



DRMKC lecture: EU DRM framework from CP/operational perspective

Disaster Risk Management Training online series 2022

09 November 2022


Ainara Casajus Valles (ECHO.A3)
Marzia Santini (JRC.E1)

Slido to get started

- Who are we?
- What do we want to know
- What we will speak about today

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#4180 279



Union Civil Protection Mechanism (EUCPM) What? Why? Who? How?

Introduction to the DRM policy framework

Ainara Casajus Valles, DG ECHO

European Civil Protection & Humanitarian Aid Operations

...encourage cooperation between Member States for preventing and protecting against natural or man-made disasters.

(Lisbon Treaty, Article 196)

To provide...assistance and relief and protection for people in third countries... victims of natural or man-made disasters...

(Lisbon Treaty, Article 214)

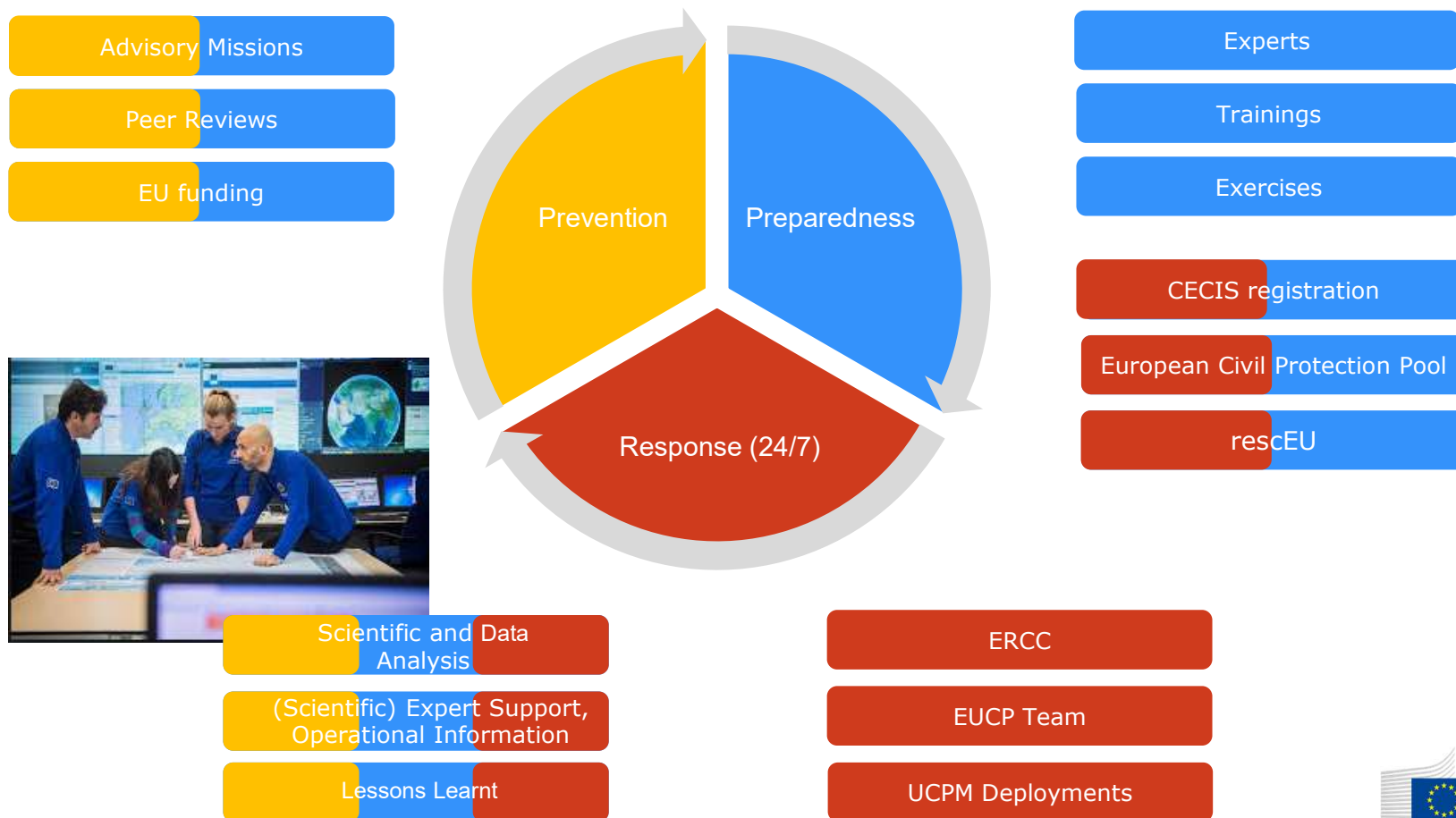


EU Civil Protection Mechanism

To strengthen the **cooperation** between the Union and the Member States and to facilitate coordination in the field of civil protection in order to improve the effectiveness of systems for **preventing, preparing for and responding** to natural and man-made disasters.



A comprehensive emergency management cycle





Emergency Response Coordination Centre (ERCC)

The **ERCC**, launched in May 2013, improves coordination between **civil protection** and **humanitarian aid operations** and maintains a direct link to authorities and organisations in EU Member States enabling real-time exchange of information.



Monitors disasters around the globe

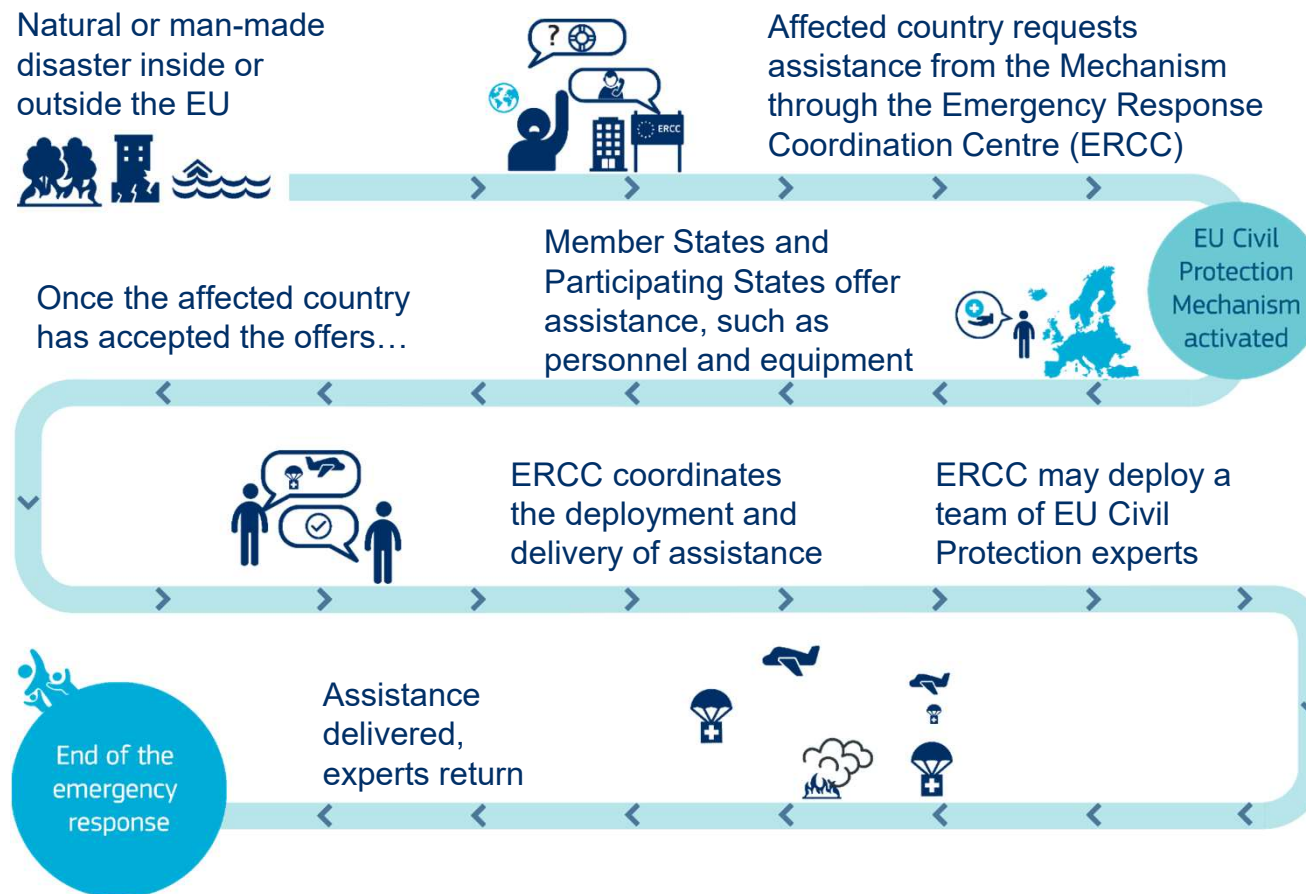


Provides real-time information



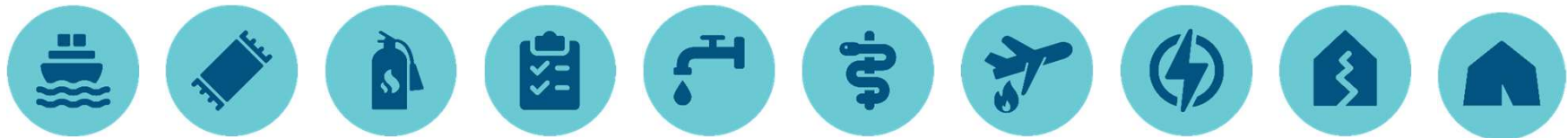
Coordinates joint European response operations

How does the EU Civil Protection Mechanism respond to emergencies?



Since its creation in 2001 until 2021, the
EU Civil Protection Mechanism

has been activated for more than
500 emergencies



EU Civil Protection Mechanism

114 activations in 2021,
almost 2/3 COVID-19 related



Flood



Repatriation



Tropical cyclone



Earthquake



Forest fire



Population displacement



Epidemic



Accident

How does the EU Civil Protection Mechanism respond to emergencies?

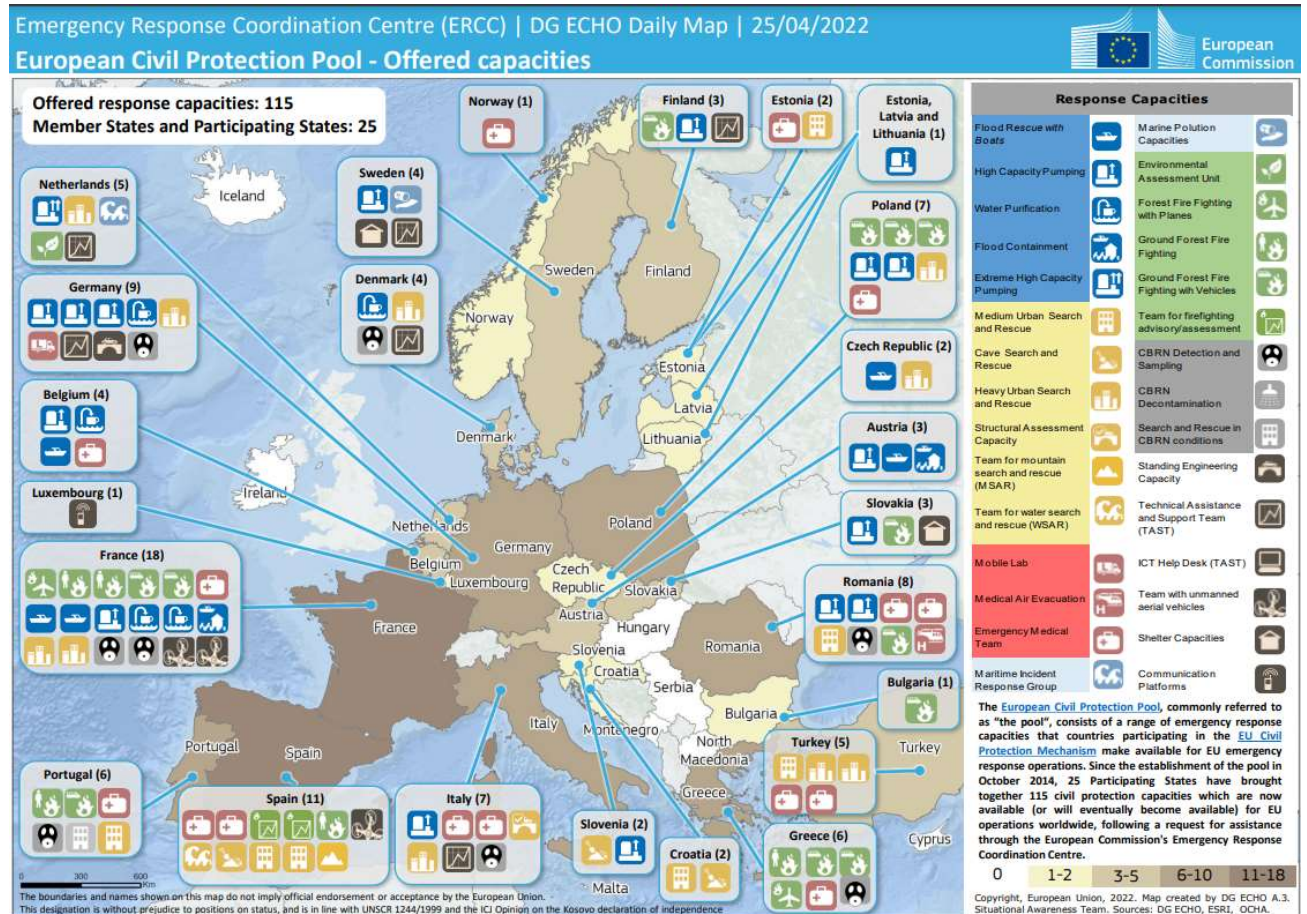
- **In-kind assistance.**
- European Civil Protection Pool
- rescEU



All MS and 4 PS have supported Ukraine so far:
> 72 000 tonnes of assistance.
> 1 400 patients transported to hospitals in Europe
59 experts and 19 liaison officers have been deployed

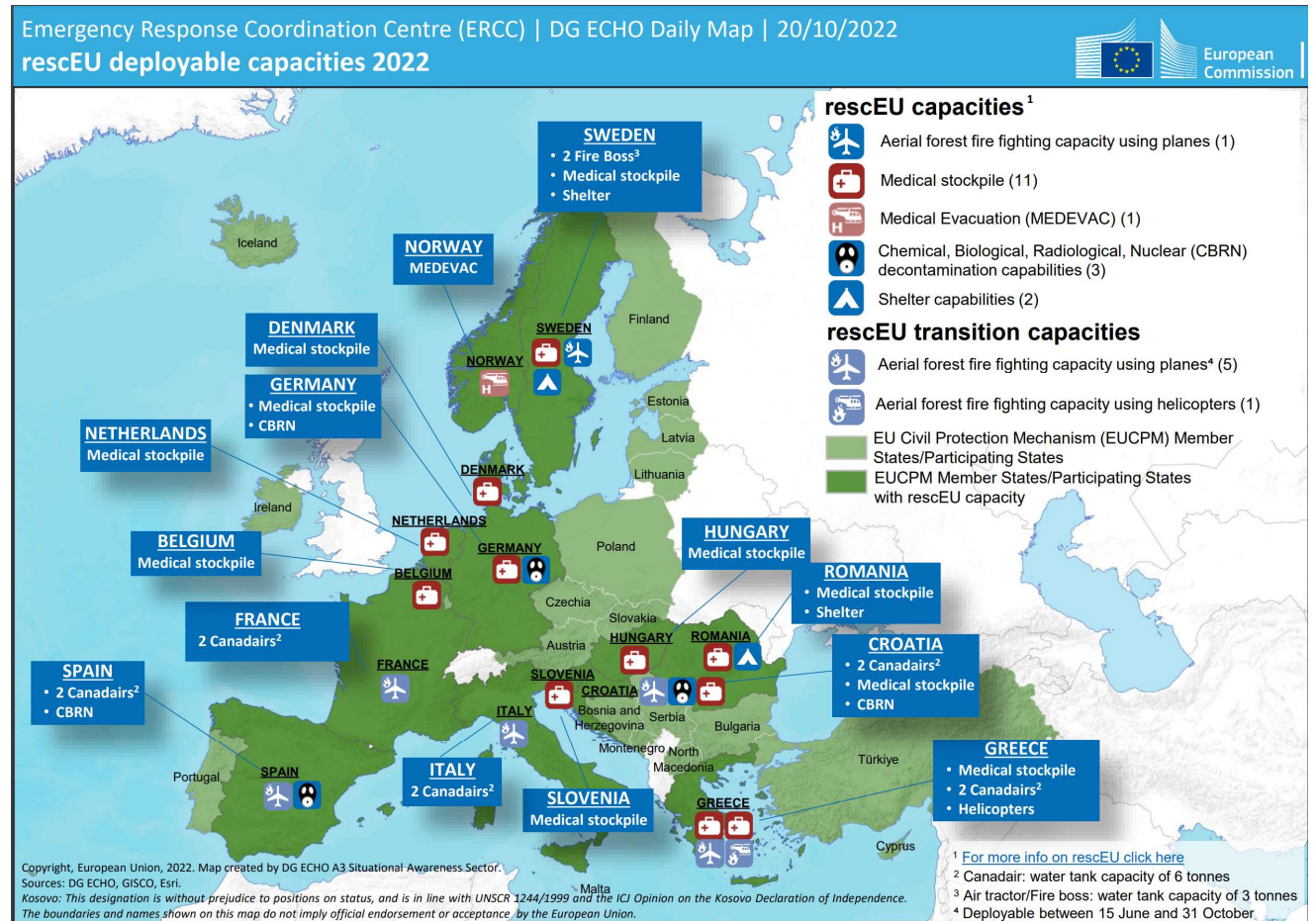
How does the EU Civil Protection Mechanism respond to emergencies?

- In-kind assistance.
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- rescEU



How does the EU Civil Protection Mechanism respond to emergencies?

- In-kind assistance.
- European Civil Protection Pool
- rescEU



Preparedness and prevention

Union **Civil Protection** Knowledge Network

Knowledge Network Capacity Development pillar



Trainings



Exercises



Exchange of experts

Questions?



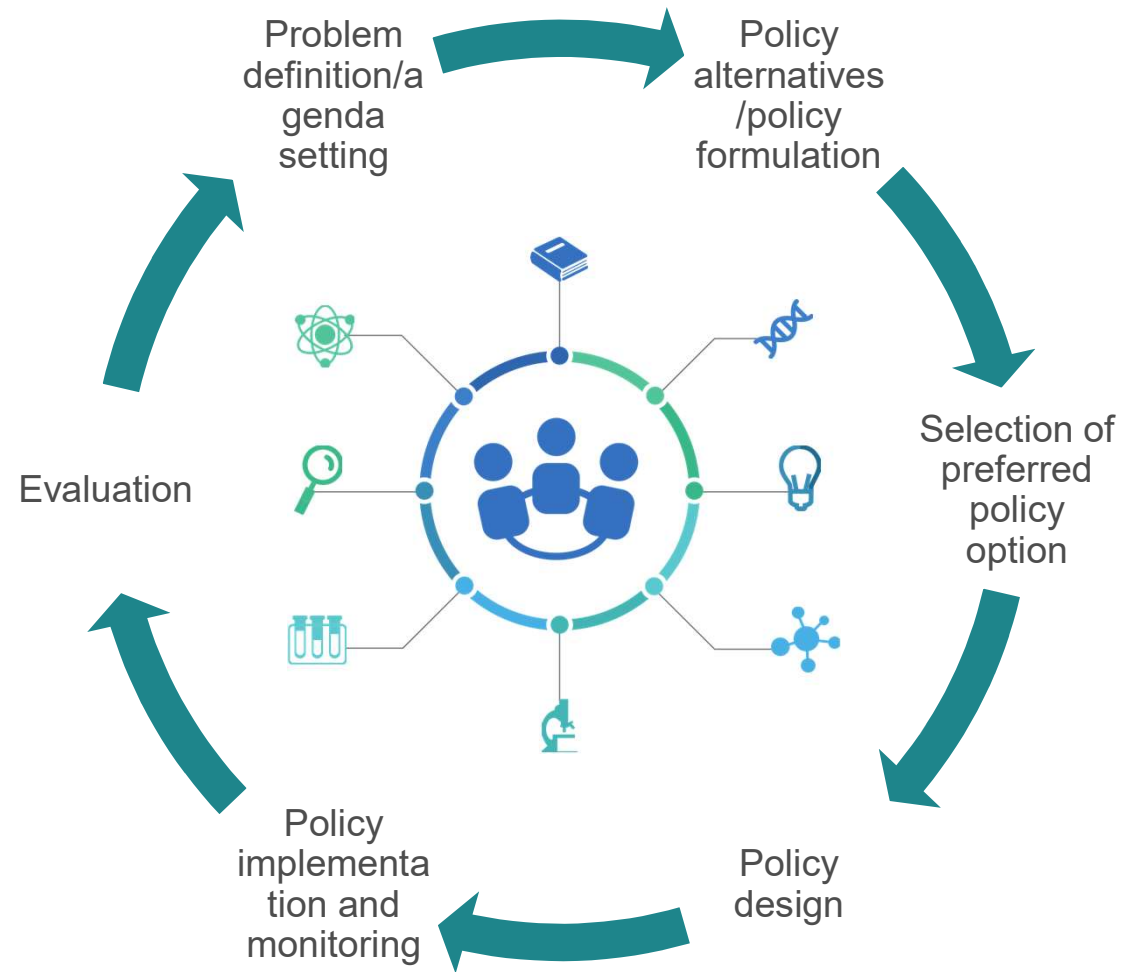
The European Commission's Disaster Risk Management Knowledge Centre (DRMKC)

where DRM knowledge is produced and organized

Marzia Santini, DG JRC

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

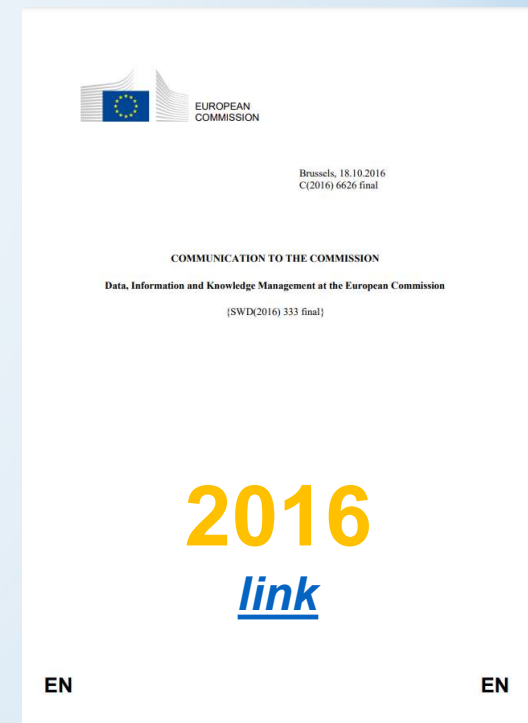
 EU Science Hub: ec.europa.eu/jrc  @EU_ScienceHub  Joint Research Centre

 EU Science Hub - Joint Research Centre  EU Science Hub



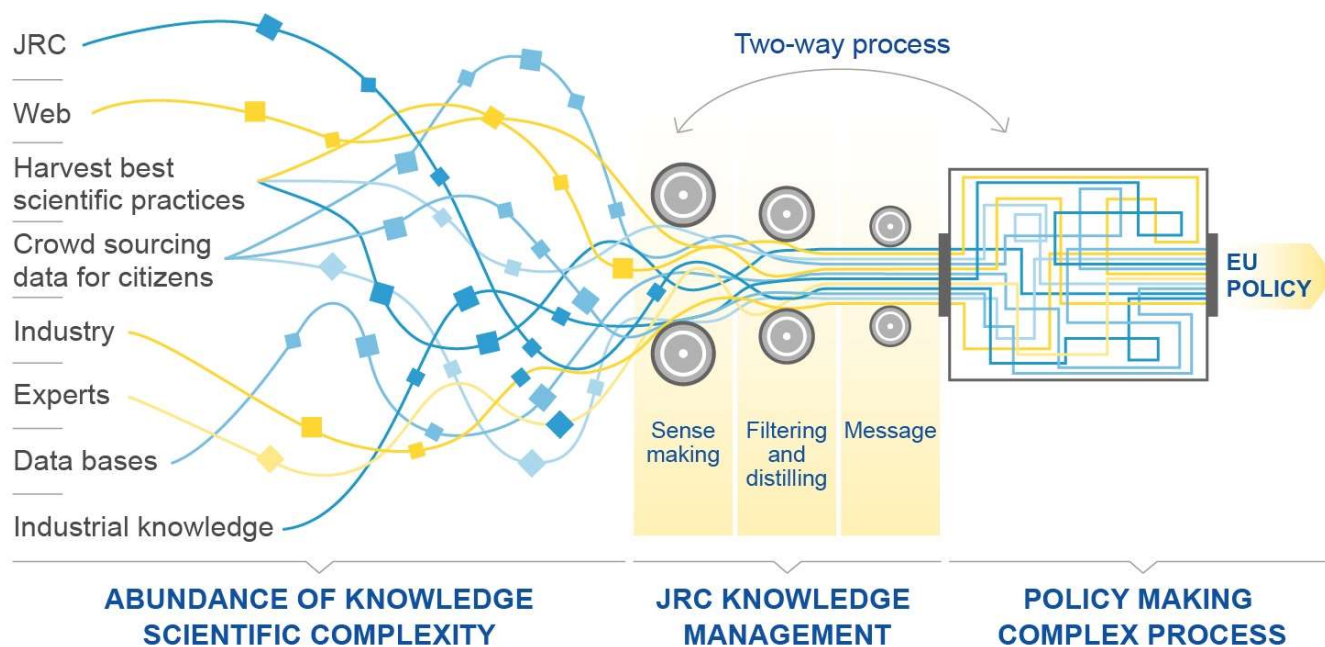
European Commission Knowledge Centres - Knowledge brokers for robust policies

*Specific knowledge and competence centres will be set up for issues that fall under the **policy priorities** of the Commission [...]. The relevant DGs will form thematic networks to underpin the work of the knowledge centres.*



The knowledge center's concept

dealing with the information overload by policy topic



10 knowledge centres for 10 policy areas:

- **Disaster Risk Management - DRMKC**
- Biodiversity
- Territorial policy
- Migration and demography
- Bio economy
- Food fraud and quality
- Food and nutrition security
- Earth observation
- Cancer
- Interpretation

Knowledge Centres - activities



Stakeholders & Users

Commission Steering DGs

Member States

Other stakeholders



JRC
RTD
SANTÉ
DEFIS
REGIO
ECHO
ENV
INTPA
HOME

CITIZENS
ADVOCACY GROUPS
INTERNATIONAL ORGANISATIONS
RESEARCH ORGANISATIONS
NGOs



Participating States

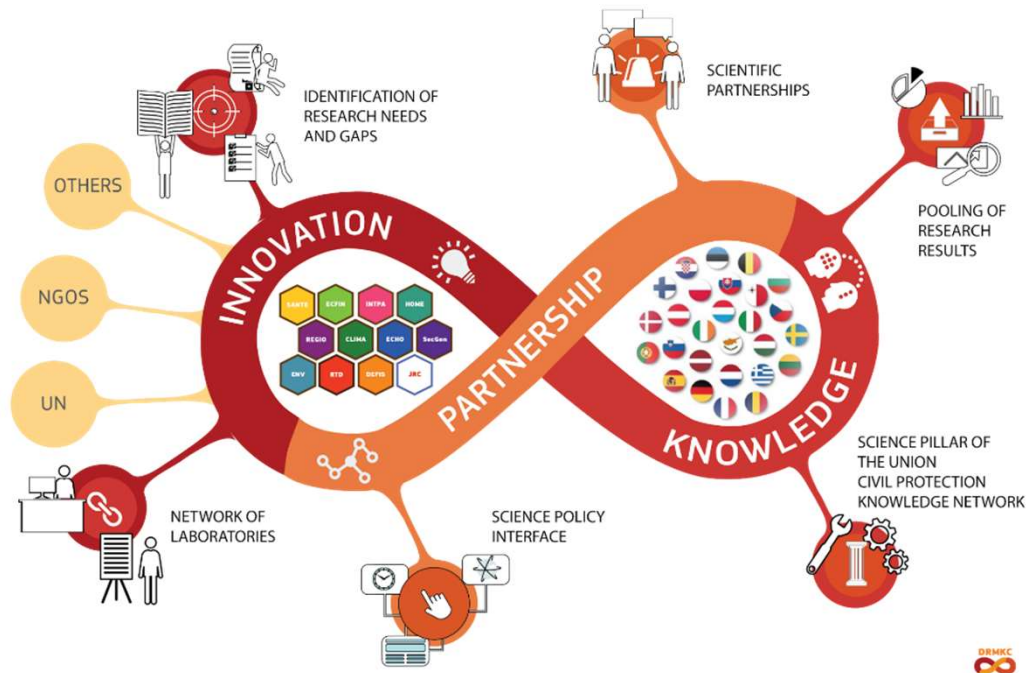
Knowledge for policy website (K4P)

<https://knowledge4policy.ec.europa.eu/> Here you find more info!



Disaster Risk Management Knowledge Centre – DRMKC

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



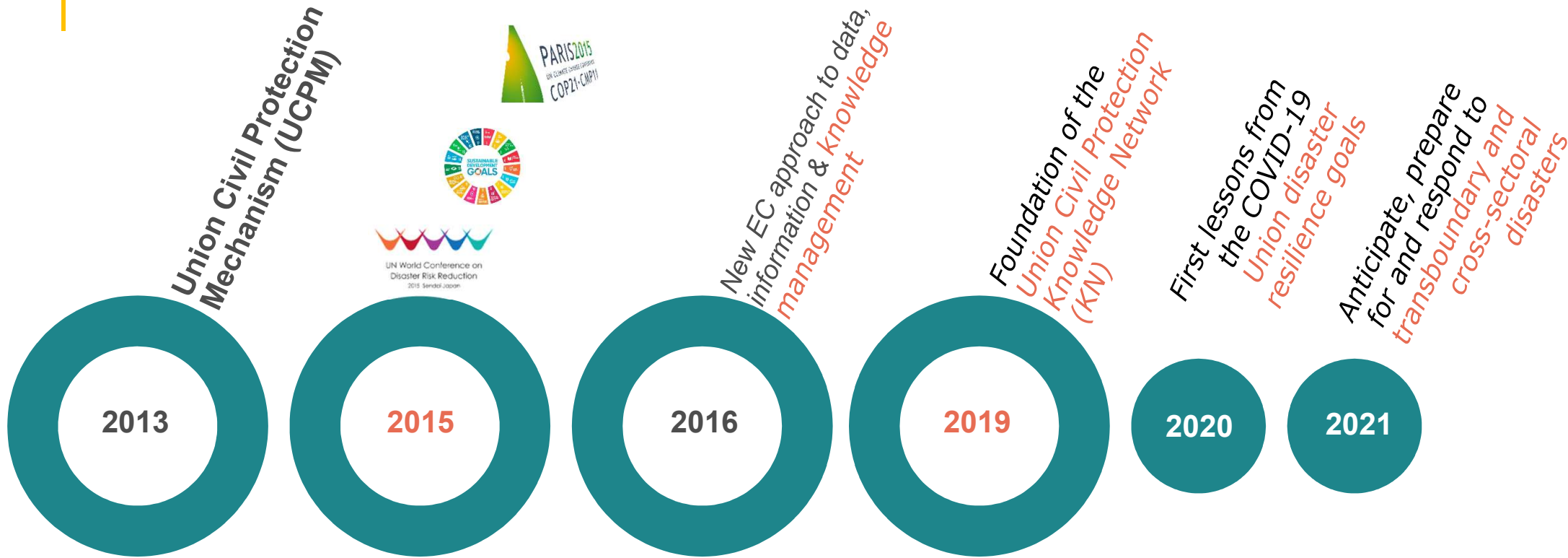
- DRM Community of Practice with 12 DGs represented
- 5 annual seminars, [6th seminar on 22-23 Nov this year!](#)
- Network of scientists in the Science 4 DRM flagship reports
- DRMKC website & Newsletters

Supports policymaking by:

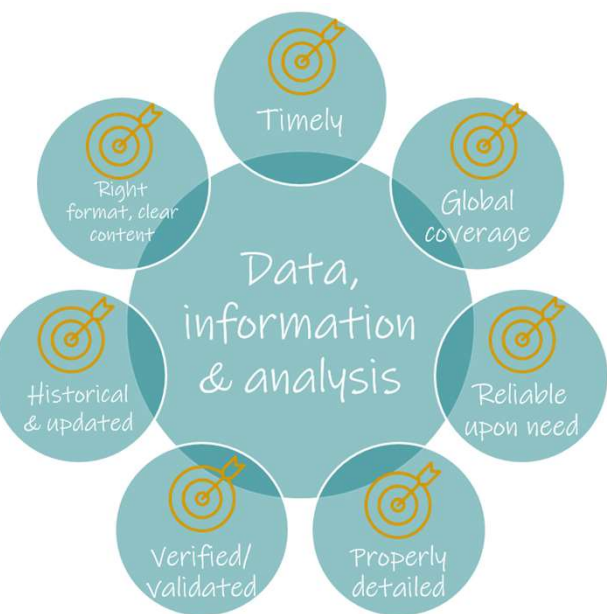
- Gathering ECs services, European countries, community (partnership)
- Transferring knowledge across sectors, integrating and consolidating it (knowledge)
- Co-developing and providing innovative solutions for existing needs (innovation)
- Improve coordination in managing disaster risk



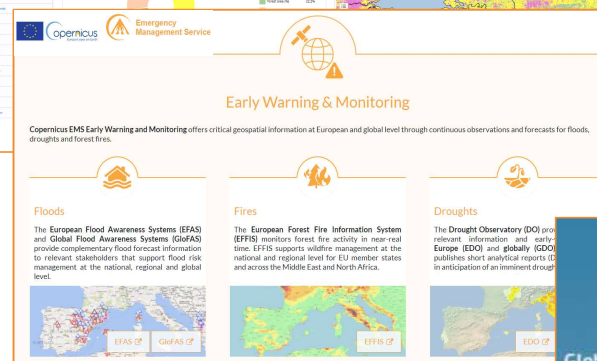
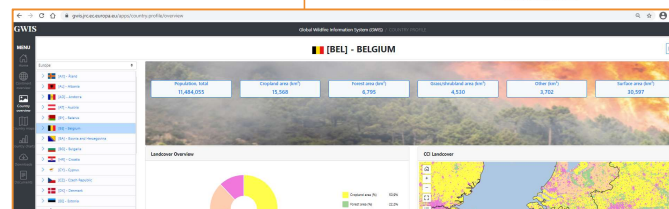
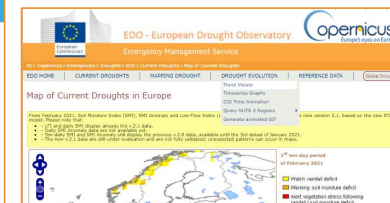
A simplified timeline of our policy domain (DRM)



We work for all phases of the DRM cycle & we inform all phases of the POLICY cycle



1. To foresee current and future risks
2. To build the knowledge base
3. To implement systems for DRM action, in the short as well in the mid-long term



Knowledge Centre for Disaster Risk Management

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

- Developing collective knowledge to support innovative policies
- Projects, DRM networks, services, repositories, new knowledge, learning corner, taxonomy
- News, events, documents
- “Get involved” section!



Global Conflict Risk Index (GCRI)

The Global Conflict Risk Index (GCRI) expresses the statistical risk of violent conflict in a given country in the coming 1-4 years and is exclusively based on quantitative indicators from open sources.



INFORM

INFORM is a multi-stakeholder forum for developing shared, quantitative analysis relevant to humanitarian crises and disasters. INFORM includes organisations from across the multilateral system, including the humanitarian and development sector, donors, and technical partners.



Risk Data Hub

The DRMKC Risk Data Hub is a Geo portal providing access to data and methods for Risk and impact assessment in a multi-hazard context. Authorised users can create their private “User corner” to upload their own data to run customised assessments.



Scientific Output

The scientific publications based on a selection of papers, reports and policy briefs covering different research domains and policy areas produced by the scientists of the Joint Research Centre.



Learning corner

Understanding and properly applying scientific knowledge to DRM is essential for solid and effective outcomes in managing risks. In this section a collection of learning opportunities to increase your know-how in the very many different areas of DRM.



Epidemic Intelligence from Open Sources (EIOS)

The DRMKC provides support to the Epidemic Intelligence from Open Sources (EIOS) initiative, which brings together several public health stakeholders around the globe to create a unified, multidisciplinary approach to early detection, assessment and communication of public health risk using publicly available information.



Gaps Explorer

As a contribution to the common effort of enhancing research results' exploitation while defining the way forward, the Gaps Explorer provides targeted recommendations, tailored to different stakeholder profiles - Policy-Makers, Practitioners and Scientists - based on thematic reviews.



Project Explorer

The DRMKC Projects Explorer is continuously updated with information regarding research projects and institutions. It is an essential tool to discover who knows what.



Science for disaster risk management 2020: acting today, protecting tomorrow

The second of its series represents a collaborative effort on disaster risk, coming from different sectors and disciplines to present the consequences of disasters on various assets at risk.

Knowledge Centre for Disaster Risk Management

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



Flash News from the Disaster Risk Management Knowledge Centre

A building block of the Union Civil Protection Knowledge Network's Science Pillar

Science for "Early warning and early action"

This year the International Day for Disaster Risk Reduction (IDRR) campaign will focus on "Early warning and early action for air" and, in particular, on Target G of the Sendai Framework: "Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030". This special issue of the FLASH NEWS from the Disaster Risk Management Knowledge Centre shares an overview of the recent research and activities of the European Commission that directly or indirectly contribute to the availability of risk information/assessments and to the delivery of early warnings for everyone.

[more](#)

[DRMKC Newsletters and Flash News](#)

Wednesday, November 16, 2022

9:30 AM 10:30 AM **Data and systems for understanding and acting on current and future risks**

The event will provide a space for presenting and discussing new scientific developments for addressing current and futures risks...

📍 Online

| | | | |
|--|---|--|---|
| | Christina Corbane European Commission... | | Andrea Salvi Joint Research Centre ... |
| | Malgorzata Osiewicz European Central Bank | | Zintia Hermansons ESPOW EGTG |
| | Karmen Poljansek European Commission... | | Andrew Thow UN Office for Coordinati... |

Friday, November 11, 2022

4:00 PM 5:00 PM **Drought: a global challenge**

Drought events affect key socio-economic sectors as well as ecosystems, often triggering cascade effects and in some cases...

📍 Online

| | | | |
|--|--|--|--|
| | Andrea Toreti European Commission... | | Ana Bastos Max Planck Institute for... |
| | Daniel Tsegai UNCCD | | Francisco Doblas... BSC-CNS |
| | Viola Otieno IGAD Climate Prediction ... | | Roger Pulwarty National Oceanic and... |

Read [here](#) how JRC science helps to cut emissions



JRC work programme 2023-2024

THE GUIDE > PORTFOLIO ELEMENTS



A Portfolio is an organisational instrument, defined by **5 elements**, that provides a means to efficiently and effectively plan and manage an integrated body of work executed in a set of complementary projects.

JRC PORTFOLIOS 2023 – 2024

1. Shaping green transitions for a sustainable Europe
2. Sustainable, clean, innovative and competitive energy solutions
3. Hydrogen and other decarbonised gases
4. Safety of nuclear technology in support to the transition towards climate neutrality
5. Small modular reactors
6. Decarbonised, smart and safe mobility
7. Cities and buildings for better lives
8. Pathways to climate neutrality through low carbon energy and land use management
9. Zero pollution for planetary health - integrated responses
10. Healthy biodiversity and natural capital accounting
11. Transition to sustainable food systems in a European and global context
12. Sustainable materials and products for a circular and resilient Europe
13. Industrial transformations for sustainability, competitiveness and open strategic autonomy
14. Monitoring and shaping the digital transition
15. Trustworthy AI for a fair and democratic Europe
16. Cybersecurity of society and industry
17. Exploiting data as a strategic resource for science and policy
18. Observing the Earth for policy
19. Galileo next generation and secure connectivity
20. Towards an inclusive and resilient society: social justice and fair twin transitions
21. Education, skills and employment for a fair twin transition
22. Economic governance and structural reforms
23. Territorial intelligence for EU policies
24. Science for the Global Gateway and the international Green Deal
25. Enhanced situational awareness for crisis management
26. Understanding and acting on the risks of the future
27. Better preparedness and response to health crisis
28. Innovation in life and health sciences
29. Tackling cancer and non-communicable diseases
30. Science for security
31. Nuclear compliance assurance
32. Challenges and opportunities of population dynamics and migration for stronger Europe in the world
33. Innovative policymaking in a complex world: science, foresight and evaluation for policymaking

25. Enhanced situational awareness for crises



Allow Europe to respond quickly and effectively to major cross-society crises

Improve resilience through better preparedness

How?

Systemic, timely and integrated information on impacts and response options

Better observations, models analyses and systems

Improved Early Warning and real-time integrated situational awareness



Portfolio activities

Copernicus Emergency Management Service

Floods
Wildfires
Droughts and heatwaves
On Demand Mapping

European Crisis Management Laboratory

Information management
Mapping
Crisis room technology
Data

Hazard >> Impact



Crisis Management

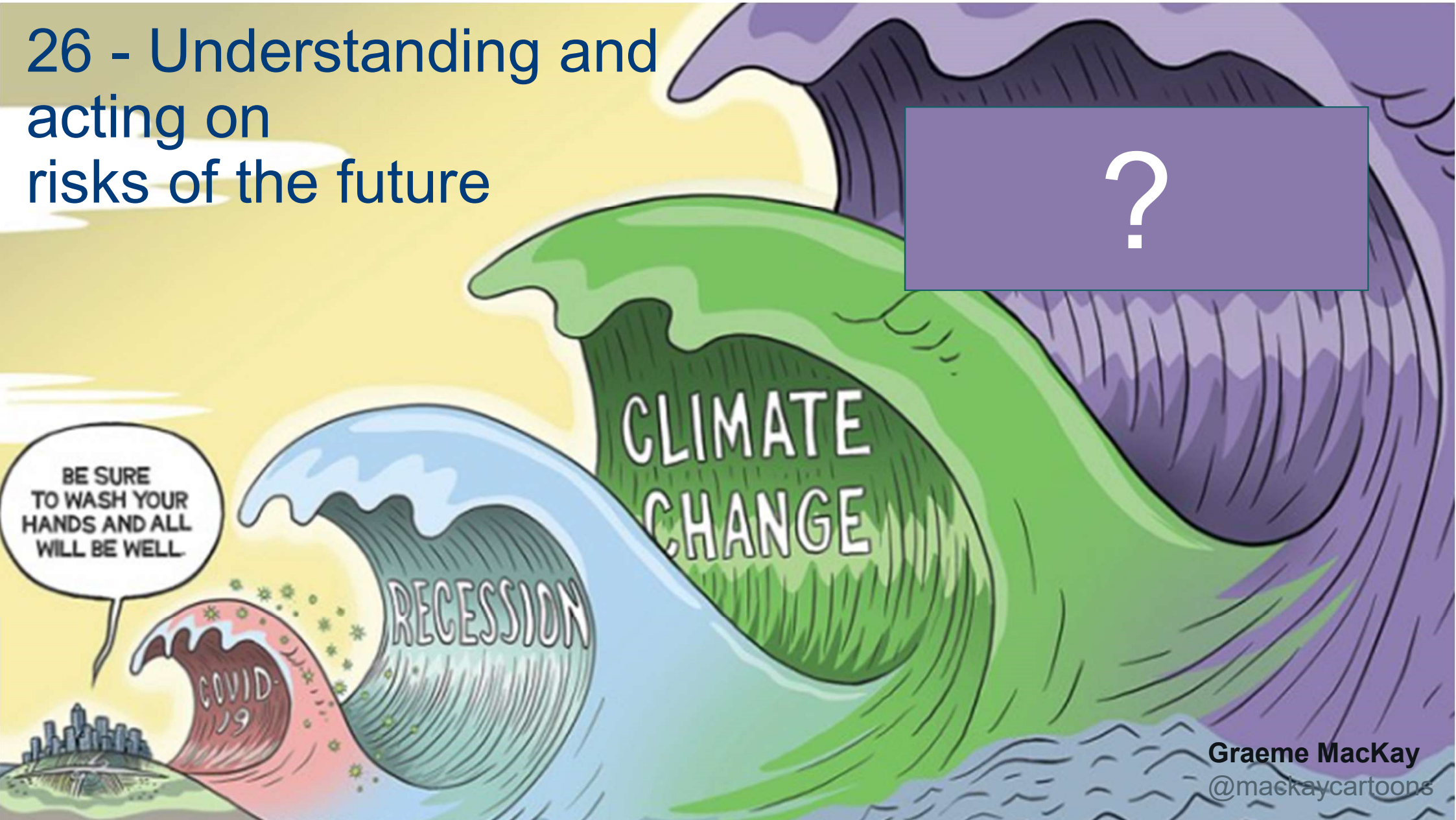
Systems for anticipating crises

[GDACSinform](#), [INFORM](#)
Severity (humanitarian),
[GCRI](#), CEWS (conflict),
[EIOS](#) (health threats),
[ASAP](#) (food security),
[ECURIE](#), [EURDEPemm](#)
(nuclear)

Political & social intelligence

[Media monitoring / analytics](#)
[Social media](#)
[Disinformation](#)

26 - Understanding and acting on risks of the future



Graeme MacKay
@mackaycartoons

Portfolio activities

Scenarios and data

Climate risk modelling

- EU Climate Risk Assessment
- Global [drought](#), [flood](#) and [wildfire](#) risk products
 - Adaptation of built environment

Risk and finance

- No action without money
- Financial and economic exposure



Analysis and data

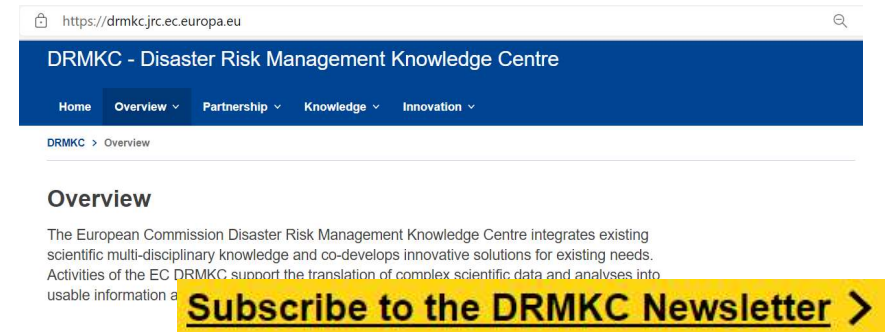
- [Human settlements](#)
- [Conflict risk](#)
- [Humanitarian risk](#)
- Energy risk
- Climate, migration, conflict nexus

Mitigation

- [Disaster Risk Management Knowledge Centre](#) + networks
- Foresight scenarios
- Policy, regulatory and technical measures

Supporting risk reduction

How to engage with DRMKC



➤ To know more:
<https://drmkc.jrc.ec.europa.eu>

➤ [To become a contributor](#) of DRMKC

➤ [Current opportunities](#) in DRM

➤ To [brainstorm together](#) every year

➤ To contact us for specific requests: EC-drmkc@ec.europa.eu

Become our Contributor

All current and new users will be given update rights to publicise and share their work within the DRMKC (publishing News, Events and sharing Documents).

Click here to:

- [Login](#) if you are already user of DRMKC
- [Register](#) if you are a new user

We look forward to hearing from you.

- News
- Events
- Documents



Questions?



**10 minutes
break!**



The Union Civil Protection Knowledge Network (UCPKN)

where the DRM network is boosted

Marzia Santini, DG JRC

UCPKN aim & objectives

<https://civil-protection-knowledge-network.europa.eu/>

UNION CIVIL PROTECTION KNOWLEDGE NETWORK

First introduced, as a concept, in the 2019 revision of the Union Civil Protection Mechanism (UCPM) legislation, to build up the EU's overall ability and capacity to deal with disasters



Optimize,
systematize
existing
cooperations



Expand
incrementally
with time



Bring together civil protection and disaster risk management experts and organisations
(**partnership facilitator**)

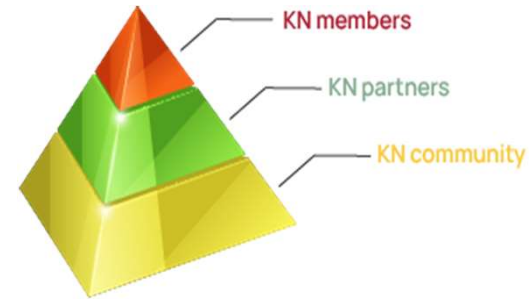
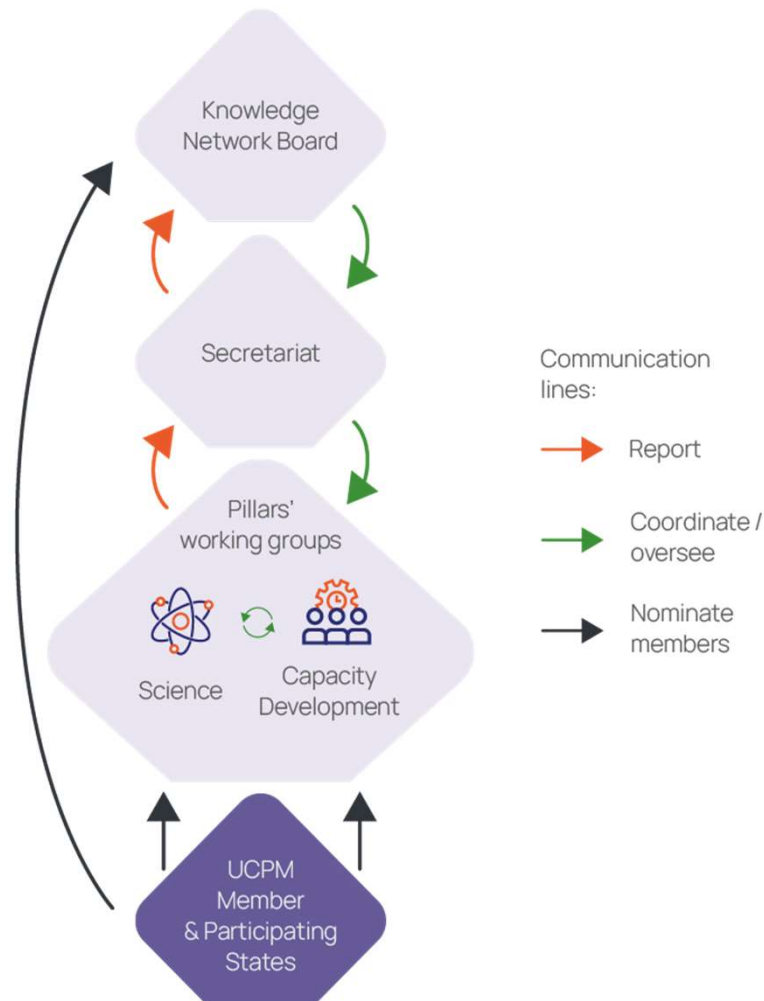


Make relevant knowledge on civil protection and disaster risk management accessible to all
(**knowledge broker**)



Foster innovation for more efficient and effective civil protection systems
(**innovation catalyst**)

UCPKN governance & stakeholders groups



- **KN members** i.e. the national civil protection authorities of the UCPM MS/PS and the European Commission
- **KN partners** i.e. all institutional stakeholders who are involved in the development and implementation of the Network's activities
- **KN community** i.e. a broad category of civil protection and disaster management organisations with an interest in and willingness to contribute to the Knowledge Network and its activities, but without contractual or legal obligations

[Become a community member!](#)

UCPM key activities

UNION CIVIL PROTECTION KNOWLEDGE NETWORK



UCPM Training Programme



UCPM Lessons Learnt Programme



Awareness-raising activities



Exchange of Civil Protection Experts



Scientific advice & innovation



Community engagement



Civil protection exercises



Thematic workshops & conferences



Partnerships facilitation opportunities



Capacity Development Pillar

Union **Civil Protection** Knowledge Network

UNION CIVIL PROTECTION KNOWLEDGE NETWORK

Training programme

- ✓ A dynamic and comprehensive training programme tailored to specific target groups
- ✓ It supplements the national training offered to experts by their home countries / organisations to better prepare them for international deployments under UCPM
- ✓ 10 UCPM courses, 5 stand-alone online modules, 2 ad-hoc training courses, 4 EC-UN joint courses
- ✓ **Total: 700+ courses, 12100+ course places, 5400 experts trained**



The Capacity Development Pillar

The Capacity Development Pillar aims to connect, promote and strengthen capacity development initiatives relevant to civil protection and disaster management stakeholders, with the view of increasing collective capacity of the UCPM to prevent, prepare for and respond effectively to emergencies.

Exercise programme

2 types of exercises:



Table-top exercises

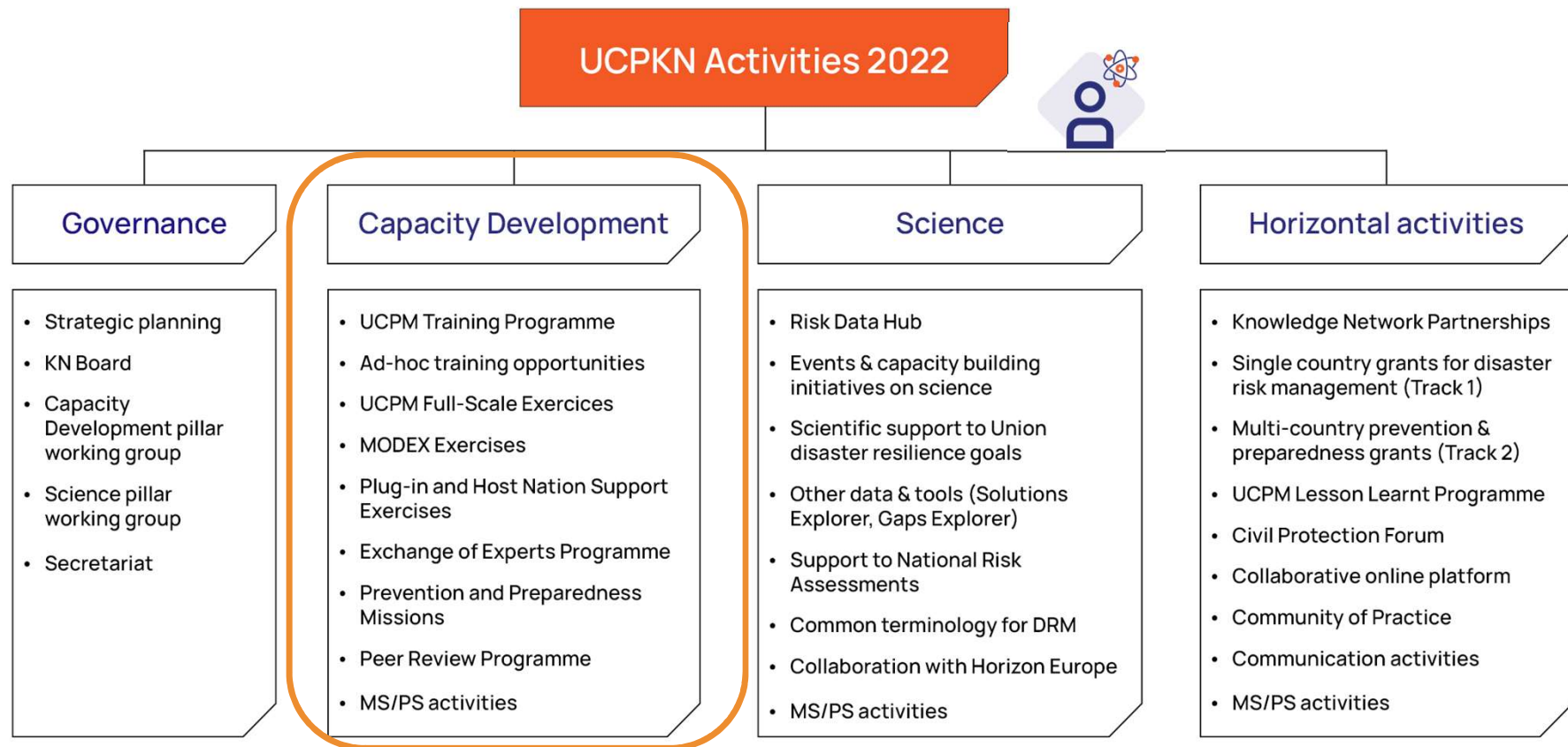


Field exercises

Exercise objectives:

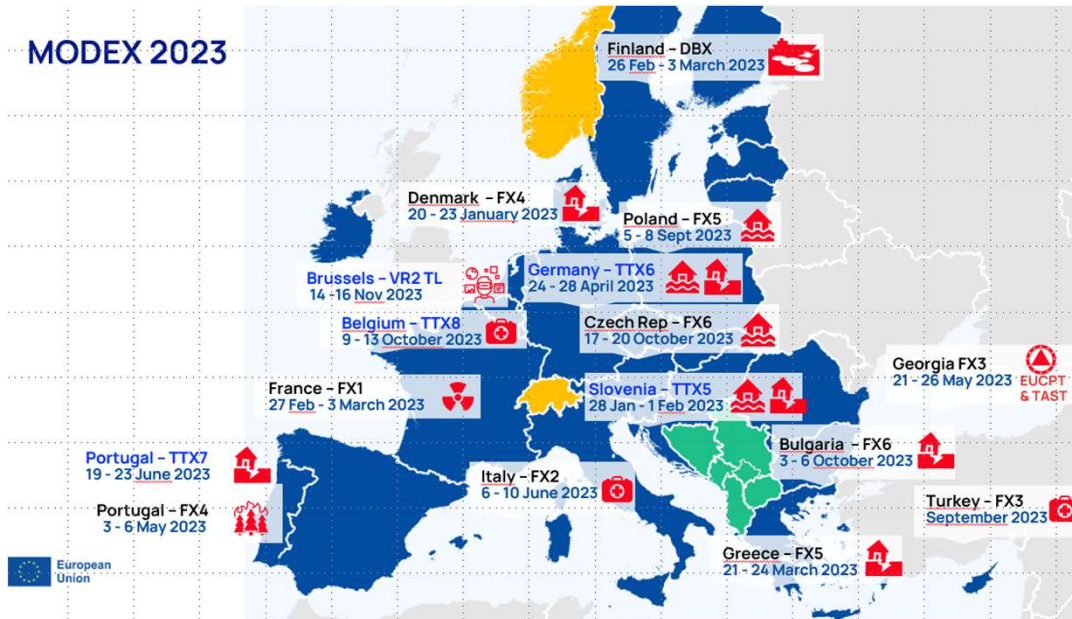
- Coordination
- Interoperability
- Standard Operating Procedures
- Communication and reporting
- Self-sufficiency
- Safety & Security
- Specific learning objectives of participants

UNION CIVIL PROTECTION KNOWLEDGE NETWORK

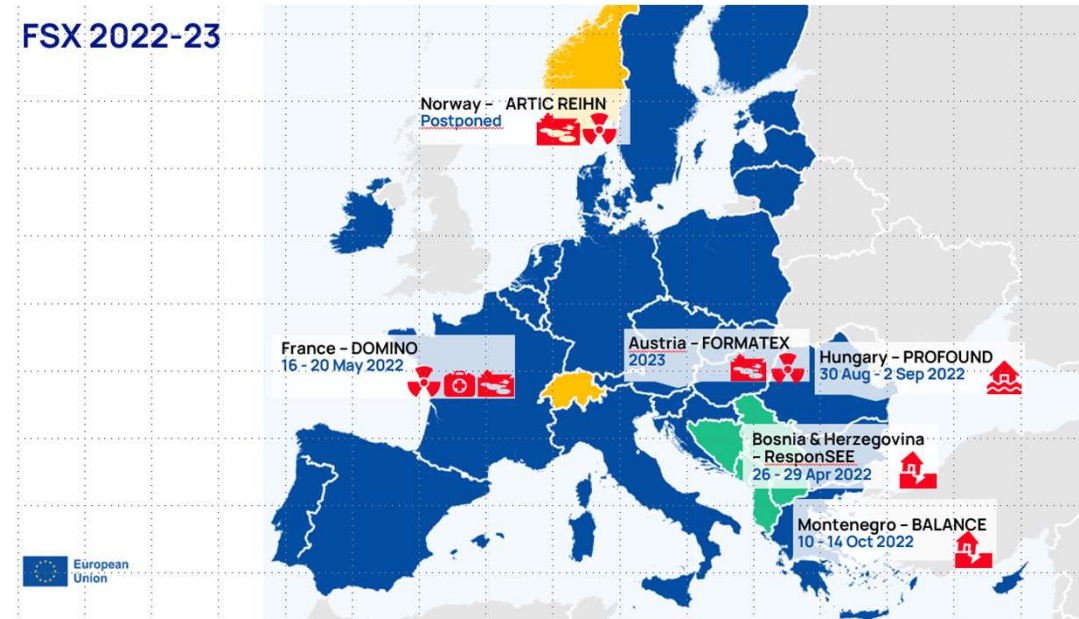


Exercises 2022-2023

MODEX 2023

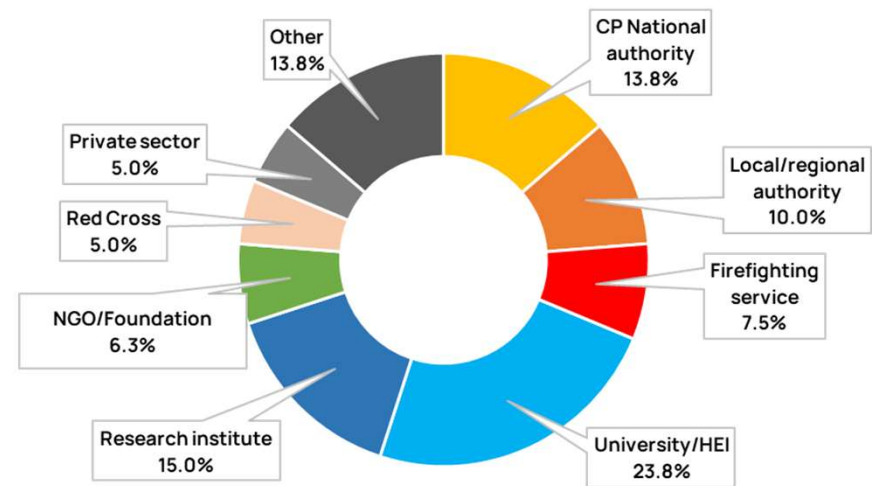
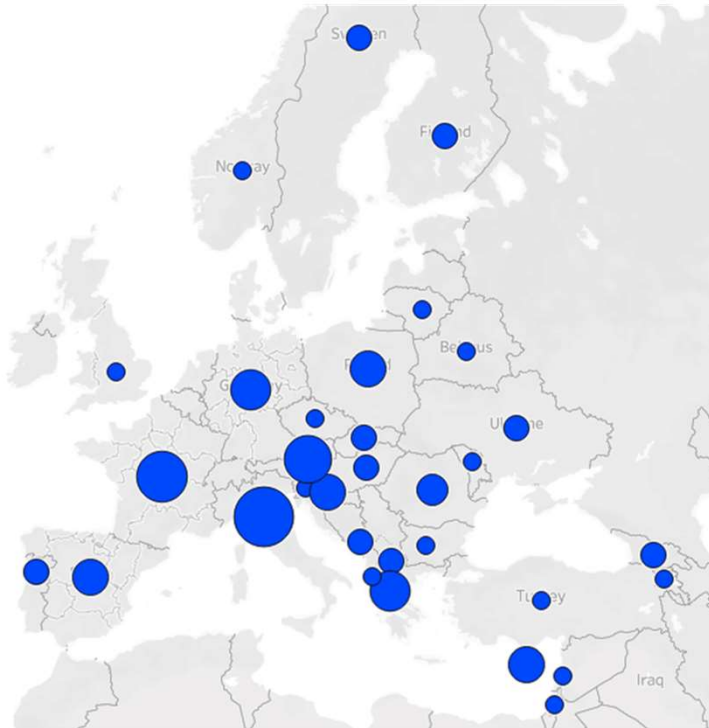


FSX 2022-23



KN Partnership: 2020-21 projects

14 projects | 80 organisations | 32 countries





European
Union

Science Pillar

Union **Civil Protection** Knowledge Network



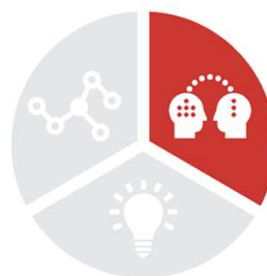
UNION CIVIL PROTECTION KNOWLEDGE NETWORK

Disaster Risk Management Knowledge Centre
<https://drmkc.jrc.ec.europa.eu/>



The Science Pillar

The Science Pillar aims to bring together academia, practitioners and decision-makers for multi-disciplinary, cross-sectoral and cross-border cooperation. One of its objectives is to apply scientific knowledge to disaster risk management - particularly prevention and preparedness activities - more efficiently.



PARTNERSHIP

Where knowledge begins
Where knowledge applies

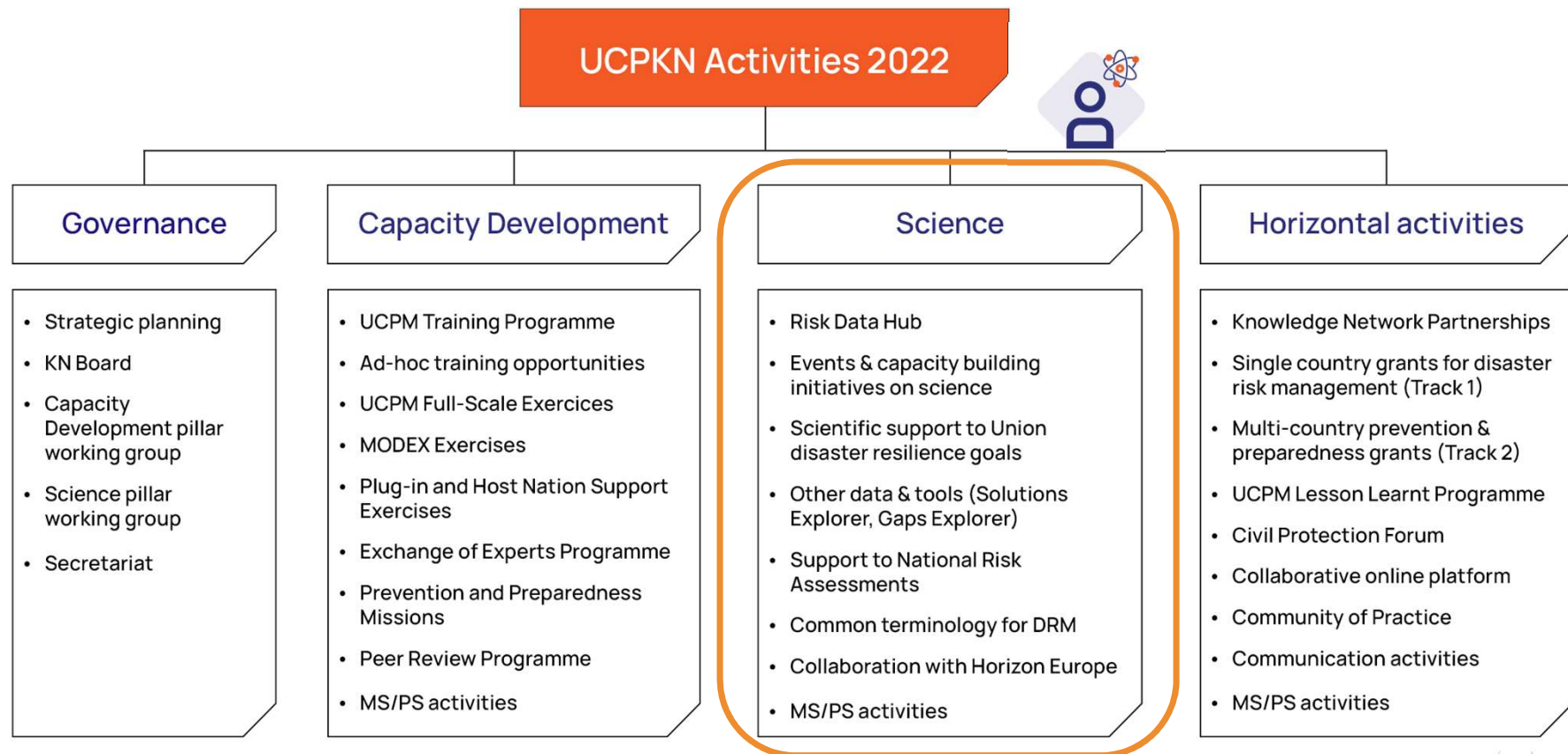
KNOWLEDGE

Where knowledge meets
Where needs are identified

INNOVATION

Where gaps are filled
Where innovation is tested

UNION CIVIL PROTECTION KNOWLEDGE NETWORK



UNION CIVIL PROTECTION KNOWLEDGE NETWORK

*2 steps implementation plan for
the Science Pillar*



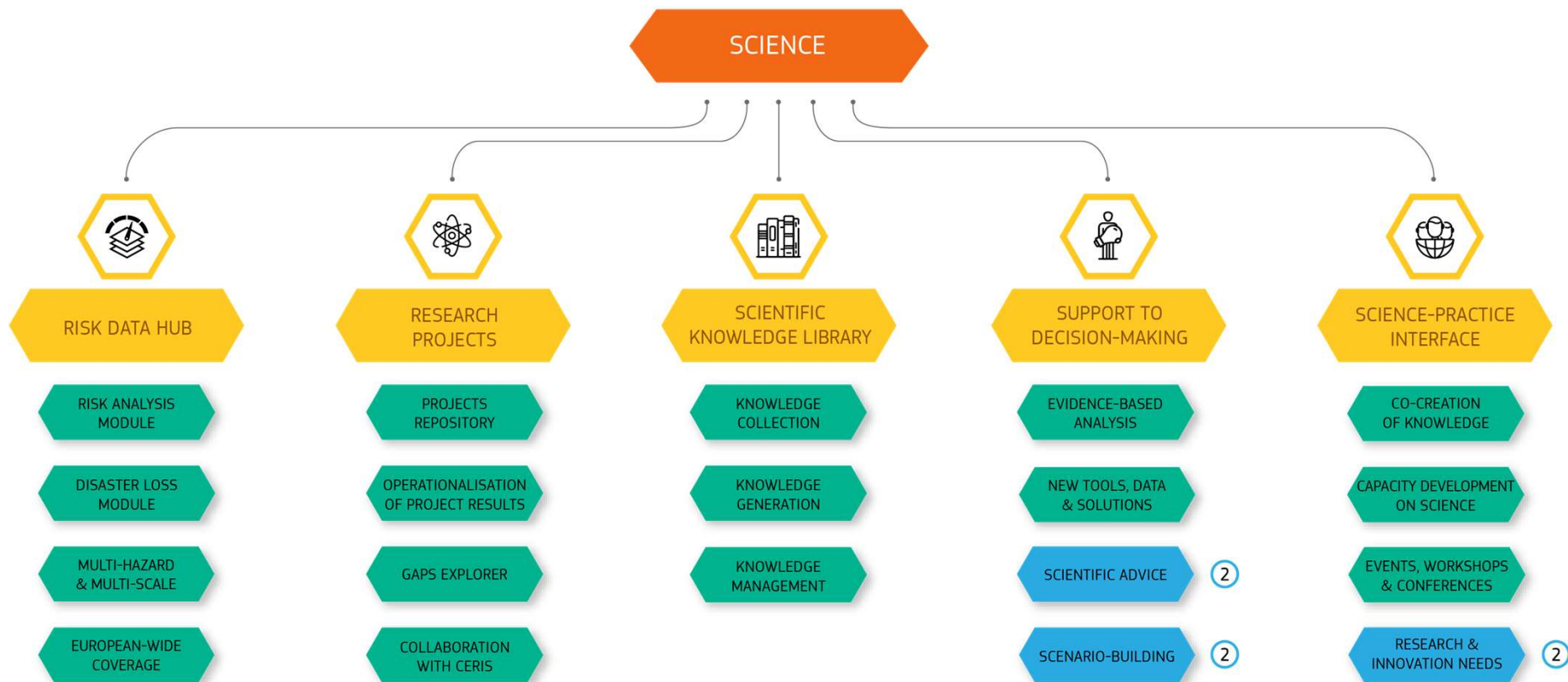
1st phase: integrating and consolidating the existing activities developed by the DRMKC and other projects through closer engagement of MS/PS in their implementation.

- **DRMKC Risk Data Hub** (incl. workshop), **Projects & Gaps Explorers**, common terminology for DRM
- **Horizon projects**, **Community of European Research and Innovation for Security (CERIS)**

2nd phase: identification and integration of other relevant scientific activities into the Science pillar's structure to further stimulate research and innovation. **To be decided according to:**

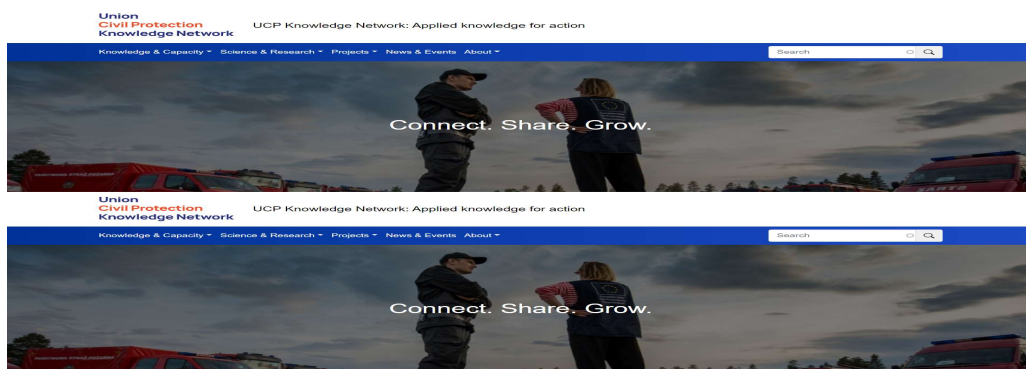
- **decisions of the KN Board**
- **orientations of the Science Pillar working group**
- **inputs from the DRMKC Annual Seminar**

Existing and foreseen activities/deliverables



Inception of the UCPKN

- **established** by the Commission Implementing Decision 2021/1956 of 10 November 2021
- **officially inaugurated** on 7 December 2021 by the European Commissioner for Crisis Management Janez Lenarčič
- **2022: the first full year** of the [Knowledge Network's](#) operations



Subscribe now!



Dear Readers,

We are at a turning point. The Union Civil Protection Mechanism marked its 20th anniversary with a record number of 114 activations in 2021. The world is exposed to ever greater, more frequent, simultaneous and complex disasters. Solidarity is thus increasingly necessary to face them. The legislative work is gradually transforming and adapting the Mechanism to this new and changing environment. To reach the most appropriate response a higher level of preparedness is necessary. This is the purpose of the Knowledge Network, as we transpose into knowledge the experience of what has worked from the operational side. We will identify existing knowledge, share it in a coordinated way and use places, platforms and tools that will enable us to develop it and go further.

By choosing climate change and its consequences for the European civil protection as the central theme of its mandate, the French Presidency of the Council of the European Union wants to place the major cause of this necessary adaptation at the heart of discussions. Recent events, such as those in the north of Europe and around the Mediterranean last summer, have unfortunately confirmed the necessity of this approach. Therefore, we must not weaken, but keep up and keep going forward with the work initiated in this direction.

The Presidency workshop "Impacts on climate change on EU civil protection" was met with high interest of the community. It allowed us to bring together delegates from the EU Member States, the Commission, and experts, to discuss the issues of adapting early warning systems, improving preparedness and operational planning, as well as enhancing response capacities in line with this systemic approach, climate change-related issues will be addressed in all fora during the next months, at a strategic level through recently endorsed Council Conclusions, as well as during all the events, including a full-scale exercise, organised during the mandate of the Presidency.

This work of taking stock of future consequences and impacts must allow us to better understand and process findings and protect ourselves. Our knowledge of and response to, climate change will depend on our realism and pragmatism, as well as on our ability to integrate risk assessments into long-term strategy. Lessons learnt and experiences should help us move forward in anticipation, mitigation, planning and operational implementation. Expertise, good practices, and skills must benefit all.

Harmonious results from strengthened cross-border and multi-sectoral cooperation, and from capitalising on the Knowledge Network - including the Disaster Risk Management Knowledge Centre and future centres of expertise with a risk-based approach working together in Europe - will pave the way for further synergies in future reflections and decisions.

The will is there. Let us build momentum and use all the resources at our disposal to adequately prepare for what is to come. Together.

Stéphane Thebault
Deputy Director in charge of International Affairs, Resources and Strategy
French Directorate General for Civil Protection and Crisis Management

IN THIS ISSUE

- UCPM response to Russia's invasion of Ukraine
- Legal changes on the horizon: rescEU and resilience of critical entities
- And the award goes to...
- Our community in action
- Upcoming events, learning opportunities & new resources
- And much more...



DRMKC & UCPKN 2022/2023

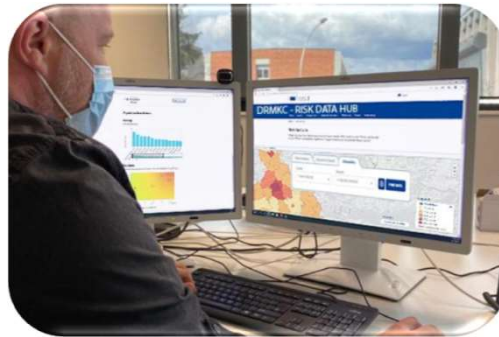


The 7th edition of the Forum, by the EC, 28 and 29 June 2022 in Brussels

#EuropeanYearofYouth #EYY2022



YOUTH IN CIVIL PROTECTION & DISASTER RISK MANAGEMENT
STUDY VISIT 11-12 OCTOBER 2022



Risk Data Hub Workshop 15 June 2022

6th DRMKC Annual Seminar

Advancing evidence-based policy and practice



6th DRMKC Annual Seminar, 22-23 Nov 2022



Dear Readers,
We are happy through our Presidency and we have already achieved many. However, together, we must be able to do so to continue our common work to strengthen the protection of our populations, in the words of President of France, the Council President and President, we are dealing with topics that are EU Member States are being impacted.
Hence, as they manage the COVID-19 pandemic, which has affected the whole world and the last year, the Russian invasion of Ukraine, which has impacted the biggest economic crisis since the end of the Second World War, and the increasing number of forest fires in Europe, which are having a devastating impact on the environment. This has led us to set up the European Union Civil Protection Knowledge Network.
Dear readers, we hope this topic, as our priority, we had no idea how the actual events would impact our world.
In a world where the climate and environmental changes are becoming more and more frequent, it is only when the partnership is made to become a meaningful partnership. You will find more about the workshop in an article within the issue of our Union Civil Protection Knowledge Network newsletter.
When responding to current and future crises, we should also consider adopting measures to long-term crisis in terms of sustainable and green construction, preparation, prevention, sheltering, response, emergency energy supplies and sufficient water supply, for example. We are at the starting point of a new paradigm that allows and encourages us to find a balance and a challenge for the future steps of the Civil Protection Knowledge Network (CPKN) and for the civil protection community as a whole.
I hope that in these difficult times, it is important to reflect what makes us strong. The CPKN and our European cooperation were built on mutual trust, friendship and responsibility. The challenge will be an important one, and we must do our best to be able to design and change it.
Thank you for any challenges you are facing us, our partners that at the end of it, Europe will be better prepared for long-term emergencies.

IN THIS ISSUE
- Workshop: The new paradigm in the Civil Protection Network
- The Civil Protection Knowledge Network
- Spotlight on CPKN
- Development of established partnerships
- Learning lessons, sharing experiences and new initiatives

13 Dan Wladimir Witek, Ph.D., MBA
Chair for Disaster Resilience Research of the Czech Republic

Union Civil Protection Knowledge Network Newsletters

Planned: Evidence for Policy School in the summer of 2023



UCPKN: what's in it for me?

*Become a
community
member!*



Policy makers

- Stronger evidence to support decision-making
- Better identification of gaps and strategic needs
- Cross-sectoral and multidisciplinary cooperation



Practitioners

- Easy access to guides, toolkits, good practices & lessons learnt
- Scenarios to support preparedness
- Networking opportunities to share and learn



Researchers

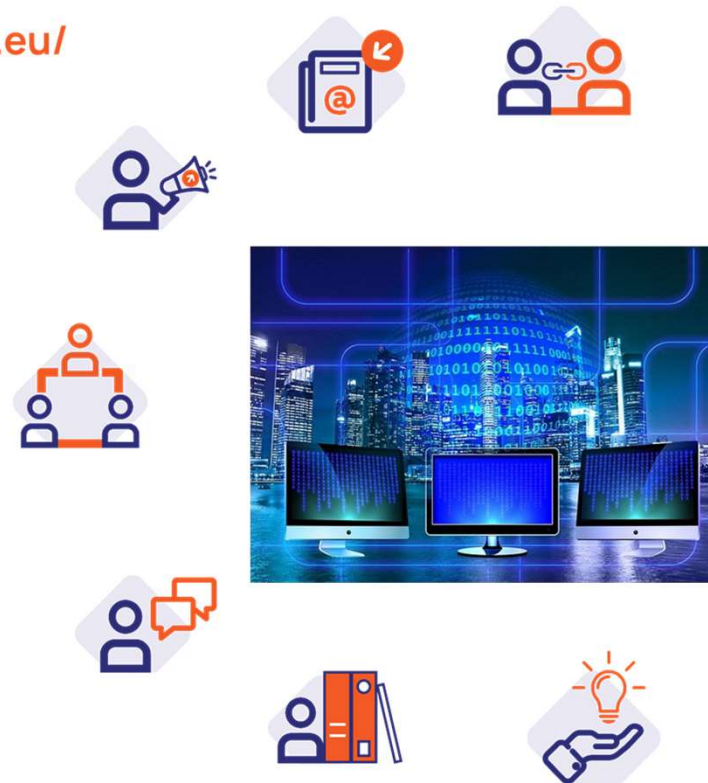
- Stronger ties between science and disaster management
- Effective dissemination of scientific findings
- Easier translation of scientific findings into UCPM practice

UCPKN online collaborative platform

UNION CIVIL PROTECTION
KNOWLEDGE NETWORK

<https://civil-protection-knowledge-network.europa.eu/>

- ✓ **Information and collaboration hub** for the civil protection and disaster risk management community in Europe
- ✓ Sectoral **news** and **events, stories and testimonials** from the UCPM community
- ✓ **Working spaces** for DRM projects for visibility and sharing
- ✓ Soon: single-entry point for Knowledge Network **training opportunities**
- ✓ Soon: discussion groups, knowledge library, improved interactive tools & databases, and more
- ✓ Never-ending work in progress: we improve with you and for you



Questions?

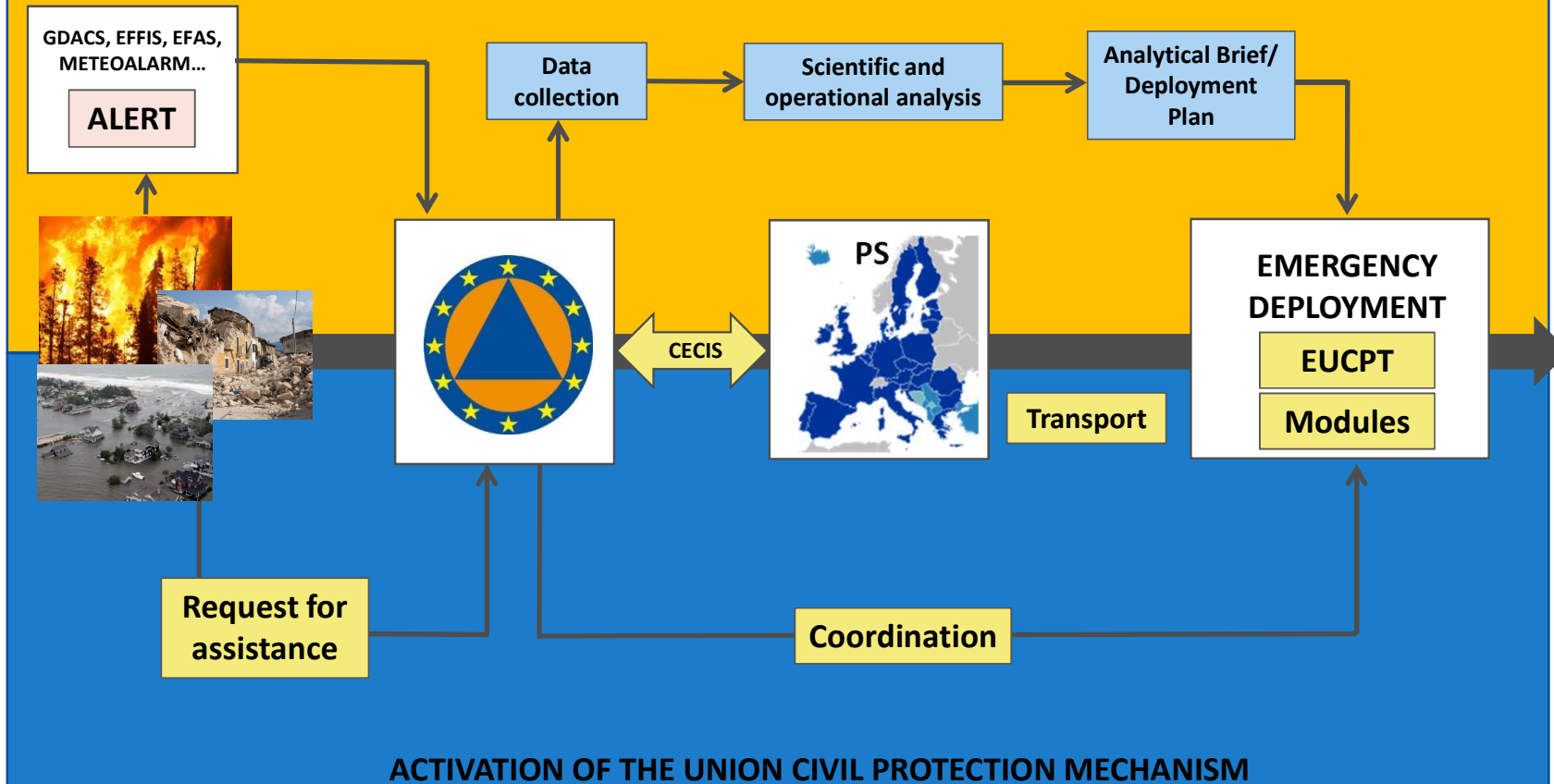


Use of scientific advice and evidence for prevention, preparedness and response

examples of operational use of DRM knowledge

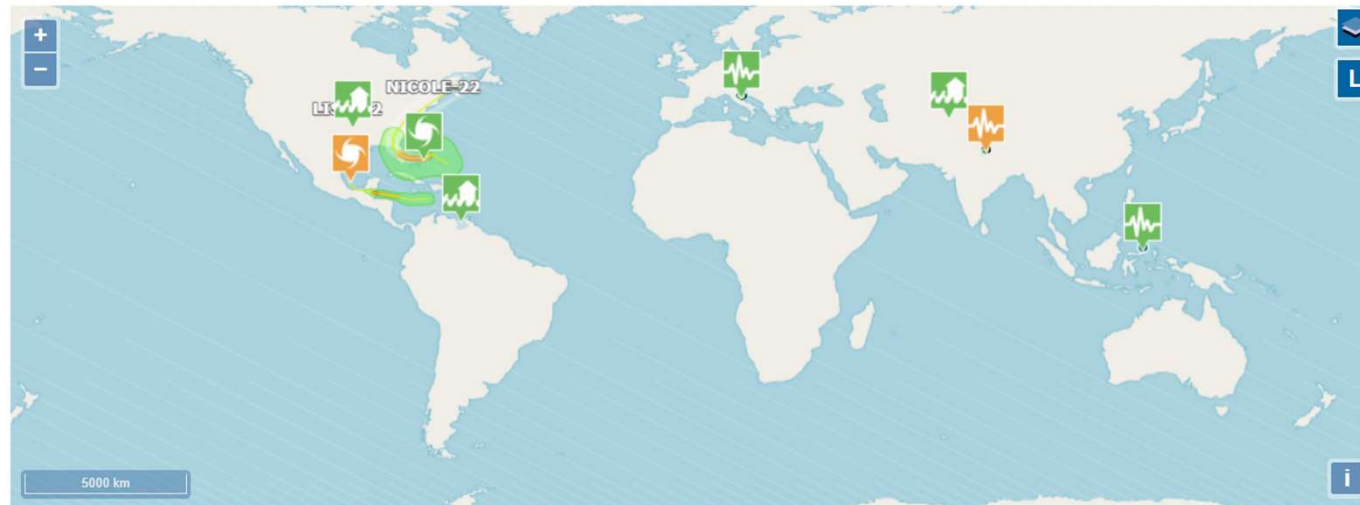
Ainara Casajus Valles, DG ECHO

ANALYTICAL AND SCIENTIFIC SUPPORT TO UCPM RESPONSE



Early Warning and Information Systems

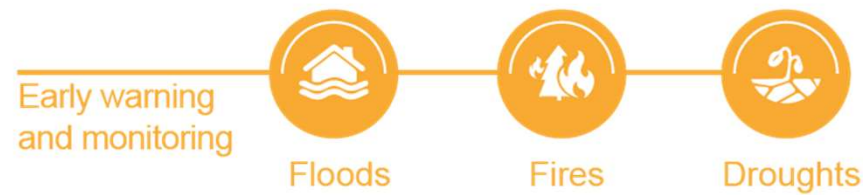
Global Disaster Alert and Coordination System (GDACS)



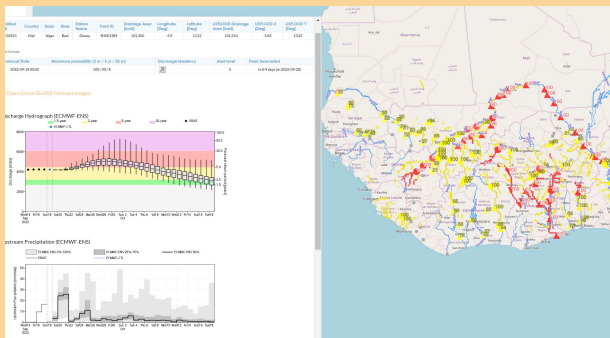
| EARTHQUAKES | TROPICAL CYCLONES | FLOODS | VOLCANOES | DROUGHTS | FOREST FIRES |
|--|---|-------------------------------------|--|--|--|
| Italy (M 5.6) - 09 Nov 06:07 | NICOLE-22 (120 km/h) - 09 Nov 03:00 | Venezuela - 06 Nov 2022 | Stromboli (Italy) - 09 Oct 2022 | Central South America-2019 - 151 Weeks | Mozambique (61835 ha) - 24 Oct 2022 |
| Nepal (M 5.6) - 08 Nov 20:27 | LISA-22 (139 km/h) - 05 Nov 15:00 | Afghanistan - 06 Nov 2022 | Fournaise, Piton de la (France) - 19 Sep 2022 | Patagonia (Argentina, Chile)-2022 - 107 Weeks | Mozambique (21724 ha) - 24 Oct 2022 |
| Celebes Sea (M 5.6) - 06 Nov 00:03 | FOUR-22 (65 km/h) - 05 Nov 2022 | United States - 05 Nov 2022 | Krysuvik (Iceland) - 03 Aug 2022 | Madagascar-2020 - 107 Weeks | Mozambique (11543 ha) - 24 Oct 2022 |
| Gulf Of California (M 6.1) - 04 Nov 2022 | MARTIN-22 (139 km/h) - 03 Nov 2022 | Malaysia - 03 Nov 2022 | Sakurajima (Japan) - 25 Jul 2022 | East Africa-2022 - 37 Weeks | Mozambique (15636 ha) - 17 Sep 2022 |

Early Warning and Information Systems

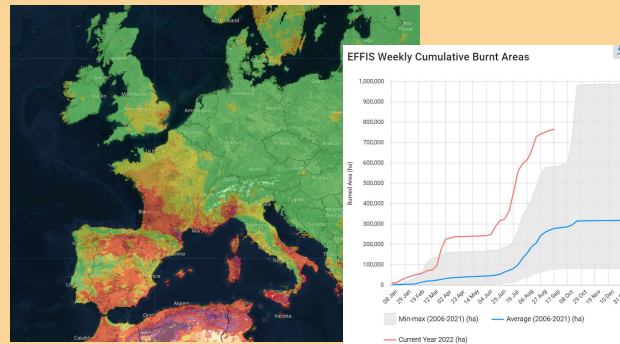
The Copernicus Emergency Management Service (CEMS)



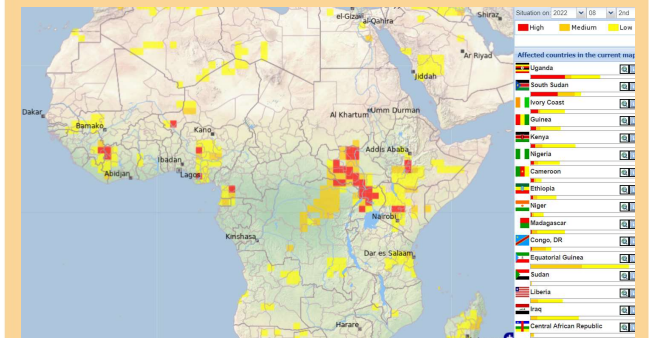
European & Global Flood Awareness Systems (EFAS & GloFAS)



European and Global Forest Fire Wildfire Information Systems (EFFIS & GWIS)

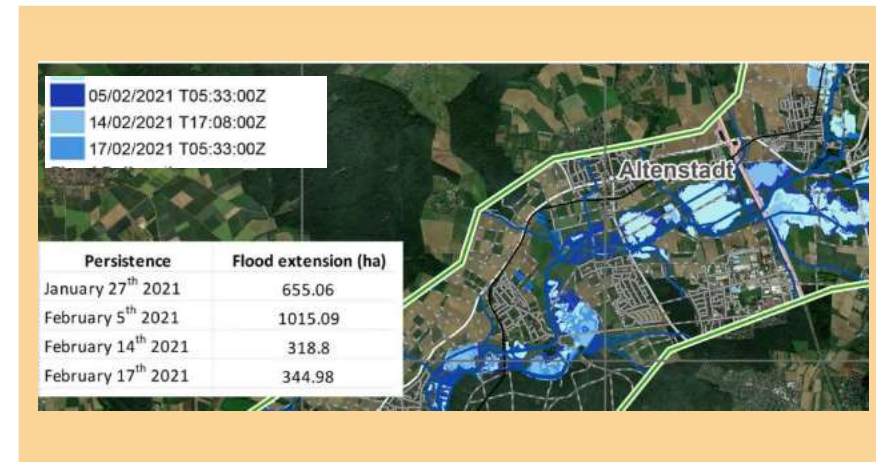
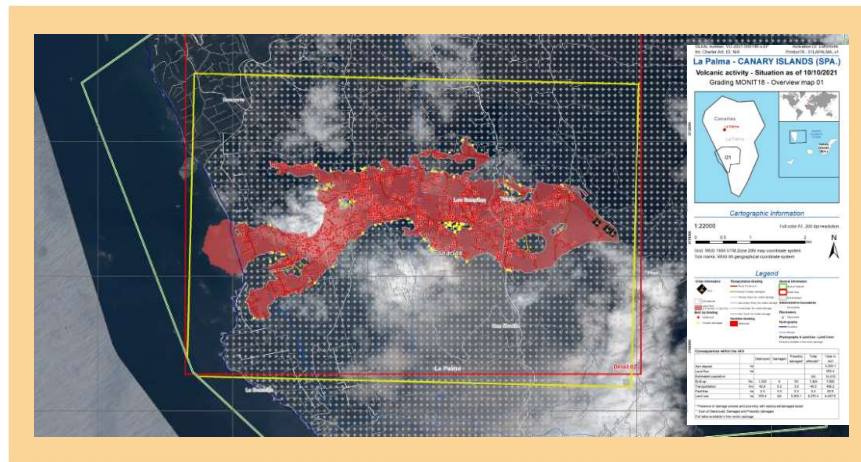


European & Global Drought Observatory (EDO & GDO)



Early Warning and Information Systems

The Copernicus Emergency Management Service (CEMS)



A satellite image of Tropical cyclone IDAI, showing a well-defined eye and a dense, swirling cloud structure over the Indian Ocean. The cyclone is positioned between the African continent on the left and the Indian subcontinent on the right. The text "Let's see in practice" is overlaid in yellow on the upper left portion of the image.

Let's see in practice

Tropical cyclone IDAI

March 2019



Tropical cyclone IDAI

- 10 March 2019. Alert



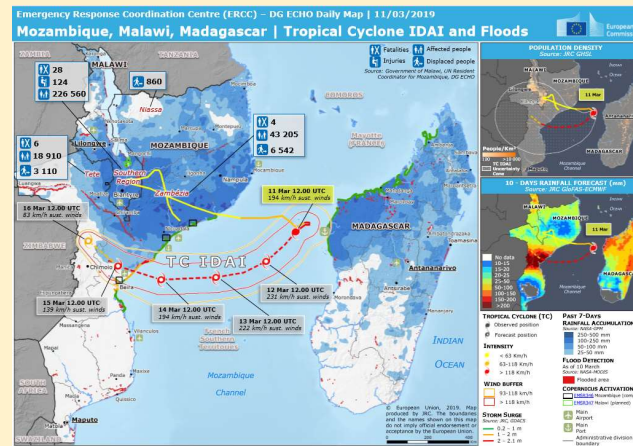
Tropical cyclone IDAI

- 10 March 2019. Alert
- 11 Mar 2019. ARISTOTLE activation

| ARISTOTLE 2-ENHSP EMERGENCY REPORT | | | | |
|---|--|----------|----------------|---|
| TROPICAL CYCLONE IDAI (MOZAMBIQUE) | | | | |
| MAIN DETAILS | | | | |
| Area | Mozambique (Africa) Operation mode Proactive | | | |
| Event start | 14 March 2019, 00:00 UTC Event end 17 March 2019, 00:00 UTC | | | |
| Report created | 10 March 2019, 09:40 UTC Report finalized 10 March 2019, 10:49 UTC | | | |
| EXECUTIVE SUMMARY | | | | |
| • Tropical system IDAI in the Mozambique Channel is going to intensify and perhaps making landfall over Mozambique on Thursday March 14 or Friday March 15 as an intense tropical cyclone. The uncertainties are relatively high with the forecast, but in the worst scenario IDAI would bring wind speeds more than 110 kt and total precipitation amount of 300-600 mm during several days near Beira region in Mozambique. | | | | |
| GEOGRAPHICAL LOCATION | | | | |
| MOZAMBIQUE: -19.08 35.33 | | | | |
| OVERALL IMPACT | | | | |
| Medium | | | | |
| LACK OF COPING CAPACITY | | | | |
| Mozambique HIGH (6-6) | | | | |
| ALERT LEVEL | | | | |
| Required Resources | High | Medium | Low | X |
| | Sub-national | National | Other national | |

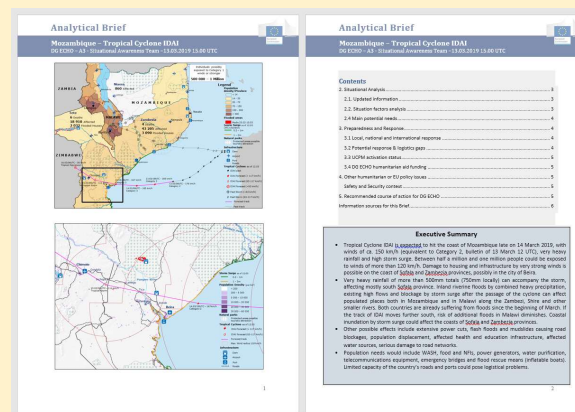
Tropical cyclone IDAI

- 10 March 2019. Alert
- 11 Mar 2019. ARISTOTLE activation
- 11 Mar 2019. Daily Map



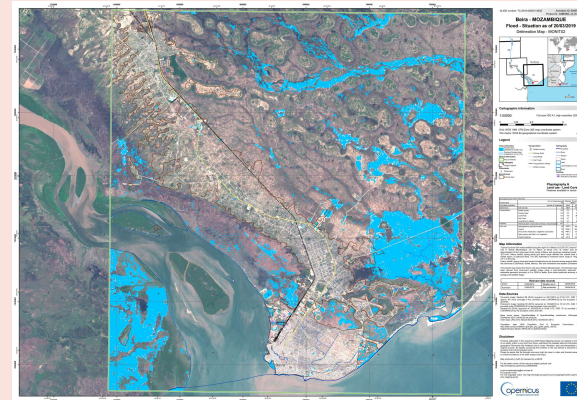
Tropical cyclone IDAI

- 10 March 2019. Alert
- 11 Mar 2019. ARISTOTLE activation
- 11 Mar 2019. Daily Map
- 13 Mar 2019. Analytical Brief



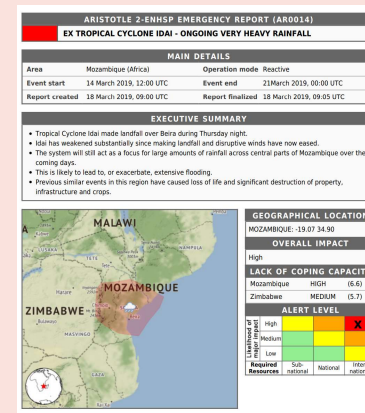
Tropical cyclone IDAI

- 15 March 2019. Copernicus Rapid Mapping



Tropical cyclone IDAI

- 15 March 2019. Copernicus Rapid Mapping
- 18 March 2019. ARISTOTLE activated

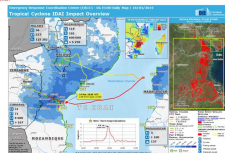


Tropical cyclone IDAI

- 15 March 2019. Copernicus Rapid Mapping
- 18 March 2019. ARISTOTLE activated
- 18 March 2019. Deployment Plan

ERCC Deployment Plan
 (DIT, 25.4 - UCTM Commission implementing decision 0042792/2019)
 Mozambique – Tropical Cyclone IDAI
 Situational Assessment Team - Draft as of 18 March 2019

1. Map



2. Executive Summary

- Intense Tropical Cyclone IDAI is expected to make landfall late on 18 March on the coast of Mozambique in the province of Inhambane and Inhacane, southwards between the cities of Beira and Chimoio.
- IDAI makes landfall at the forecast strength (a 33 km/h) of Cat 4 equivalent, it will be one of the strongest tropical cyclones to hit Mozambique in the past 50 years. Consequently, the population exposed could be high, especially in the coastal and more remote areas of Inhambane and Inhacane provinces.
- Mozambique and Inhacane have always been hit by floods since the first days of March. There are already about 30,000 affected by floods in the two countries.
- Potential impact: between 100 000 and one million people could be exposed to winds of more than 120 km/h. Damage to houses and infrastructure by strong winds in the coastal of Inhambane and Inhacane provinces, possibly in the city of Beira, Inhacane power cuts, road blocks and inundation (causing road blockages). Coastal conditions by storm surge. Evacuation facilities in case of fire, avoid river floods by connected ferry operations, existing high flows and blockage by storm surge. Population displacement, affected health and education infrastructure.
- Limited capacity of the country's roads and airports could pose logistical problems.
- Potential needs would include shelter, supplies, food and water, power generators, water purification, telecommunications equipment, emergency bridges and flood rescue assets (inflatable boats).

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ERCC Deployment Plan
 (DIT, 25.4 - UCTM Commission implementing decision 0042792/2019)
 Mozambique – Tropical Cyclone IDAI
 Situational Assessment Team - Draft as of 18 March 2019

- For the time being, an activation of the UCTM is not expected.

3. Description of the emergency situation

3.1. Situational Analysis

- Tropical cyclone IDAI made landfall on 18 March around 22:00 (UTC) on the coast of Mozambique in the province of Inhambane and Inhacane, approximately 50 km to the west of the city of Beira.
- IDAI is one of the strongest tropical cyclones to hit Mozambique in the past 50 years.
- Winds gust force landfall were up to 148 km/h. The radius of hurricane force winds (1-120 km/h) was of 25 km, which fully covered Beira.
- The storm surge has been estimated at 3.0 m on the coastline.
- The sea level raised from the combination of storm surge and tide could be particularly severe in the area, as the maximum storm surge peak will occur at high tide conditions.
- Severe damage has been done to the houses by high surge, according to satellite images. The full extent of the damage caused by Cyclone IDAI's landfall is not yet known. The initial assessment of the international intervention of Red Cross and Red Crescent Societies (ICRC) reported that 90% of the Beira area is completely destroyed.
- Oil storage (in houses and infrastructure) including chemical plants is expected by strong winds, storm surge and flooding, on the coast of Inhambane and Inhacane provinces, and in particular in the city of Beira.
- Oil storage units of 100 m³ capacity are reported to be full, broken and overflowing.
- 900 000 people (national population) (radius of Mozambique coast) that 500 000 people will need assistance for a total of 100 000 tonnes.

3.2. Main potential needs

- Water (Water Purification Tablets, Water Purification Tablets, hygiene kits & disinfectants, iodine sanitiser/bottles)
- Shelter and related shelter items
- Medical items (emergency medical care items)
- Communication, Logistics and Transportation (on establishment of destroyed or damaged networks)
- Operations (Waste management, water management, Environmental)
- Transport assets (helicopters)
- Flood rescue assets (inflatable boats)
- Inland evacuation

3.3. Available European Emergency Response Capabilities

| Resource | Available | Capacity |
|---------------------------------------|-----------|----------|
| Flood Rescue (Dry Buoy) | 3 | 120 000 |
| Technical Assistance and Support Team | 2 | 100 |

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Other examples of DRMKC science advice for policy makers

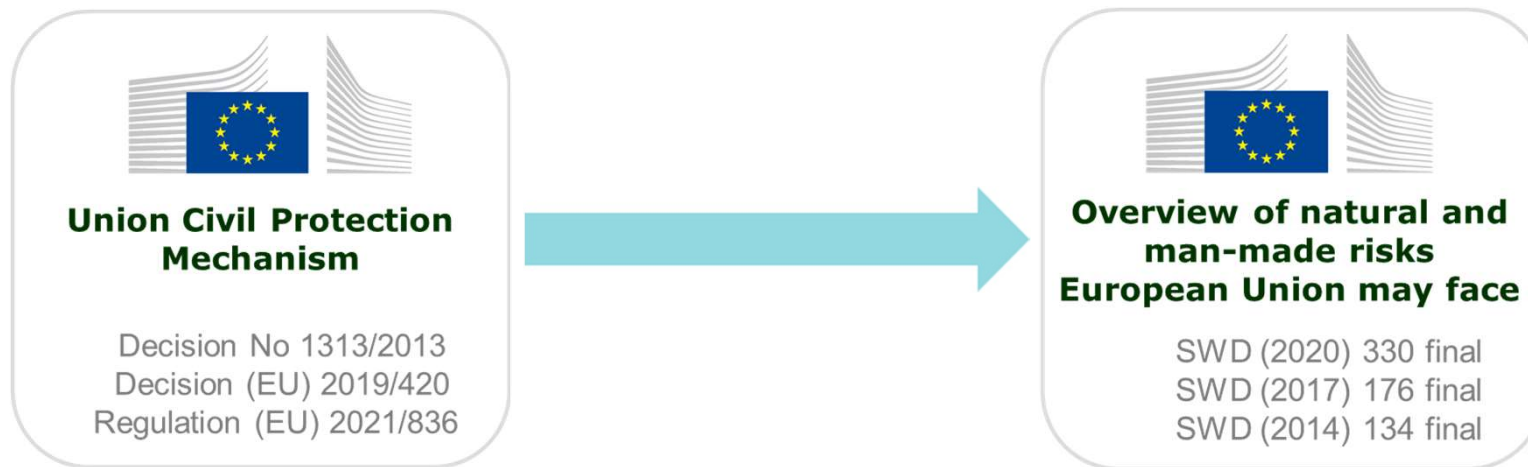
Science for DRM Reports



Recommendations for National Risk Assessments



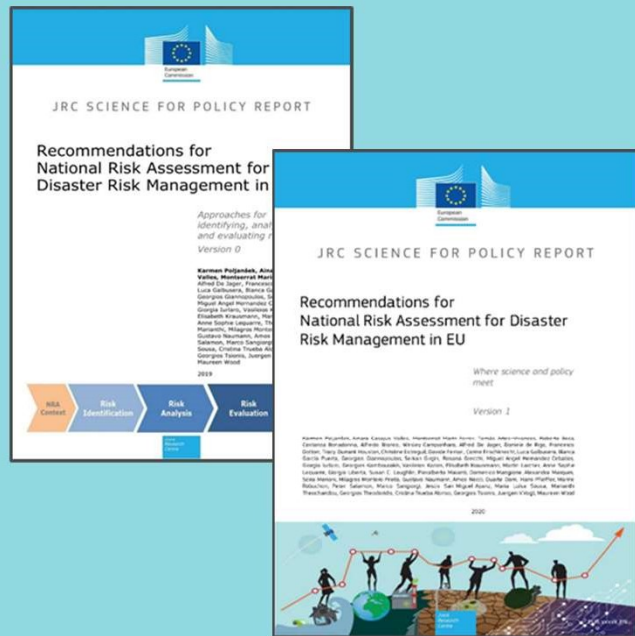
Risk Management: risk assessments and risk management capability assessments



Member States are asked to make available to the European Commission a summary of their national risk assessments and the assessment of risk management capabilities every 3 years

Recommendations for risk assessment

To support the implementation of disaster risk strategies



Contribution of **14 teams of experts** for risks of natural, technological and anthropogenic nature.

- Step by step description of the process, data and tools for risk identification, analysis and assessment.
- Approach to move towards multi-hazard assessments.
- Examples of risk treatment measures for the hazards tackled.
- Approach to strengthen disaster risk management capabilities.

Science for DRM Reports

To bridge science and policy as well as operational communities



Collaborative effort of **more than 250 experts** for each of the volumes.

- Understanding disaster risk, communicating disaster risk and managing disaster risk.
- Provide science-base approaches and solutions in disaster risk management.
- Provide guidance to the stakeholders on working together across sectors, disciplines and organisations.
- Recognition of knowledge gaps, to be addressed by future research and development projects.

Questions?




Slido for feedbacks

- Give us some feedbacks before leaving!

slido

Join at
slido.com
#4284 690



Thank you

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

ERCC portal | <https://erccportal.jrc.ec.europa.eu/#/echo-flash-items/latest>

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