

# Disaster Risk Management Knowledge Centre -DRMKC

Supporting EU policies

Ian Clark (Former Staff Member of JRC)

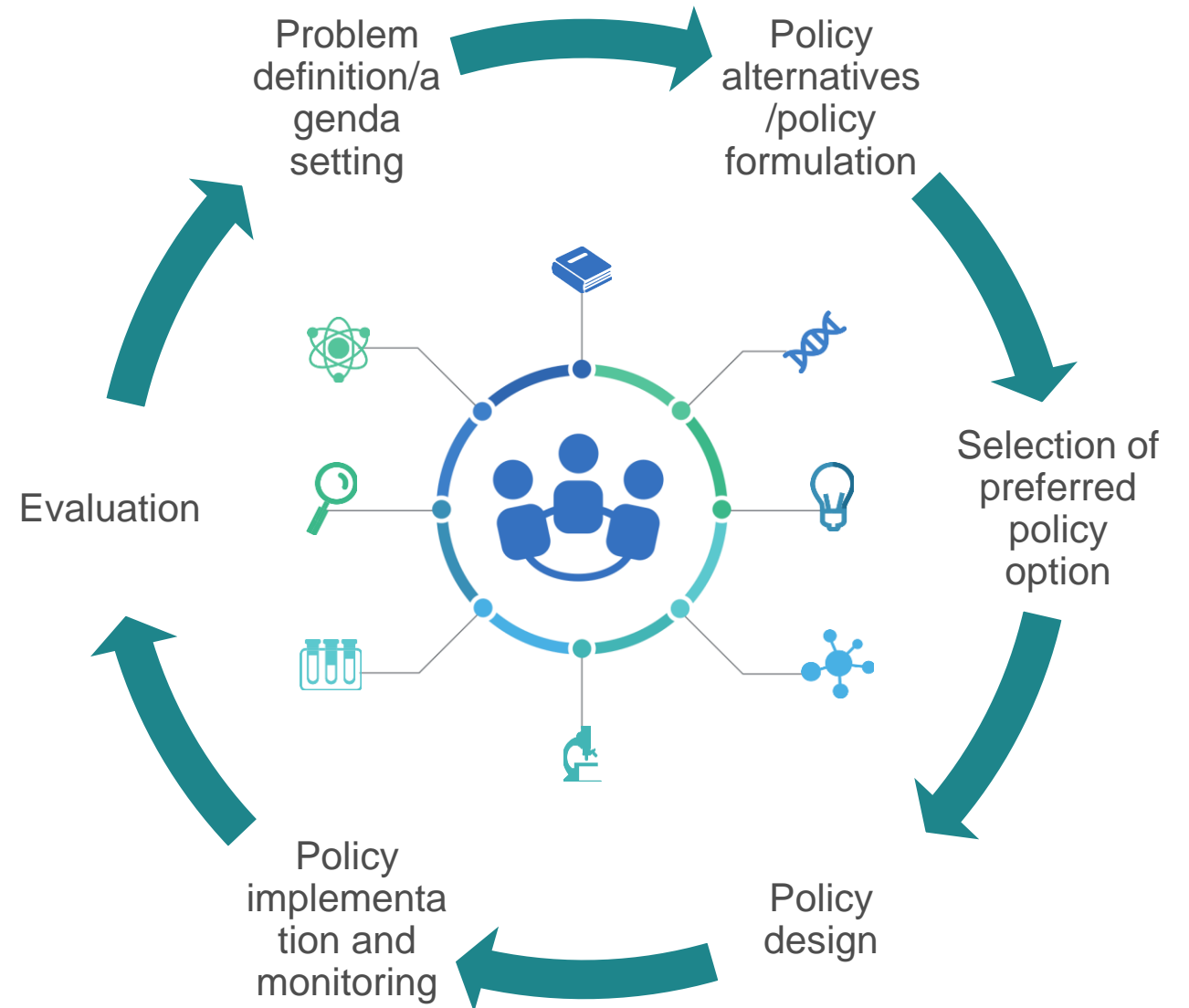
Giuliana Urso (Knowledge Manager DRMKC)



**Joint Research Centre**  
the European Commission's  
in-house science service

# JRC Mission

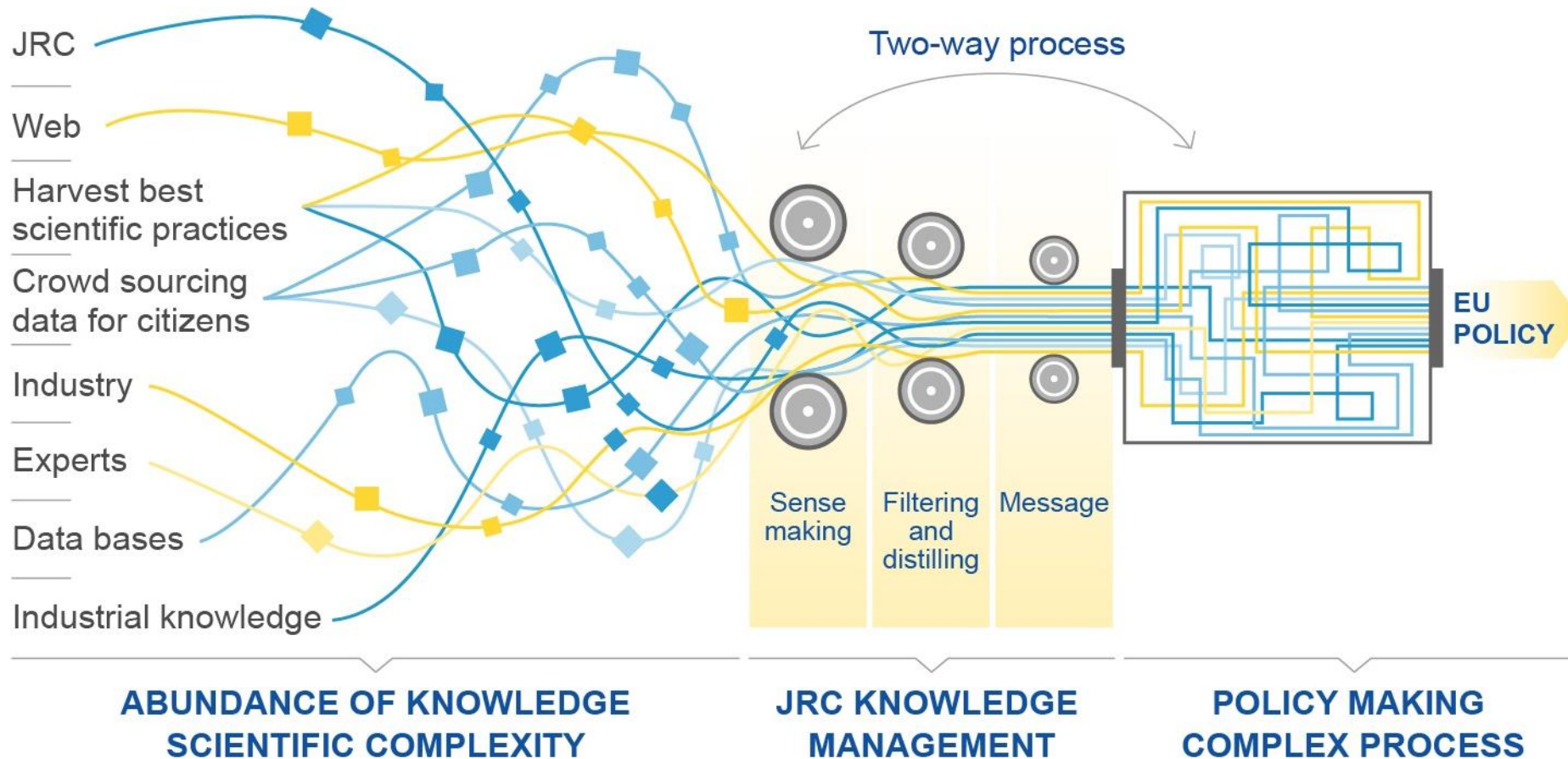
The Joint Research Centre (JRC) provides independent, evidence-based knowledge and science, supporting European Union (EU) policies to positively impact society.



The European Commission's science and knowledge service  
Joint Research Centre

# JRC Strategy 2030:

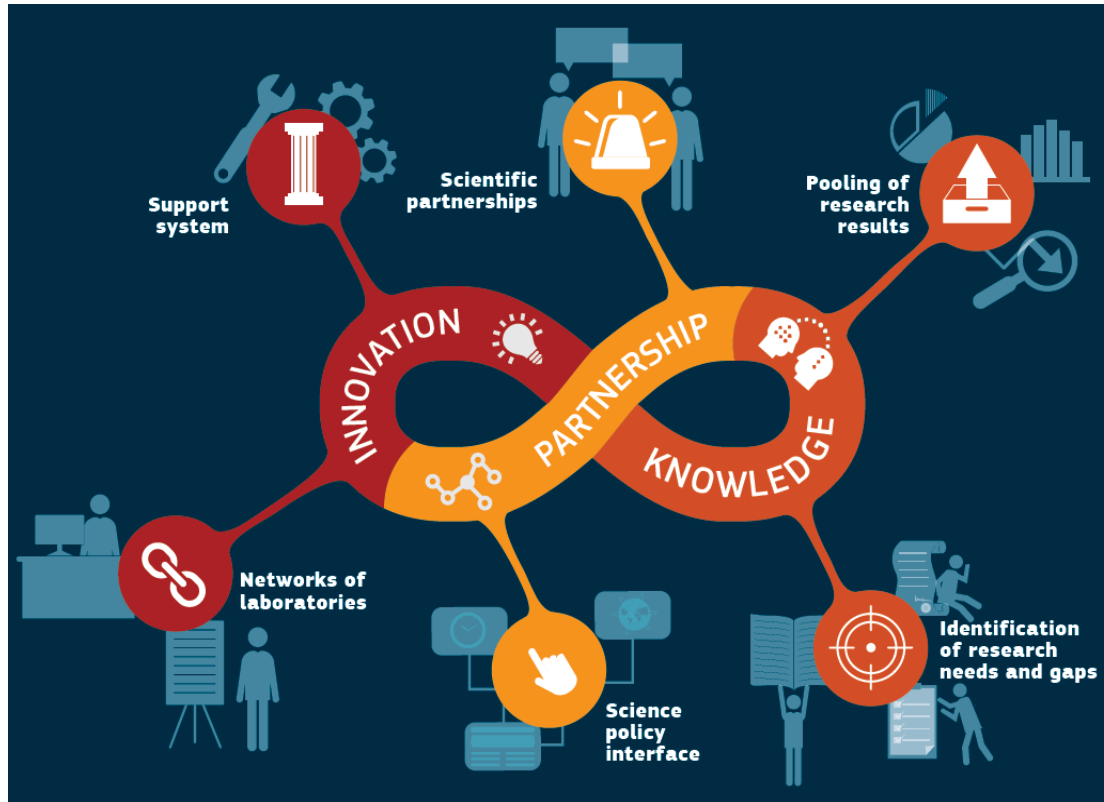
Creating Knowledge Centres to deal with the information overload



## 20 knowledge Services:

- **DRMKC**
- Biodiversity
- Territorial policy
- Migration and demography
- Bio economy
- Food fraud and quality
- Food and nutrition security
- Earth observation
- Cancer
- AI watch

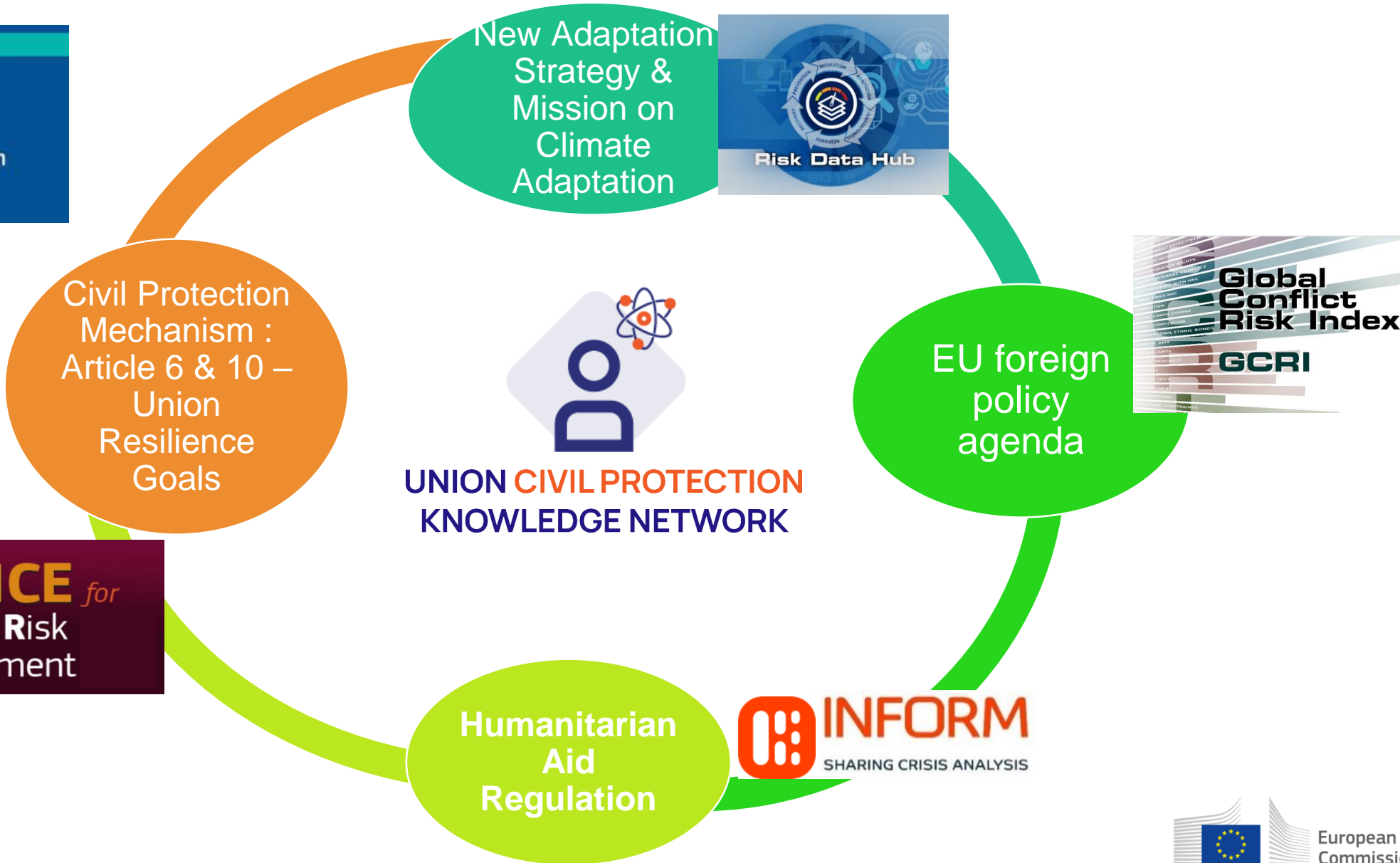
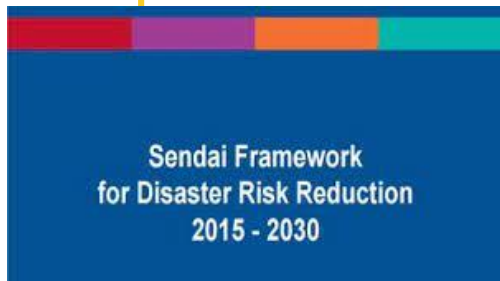
# Knowledge Centre for Disaster Risk Management



Supports policymaking by:

- Gathering ECs services, European countries, community (partnership)
- Transferring knowledge across sectors, integrating and consolidating it (knowledge)
- Co-developing and providing innovative solutions for existing needs (innovation)
- Improve coordination in managing disaster risk

# Main policy areas supported by DRMKC



# Evolution of DRMKC - triggered by broader policy context

**2013** ● **New Union Civil Protection Mechanism**  
Decision No 1313/2013, Art. 5.1(a) ● Improve the knowledge base on disaster risks

**2015** ● **SFDRR, SDGs, Paris Agreement**  
● Global agreements on DRR and Climate Change



launched on **30<sup>th</sup> September 2015**

**2019** ● **Revision of UCPM**  
Decision (EU) 2019/420 ● Creating rescEU and Union Civil Protection Knowledge Network

**May 2021** ● **Revision of UCPM**  
Regulation (EU) 2021/836 ● Cross-sectoral, all-hazard, transboundary DRM based on **scenario planning** and **disaster resilience goals** at Union level

**Nov 2021** ● **Establishment of the Union Civil Protection Mechanism**  
Decision ((EU) 2021/1956) ● *“The **Science pillar** should build on and integrate existing scientific structures and networks ...in particular the **Disaster Risk Management Knowledge Centre**...as well as **relevant Horizon Europe programmes**...in the area of disaster risk management.”*



**Pillar 2**  
Global Challenges and European Industrial Competitiveness

- Clusters
1. Health
  2. Culture, Creativity and Inclusive Society
  3. **Civil Security for Society**
  4. Digital, Industry and Space
  5. Climate, Energy and Mobility
  6. Food, Bio economy, Natural Resources, Agriculture and Environment

Joint Research Centre

# The pillars of DRMKC

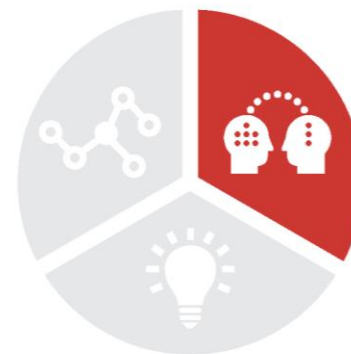
<https://drmkc.jrc.ec.europa.eu/>



## PARTNERSHIP

Where knowledge begins  
Where knowledge applies

- DRM networks
- DRMKC Annual Seminars
- DRMKC Community of Practice
- Knowledge Network of UCP



## KNOWLEDGE

Where knowledge meets  
Where needs are identified

- Science for DRM series of reports
- Recommendation for NRA
- DRMKC Flash News / UCP KN Newsletter
- Project Mapping

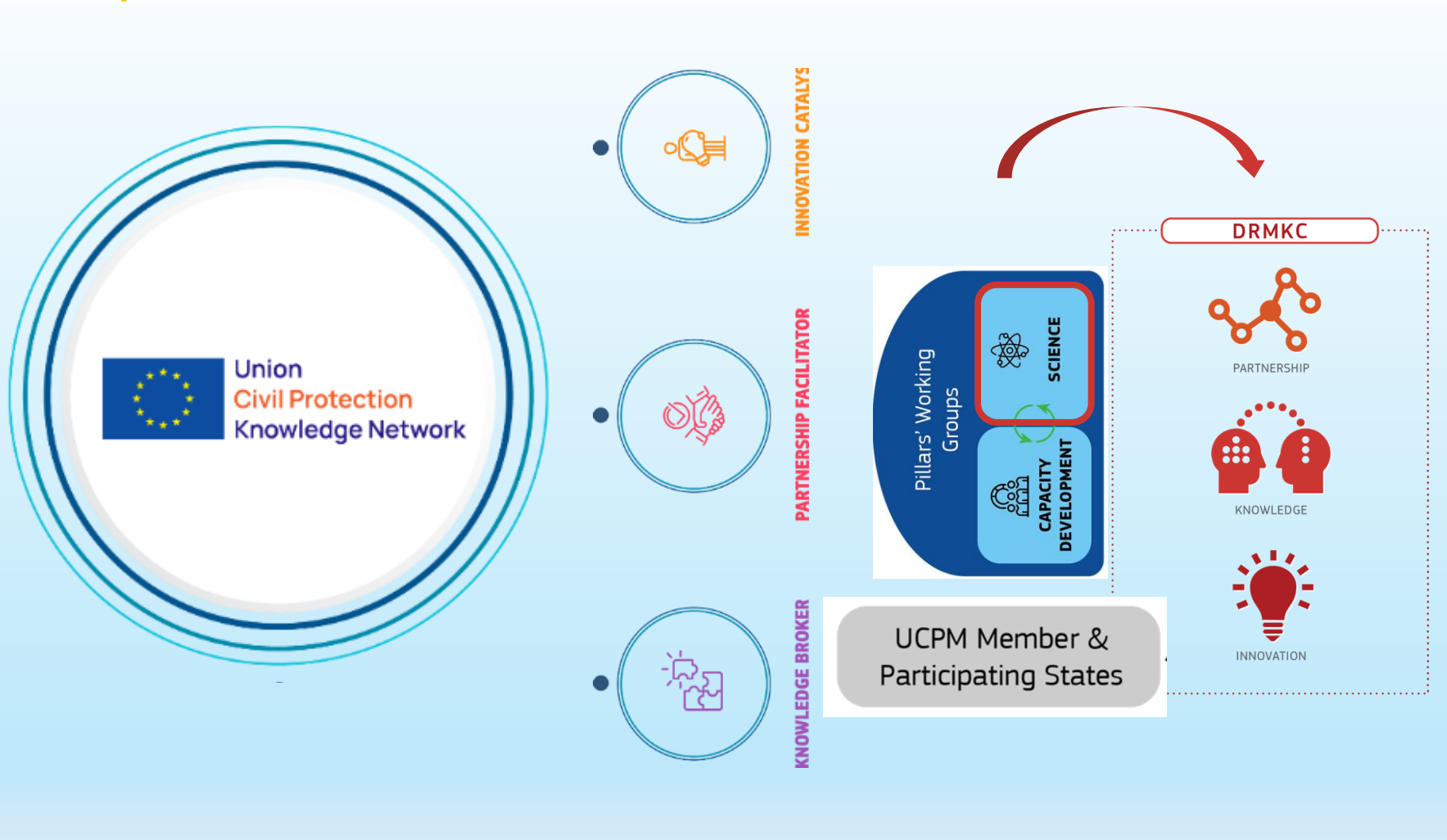


## INNOVATION

Where gaps are filled  
Where innovation is tested

- INFORM
- Risk Data Hub
- EIOS epidemic intelligence from open sources
- Global Conflict Risk index

# DRMKC - Partnership pillar

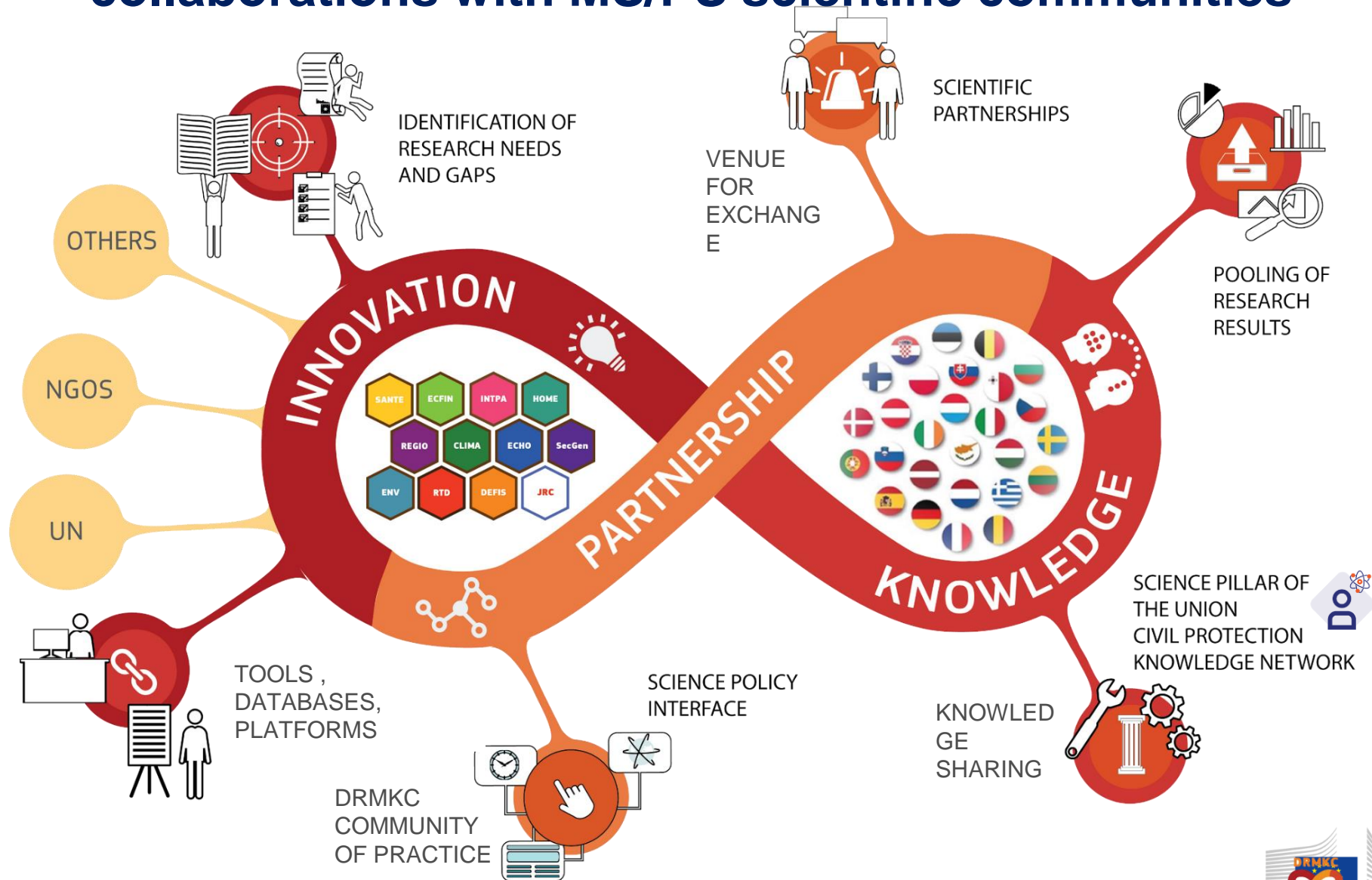


## Role of Science: *current challenges*

- Support and facilitate the process of defining, implementing and monitoring Union Disaster Resilience Goals
- Link with scenario building under Article 10



# DRMKC & Science Pillar of the UCPM: reinforcing our collaborations with MS/PS scientific communities



# DRMKC - Knowledge pillar

Improving collective knowledge to make better decisions

## Science for DRM reports



## Evidence for Disaster Risk Management



Provide reviews of the scientific solutions in DRM for well-informed decision makers, practitioner and citizens

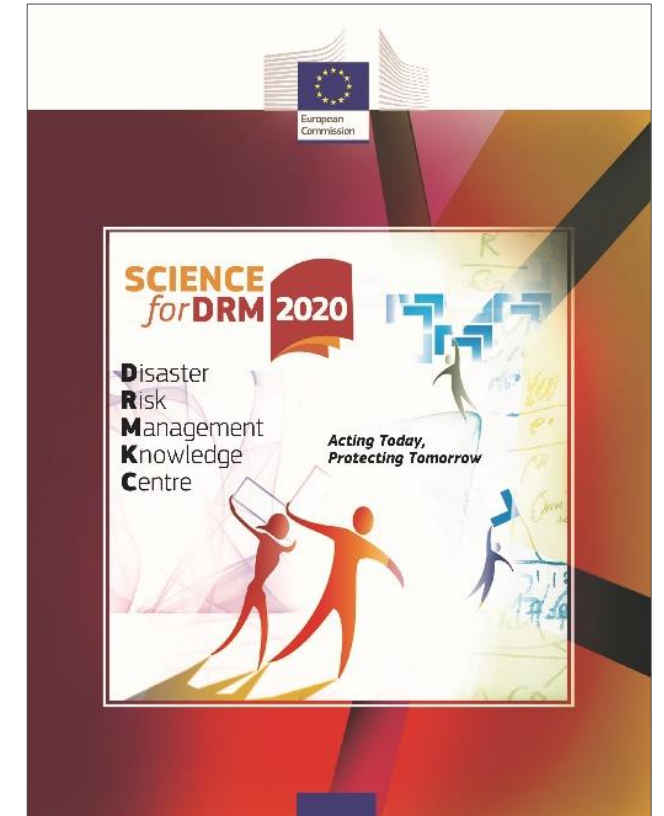
# Science for Disaster Risk Management 2020

## Acting today, protecting tomorrow

Provide science-based and prevention-oriented solutions in DRM for well-informed EU decision-makers, practitioners and citizens.

1. Introduction
2. Integrating the risk management cycle
3. Assets at risk and potential impacts  
Population, economic sectors, critical infrastructures, environment and ecosystem services and cultural heritage
4. Communicating risk among all
5. Transferability of knowledge and innovation across the world
6. Conclusions and final recommendations

Super Case Studies



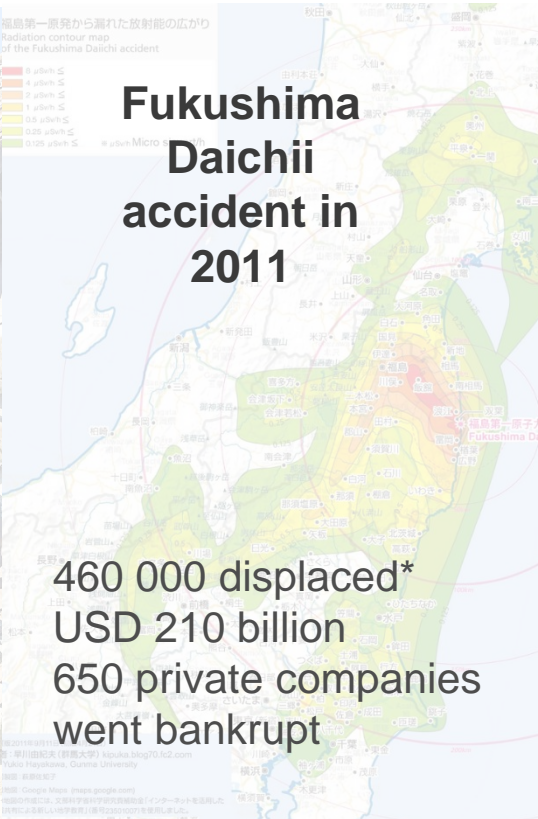
# Science for Disaster Risk Management 2020

## Super Case Studies



**Earthquakes  
in Central Italy  
in 2016-2017**

299 fatalities  
430 injured  
EUR 21 billion



**Fukushima  
Daichii  
accident in  
2011**

460 000 displaced\*  
USD 210 billion  
650 private companies  
went bankrupt



**Eyjafjallajökull  
eruption in  
2010**

48 % of Europe's total  
air traffic grounded  
EUR 3.75 billion



**COVID-19  
emergency**

3.99 million  
fatalities  
184 million cases

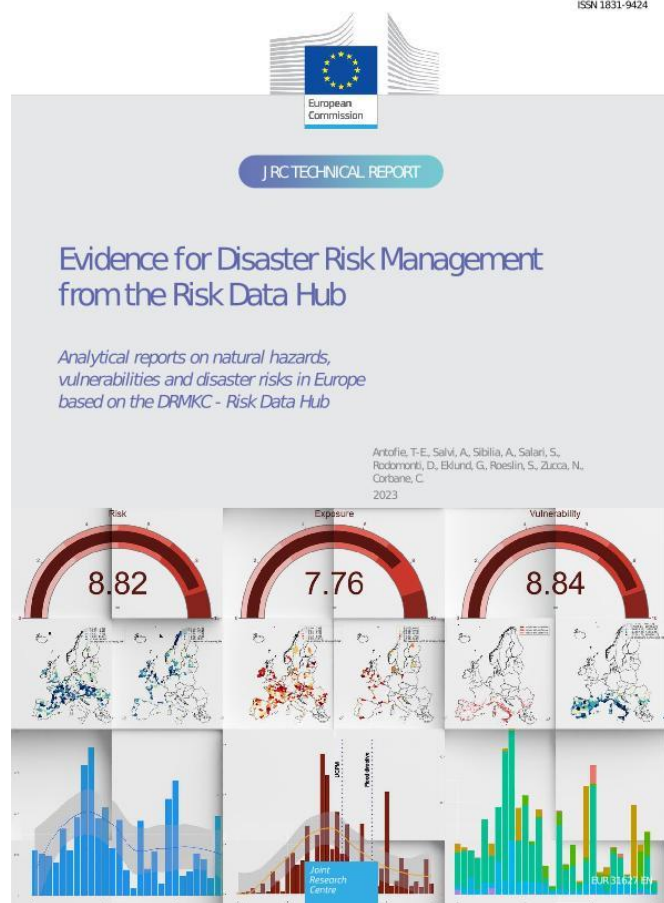


**Forest fires in  
Portugal in  
2017**

117 fatalities  
259 000ha burned  
EUR 1.456 billion

# Evidence for Disaster Risk Management from the Risk Data Hub

ISSN 1831-9424



## **Report: 1. Analysis of European wide losses and risks from single hazards**

This analysis of relevant hazards at European level comparing historical damages and losses, and current risk levels.

## **Report: 2. Identifying European wide regions with multi-hazard potential and quantify their population at risk**

Assessment of population at risk from multiple hazards at the level of Local Administrative Units (LAU) and the multi-hazard interactions based on a theoretical framework.

## **Report: 3. Identifying European regions with Emerging and Increase in risk**

Identification of regions with emerging and increase in risk that are the result of low probability hazard occurrence.

## **Report: 4. Identifying drivers of vulnerability and disaster risk**

Trends in terms of disaster vulnerability and its components.

## **Report: 5. Country Reports**

Overview of the risk and its components for a selected country.

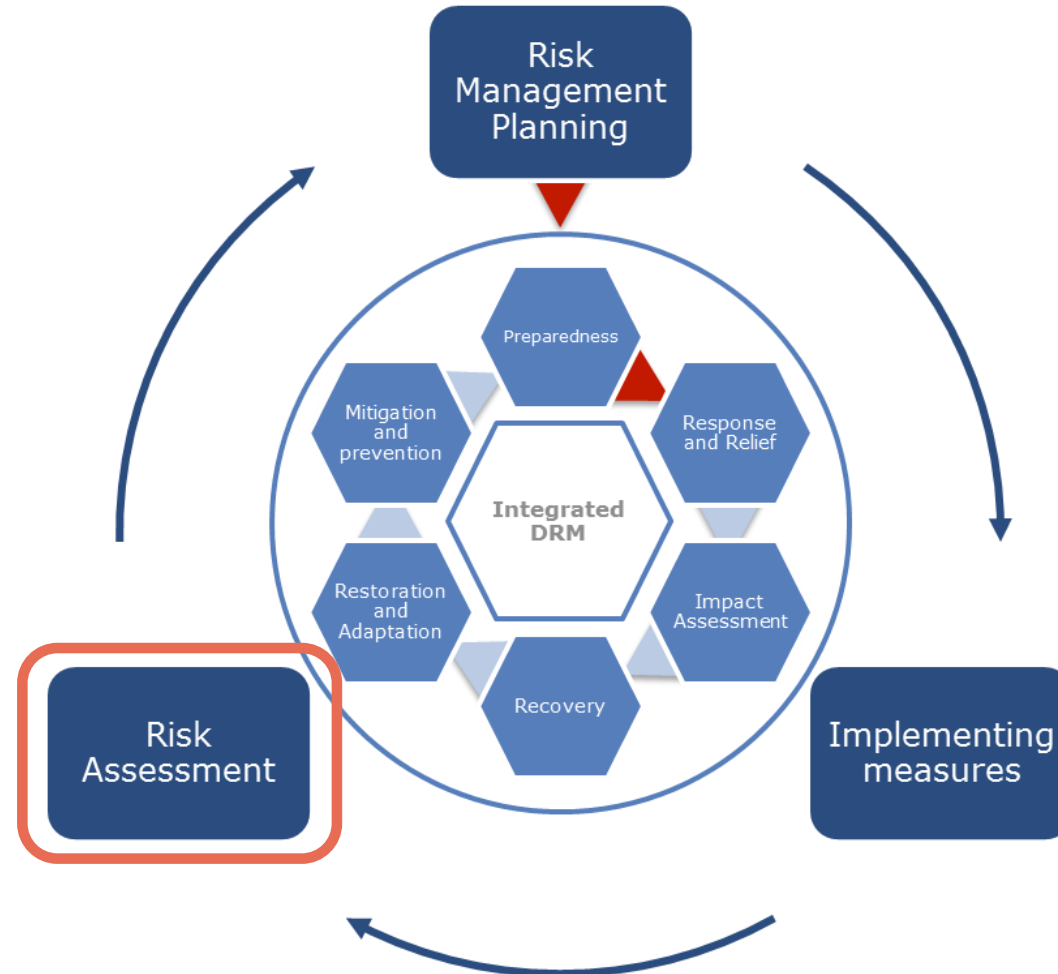
# DRMKC - Knowledge pillar

Improving collective knowledge to make better decisions

National Risk Assessment is at the heart of the **policy cycle**

**National risk Assessment**  
is **providing evidence**

for a tough decision making process at the national level with many stakeholders involved



**The goal is** to implement disaster risk reduction strategies which should result in less disasters and/or disasters with less impacts and increase of overall resilience.

Member states **are asked** to make available to the Commission a summary of national risk assessments every 3 years.



**Overview of natural and man-made risks European Union may face**

SWD (2020) 330 final  
SWD (2017) 176 final  
SWD (2014) 134 final

# DRMKC - Knowledge pillar - Recommendations on Risk Assessment

**Version 0 Recommendations on how to do for Risk Assessment**

**Version 1 Recommendations on Risk Governance**

***Revision of the Guidelines under development***



Scientific support to Member States in NRA process