Building a Knowledge Ecosystem for Disaster Risk Management Action

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Disaster Risk Management Knowledge Centre, DRMKC

ISCN Global Mixer, Giz, 15 October 2026

European Commission



*“Whole of society approach – all the way through to the **local level** where adaptation matters most”.*

Ursula Von der Leyen, 16 September 2026

EU Preparedness Union Strategy

Enhances the EU's ability to anticipate, prevent, and respond to the new threats and crises.



Key Risks

- **Natural disasters:** floods, wildfires, earthquakes, and extreme weather events exacerbated by climate change.
- **Human-induced disasters:** industrial accidents, technological failures, and pandemics.
- **Hybrid threats:** cyberattacks, disinformation campaigns and FIMI (foreign information manipulation and interference), and sabotage of critical infrastructure.
- **Geopolitical crises:** armed conflicts, including the possibility of armed aggression against Member States.

Core Principles

- Integrated All-Hazards Approach
- Whole-of-Society Approach
- Whole-of-Government Approach

SOTEU

Climate resilience / DRM

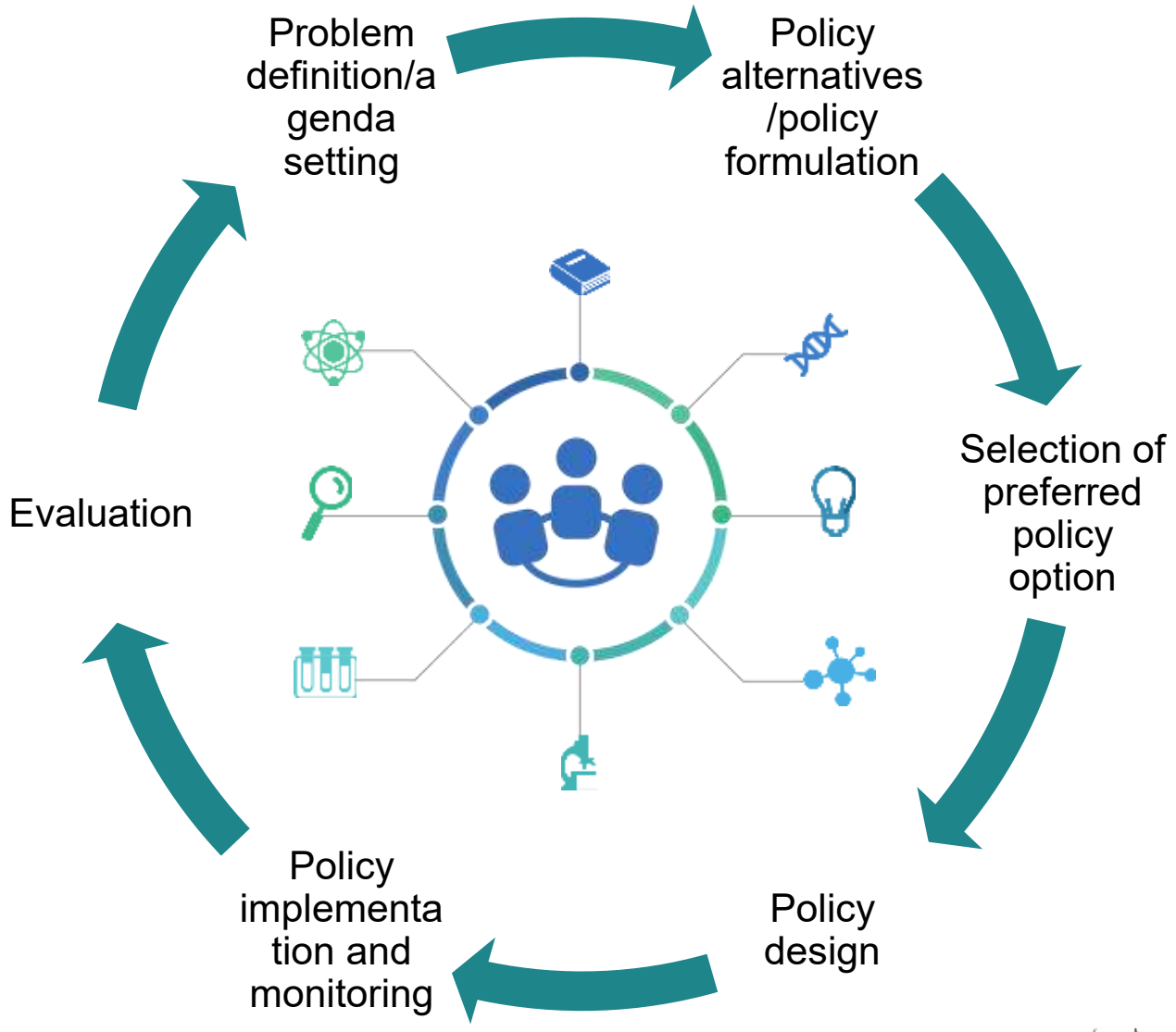
- New framework for climate resilience
- Climate Insurance Alliance
- European Heatwave Plan
- European Water Initiative
- Agricultural risk-management proposals
- European wildfire preparedness review
- Future European Firefighting Fleet

Security

- New European Security Strategy
- European counter-hybrid playbook
- Emergency Security Protocol
- European Security Council

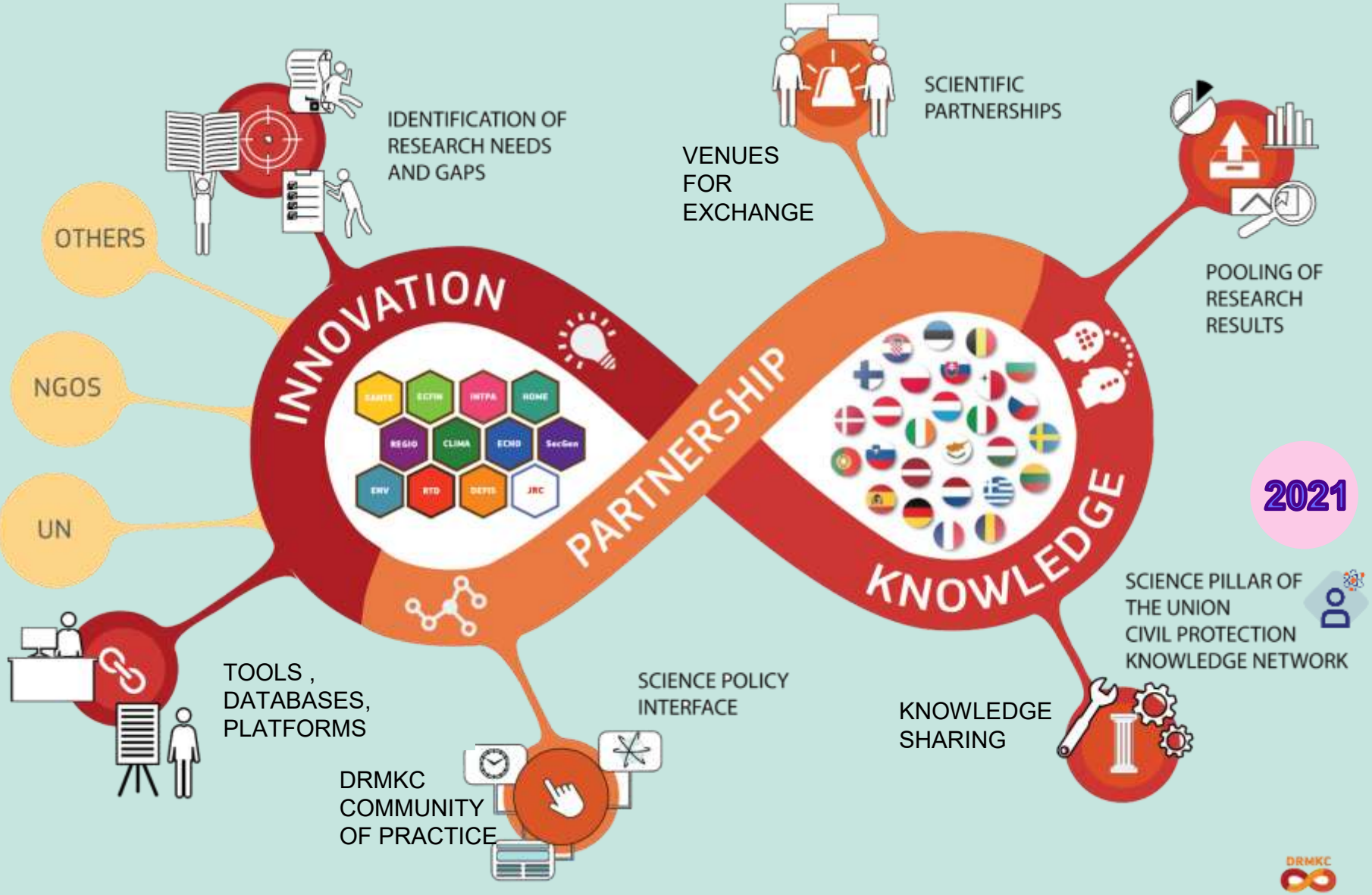
JRC Mission

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



DRMKC & Science Pillar of the UCPM:

2015 reinforcing our collaborations with MS/PS scientific communities



The European Commission's Disaster Risk Management Knowledge Centre

10 Anniversary

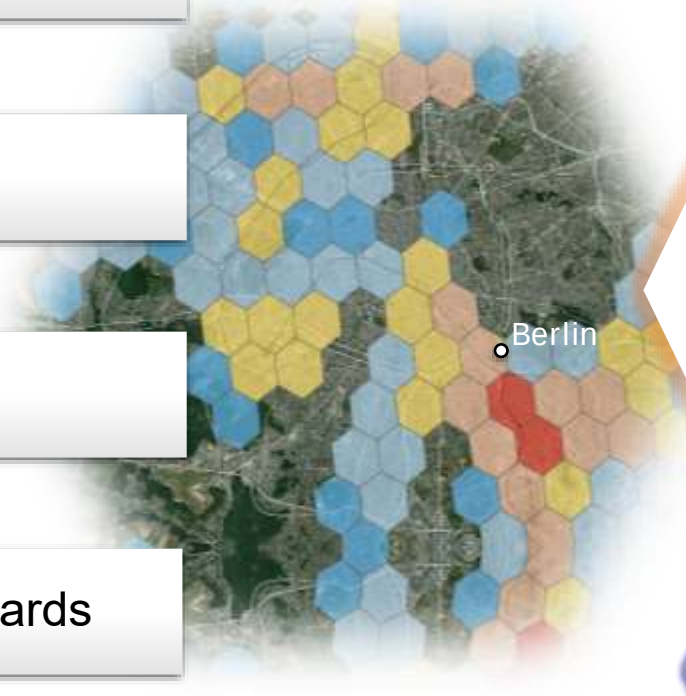
			Tools for policy *INFORM, GCRI*
		Knowledge uptake *EU-project monitoring*	**Knowledge hub** *Website newsletters*
	Knowledge to support operations *CEMS*	**Innovation in DRM** *AI4DRM*	**Granular data for preparedness** *Risk Data Hub*
Networking opportunities *DRMKC Annual Seminar*	**Capacity Building** *Training DRM manuals*	**Data for global impact** *GDACS*	**EC exchange & coordination** *DRMKC Community of Practice*

DRMKC Turning Knowledge into Readiness for the EU

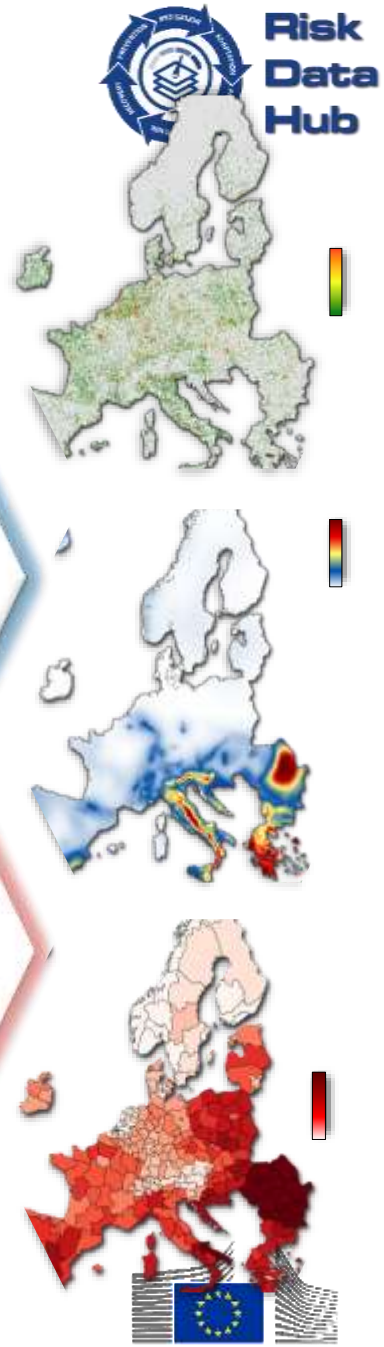
DRM TOOLS & SERVICES

Risk Data Hub

- Centralise, harmonise and disseminate
- pan-European
- Open access
- Common data standards



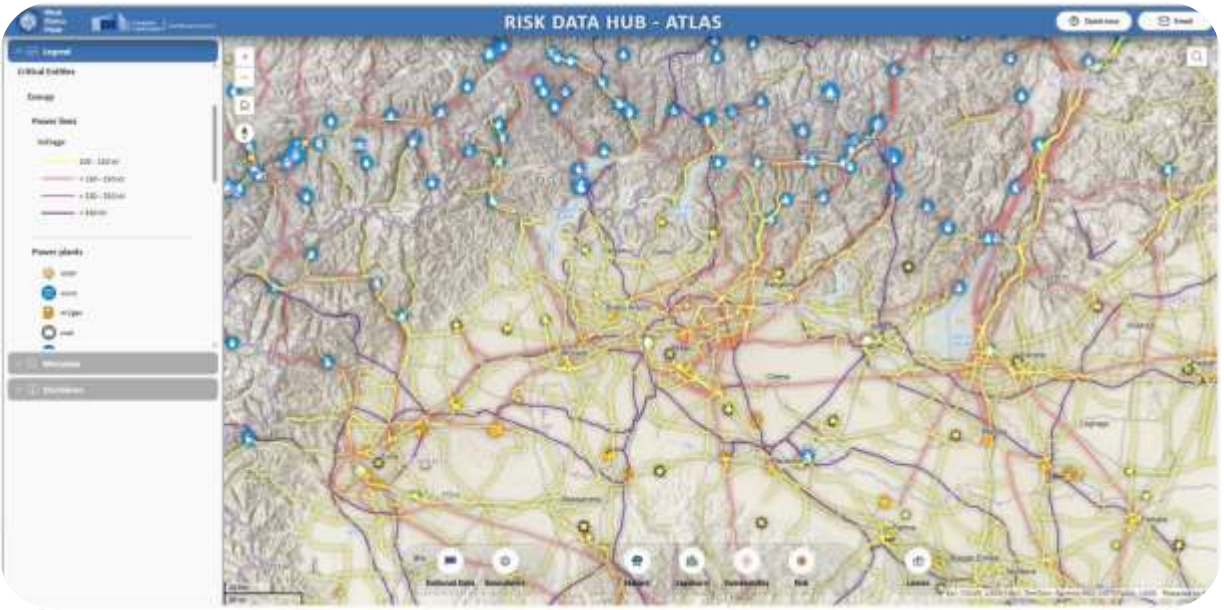




Website: https://drmkc.jrc.ec.europa.eu/risk-data-hub/

From integrated risk data to operational use

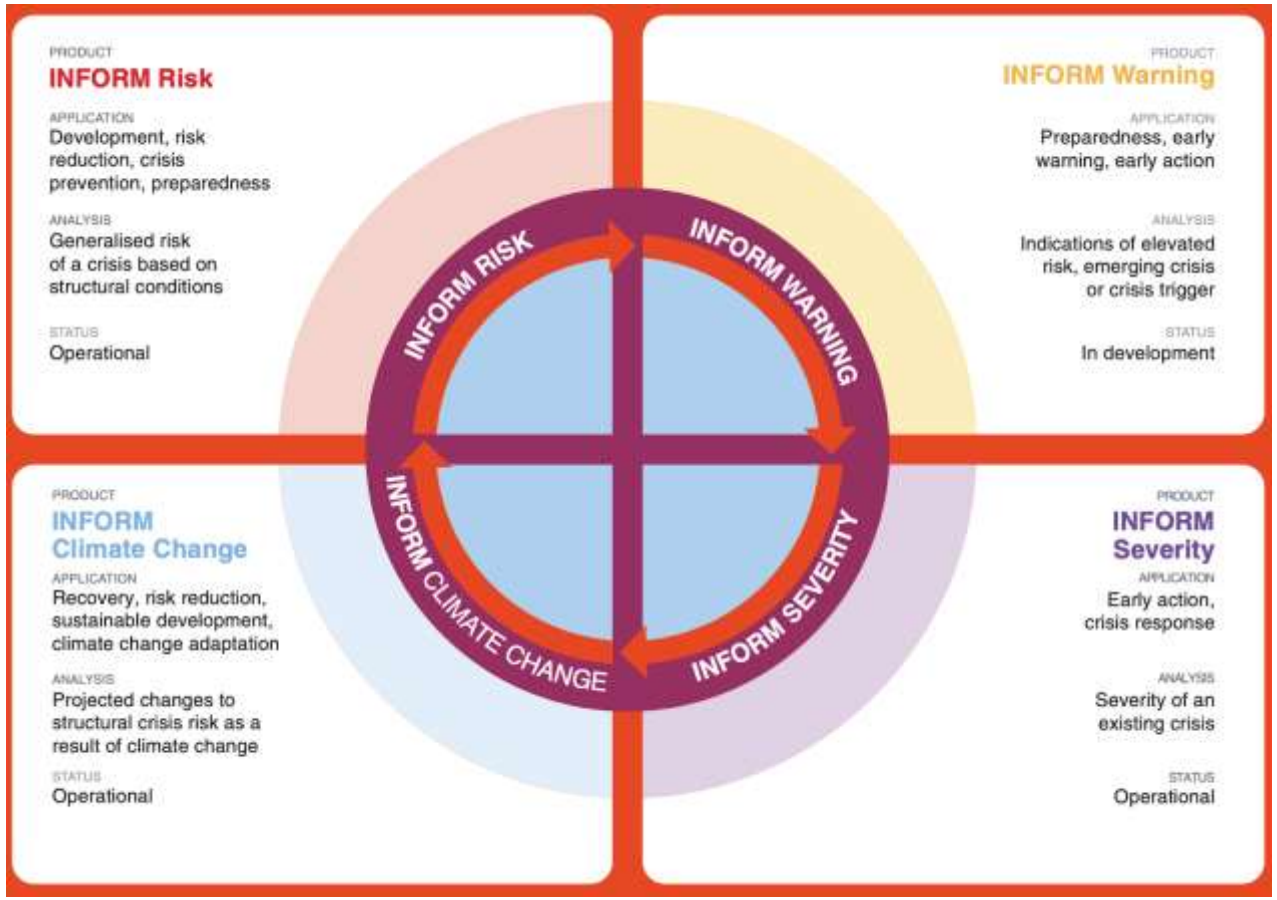
What is Exposed?

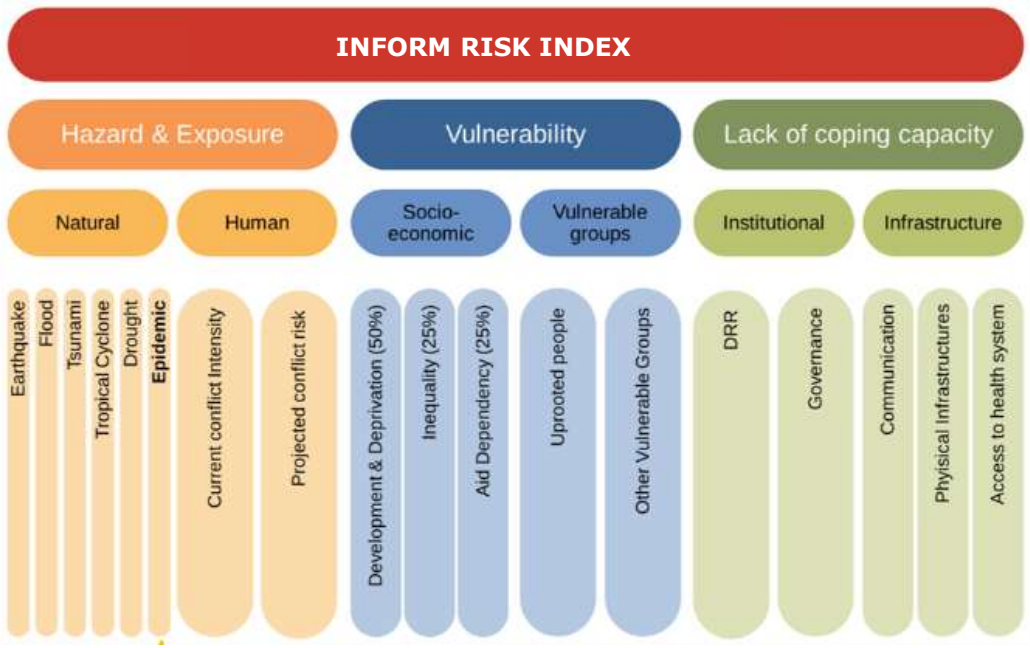


Integration for situational awareness

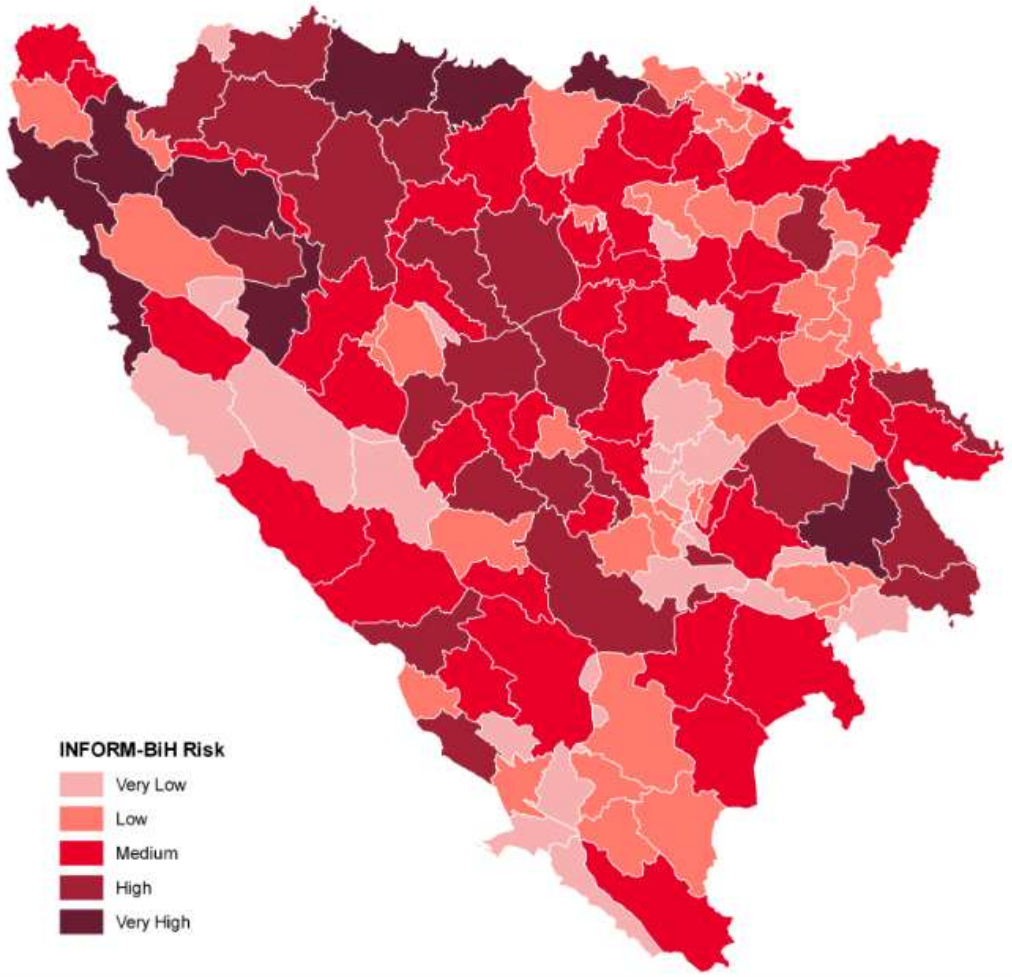


INFORM


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
Indications of elevated risk, emerging crisis or crisis trigger
STATUS
In development
PRODUCT
INFORM Climate Change
APPLICATION
Recovery, risk reduction, sustainable development, climate change adaptation
ANALYSIS
Projected changes to structural crisis risk as a result of climate change
STATUS
Operational
PRODUCT
INFORM Severity
APPLICATION
Early action, crisis response
ANALYSIS
Severity of an existing crisis
STATUS
Operational
INFORM RISK
INFORM WARNING
INFORM CLIMATE CHANGE
INFORM SEVERITY


INFORM RISK INDEX
Hazard & Exposure
Vulnerability
Lack of coping capacity
Natural
Human
Socio-economic
Vulnerable groups
Institutional
Infrastructure
Earthquake
Flood
Tsunami
Tropical Cyclone
Drought
Epidemic
Current conflict Intensity
Projected conflict risk
Development & Deprivation (50%)
Inequality (25%)
Aid Dependency (25%)
Uprooted people
Other Vulnerable Groups
DRR
Governance
Communication
Physical Infrastructures
Access to health system

INFORM RISK
SUBNATIONAL
BOSNIA AND HERZEGOVINA

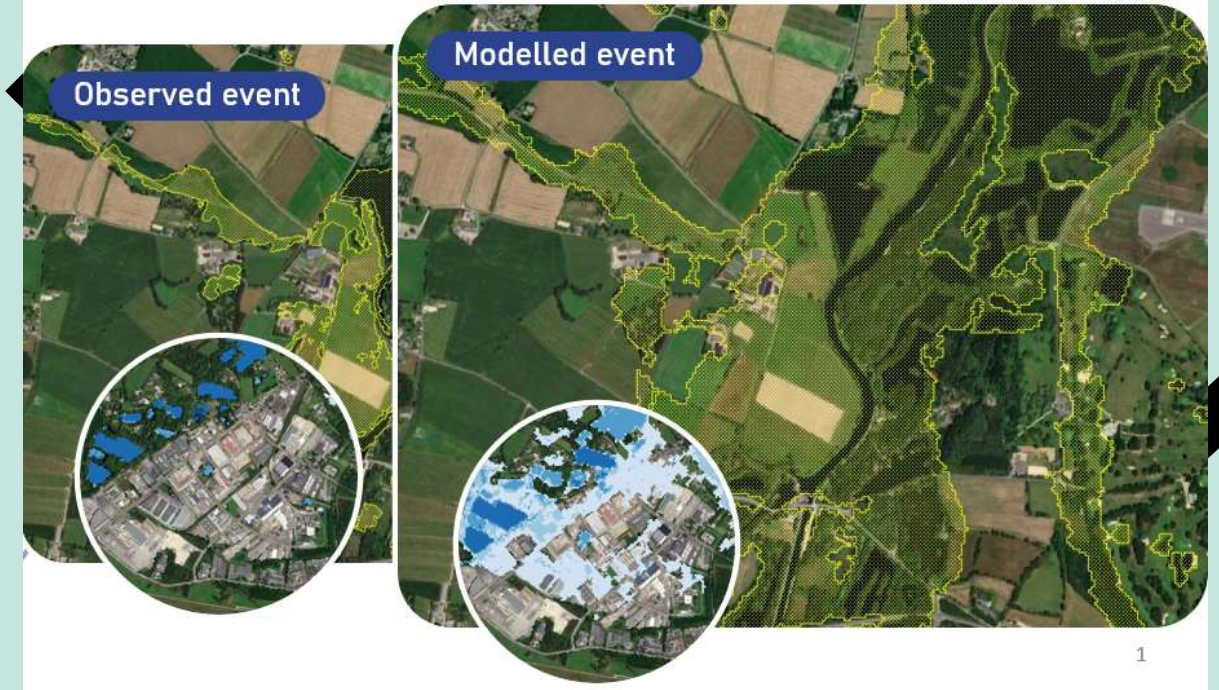




European Commission

Copernicus

Mapping Floods in Urban Areas using EXFLOS



1

Emergency Management Service

On-Demand Mapping | Wildfires | Floods | Droughts | Exposure Mapping

Floods

The **European Flood Awareness Systems (EFAS)** and **Global Flood Awareness Systems (GloFAS)** provide complementary flood forecast information to relevant stakeholders that support flood risk management at the national, regional and global level.

Fires

The **European Forest Fire Information System (EFFIS)** monitors forest fire activity in near-real time. EFFIS supports wildfire management at the national and regional level for EU member states and across the Middle East and North Africa.

Droughts

The **Drought Observatory (DO)** provides drought-relevant information and early-warnings for **Europe (EDO)** and **globally (GDO)**. The service publishes short analytical reports (Drought News) in anticipation of an imminent drought.

Geospatial data, satellite imagery, early warning systems and predictive models

European Commission

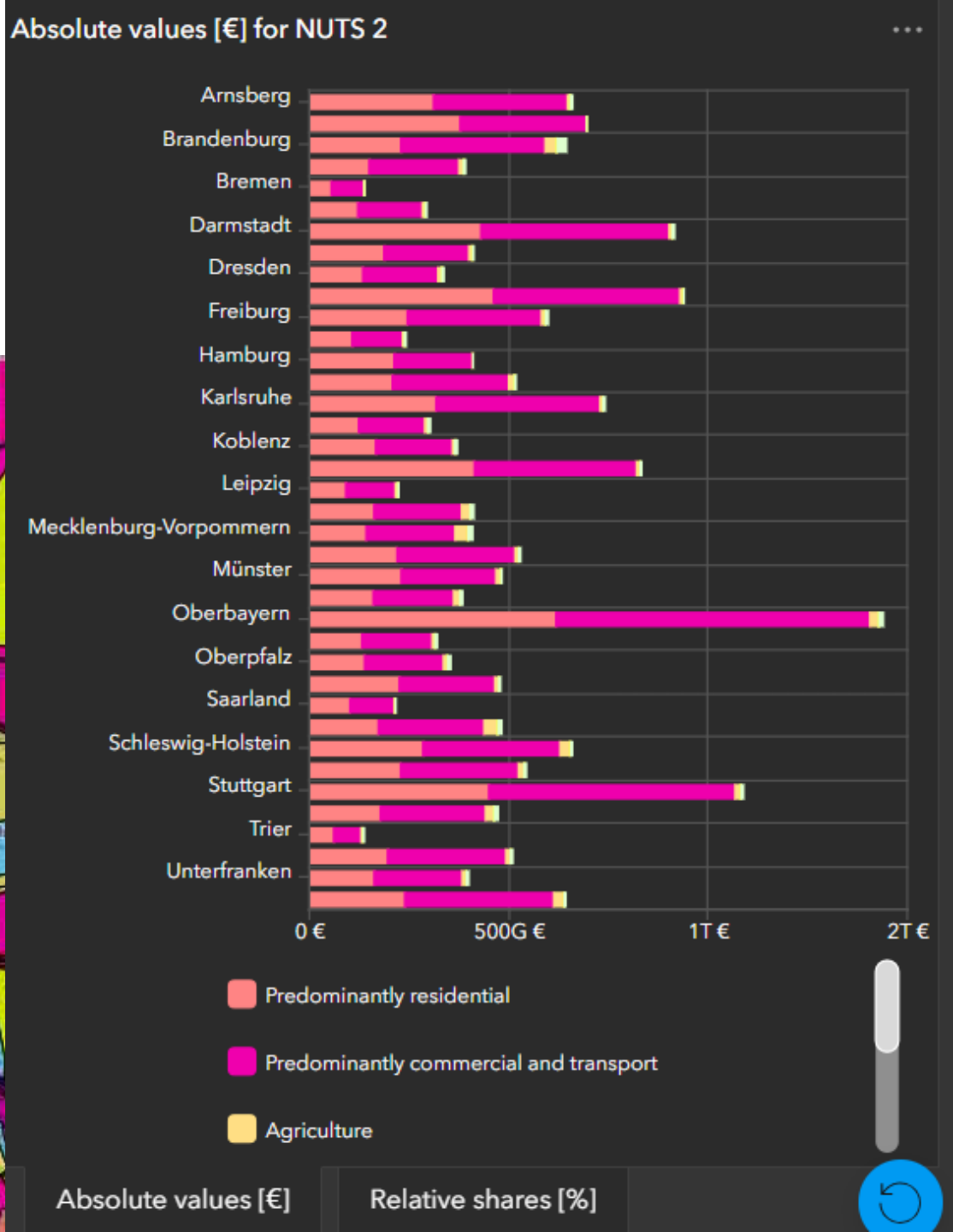
Copernicus



European Commission

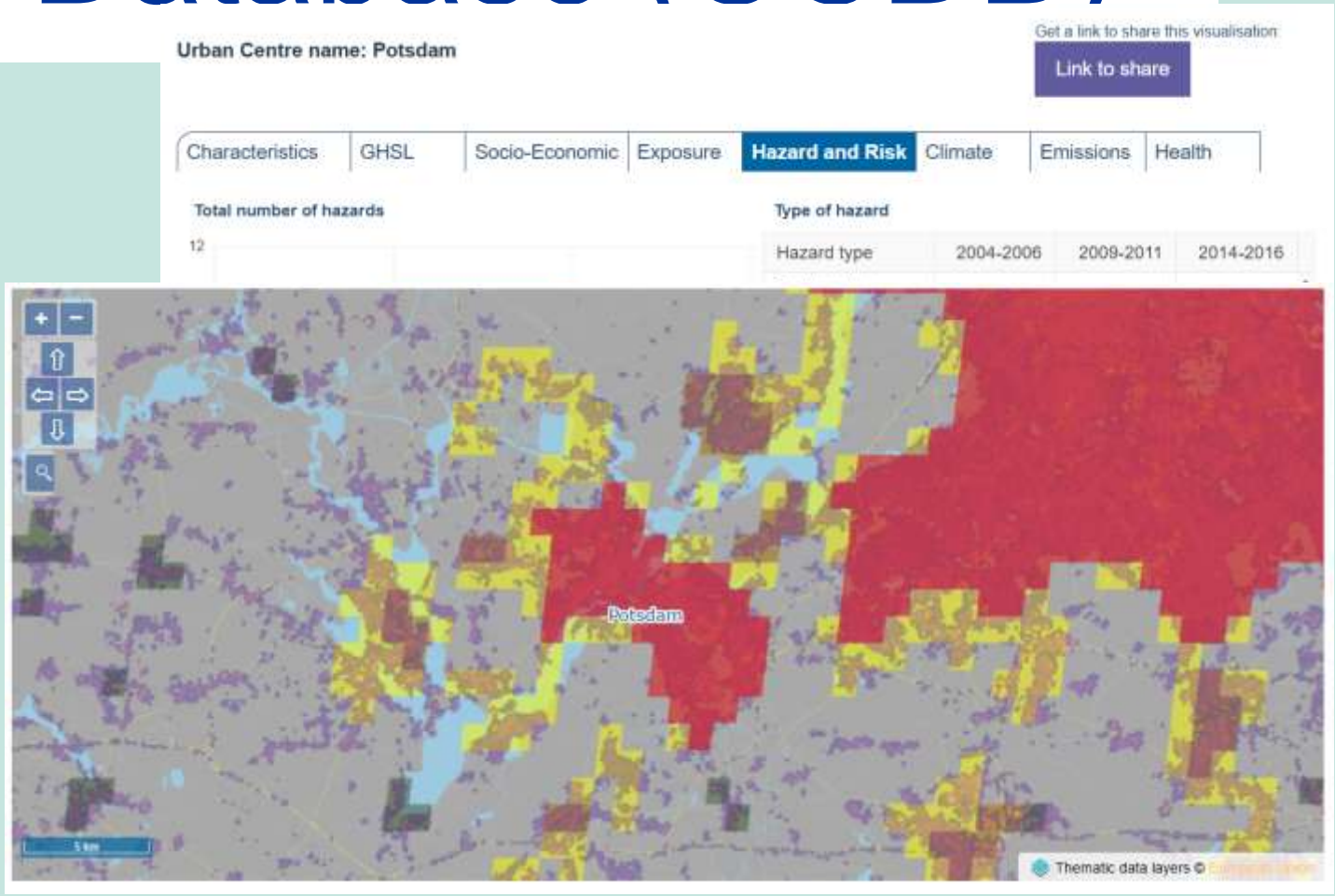
Copernicus





Urban Centre Database (UCDB)

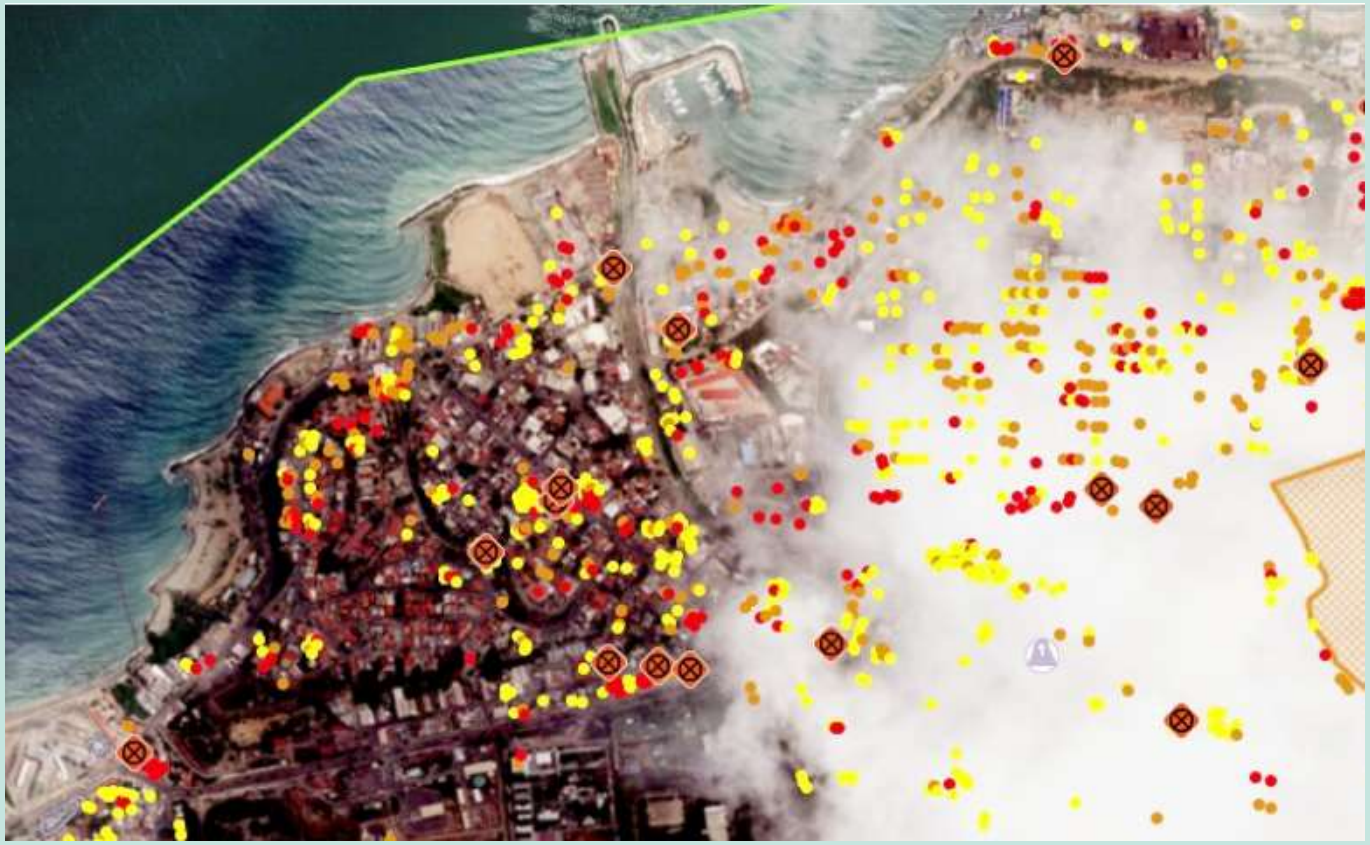
- Explore any of the 11,422 urban centres
- Dive into their characteristics with the thematic tabs & charts
- Compare indicators
- Download single urban data (charts data etc.)



RECENT AI APPLICATIONS

European Commission

AI building damage



Artificial Intelligence for mapping building damage after earthquakes and storms using Remote Sensing

Date: 10, 11 and 12 November 2026.

Workshop on Artificial Intelligence for mapping building damage after earthquakes and storms using Remote Sensing | Copernicus EMS On Demand Mapping

European Commission

Disaster

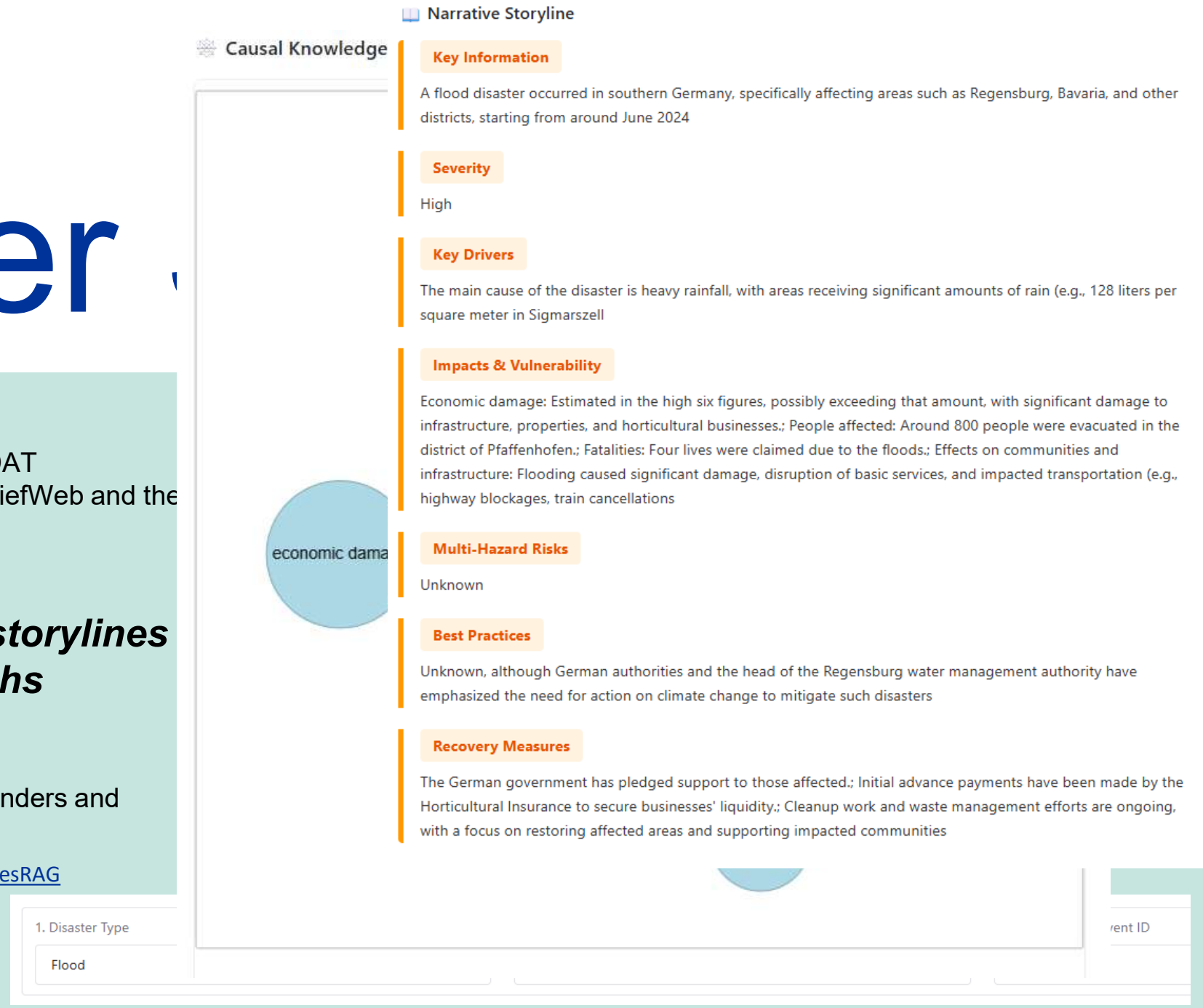
Pipeline that combines:
1) structured disaster records from EM-DAT
2) with unstructured documents from ReliefWeb and the European Media Monitor (EMM)

To produce:

Source-grounded disaster storylines and causal knowledge graphs

In order to:
supporting situational awareness for responders and analysts

https://huggingface.co/spaces/roncmic/crisesStorylinesRAG



Your DRM toolbox: from risk knowledge to decisions

Different resources answer different questions — the professional skill is knowing how to connect them.

1

HAZARD & WARNING

What can happen — where and when?

EXAMPLE RESOURCE

Copernicus EMS

2

EXPOSURE

Who and what is in harm's way?

EXAMPLE RESOURCE

GHSL / urban data

3

VULNERABILITY

Why will impacts differ?

EXAMPLE RESOURCE

INFORM

4

LOSSES & RISK

What happened before — and where are hotspots?

EXAMPLE RESOURCE

Risk Data Hub

5

ANTICIPATE & ACT

What may happen next — and what can we do earlier?

EXAMPLE RESOURCE

Scenarios · AI · analytics

WHAT IS IN IT FOR YOU?

Use these resources now for assignments, thesis work and scenario exercises — and later for real-world risk analysis.

Core skill: combine evidence • question assumptions • communicate uncertainty • support decisions

Want to remain updated?



Knowledge Synthesis

DRMKC Flash News / UCP KN Newsletter



Training

DRMKC website: https://drmkc.jrc.ec.europa.eu/

Thank you



DRMKC website: https://drmkc.jrc.ec.europa.eu/

Email: EC-DRMKC@ec.europa.eu

Picture Slide 17: View of Forest fire in Huertgen Forest © blue news

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