

First Scientific Seminar of the Disaster Risk Management Knowledge Centre



drmkc.jrc.ec.europa.eu

*Science for
Policy and Operations*



2015

2014

2012

First Scientific Seminar
Science for Policy and Operations



Disaster Risk Management Knowledge Centre

24-25 November 2015
London, UK
Venue: Central Hall Westminster

UK Met Office – Joint Research Centre

November 2012 – Brussels

- Recommendations
 - “Explore potential of a **European Partnership** to create a **platform for integrated and coherent multi-disciplinary advice** on European scale”
 - “Provide guidance to support **DRR activities within Horizon 2020**”
- Follow up
 - 2013 Survey: Science-policy interface in Member States
 - 2014 Proposal for Knowledge Centre



UK Met Office – Joint Research Centre

December 2014 – Brussels

- Recommendations
 - EU: “**build DRM Knowledge Centre**: knowledge base; study science policy interface; common scenarios; hazards partnerships”
 - Global: “**Sendai**: international partnerships; promote risk assessment; open data; multi-hazard impact-based approach; link national and regional/global levels”
- Follow up
 - Sendai negotiations: key role of science
 - 30 Sep 2015: Launch of DRM Knowledge Centre



UK Met Office – Joint Research Centre

November 2015 – London

- Objectives
 - **Enhance the knowledge base** to support Disaster Risk Management at National, multi-national / regional and European level

- Provide **early input to the**
DRM Knowledge Center Action Plan



PARTNERSHIPS



KNOWLEDGE



INNOVATION

- Provide recommendations to feed into the **UNISDR S&T Conference** in Geneva: January 2016

Seminar participants

- **18 countries at government level**
 - Austria, Czech R., Finland, France, Germany, Iceland, Ireland, Italy, Luxemburg, Malta, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, UK
 - Scientific/Civil society: Belgium, Portugal, Turkey
- UN OCHA, WMO, World Bank
- EU
- Government
 - DRM Policy (26)
 - DRM Operations (13)
 - Met/Hydro Office (15)
 - Scientific (21)
- Academic (14)
- Private sector (6)
- Civil society (5)
- International (4)

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Disaster Risk Management Knowledge Centre



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*Bridging science and policy
for Disaster Risk
Management*

Disaster risk: a growing problem

- 2005-2015 – Globally
 - 700,000 deaths
 - 1.4 million injured
 - 23 million homeless
 - 1.5 billion affected
 - € 1.2 trillion economic losses
- 2005-2015 – EU
 - 80,000 deaths
 - € 95 billion economic losses
- Exposure to risk is growing
 - Interconnected economy
 - Population growth
 - Urbanisation

Disaster risk knowledge: policy context

- **Union Civil Protection Mechanism**

- Article 5.1(a)
 - “improve the knowledge base on disaster risks and facilitate the sharing of knowledge, best practices and information, including among Member States that share common risks”

- **Sendai Framework for Disaster Risk Reduction**

- 2015-2030
- Call for stronger role of science and building risk knowledge



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Large scientific community for DRM

(Too) many networks?

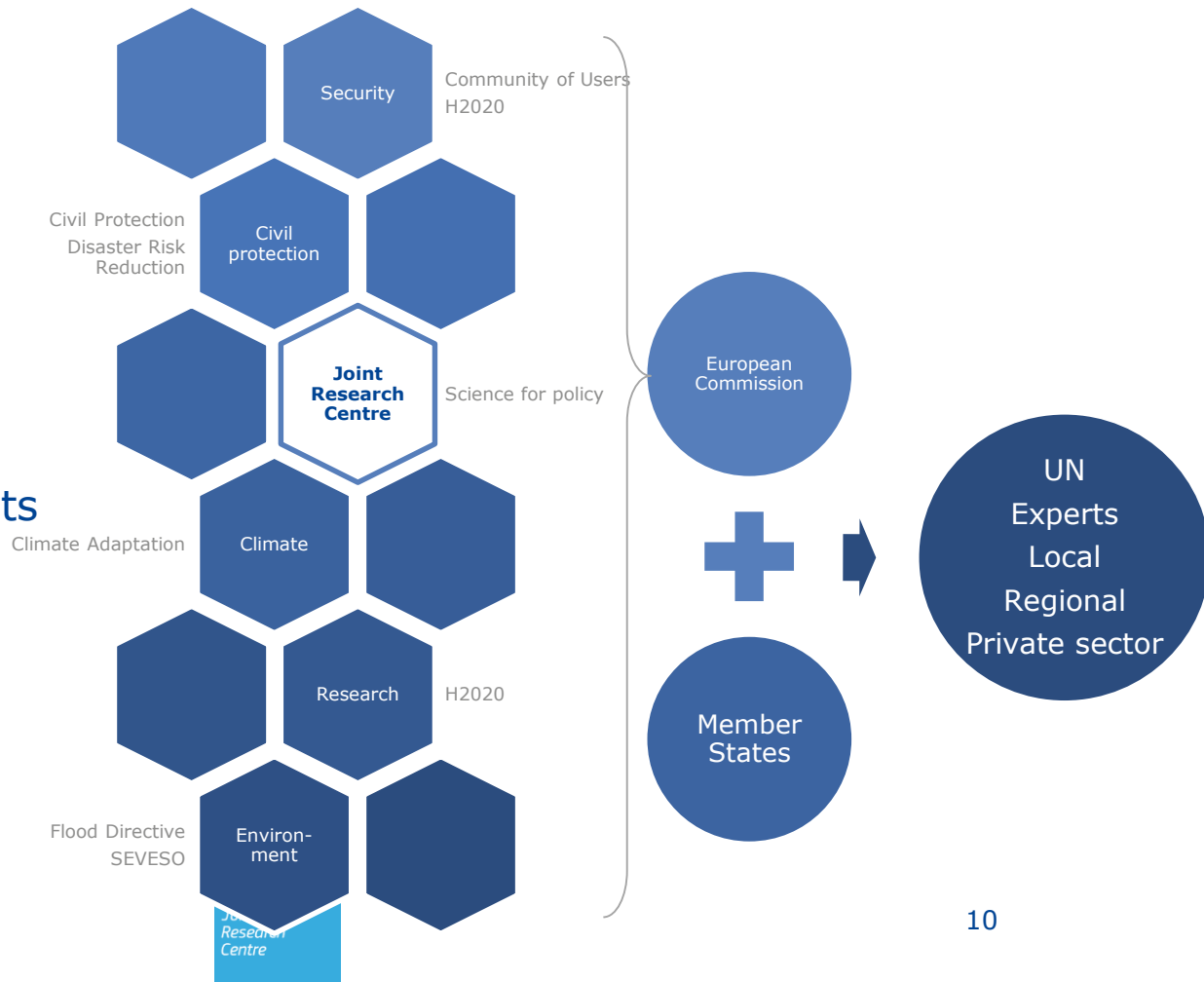
- Hazards, Sectors, Disciplines

(Too) many projects?

- Multiple stakeholders; Multiple R&D prog, results not exploited

(Un)reliable results?

- Support to adopt new technology and methodologies



Challenges in the Use of Science in DRM

3 types of needs



Networks are fragmented

Silos
Overlapping
initiatives



Knowledge is fragmented

Research results are
not exploited
Science doesn't reach
policy and operations



Science needs testing

New technology is
not easily adopted
Capacity in some
areas is hard to build

Knowledge Centre Approach

Joint Research Centre

- Creation and **management** of knowledge
- **Science-policy interface** at EU level
- **Networked approach:** Member States
- **Multiple policies**

European Commission

- JRC
- ECHO
- HOME
- RTD
- ENV
- CLIMA

Disaster Risk Management Knowledge Centre



3 key objectives



PARTNERSHIPS

Improving
**science-based
advice** through
networks and
partnerships



KNOWLEDGE

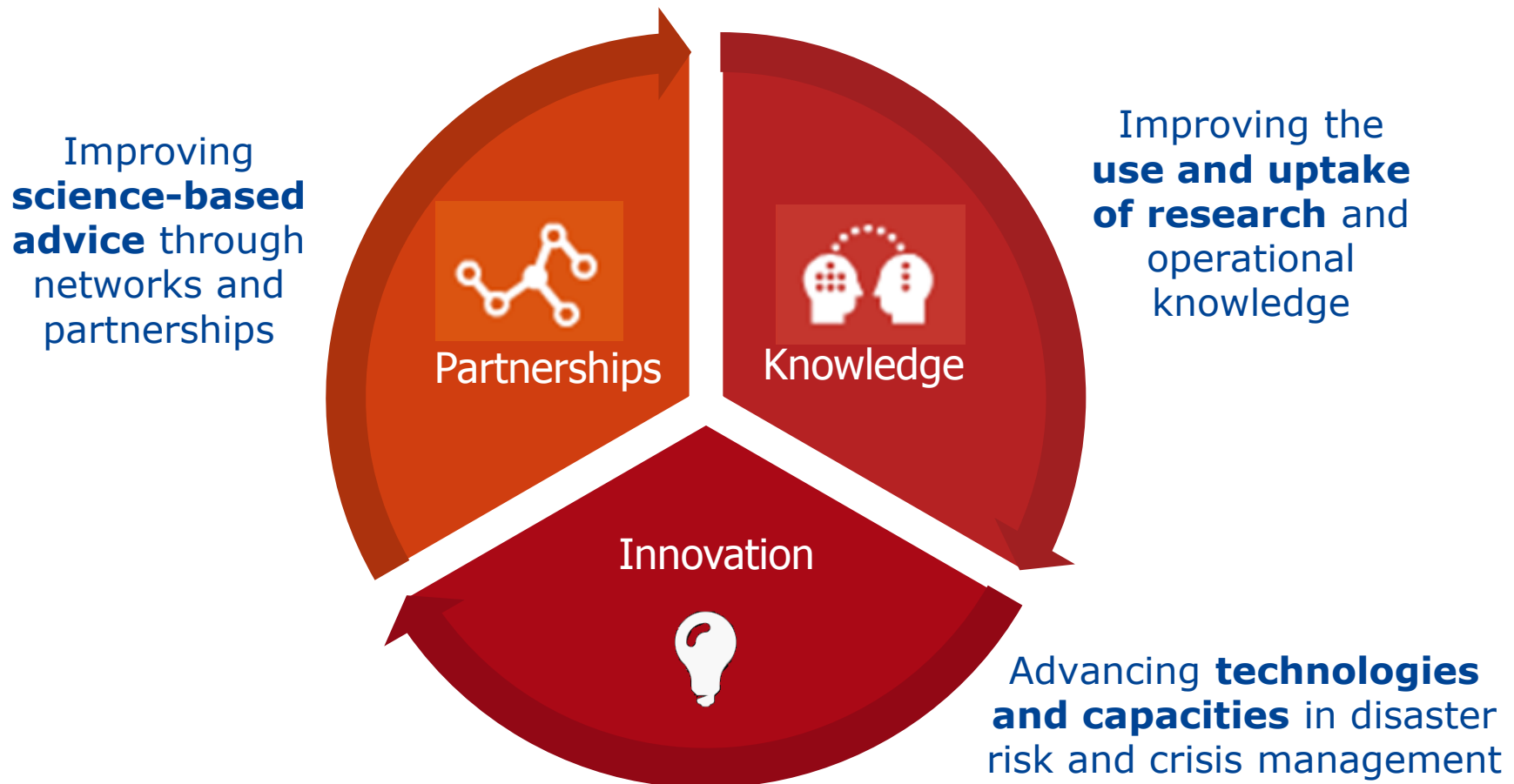
Improving the
**use and uptake
of research** and
operational
knowledge



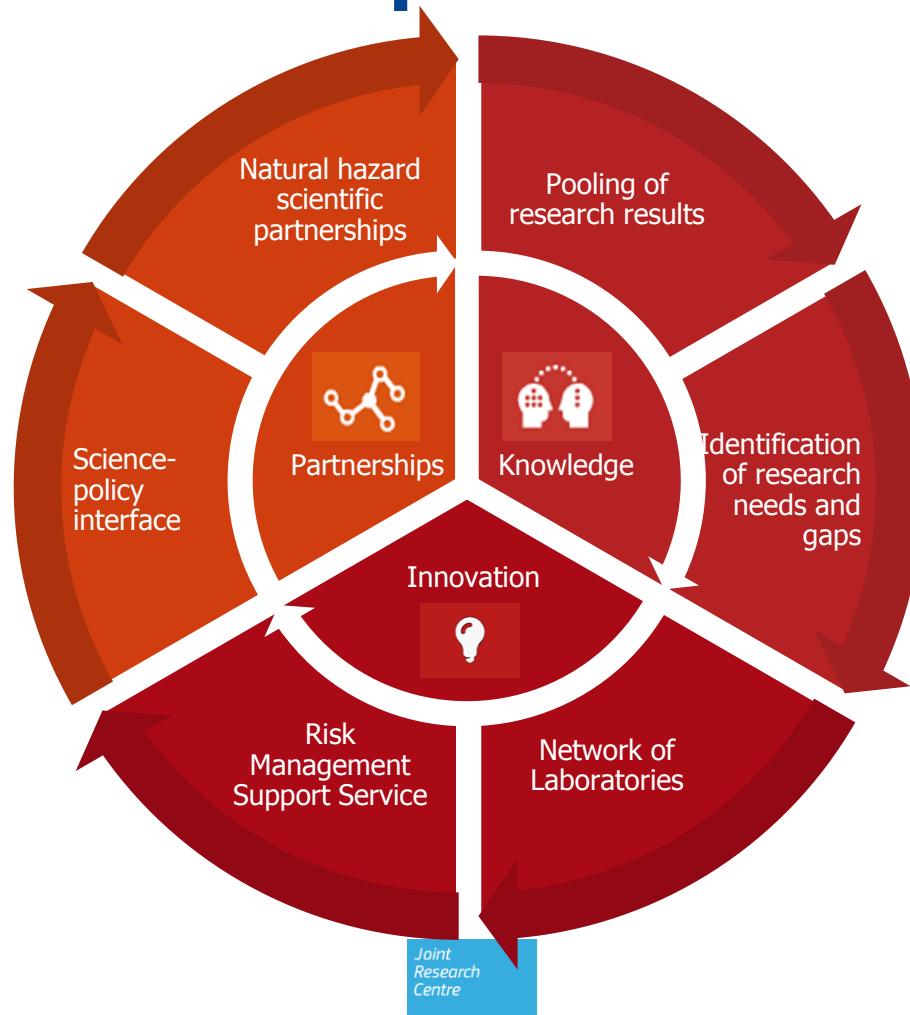
INNOVATION

Advancing
**technologies and
capacities** in
disaster risk and
crisis management

3 Objectives - 6 Expected Outcomes



Action Plan - 6 Expected Outcomes





PARTNERSHIPS

Natural Hazard Scientific Partnerships

- **24/7 situation awareness at EU level**

- Coherent science-based advice
- From MS to MS and EU
- Impact-based early warning
- EU and global operations

Examples

- Pilot Project: Parliament funds
- EFAS (**Floods**), EFFIS (**Fires**) – Copernicus
- Global Informal **Tsunami** Monitoring System
- Global **Flood** Partnership
- Global Disaster Alert and Coordination System

Global
Informal
Tsunami
Monitoring
System



Global Disasters
Alerts and
Coordination
System

GDACS



European Flood
Awareness
System



European Forest
Fires
Information
System



Science-policy interface

Networks of networks

- Coherent science-based advice for policy
- Disaster risk
- EU (UCPM) and global (Sendai)
- Multi-sectorial, across policies (climate change, flood directive, solidarity fund, INSPIRE, SEVESO...)

• Examples

- Sendai targets and indicators: drawing from many networks in EU (deadline 30/11)
- Loss and Damage Data WG
- Disaster Prevention Expert Group
- INFORM Index for Risk Management

INFORM
partnership
on global
risk
assessment



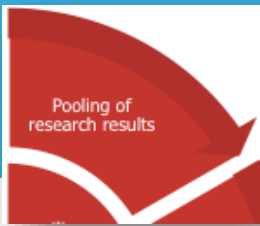
EU Loss and
Damage
Expert
Group



EU Disaster
Prevention Expert
Group

Science-policy interface

- In practice
 - Your network can participate
 - No formal registrations
 - Relevance to EU or global policy
- Participating networks
 - **Announce** events on DRMKC website
 - **Include** DRMKC session in agenda: "News from other networks"
 - Cross-cutting links
 - **Report** outcomes of events on DRMKC website
 - Executive summary
 - Blog post



Pooling of research results

- Systematic database of research results
 - Research programmes: FP7, H2020
 - Civil protection: ECHO
 - National research programmes
- HOME, RTD, ECHO
- *JRC contact: Alessandro Annunziato*
- Metadata on project results

List of EU Projects

[Advanced Search](#)

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3D-FORENSICS | REA (312307)

www.3D-Forensics.eu

Forensic, tool: 3D Scanner,

Identification of research needs and gaps

- Systematic analysis of research needs and gaps
- Analysis of state of science
- Dissemination
 - Topical Newsletters
 - State of Science in Disaster Risk Management (bi-annual)
- In practice
 - First report in 2017
 - JRC: editorial team
 - Lead chapter authors, author teams: call for authors



Network of Crisis Management Labs

- Test crisis management technology and practices
 - Experimental approach
 - Test market ready solutions
 - Identify needs for further research, industrial development, or training/awareness
- *JRC contact: Chiara Fonio*
- Examples
 - JRC European Crisis Management Laboratory: 7 experiments
 - DRIVER project
 - GDACS Crisis Centre Interoperability Benchmarks



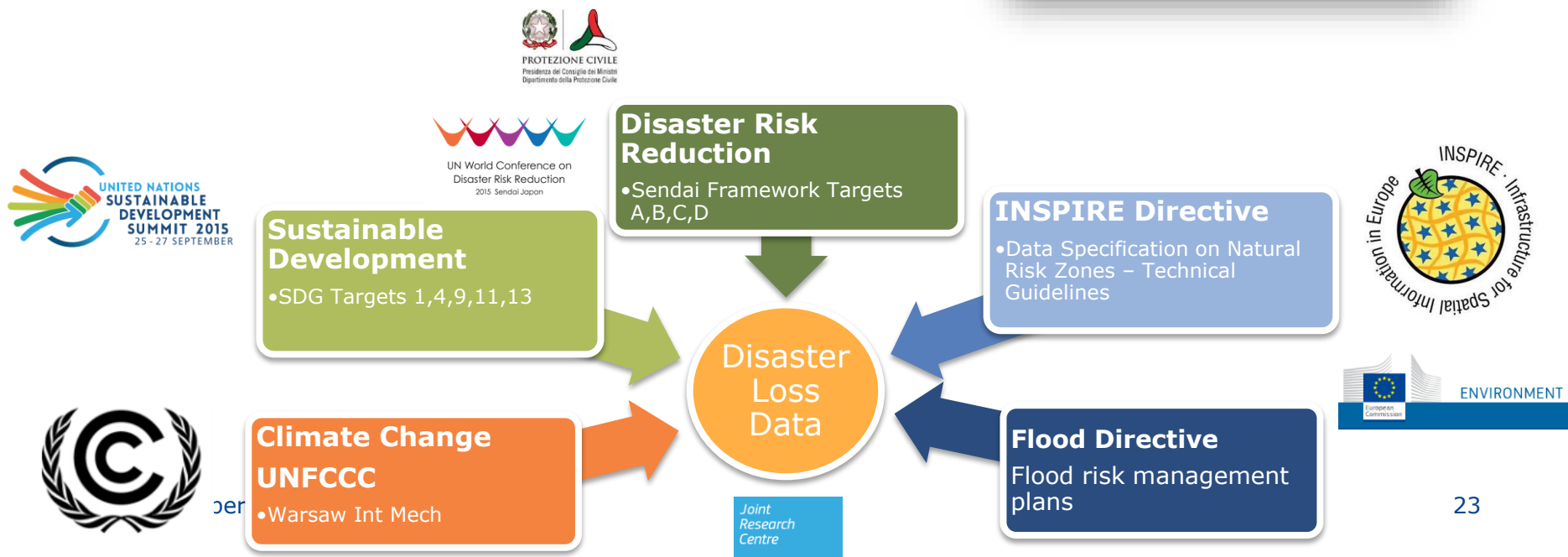
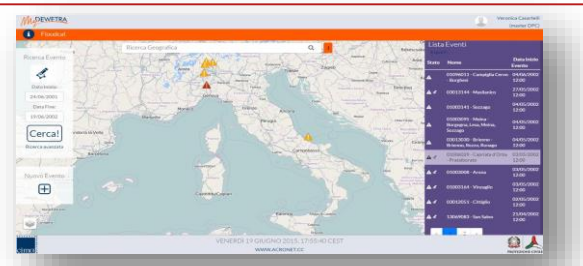
Risk Management Support Service

- Share best practices among MS
- Facilitate the use of existing expertise for meeting risk management obligations
 - National Risk Assessment
 - DRM Capabilities Assessment
 - Disaster Loss Databases
 - Science-policy interfaces
 - Other...
- In practice
 - MS identifies need
 - Project outline developed together with JRC
 - Appropriate expertise is found
 - Project is executed
 - Around 10-15 projects in 2016
- *JRC contact: Chiara Proietti*

Risk Management Support Service

Disaster Loss Data

FloodCat: An operational multi-stakeholder on-line platform for recording flood events and associated damages

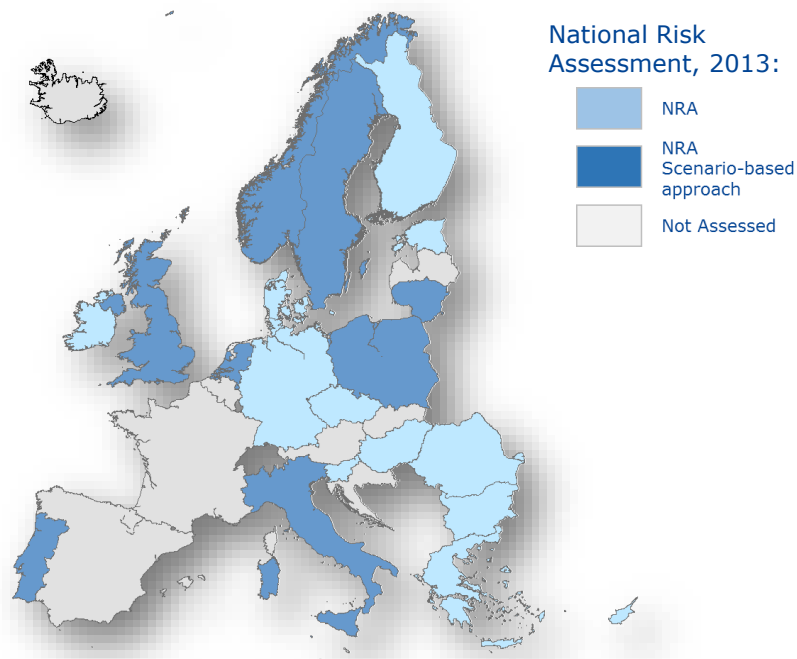




Risk Management Support Service

National Risk Assessment and Capability

Definition of Cross-Countries Scenario



Improving the use and uptake of research in:

1. Definition of the Method
 - Index-based approach
 - **Scenario-based approach**
 - Deterministic
 - Probabilistic
2. Definition of the likelihood/impact
3. Technical support in the different phases:
 - Prevention and preparedness (e.g. hazard maps)
 - Early warning, monitoring and surveillance (e.g. modelling, assessment of the results....)
 - Response (e.g. loss data collection, residual risk assessment...)
4. Communication

Disaster Risk Management Knowledge Centre



Get involved

- 1. Link** your network to the DRMKC
 - announce events, present DRMKC, communicate results
- 2. Build** a scientific partnership
- 1. Author** a chapter in the State of Science in DRM Report
- 3. Use** H2020 results, **Join** the Community of Users
- 4. Participate** in Crisis Management Experiments
- 5. Request/offer** support to other Member States

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