



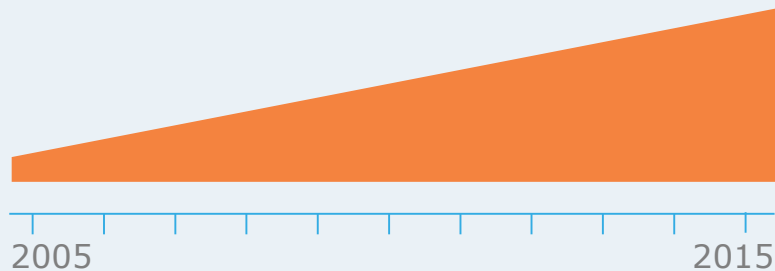
20
September
2016

 **D**isaster
 **R**isk
 **M**anagement
 **K**nowledge
Centre

*Ensuring the uptake of science
in DRM policy formulation and
implementation.*

Why?

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

Exposure is growing

- ▶ Interconnected economy
- ▶ Population growth
- ▶ Urbanisation

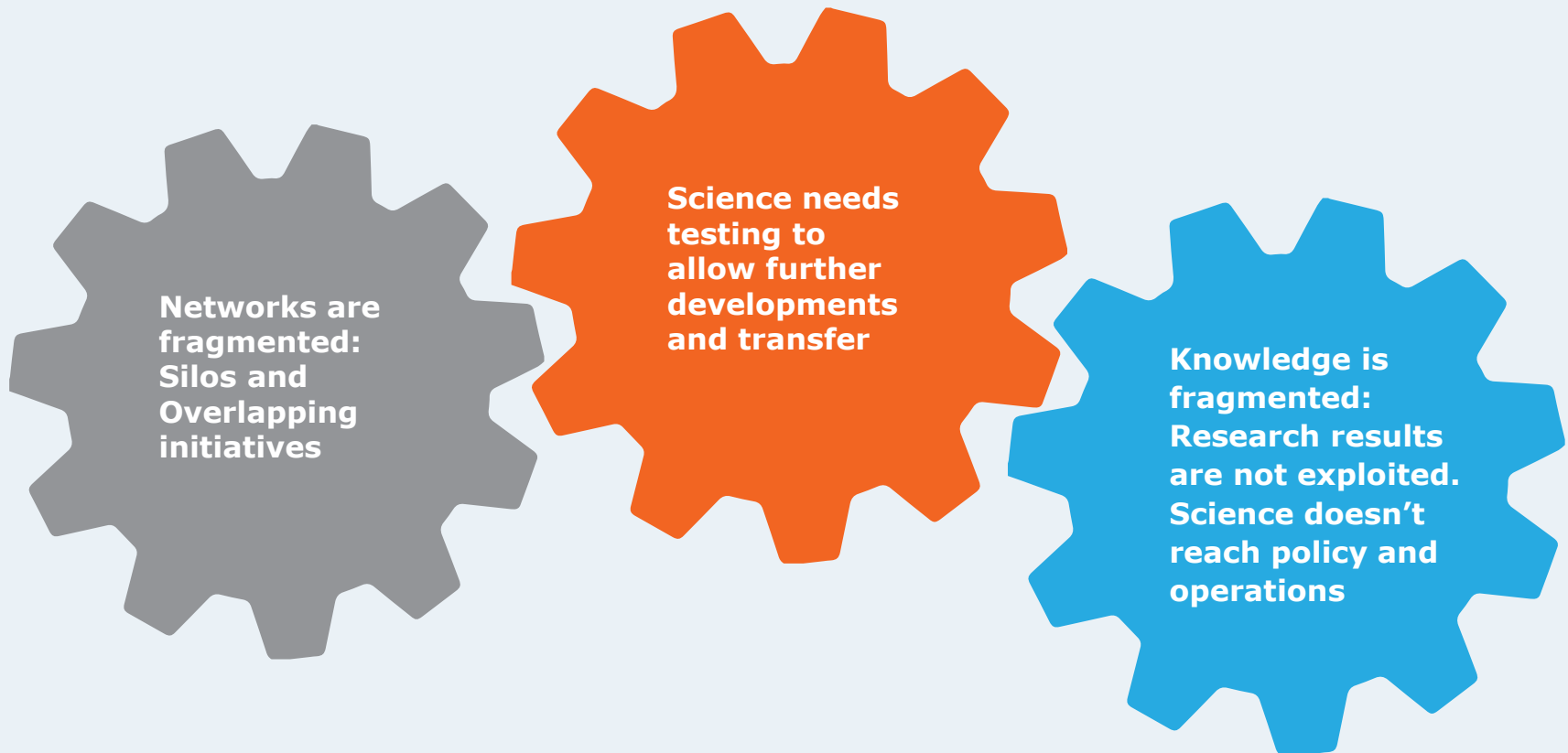
2005-2015 EU

- ▶ 80,000 deaths
- ▶ € 95 billion economic losses

Why?

Challenges in the Use of Science in DRM

3 types of needs



Why DRMKC?

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"

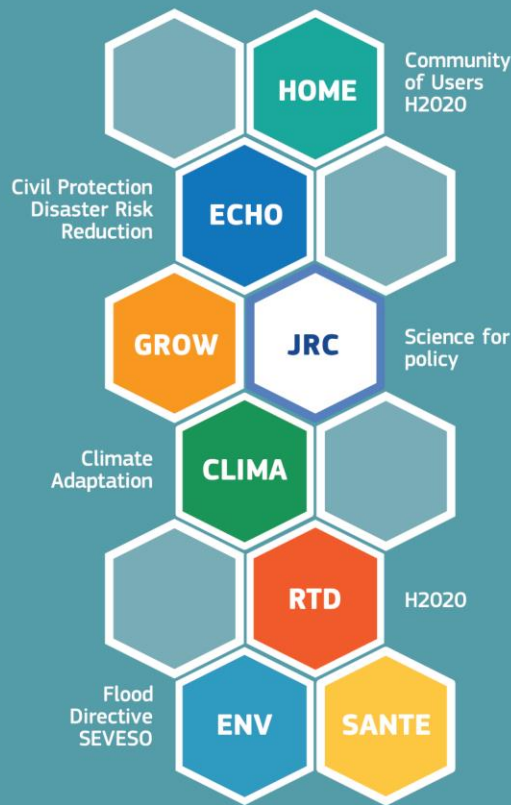
Sendai Framework for Disaster Risk Reduction

2015-2030

Call for stronger role of science and building risk knowledge



Why DRMKC?



EC Directorates



PARTNERSHIP

- 1 Hazard Scientific Partnerships
- 2 Science Policy Interface



KNOWLEDGE

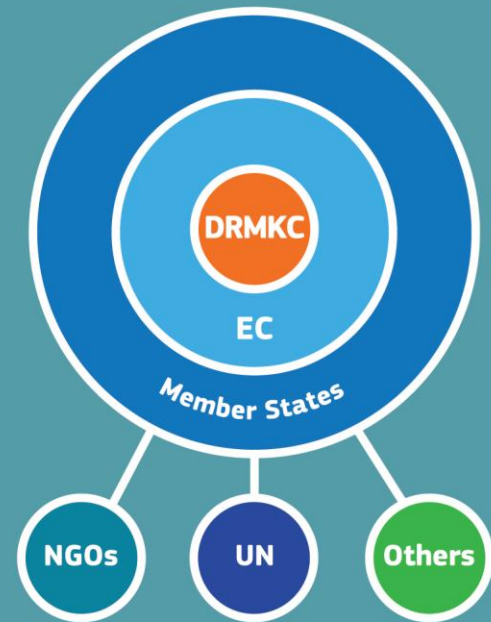
- 3 Pooling of Research Results
- 4 Identification of research needs and gaps



INNOVATION

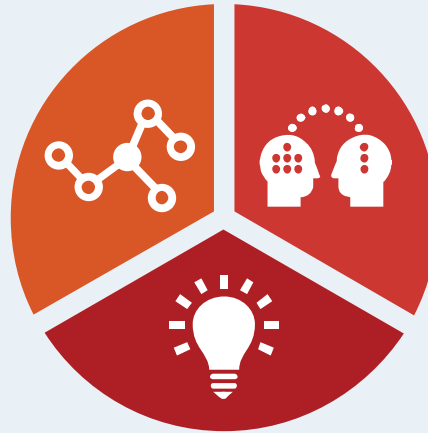
- 5 Networks of Laboratories
- 6 Support System

DRMKC



Serving

What?



DRMKC 3 key pillars



PARTNERSHIPS

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



KNOWLEDGE

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

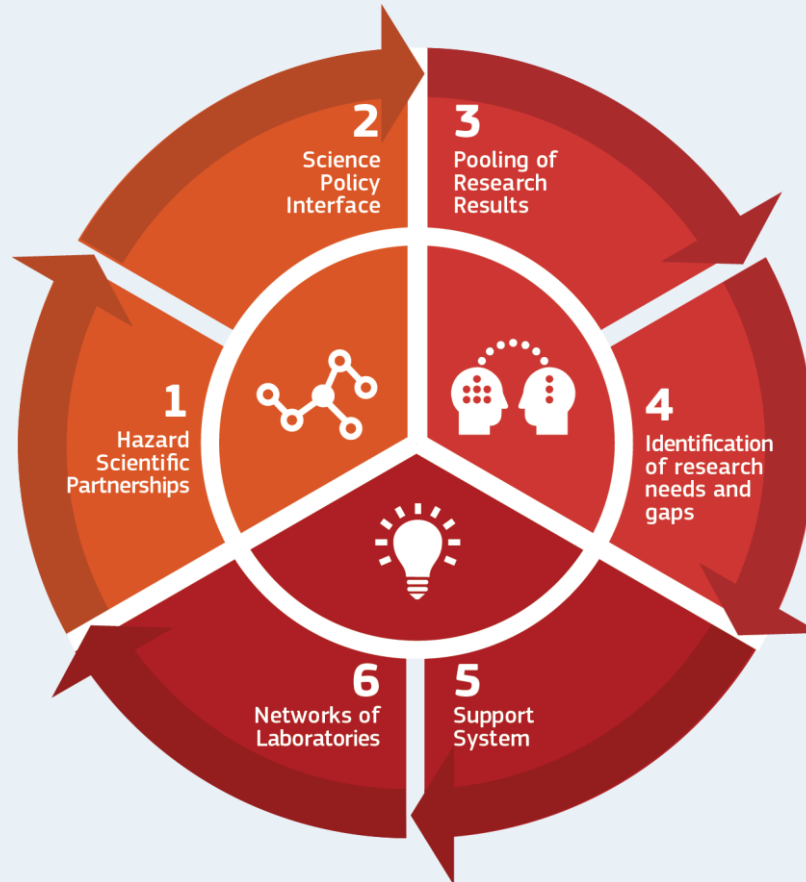


INNOVATION

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

What?

Action Plan - 6 Objectives



How?

1. 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*

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

How?

2. 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)
- National Risk Assessment
- Disaster Risk Capacities Assessment
- Loss and Damage Data WG
- Disaster Prevention Expert Group
- INFORM Index for Risk Management

How?

3. Pooling of research results



EUROPEAN COMMISSION
Disaster Risk Management Knowledge Centre

Overview | Partnerships | Knowledge | Innovation

Meetings | People | **Projects** | Reports

List of EU Projects

Views Search

Project Call (8)

- Cyber
- Ethics
- Detection
- Preparedness
- Prevention
- Protection
- Recovery
- Response

Project DG (5)

- CONNECT
- HERA
- HERA

Project Call (55)

3D-FORENSICS
www.3d-forensics.eu
Forensic

A4A
www.aler4all.eu
Security Systems, Crisis Management, Decision Support Tool, Training, Media, Informatics

ABC4EU
https://abc4trust.eu/
Infrastructures, Border Management, CBRN, Other

ACRIMAS
www.acrimas.eu
Crisis Management, Other, Needs Assessments, Roadmap

ACXIS
http://www.casra.ch/en/about-us/news/
Critical Infrastructures, Tools, Transports

ProjectAcronym
3D-FORENSICS

Abstract
Mobile high-resolution 3D-Scanner and 3D data analysis for forensic evidence; EUR 1,420,262: Percentage of solved crime is less than 70% in more than half of the EU countries in some it is less than 50%. A promising forensic approach is 3D-reconstruction of evidence with a mobile high resolution 3D-scanning system and automatic 3D-data analysis software will be developed for at crime scenes (e.g. of foot prints or traces of bodies), convincing and meaningful in order to achieve judicial acceptance. It includes the development, realisation of 2 protos. 5 part are SMEs. The users are potentially every scene investigation unit and/or forensic expert in the world.

ProjectDG
REA (312307)

Call
Call 2012.7.2-1 CP Pr

List of EU Projects	
1	<p>EPISECC REA (607078) https://www.episecc.eu/ Informatics, Security Systems, Communication, Other</p>
2	<p>FRESP REA (218138) www.rma.ac.be/fb7/fresp Crisis Management</p>
3	<p>RECONASS REA (312718) http://www.reconass.eu/ Crisis Management, Critical Infrastructures</p>
4	<p>FLOODIS REA (607220) http://www.floodis.eu/ Other</p>
5	<p>FLOODSAT REA (277183) http://www.mtu.edu.br/~nyflmstk/html/floodsat.html Other</p>
6	<p>FLOODSTAND RTD (218532) http://floodstand.aalto.fi/ Decision Support Tool</p>
7	<p>IMPRINTS RTD (226555) http://www.imprints-p7.eu ; http://cordis.europa.eu/project/rcn/91253_en.html Crisis Management</p>
8	<p>KULTURISK RTD (265280) http://www.kulturisk.eu/ Crisis Management</p>
9	<p>MATRIX RTD (265138) http://matrix.gpi.kit.edu/ Other</p>
10	<p>NITIMESR REA (317382) http://cordis.europa.eu/project/rcn/105344_en.html Crisis Management</p>
11	<p>SERENITI REA (631128) http://www.spm-ri/sereniti/ Crisis Management, Critical Infrastructures, Cyber Security</p>
12	<p>SYNER-G RTD (244061) http://www.vce.at/SYNER-G/ Crisis Management, Critical Infrastructures, Society</p>
13	<p>ECHO_2002_467 ECHO http://www.comune.taranto.it/</p>
14	<p>PREEMPT ECHO http://www.feem.it/</p>
15	<p>ECHO_2014_926 ECHO http://www.eucentre.it/</p>
16	<p>IDEA ECHO http://www.polimi.it/</p>

How?

4. Identification of needs, gaps and dissemination



KNOWLEDGE

- ▶ **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

How?

Dissemination of Information: DRMKC Website



KNOWLEDGE



The screenshot shows the homepage of the Disaster Risk Management Knowledge Centre (DRMKC). The header includes the European Commission logo and the text "EUROPEAN COMMISSION Disaster Risk Management Knowledge Centre". Below the header is a navigation menu with "OVERVIEW", "PARTNERSHIP", and "KNOWLEDGE" highlighted. A secondary menu includes "EVENTS", "NEWS", "PUBLICATIONS", and "ABOUT". The main content area features a "Welcome to DRMKC" section with the headline "Enhancing the Knowledge base to support Disaster Risk Management" and a brief description of the initiative. To the right, there is a "DRMKC Newsletter" section listing three newsletters: "May 2016 - Newsletter", "March 2016 - Newsletter", and "January 2016 - Newsletter". Below the welcome section is a "DRMKC News" section with two news items: "Innovation: New Aid Platform: Community of Practice for Human Aid" and "Innovation: ThinkHazard - new GFDRR tool for hazard analysis" dated 26 MAY 2016. At the bottom right, there is a "DRMKC Events" section with a calendar view showing "APR 28 2016" and "DEC 15 2016".

How?

5. Risk Management Support System



- ▶ **Share best practices among MS**
- ▶ **Facilitate the use of existing expertise for meeting risk management obligations**

Topical Newsletters

State of Science in Disaster Risk Management (bi-annual)

- **In practice**

MS identifies need

Project outline developed together with JRC

Appropriate expertise is found

Project is executed

(Around 10-15 projects in 2016)

How?

5. Risk Management Support System



← **Share best practices among MS** →

How?

6. 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

- **Examples**

 - JRC European Crisis Management Laboratory:

 - 7 experiments

 - GDACS Crisis Centre Interoperability Benchmarks





<http://drmkc.jrc.ec.europa.eu/>

<http://drr.jrc.ec.europa.eu/Loss-Data>