



**Building Resilience to Disasters in  
Western Balkans and Turkey**

# Building Resilience to Disasters in Western Balkans and Turkey

## Implementation of Work Package 6: Design of a Regional MHEWS Composed of Harmonized National EWS

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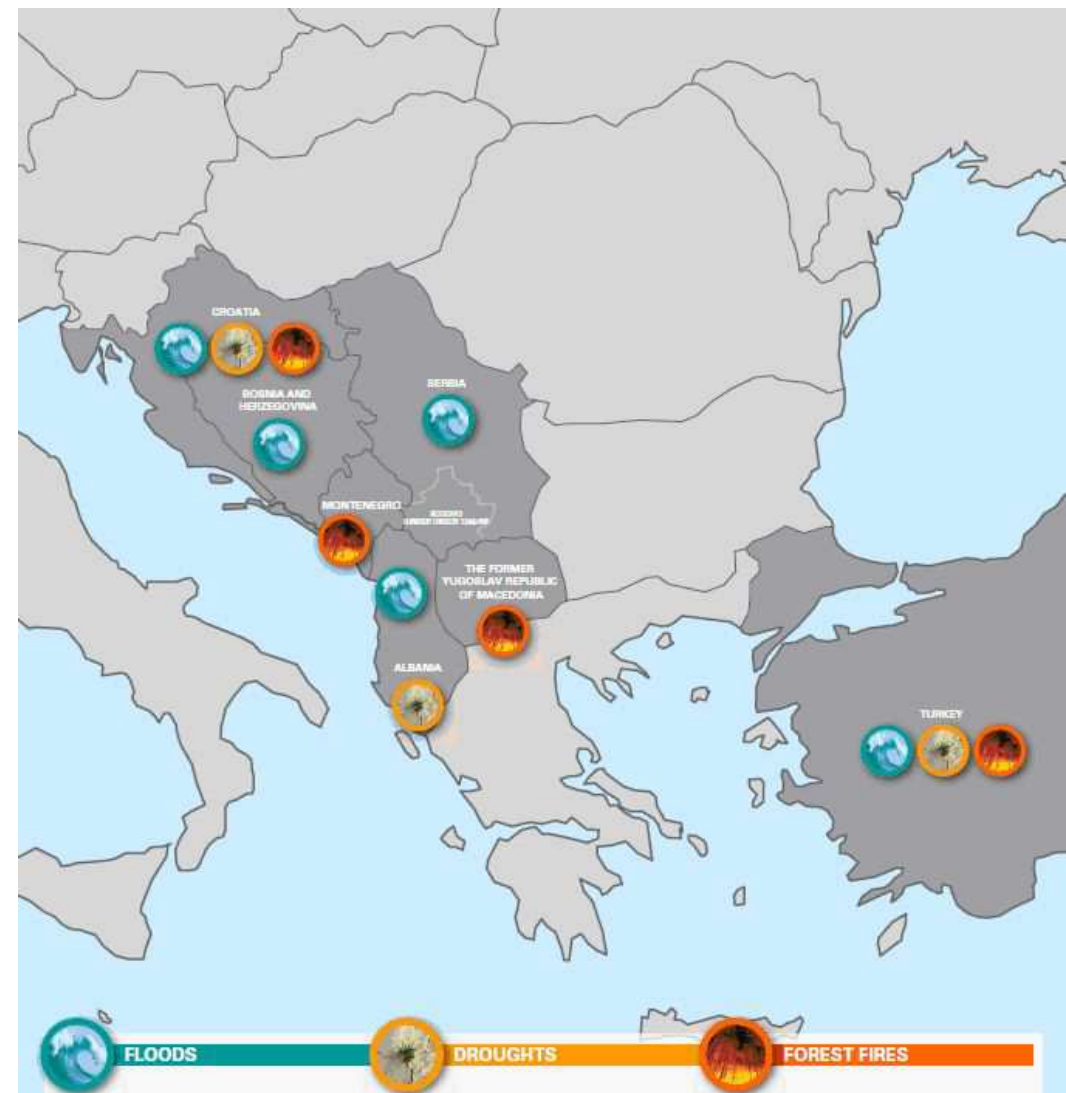
## Focus on SE Europe

WMO implemented, in collaboration with UNDP and other partners, the Action: “Regional cooperation in SEE for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction” during the period April 2009 – October 2011.

(IPA/2009/199-922)

All materials available on:

[http://www.wmo.int/pages/prog/drr/projects/SEE/SEE\\_en.html](http://www.wmo.int/pages/prog/drr/projects/SEE/SEE_en.html)



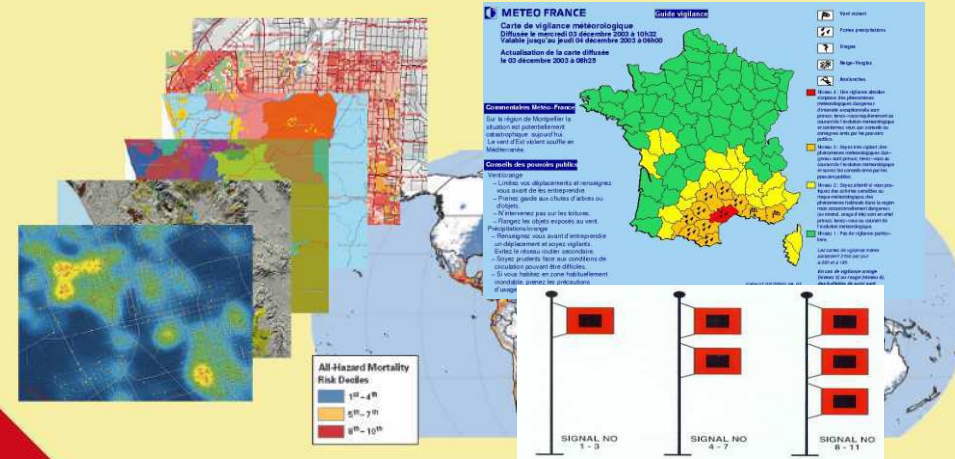


# Saving lives: Multi-Hazard Early Warning Systems

National to local disaster risk reduction plans, legislation and coordination mechanisms



**Hazard Data and Forecasts**



**Risk Information**



**Coordination  
and  
Collaborations**

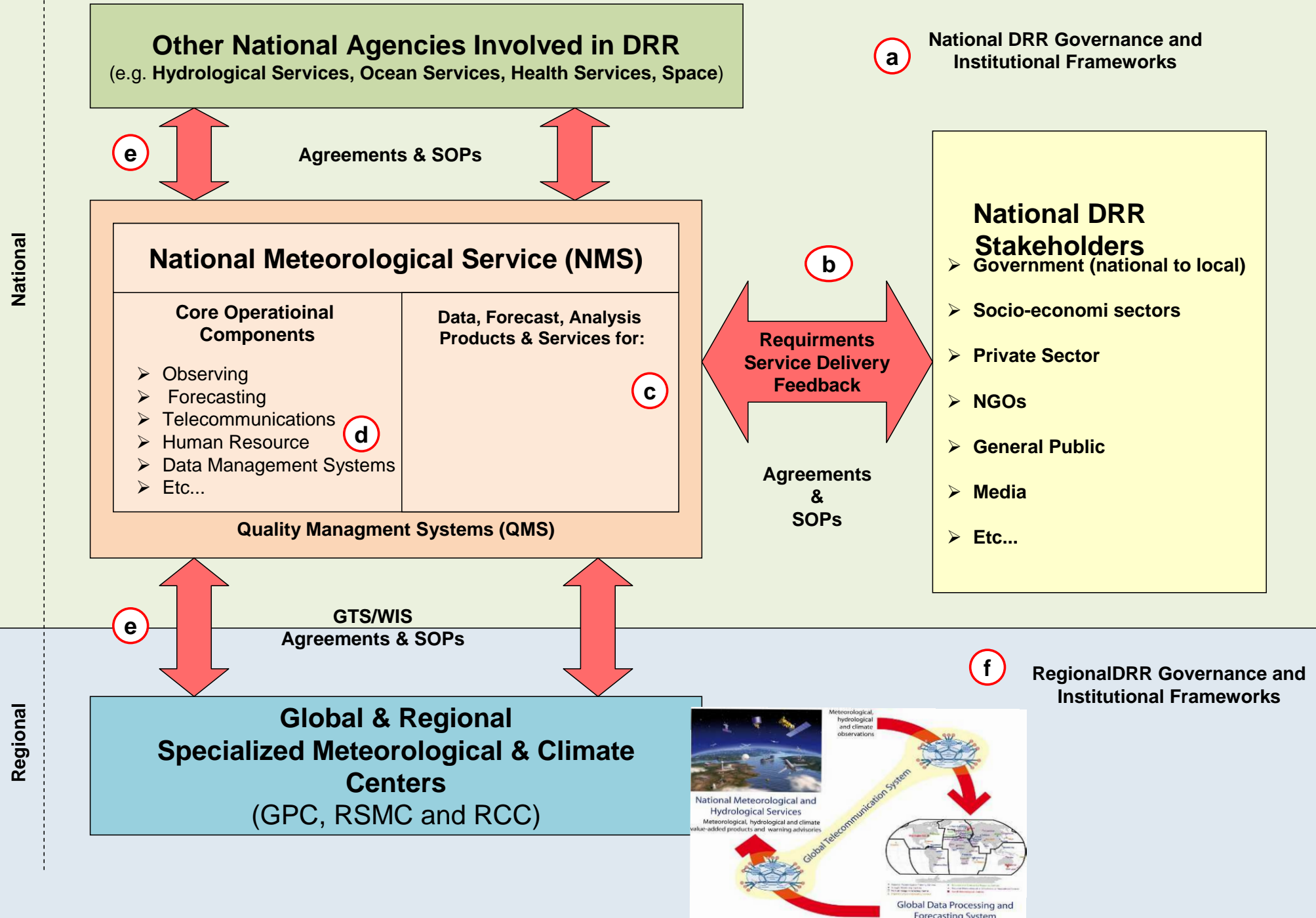


**Communication and  
Dissemination Mechanisms**



**Preparedness and  
Early Response**

# Weather, Climate and Hydrological Services to support DRR Decision-Making





## Cooperation with technical and EWS stakeholders in context of different hazard Types

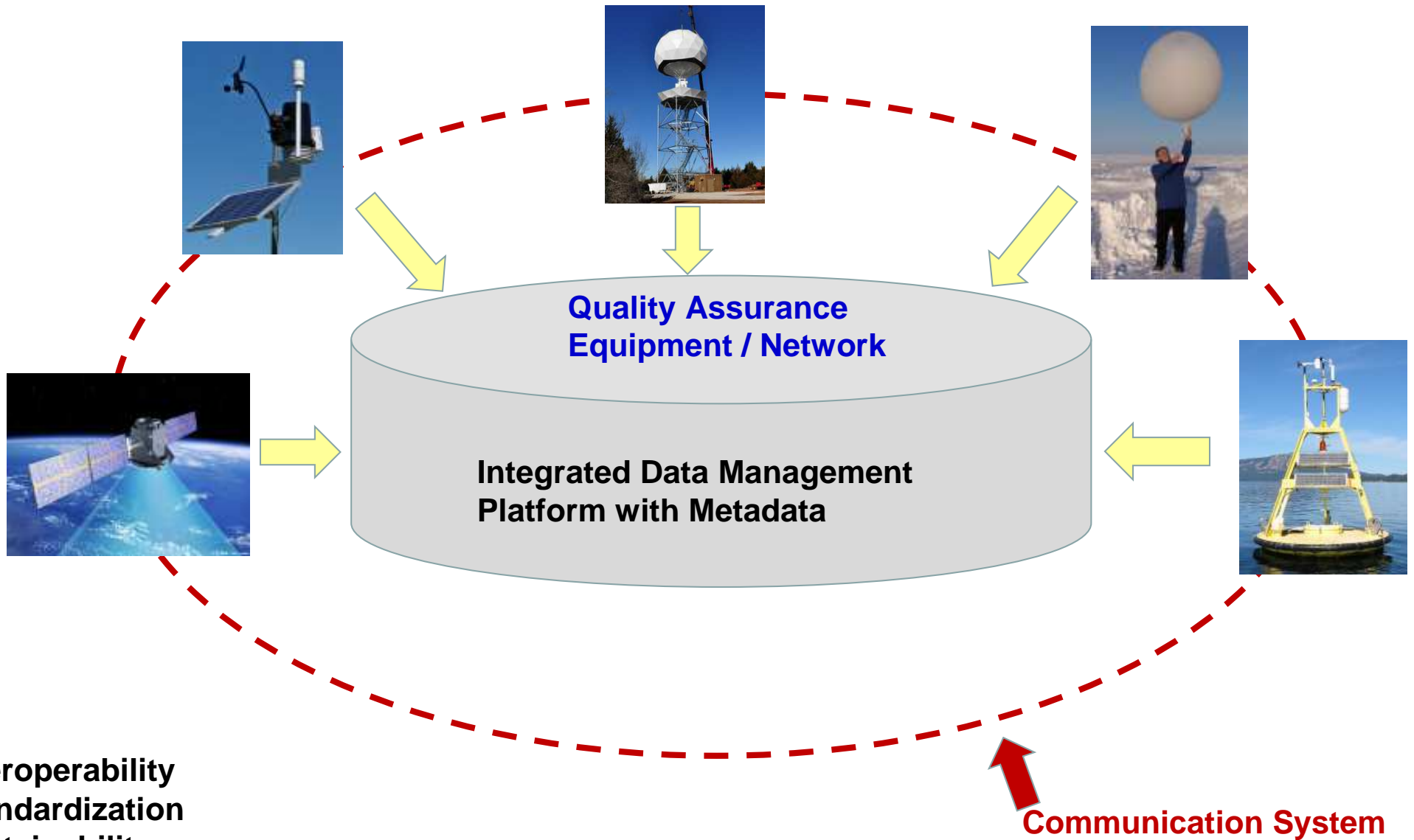
Increasing level of operational coordination with primary coordinators of emergency preparedness and response

Type I	Type II	Type III
Hazard fully under the mandate of NMS	Hazard under joint mandate of NMS with another technical agency (e.g., NHS)	Hazard under mandate of other agencies but NMS contribute
e.g. strong winds, strong rainfall, snow/ice, hail, tropical cyclone	e.g. floods, landslides, heat/health etc.	e.g. locust, health epidemic, man-made hazards

Increasing Level of operational coordination and cooperation with other national technical and sectoral agencies for early detection, monitoring and development of warnings



# Concept: Integrated Data Platforms



**Interoperability**  
**Standardization**  
**Sustainability**  
**Technology Transfer**  
**Calibration and Quality Assurance**

# Concept: Integrated Forecasting and Service Delivery Platforms (Meteorological and Climate services)

## Public & Media

## Government Services

National to local  
Disaster Risk Management  
Various ministries (finance and Planning,  
Agriculture, Health, energy..)

## Commercial and industry

### Services

Transport, Agriculture, Water,  
insurance

## Product and Service Delivery Platforms and Service Delivery Models

### Integrated Forecasting Platforms

### Marine & Coastal

- Tropical Cyclone
- Storm Surges
- High Waves
- Etc.

### Severe Weather

- Heavy precipitation  
(Rain & Snow)
- Severe Storms
- Etc.

### Environmental

- Air Pollution / Air Quality
- Heat Waves / Health
- Etc.

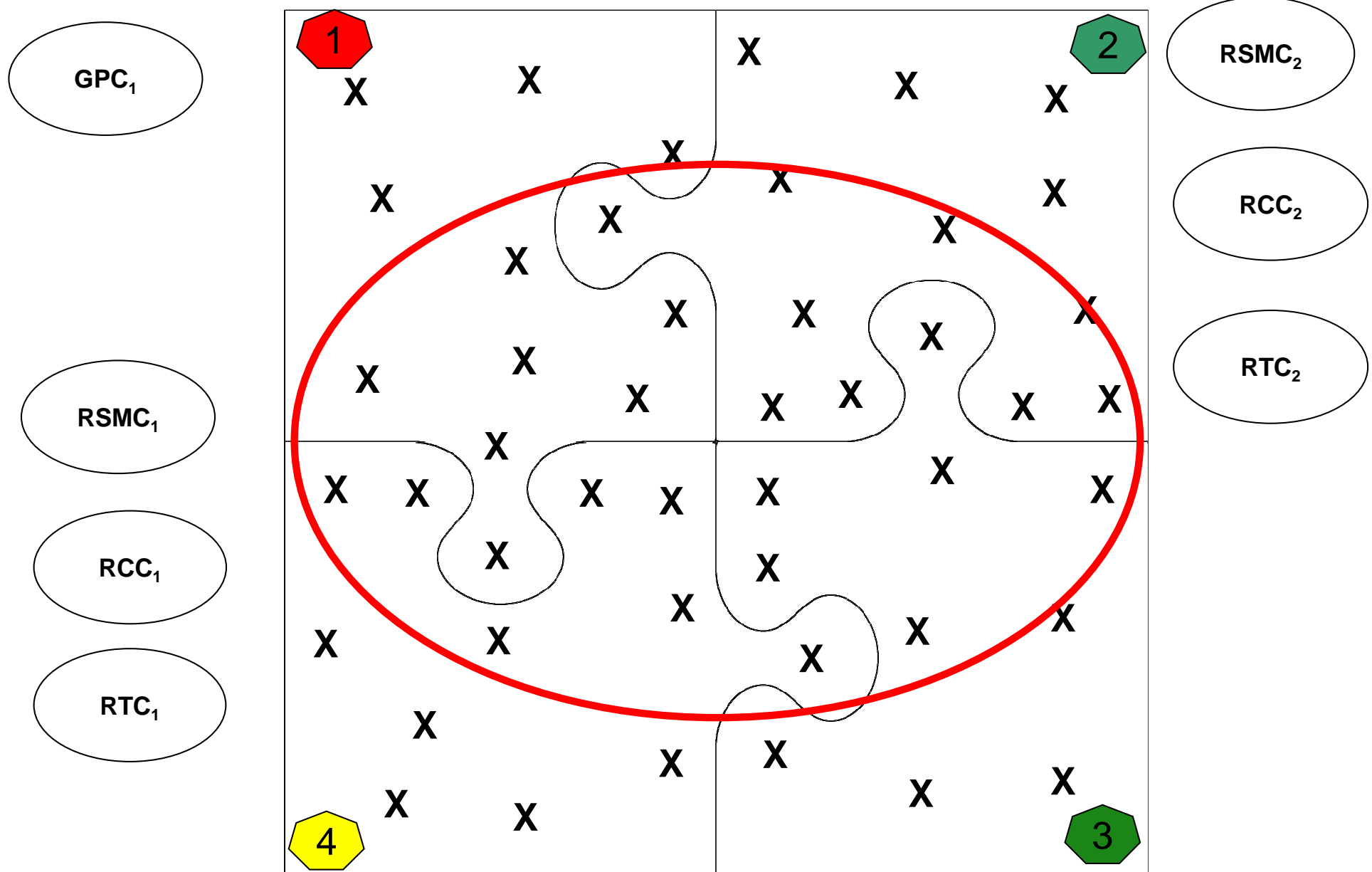
### Emergency Response

- Nuclear
- Biological
- Volcanic Ash
- Etc.

### (Sub)Seasonal Forecasting

- Drought forecasts
- Etc.

# Concept: Integrated Observing & Monitoring Networks with Regional Cooperation Framework







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# The new Project – Work Packages (WMO)

## Data for risk analysis

- Hazard analysis and mapping
- Cross-border Exchange
- CDMS
- Pilot project – Sava River Basin (with ISRC)

## Improved Products in support of DRR

- Forecasts
- Warnings
- “Nowcasting”
- Floods and drought products

## Climate change

- Long-range forecasts
- Seasonal climate outlooks
- New services (e.g., insurance)

## Institutional DRR issues

- EWS Design
- Quality Management
- Regional Harmonization
- Infrastructure



# Status of implementation

**WP 6 - Design a regional Multi-Hazard Early Warning System composed of harmonized national Early Warning Systems within a regional cooperation framework**

Act 6.1:  
Assessment and gap analysis  
of the existing national Early  
Warning Systems

T6.1.1: Gap analysis by a consultant

Act 6.2:  
Preparation of a technical  
design document describing a  
seamless regional MHEWS,  
encompassing optimized  
monitoring networks,  
forecasting facilities,  
telecommunications,  
institutional and procedural  
aspects, human resources

T6.2.1: Establishment of Design Team - consultant, designated experts from meteorological and hydrological services (three meetings of the DT envisaged)

T6.2.2: Regional meeting on institutional collaboration in MHEWS

T6.2.3: Regional forum to present the design document and promote it for adoption at national and regional level.

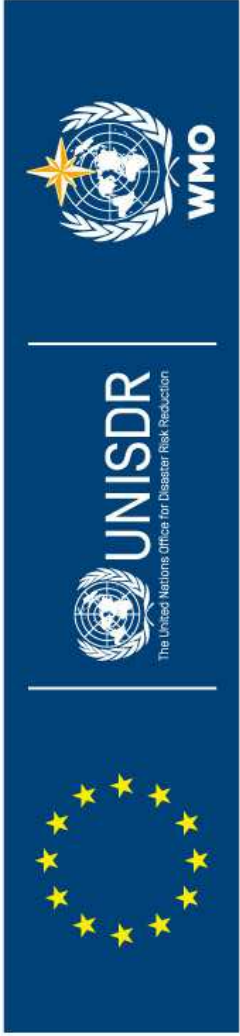
T6.2.4: Assistance to the Informal Conference of South-east European Directors (ICSEED) of NMHSs.





## Description of Activities of the Design Team

- **Desktop review of available assessments of meteorological, hydrological, and climate-related hazards, and related institutional capacities for MHEWS incl.:**
  - a) South-East Europe Assessment Phase (SEEDRMAP). Link: [http://www.wmo.int/pages/prog/drr/projects/SEE/SEEDRMAP\\_en.html](http://www.wmo.int/pages/prog/drr/projects/SEE/SEEDRMAP_en.html)
  - b) Phase I: South East Europe Capacity Development. Link: [http://www.wmo.int/pages/prog/drr/projects/SEE/SEEPPhaseI\\_en.html](http://www.wmo.int/pages/prog/drr/projects/SEE/SEEPPhaseI_en.html)
  - c) UNDP assessment reports the DRM institutional mechanisms
- **Comprehensive analysis of capacities, gaps and requirements related to the 4 components of EWS in the SEE beneficiaries for meteorological, hydrological and climate-related hazards, incl.**
  - a) Review existing regional agreements and arrangements of the SEE beneficiaries
  - b) Review of the linkages with other Work Packages of the project (3,4,5) and other projects underway in the region to this activity
- **Field visits by consultants to beneficiaries**
- **Preparation of the Design Document for the regional MHEWS – Institutional and Technical Parts**
- **Organization of meetings and a final dissemination workshop**



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**Thank You!**