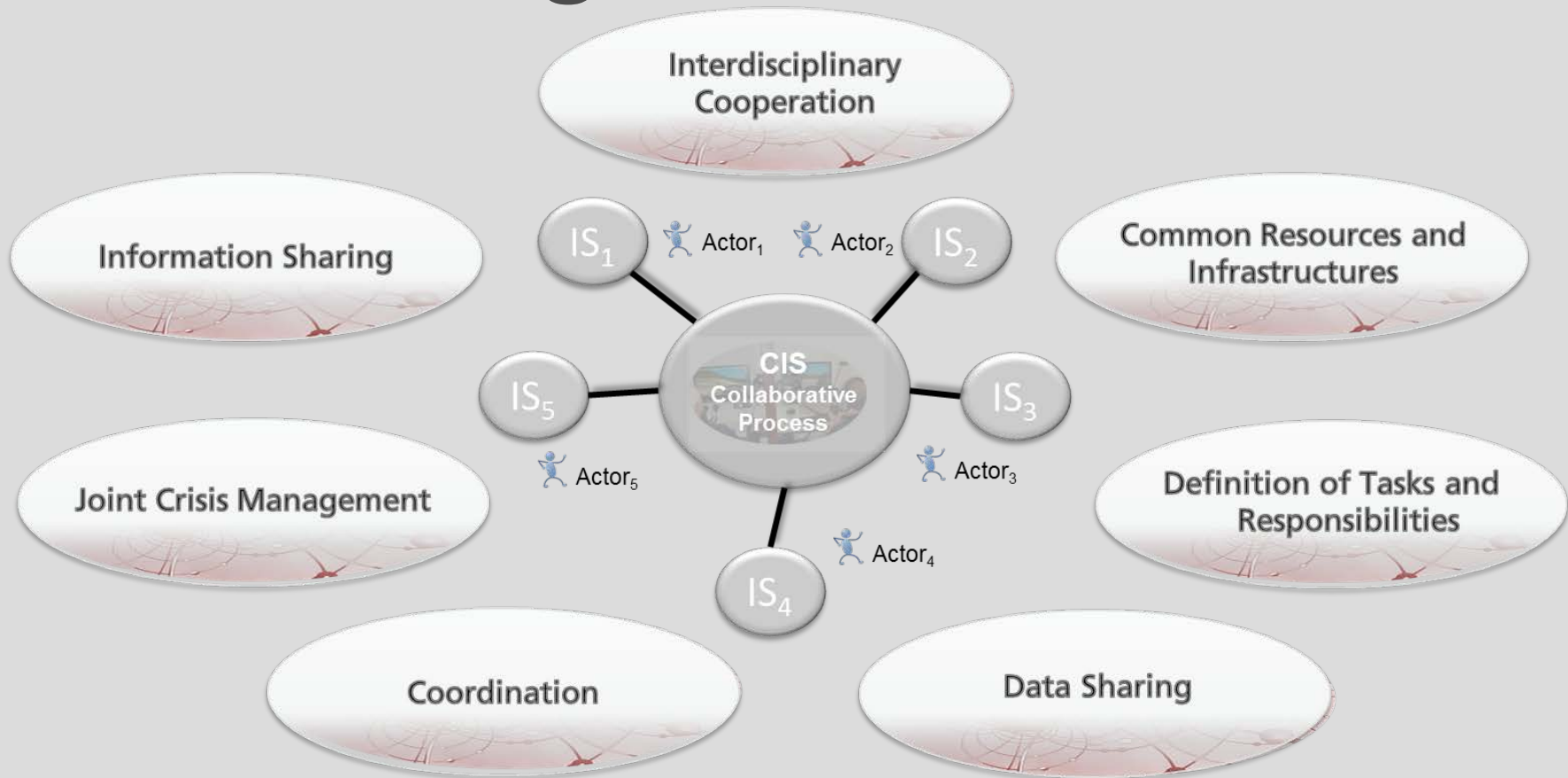


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Crisis Management in a CIS



Organisation sponsors:





Role of Standards in SECTOR



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Role of Standards in SECTOR

- Semantic, planning, resilience and organisational interoperability issues
- Pragmatic technical and syntax aspects
- Communication interoperability between command and control centres



Standards facilitate and support

- Planning
- Communication
- Coordinated response
- Collective resilience
- A common understanding

Organisation sponsors:





Standardisation topics

GeoTiff

- TIFF based interchange format for georeferenced raster imagery
- Public tag structure which is platform interoperable

ISO 19115

- Geographic information metadata
- Schema for describing geographic information & services

WMS, WFS, WCS

- Accessing maps (WMS)
- Accessing vector data (WFS)
- Accessing raster data (WCS)

ISO22300 series

- Societal security -Emergency management - Requirements for incident response
- Minimum requirements for the single- and multi-organisational collaboration

OASIS Language / ISO 22351

- Emergency Data Exchange Language (EDXL) to facilitate emergency information exchange
- Standardisation of messaging formats

INSPIRE

- Standardised discovery services and metadata
- Standardised view, download and transformation
- Common cross-domain models to exchange spatial data

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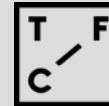




Standardisation Needs / Proposals

Proposal	EU standard for data transfer	EU joint doctrine on civil emergencies	CCM Information Space	EU joint organisational learning platform	Improved warning and informing system	System for coordination alert and early warning	Platform for the exchange of information	System which allows wireless connectivity during crisis	Project management system
Need	Efficient flow of information	Collaboration and coordination in command and response	Situational awareness	Inter-organisational learning	Effective warning and informing	Effective early warning and threat advisories	Efficient information flow to support response	Realtime communication between crisis management actors	Coordination of various CM activities and organisations
Developer	EU (standardisation bodies)	EU	EU	EU	EU	Emergency services, first responders	Emergency services, first responders	First responders, public authorities	First responders, public authorities
User	IEM agencies	Emergency services	IEM agencies	IEM agencies	IEM agencies	Command and control staff, first responders	Command and control staff, first responders	Command and control staff, first responders	Command and control staff, first Responders
Impact	Faster transfer of data	Improved command and response	Improved situational awareness	Common understanding	Improved warning and informing processes	More time for preparation and response	Improved coordination	Improved response	

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Standardisation Needs / Proposals

Proposal	Mappings among different classifications	Use of open digital communications standards	National Building Standards	Council Committee of Ministers for National Security (Poland)	Universal model of cooperation between CM actors
Need	Semantic interoperability of map objects	Approaches for risks lock-in	Provide all relevant iconic representations	Modern and effective national security system	Coordinated risk assessment, response, monitoring activities, emergency plans,
Developer	Software developers, emergency centres	Command and control staff, software developers	Crisis managers, information officers, standards groups	Governmental authorities and responsables	Governmental authorities, crisis managers, standardisation bodies
User	Command and control staff, emergency centres, first responders	Command and control staff, emergency centres, first responders	Command and control staff, emergency centres, first responders, software developers	(Governmental) decision makers	Command and control staff, emergency centres, first responders
Impact	Improved operational picture and coordination	Interconnectivity, interoperability	Improved COP, improved preparedness, informed response	Improved functionality of national security system	Improved risk assessment, response, monitoring activities, emergency plans,

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Get in touch!

Join our SECTOR theatre presentation

Emergency and Crisis Management – Afternoon Session

4th November, 16:30 – 17:30



<http://www.fp7-sector.eu/>



Sector Project

@SectorFP7



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DESTRIERO

*A DEcision Support Tool for Reconstruction and recovery
and for the IntEroperability of international Relief units in
case Of complex crises situations, including CBRN
contamination risks*

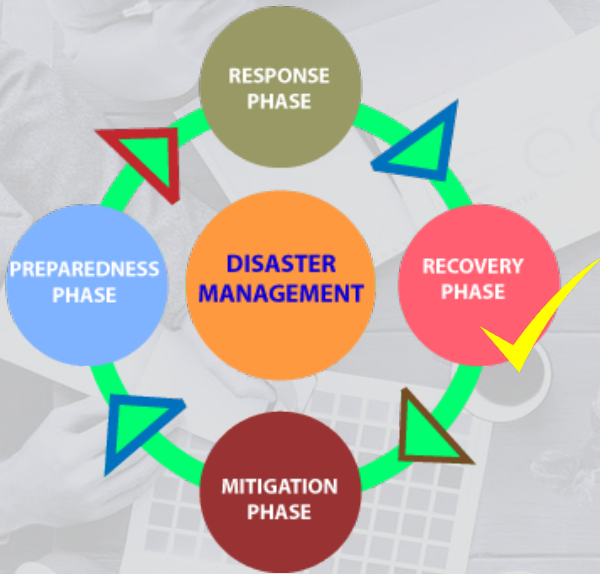
Mario Fiorentino

Organisation sponsors:

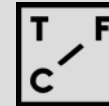


Context

- Today, more people than ever are threatened by crisis situations
 - Natural origin (e.g., earthquakes or floods)
 - Man made (e.g., terrorist attacks)
- In addition to dramatic structural damages also CBRN contamination risks can occur as a consequence of these events



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Context

Post-Crisis Damage and Needs Assessment (PDNA) and Reconstruction and Recovery Planning (RRP) are coordinated by local authorities



No supporting software tool is available, and important gaps remain in optimizing coordination at the operational level

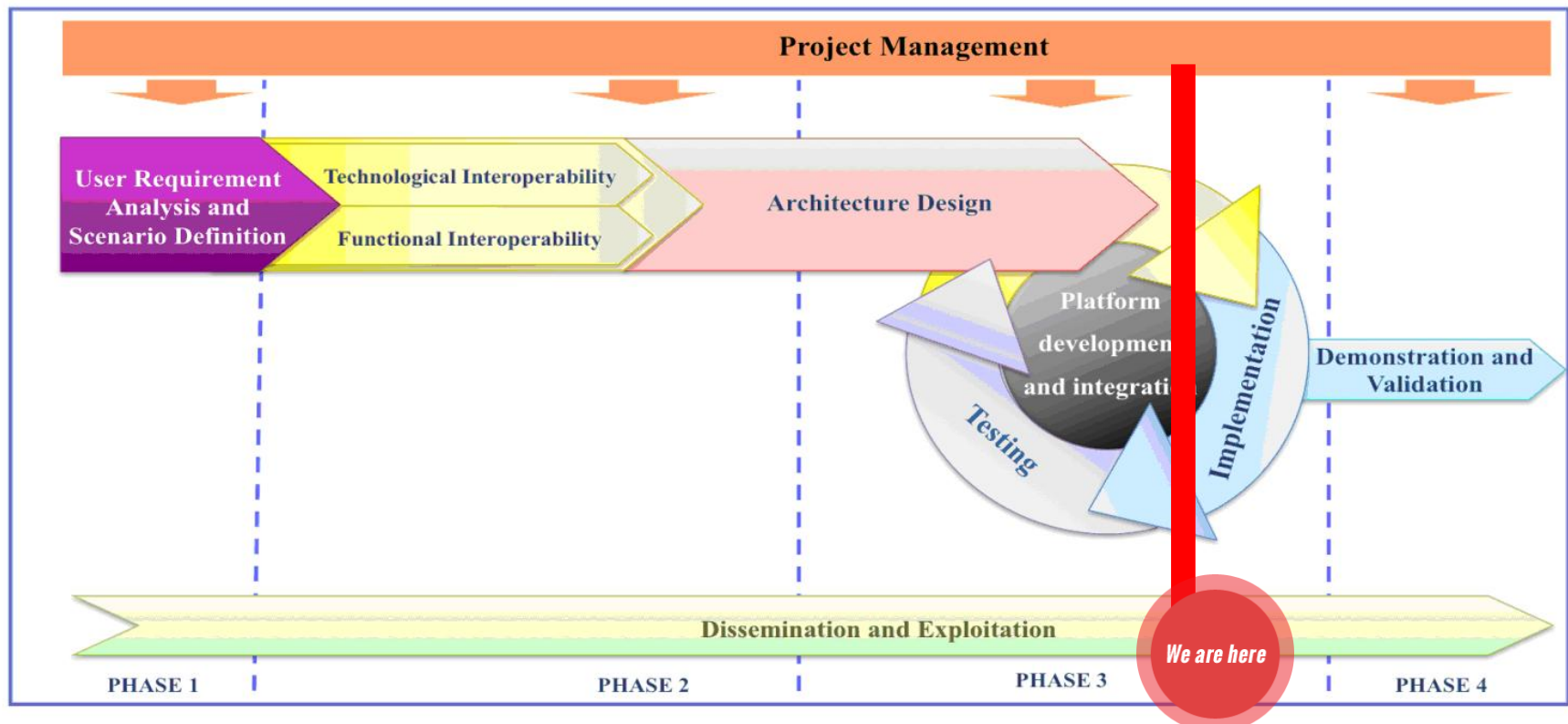
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Objectives

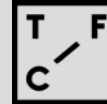
- Faster and better **damage assessment** for planning and monitoring the progress of recovery
- Facilitate fast and intuitive access for distributed users to visualise the dynamic “**Common Operational Picture**” during the planning and reconstruction period
- **Better collaborative decision making** during the planning and reconstruction phase
- Improve **management information** in relation to PDNA and RRP

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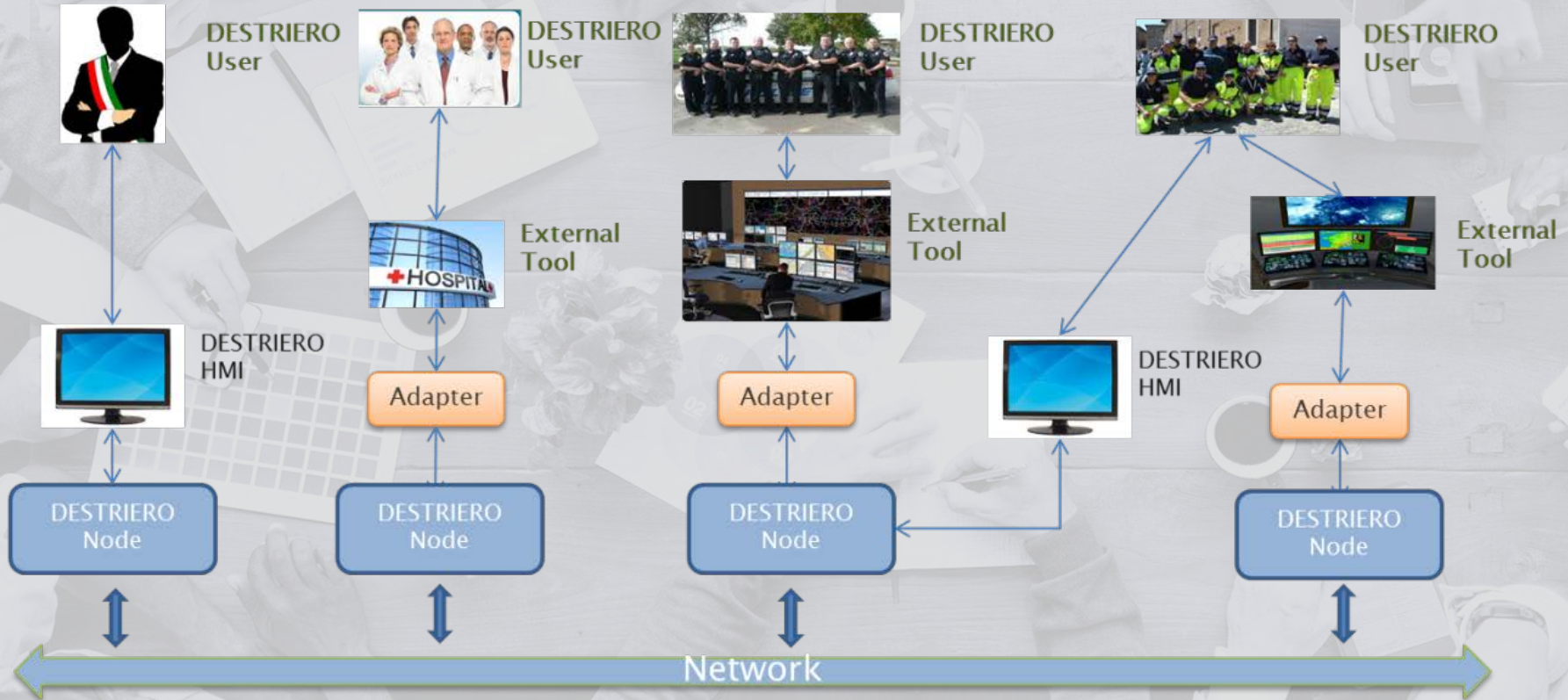
A glimpse on Project Timing



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DESTRIERO Architecture



Organisation sponsors:



The screenshot shows the destriero web application interface. The top navigation bar includes 'News', 'Communication', 'Activities', 'Analysis & Forecast', and 'Reports'. The main content area is titled 'Sensor placement at Bolarque dam' and is divided into three sections:

- Activity plans table:**

Name	Number of activities
Activity plan 02	2
Inclometers Displacement	0
Reconstruction of the Bolarque dam	1
Sensor placement at Bolarque dam	4
- General information about the plan:**

The selected teams must displace inclinometers and extensometers in a defined area.
- Activities table:**

Name	Assigned to	Progress
Placement of sensor 001	Sandra Frings	NST
Placement of sensor 002	Sandra Frings	COM
Placement of sensor 003	Sandra Frings	NKN
Placement of sensor 004	POLICIA-GROUP1	IPR

The 'Edit activity' section on the right shows details for 'Placement of sensor' with a 'Coordination' dropdown, dates '2015-10-12 15:00:00' and '2015-10-12 17:00:00', location 'Bolarque Dam Positi', and contact 'POLICIA-GROUP1'. It also has an 'In progress' dropdown and 'Apply' and 'Cancel' buttons at the bottom.

← Activity Management

Organisation sponsors:



Sensor placement at Bolarque dam

General information about the plan

The selected teams must displace inclinometers and extensometers in a defined area.

Activities

Name	Assigned to	Progress
Placement of sensor 001	Sandra Frings	NST
Placement of sensor 002	Sandra Frings	COM
Placement of sensor 003	Sandra Frings	NKN
Placement of sensor 004	POLICIA-GROUP1	IPR

Edit activity

- Placement of sensor
- 2015-10-12 15:00:00
- 2015-10-12 17:00:00
- Bolarque Dam Positi
- Test description

← Activity Management

Destriero Map

Map Visualization

Map layers:

- Mapbox
- Street Map
- Aerial Imagery
- Imagery with Streets
- Openstreetmap

Weather:

- Clouds
- Cities
- Precipitation
- Rain
- Snow
- Pressure
- Temperature
- Wind

Reference:

- Copernicus (Sim)
- Crowdsourc
- Copernicus NoRush
- Unosat (last)
- Copernicus Rush

Map Visualization →

Organisation sponsors:



Why standards in DESTRIERO?

- For improving coordination and cooperation among organizations involved in reconstruction and recovery efforts
- To enhance information interoperability among heterogeneous stakeholders
- To uniform information presentation to support a “Common Operational Picture”
- To improve automatic data management and exchange among command and control centers

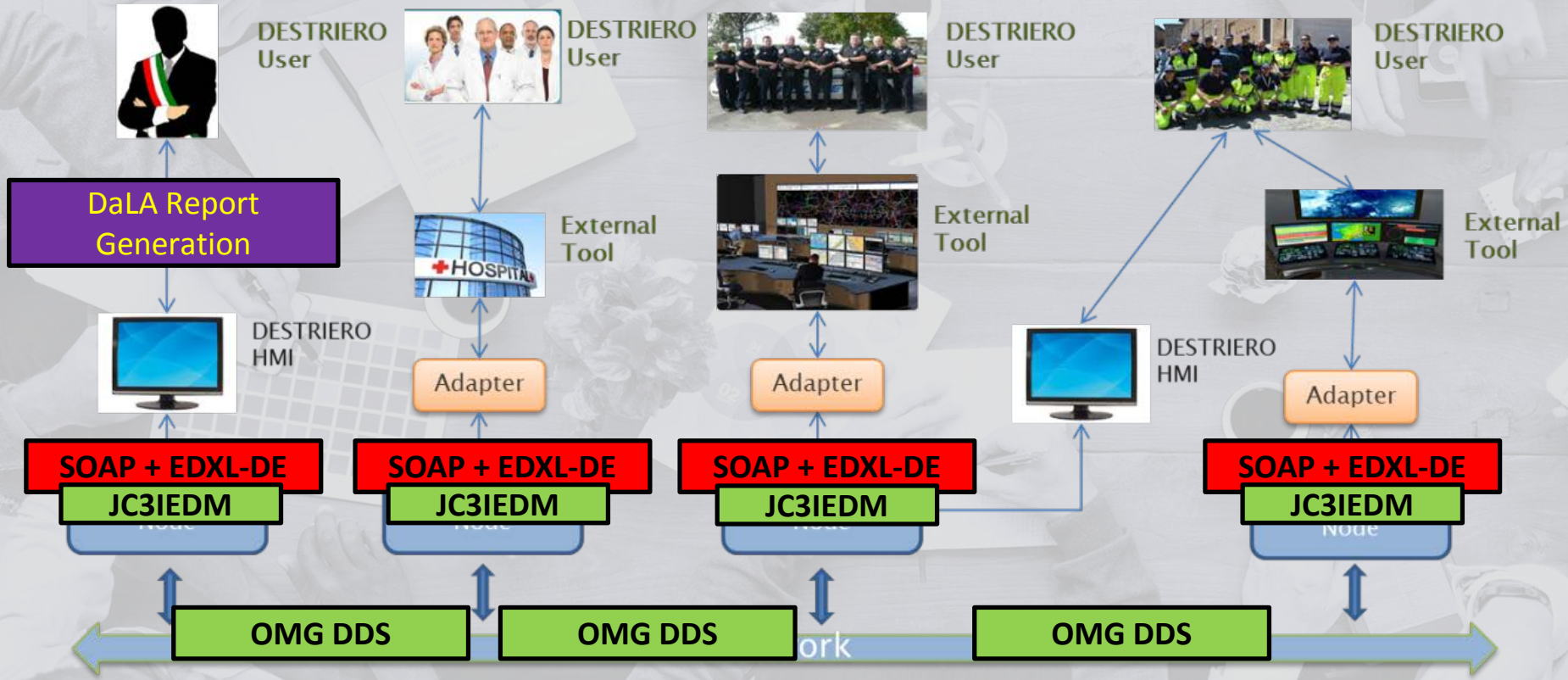
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Some standards...

- **EDXL-DE (The Emergency Data Exchange Language):** a XML-based header or wrapper that provides flexible message-distribution for emergency information systems' data sharing.
- **JC3IEDM (Joint Consultation, Command and Control Information Exchange Data Model):** a MIP-NATO standard for an information exchange data model for sharing of command and control information
- **Data Distribution Service (DDS):** integrates the components of a system together, providing low-latency data connectivity, extreme reliability, and a scalable architecture that business and mission-critical Internet of Things (IoT) applications need.
- **Damage and Loss Assessment (DaLA):** provides guidelines to evaluate the damage caused by a disaster and to measure in monetary and social terms the impact of disasters on the society

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... in practice !



Organisation sponsors:



Want to hear from YOU and ...

We would like to know what you expect **DESTRIERO** can do for you,
please download our survey from
<http://www.destriero-fp7.eu/survey/>
fulfill and send it back to

info@destriero-fp7.eu



<http://www.destriero-fp7.eu>



Destriero-FP7

@destriero_fp7



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... don't miss the DESTRIERO Open Meeting

Join our DESTRIERO open meeting on

Thursday 5th

10.30 – 11.30

Location - Edison suite

Meet part of the representing staff

See results of the DESTRIERO project

Have face-to-face discussions with the team

Organisation sponsors:



Thank You!



Contact

Contact

Jana Mauthner

Mario Fiorentino

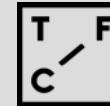


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Questions?



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