



Disaster Risk Management Knowledge Centre -DRMKC

Enhancing the Knowledge-based support to Disaster Risk Management

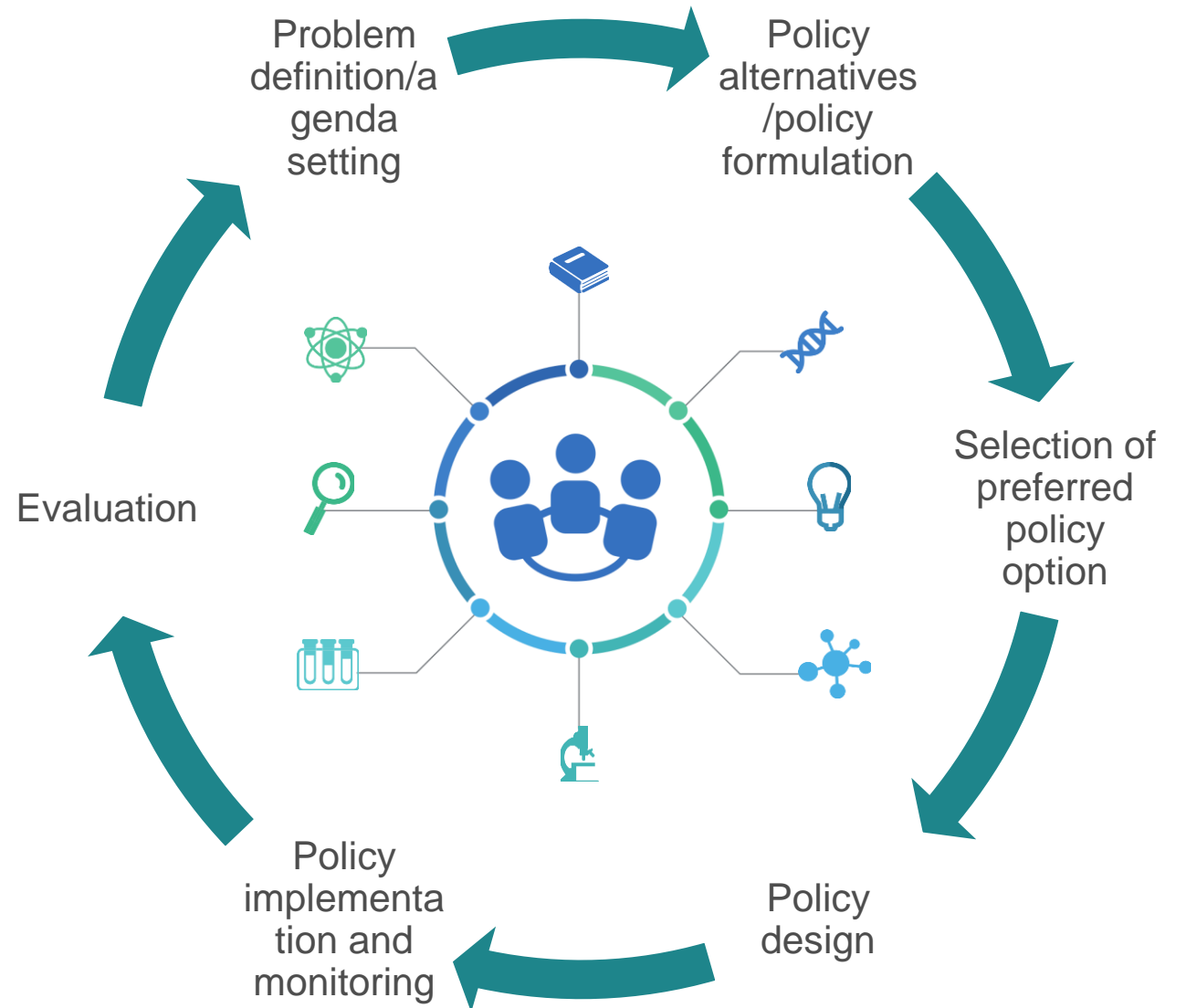


JRC.E1 Disaster Risk Management

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

JRC Mission

As the science and knowledge service of the European Commission our mission is to support EU policies with independent evidence throughout the whole policy cycle.



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

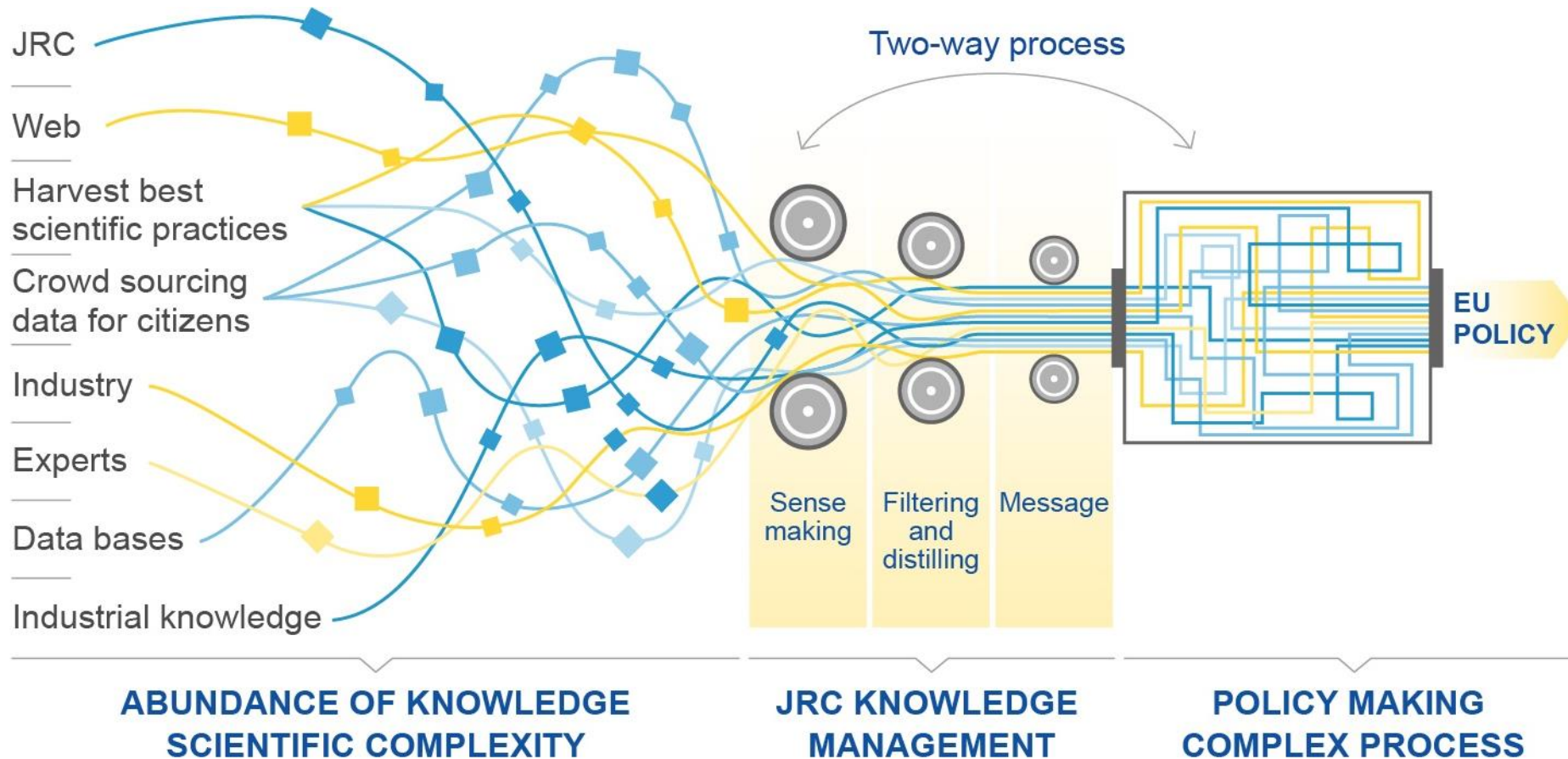
 EU Science Hub: ec.europa.eu/jrc  @EU_ScienceHub  Joint Research Centre

 EU Science Hub - Joint Research Centre  EU Science Hub



JRC Strategy 2030:

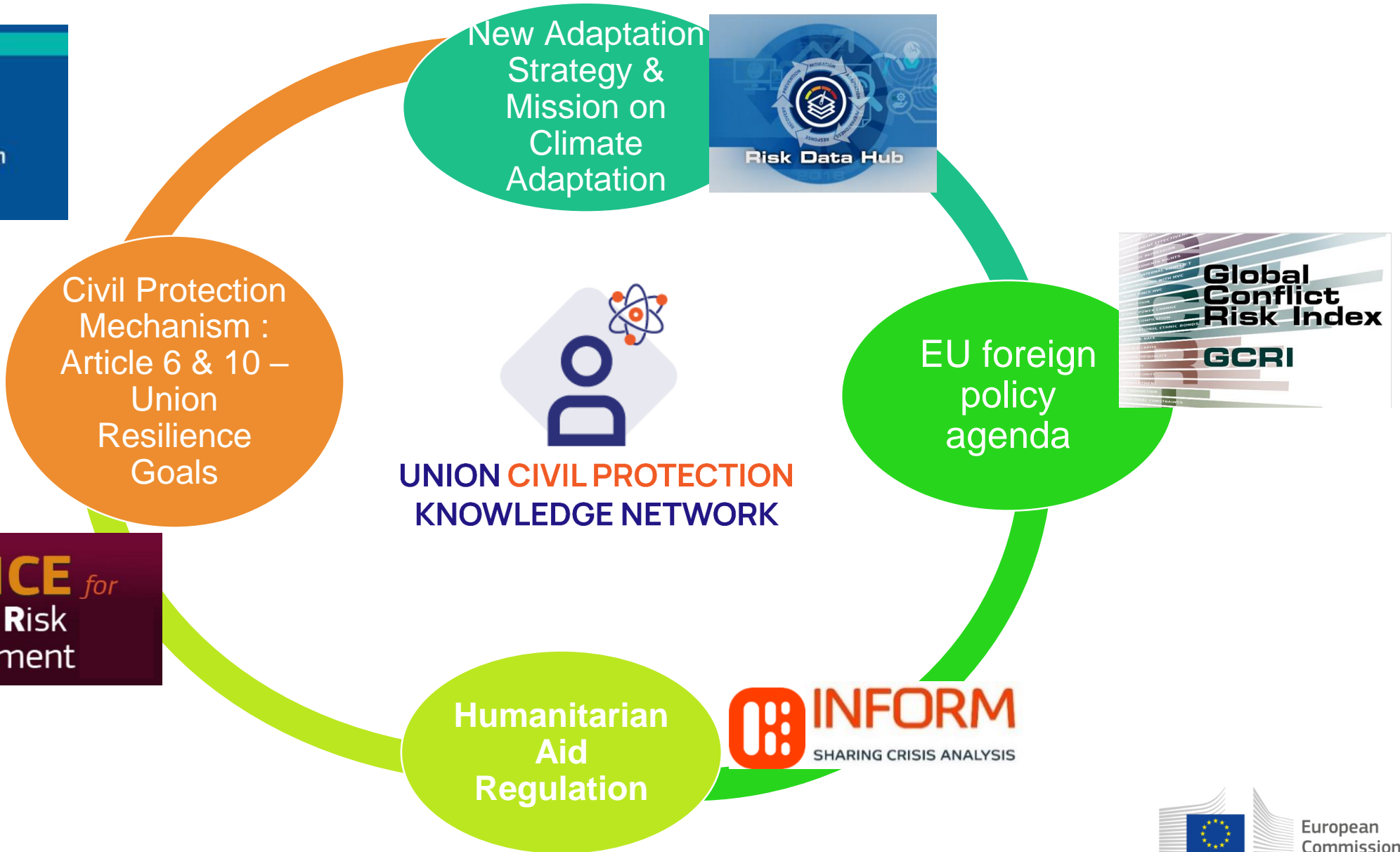
Creating Knowledge Centres to deal with the information overload



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

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 **30th 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

- Gaps Explorer
- Project Explorer
- DRMKC Newsletter
- Science for DRM series of reports
- Recommendations for NRA



INNOVATION

Where gaps are filled
Where innovation is tested

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

DRMKC - Knowledge pillar

Improving collective knowledge to make better decisions

Science for DRM reports



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

Recommendations for National Risk Assessments

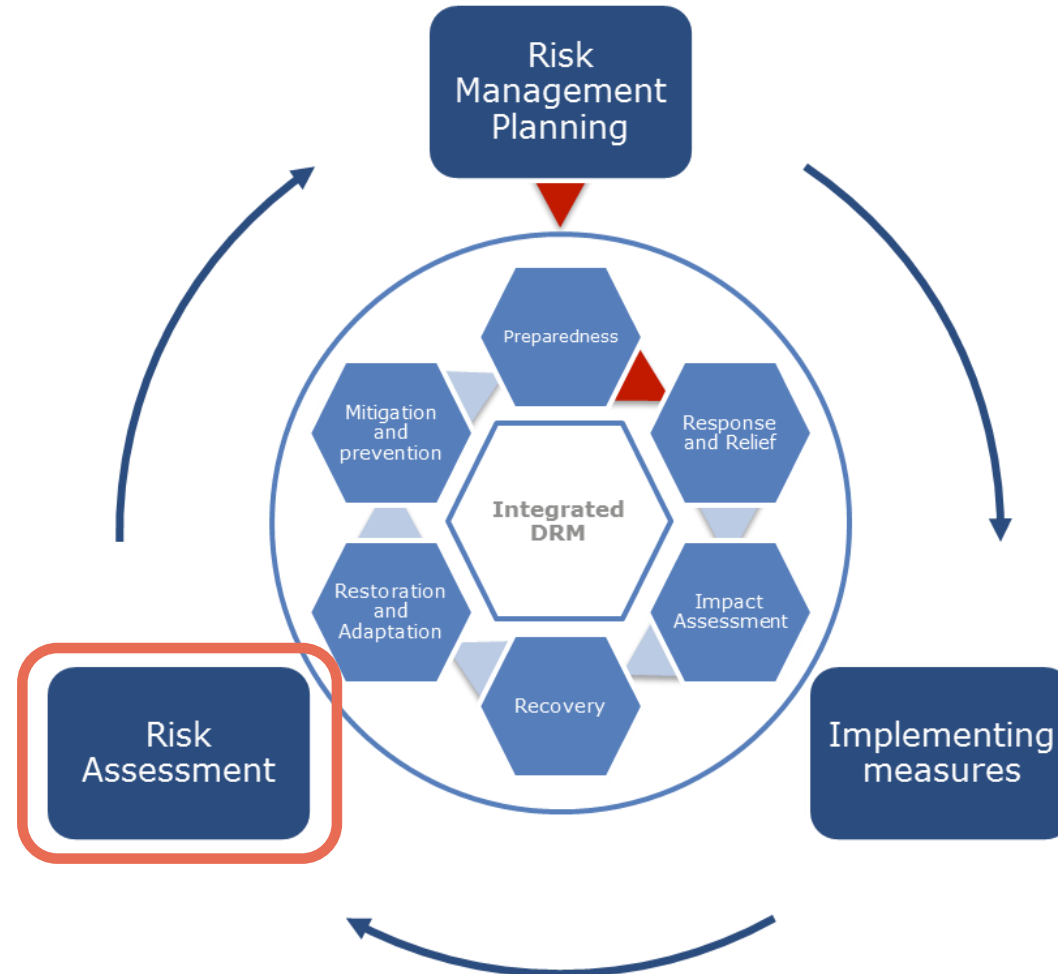


Scientific support to Member States in NRA process

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.



**New Union Civil
Protection Mechanism**

Decision No 1313/2013
Decision (EU) 2019/420

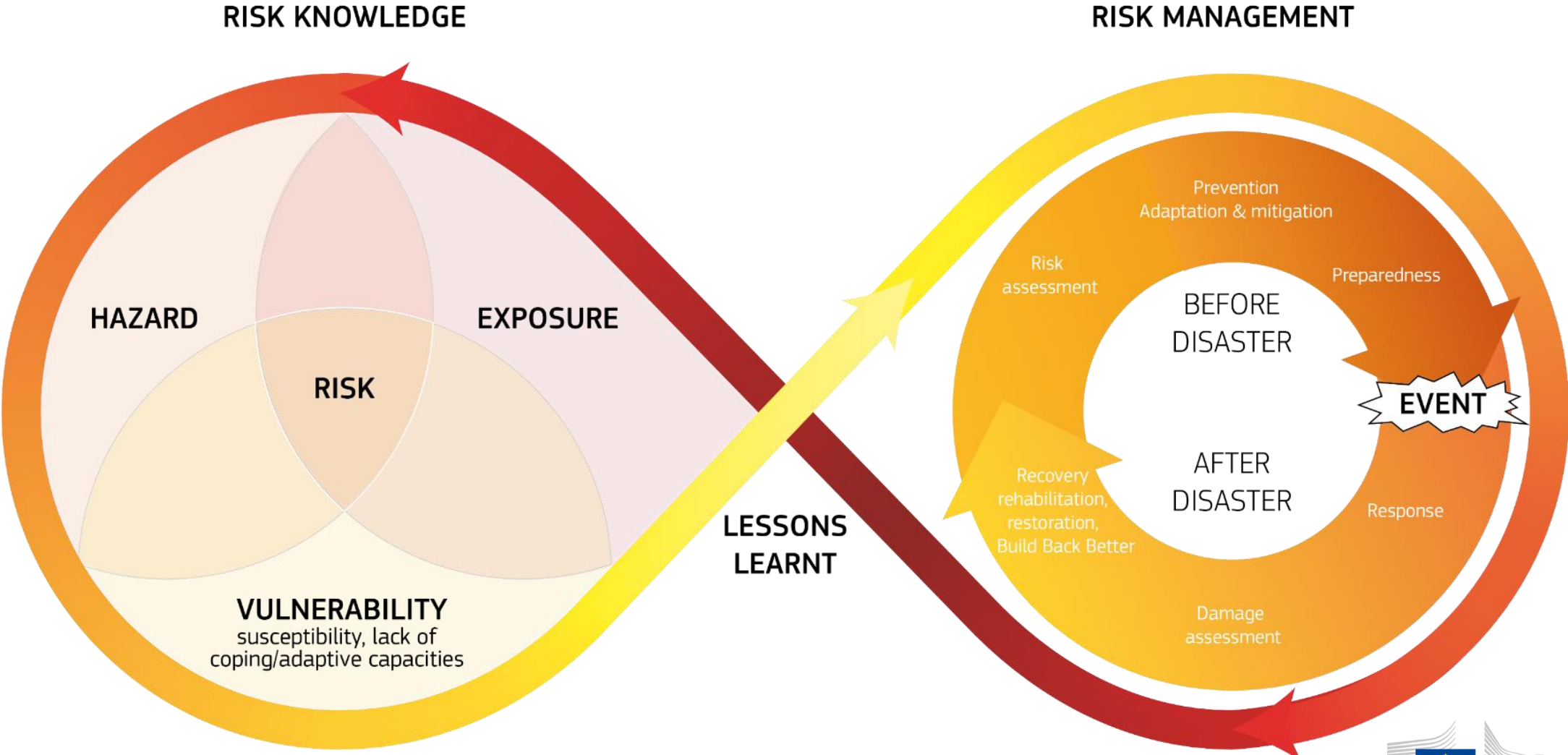
**Identified
GAP?**



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

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

Understanding disaster risk



Suite of quantitative, analytical products to support decision-making at different phases of the humanitarian crisis management cycle at global level

PRODUCT
INFORM Risk

APPLICATION
Development, risk reduction, crisis prevention, preparedness

ANALYSIS
Generalised risk of a crisis based on structural conditions

STATUS
Operational

PRODUCT
INFORM Warning

APPLICATION
Preparedness, early warning, early action

ANALYSIS
Indicators of elevated risk, emerging crisis or crisis trigger

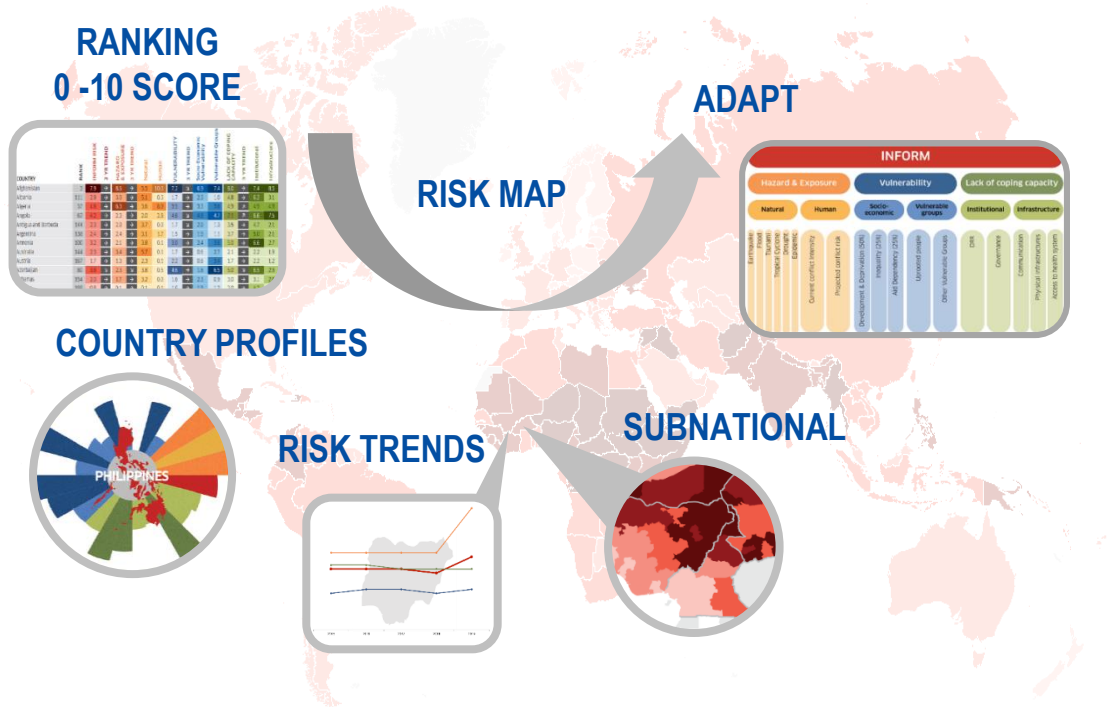
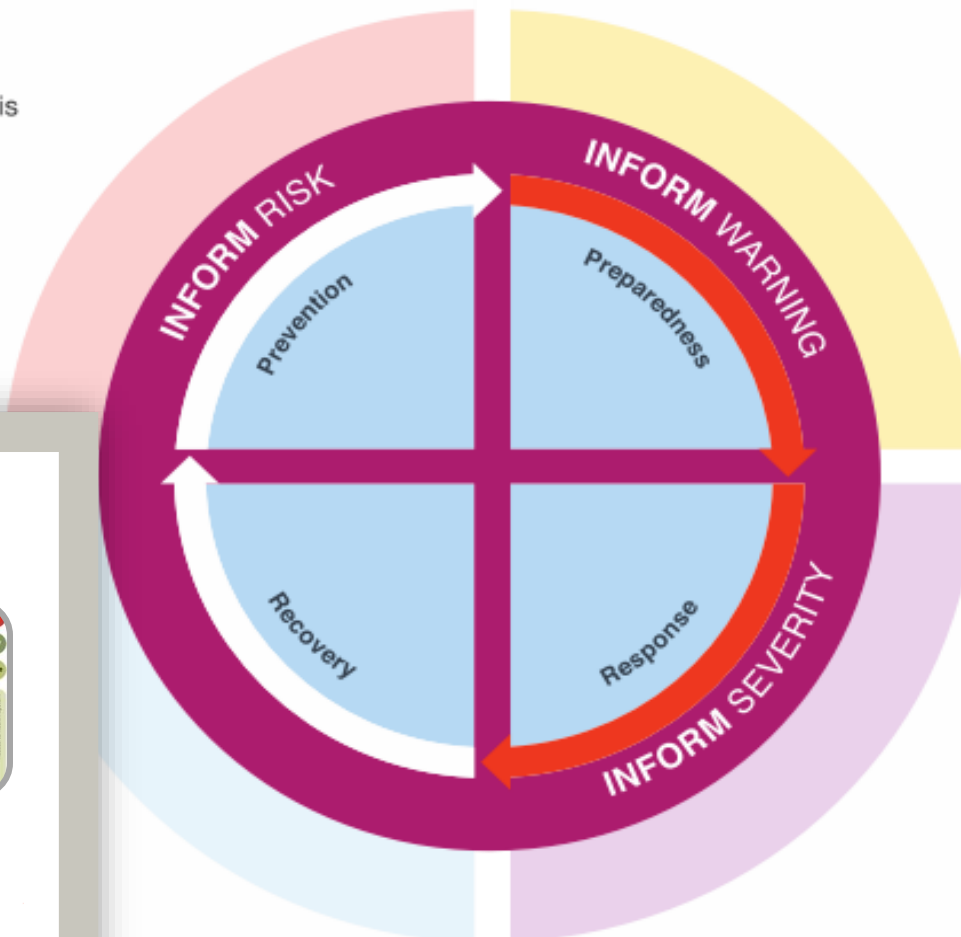
STATUS
In development

PRODUCT
INFORM Severity

APPLICATION
Early action, crisis response

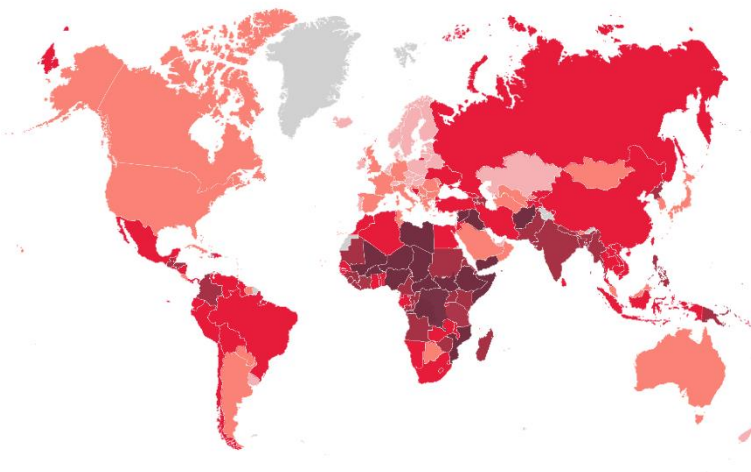
ANALYSIS
Severity of an existing crisis

STATUS
Operational

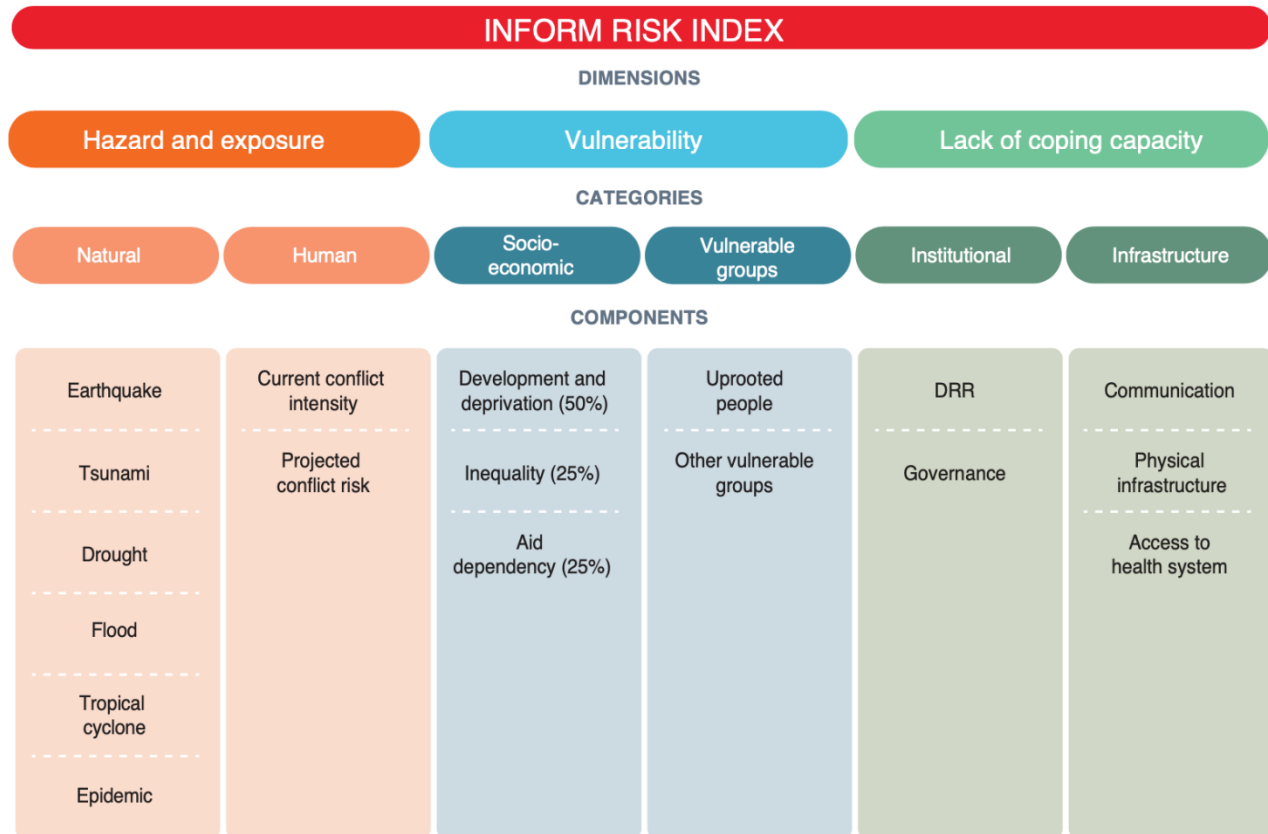


INFORM RISK

Risk of a humanitarian crisis that exceeds national capacity to respond (next 3-5 years)



Components of risk covered by the INFORM Risk Index



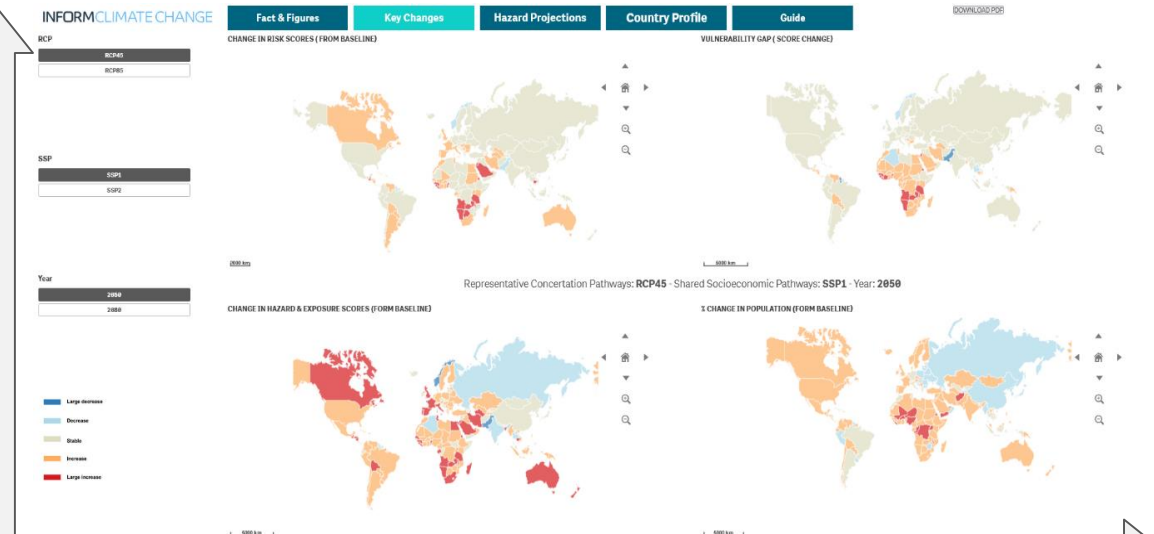
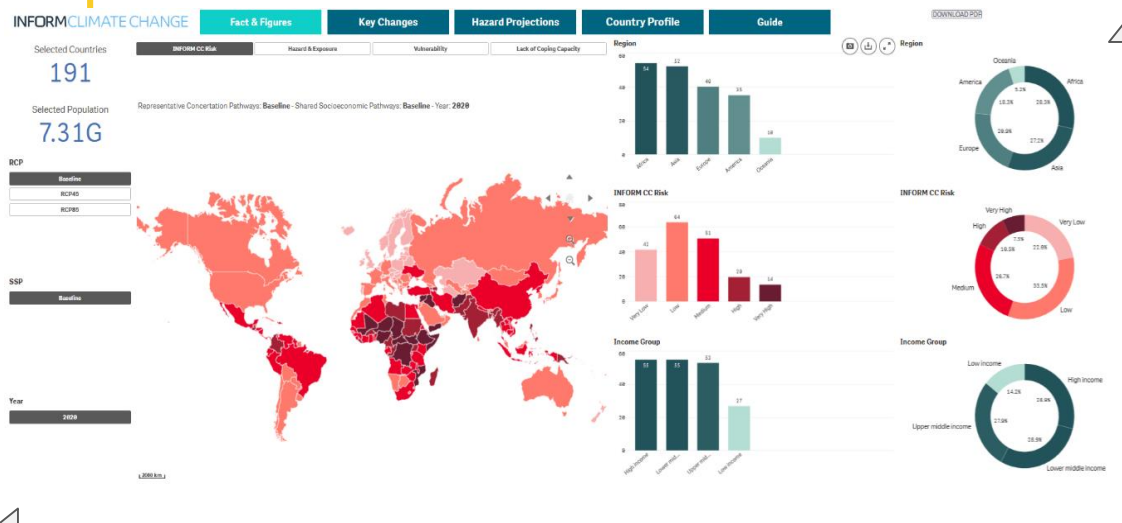


Identifying opportunities for future sustainable development

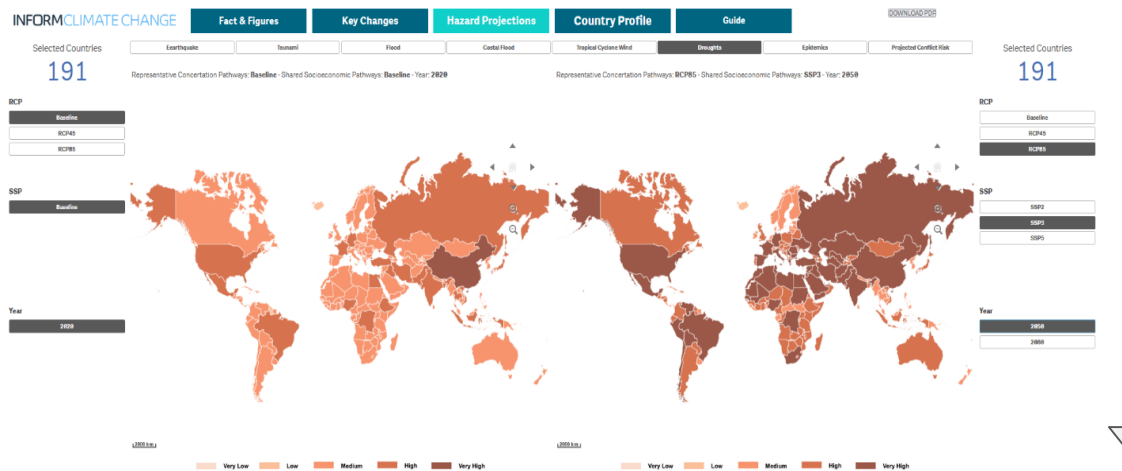
INFORM CLIMATE CHANGE TOOL



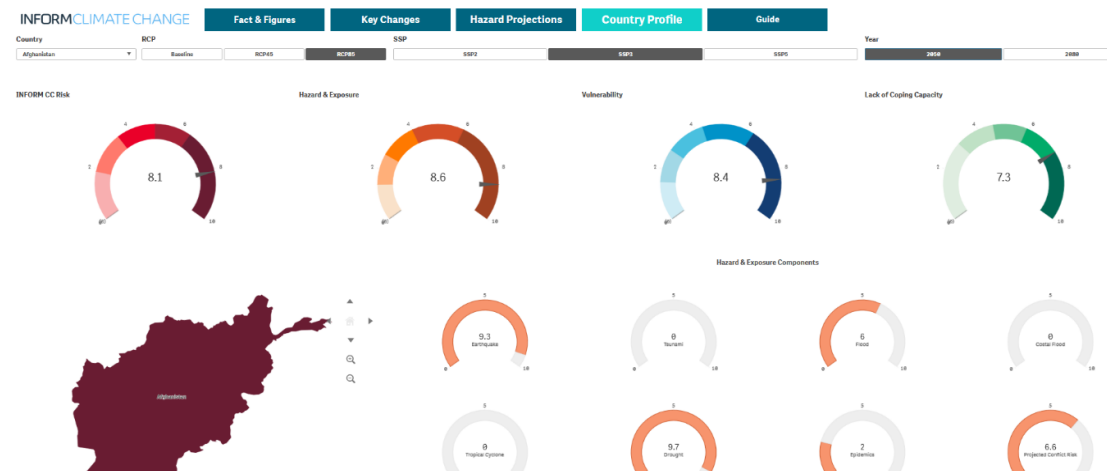
Key changes



Hazard projections



Country profile





<https://drmkc.jrc.ec.europa.eu/risk-data-hub#/>

A central graphic for the Risk Data Hub. It features a circular diagram with a central icon of a stack of books and a pen nib. Surrounding this central icon are six arrows pointing outwards, each labeled with a disaster risk management phase: PREVENTION, MITIGATION, ADAPTATION, PREPAREDNESS, RESPONSE, and RECOVERY. The background of the graphic is a light blue gradient with various icons related to technology, data, and risk management, such as a computer monitor, a lightbulb, a gear, and a hand holding a gear. The text "Risk Data Hub" is prominently displayed in white, bold letters at the bottom of the graphic. The year "2018" is faintly visible at the very bottom of the graphic area.

Risk Data Hub main modules

Supporting the EU Climate Change Adaptation Strategy and the EU effort in achieving the priorities of the Sendai Framework for Disaster risk Reduction

Risk Data Hub is a GIS web platform of European wide risk data and methodologies for Disaster Risk Assessment.



Risk Analysis

Risk analysis in Map Viewer



Disaster Loss Data

Impacts from past events in Map Viewer



Facts and Figures

Cross-hazard comparative view of both past and future impacts



DRM Data from other projects

Results of DRM related projects: PESETA IV



Learning Space

Documentation and methodological notes on



User Corner

Restricted area dedicated to authorized user

Facts and Figures: Risk Analysis

This module presents figures and charts from the DRMKC RDH risk estimation. Please select an Asset, an Hazard, a Year Projection and the desired level of aggregation. For a smoother experience it is advisable to select NUTS-2 and NUTS-3 just for a subset of countries (filter column below this textbox). If no country is selected the gauge charts below show the European average statistics.

- Countries**
- Italy ✓
 - Andorra
 - Austria
 - Belgium
 - Bulgaria
 - Croatia
 - Cyprus
 - Czech Republic
 - Denmark
 - Estonia
 - Faroe Islands
 - Finland

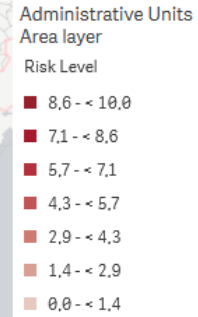
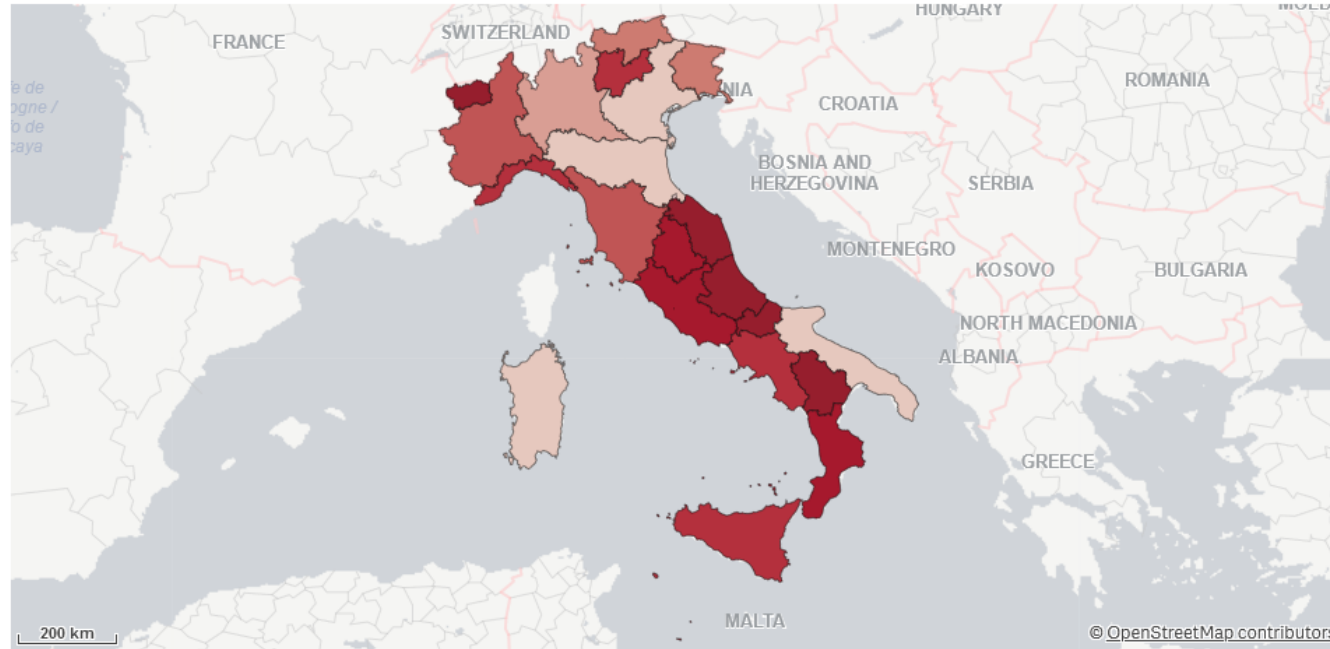
Asset
Population

Hazard
Landslides

Years Projection
25

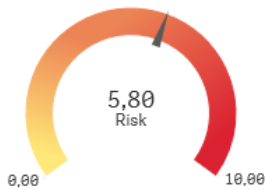
Aggregation
NUTS-2

Risk Map

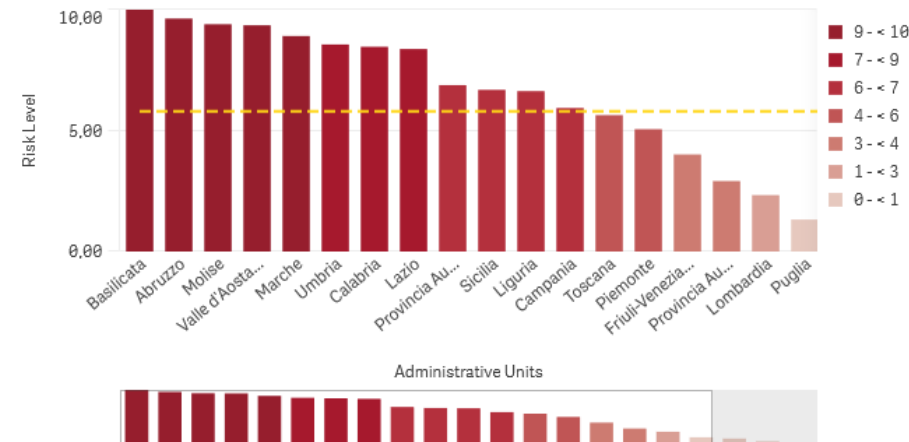


Data Table

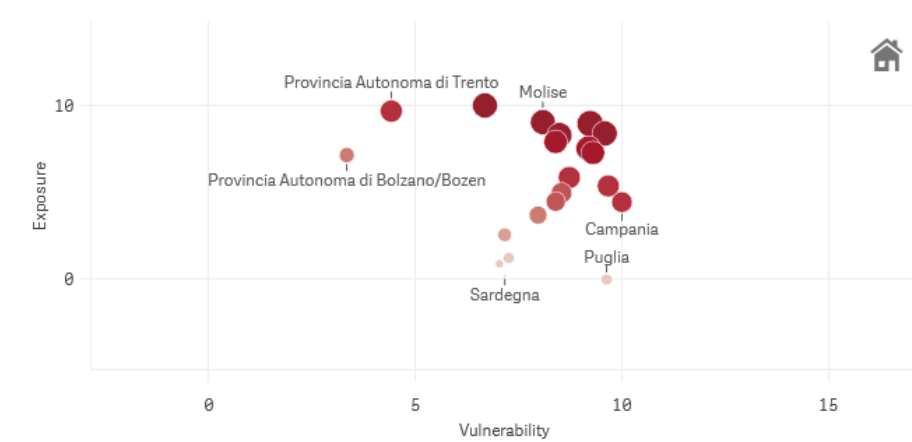
Admin Unit	Risk	Expo..
Average	5,80	5,6
Basilicata	10,00	8,9
Abruzzo	9,64	8,3
Molise	9,40	9,0
Valle d'Aosta/Vallée d'Aoste	9,36	10,0
Marche	8,91	8,3
Umbria	8,56	7,5
Calabria	8,47	7,9
Lazio	8,37	7,2
Provincia Autonoma di Trento	6,88	9,6
Sicilia	6,69	5,3
Liguria	6,64	5,8
Campania	5,94	4,4
Toscana	5,64	4,9
Piemonte	5,06	4,4
Friuli-Venezia Giulia	4,02	3,7
Provincia Autonoma di Bolzano/Bozen	2,92	7,1
Lombardia	2,34	2,5
Puglia	1,32	0,0



Risk Ranking



Risk Drivers



Facts and Figures: Disaster Loss Data

This module presents figures and charts from the DRMKC RDH losses and damage. Please select an Asset, a Hazard, a metric and the desired level of aggregation. For a smoother experience it is advisable to select NUTS-2 and NUTS-3 just for a subset of countries (filter column below this textbox). For convenience, users are able to filter the visualization by years and countries.

Countries

- Andora
- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland

Years

- 2022
- 2021
- 2020
- 2019
- 2018
- 2017
- 2016

Asset

Population

Hazard

Windstorm

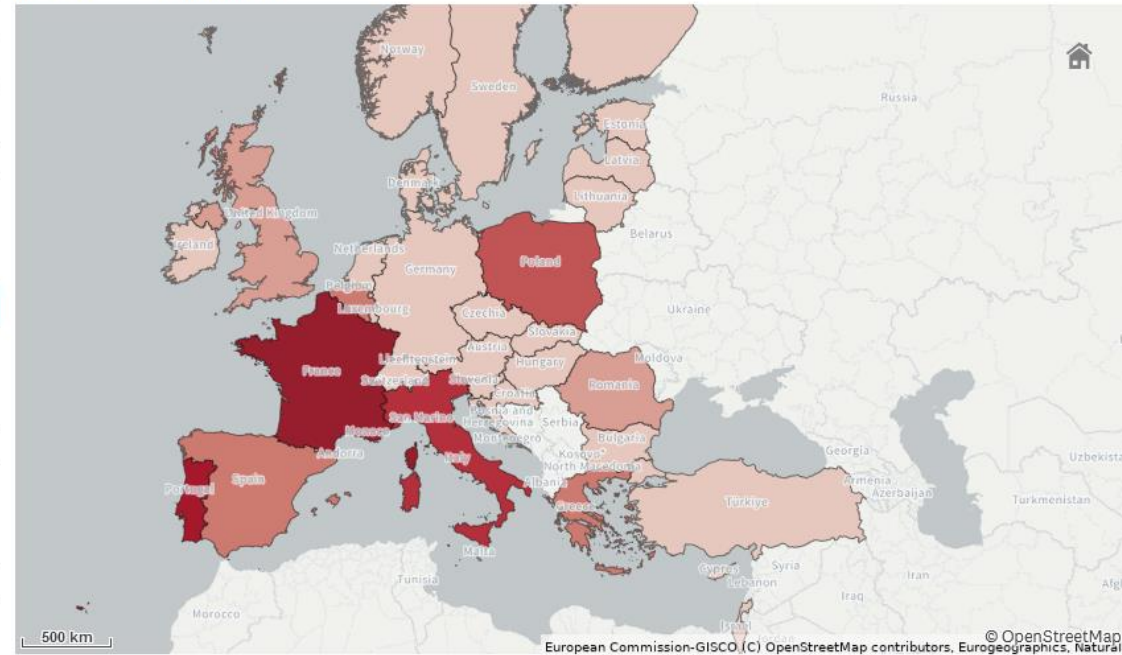
Aggregation

Country

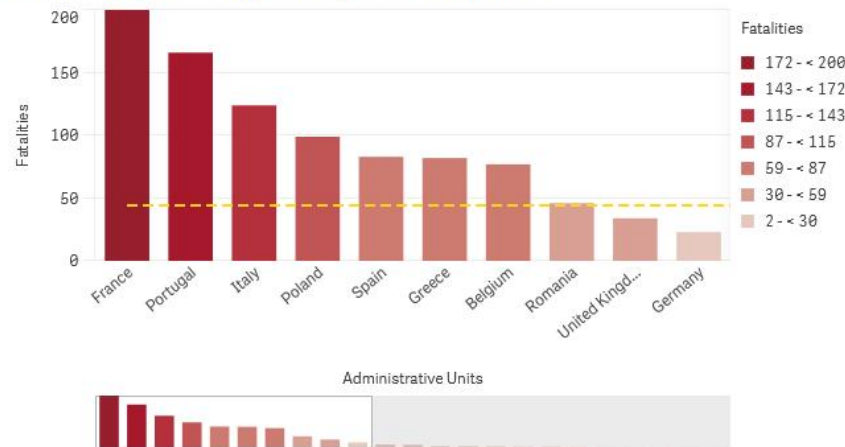
Metric

Fatalities

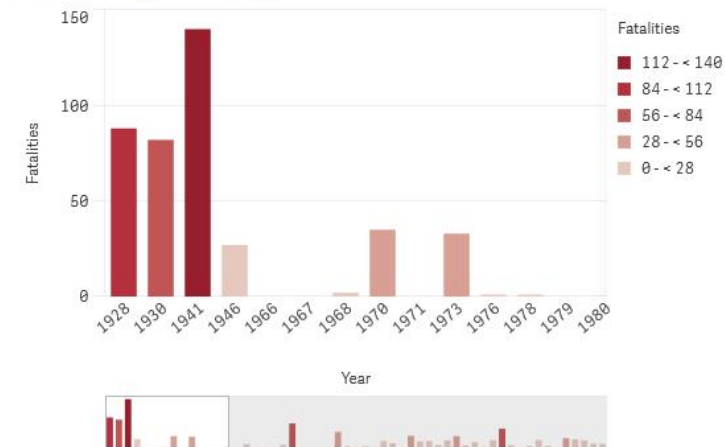
Map of Losses (Windstorm)



Total Losses (Windstorm) - Rank by Administrative Units



Total Losses (Windstorm) per Year



Metadata

Data Table (Windstorm)

Admin Units	Total Losses	No. Impacts Recorded
Total	1017	901
France	200	104
Portugal	166	13
Italy	124	38
Poland	99	41
Spain	83	42
Greece	82	8
Belgium	77	20
Romania	46	11
United Kingdom	34	107
Germany	23	75
Ireland	15	92
Hungary	14	7
Czech Republic	8	26
Denmark	8	37
Switzerland	7	40
Slovenia	6	2
Sweden	6	27
Netherlands	5	35

Sharing of Total Losses

All hazards by selected years & administrative units

