



# Union Civil Protection Knowledge Network

Activities Report 2022-2023





Manuscript completed by: Directorate-General for European Civil Protection and Humanitarian Aid Operations, in January 2024.

Print ISBN 978-92-76-99456-5 doi :10.2795/33692

KR-AG-23-001-EN-C

PDF ISBN 978-92-76-99457-2 doi: 10.2795/336116

KR-AG-23-001-EN-N

ISSN 2811-6968

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# Foreword

The launch and the first steps of the Union Civil Protection Knowledge Network took place at a time of unprecedented international challenges, with natural disasters and conflict leading to a historically large number of activations of the EU Civil Protection Mechanism (UCPM). In this difficult global context, knowledge sharing and developing a strong community of civil protection practitioners became more important than ever.

That is why the Knowledge Network was created. Shaped around the challenges facing civil protection, the Network was set up with three goals: to increase collaboration and build a stronger civil protection community, to support knowledge sharing, and to promote innovation and dialogue on research. In just two years, the Network has already demonstrated its value in these three areas.

The Knowledge Network's role as 'partnership facilitator' has been paramount. From capacity strengthening projects, through community building events, to communication and awareness raising activities, the Network puts collaboration at the heart of its interactions with the civil protection and disaster risk management (DRM) community in Europe. It is a pleasure to see the expanding circle of community members and organisations engaging with these diverse activities.

Under the second goal, the Network has acted as a 'knowledge broker' by facilitating knowledge sharing among experts, offering them a space to learn and work together. Our community has been extremely busy, with close to 100 different training courses and workshops, as well as over 40 civil protection exercises, taking place during 2022–2023. Peer to peer learning and knowledge exchange also went from strength to strength, with our Exchange of Experts, Peer Review and Lessons Learnt programmes continuing to grow.



The Knowledge Network has also strived to provide the UCPM community with access to high-quality data and analytical tools and support innovation in civil protection and DRM. Highlights have included a new interface for the Risk Data Hub, the enhancement of crisis analytical tools, and support to the science-policy-practice interface.

While the achievements of the Knowledge Network over the past two years should certainly be acknowledged, we know that none of this could have been achieved without our partners. The Network was always intended to be a tool that was 'by the community, for the community', and we are extremely grateful to our Network for their support throughout this process.

This year's Civil Protection Forum in June will be a key opportunity for our community to come together to take stock of what the Knowledge Network and the UCPM has achieved, as well as to consider where it needs to go next. As our civil protection family continues to grow, we look forward to seeing what we can achieve together over the next few years.

**Maciej Popowski**

Director-General, Directorate-General for  
European Civil Protection and Humanitarian Aid  
Operations





# Highlights of 2022

**20–25 March**

**Estonia**



## Exchange of Experts

Exchange of information and good practices on rope and mountain rescue.

**01–31 July**

**Greece**



## Exchange of Experts

Firefighters exchanged good practices and supported the Greek teams with combatting wildfires.

**28–29 June**

**Belgium**



## 7th European Civil Protection Forum

The UCPKN organised two workshops and hosted an exhibition stand as a hub.

**26–29 April,**  
**Bosnia & Herzegovina**



## ResponSEE full scale exercise

Teams from six countries met to test national procedures and capacities for a large scale emergency.

**16–20 May**

**France**



## DOMINO full scale exercise

The exercise simulated response to a chemical risk and maritime pollution event. It engaged participants from 21 countries.

**29 November –  
02 December**  
Portugal



#### EU MODEX

More than 500 civil protection experts were involved in this 48-hour uninterrupted exercise to test the capacity of USAR modules.

**21–24 November**  
Jordan



#### Host Nation Support Table Top Exercise

Table top exercise to strengthen knowledge and capacities of Jordan's international assistance in response operations.

**11–12 October**  
Belgium



#### Youth in Civil Protection and Disaster Risk Management (DRM) study visit

Study visit for young people from UCPM member and participating states on civil protection and disaster risk management.

**03–07 October**  
Romania



#### Peer Review

A team of peer experts supported Romania with highlighting good practices and areas of improvement on disaster risk governance.

**08–11 September**  
Austria



#### EU MODEX

This field exercise tested Urban Search and Rescue (USAR) and Cave SAR modules and a drone assessment team in an earthquake scenario.

# Highlights of 2023

**20-23 January**

**Denmark**



## EU MODEX

Field Exercise in which four modules from Azerbaijan, Czechia, France and Italy were trained in USAR.

**22-24 February**

**Moldova**



## Host Nation Support table top exercise

More than 90 civil protection experts from 14 countries took part. It was followed by a lessons learnt conference in March in Brussels.

**08-12 May**

**Norway**



## Arctic Reihn full scale exercise

UCPM scenario that depicted an accident on a nuclear-powered ship in the Arctic and its consequences.

**29-31 May**

**Italy**



## Evidence for Policy Summer School in DRM

Summer school focusing on enhancing collaboration between science and policy

**24-28 April**

**Germany**



## Table top exercise

Training scenario involving flooding and an earthquake, with 26 participants.



**21 November**  
**Belgium**



**DRMKC 7th Annual Seminar**

A seminar that brought together stakeholders to reflect on how to define the pathways to a more resilient EU, especially on climate and disaster risks.

**9-13 October**  
**Armenia**



**Full-scale exercises**

HOPE: A joint effort between Armenian and international participants. The exercise focused on evaluating and refining disaster response measures.

**24-25 October**  
**Belgium**



**Young Civil Protection Professionals Event**

Event comprising pitches, workshops and a visit to the ERCC aimed at young civil protection professionals.

**5-8 September**  
**Italy**



**Launch of the new UCPM Training Programme**

Union Mechanism Introduction Course takes place as the first course of the new training programme.

**30 May - 1 June**  
**Sweden**



**Meeting of the Directors of Civil Protection and Firefighting Schools**

Organised under the Swedish Presidency of the Council of the EU.

# Introduction

7 December 2021 marked the informal 'birthday' of the Union Civil Protection Knowledge Network. With clear expectation from the core community – national civil protection authorities of UCPM member and participating states – that the Network would first take stock of existing initiatives, review them, and contribute to their strengthening, the first two years of its functioning focused on doing exactly that.

The Knowledge Network is shaped around the serious challenges facing European civil protection nowadays. The interdependencies of our societies mean it is vital that we have systems that operate well together at all levels, which can be achieved by ensuring that shared expertise and knowledge exchange is well supported. This premise has informed our joint reflection on the roles and strategic priorities of the Knowledge Network, which resulted in its [Strategic Plan 2022-2026](#). 2022 and 2023 were the years when we turned these priorities into action.





This activities report sets out key achievements, results and lessons learnt so far under each of the Knowledge Network's three goals – 'Stronger Community', 'Shared Knowledge for Action', and 'Research that Matters'. The activities described on the pages that follow were implemented by different teams in different Commission services, in close collaboration with the UCPM member and participating states and other civil protection and DRM stakeholders.







## Goal 1: Stronger Community

### Supporting collaborative initiatives of civil protection and disaster risk management actors

The Union Civil Protection Knowledge Network's first two years took place in a global context where knowledge sharing between civil protection and DRM policymakers, scientists, and practitioners was more important than ever.

The complexity and transboundary character of hazards and disasters are such that no pool of expertise, knowledge and good practices is exhaustive. This is why one of the key objectives of the Union Civil Protection Knowledge Network is to gather civil protection and DRM stakeholders to work together, collaborate and learn from each other. The first two years of the Knowledge Network have been essential in shaping its role as a partnership facilitator, with many activities focused specifically on facilitating communication and partnership building between members of the community, at different levels and across disciplines.

#### Partnerships as a key to disaster resilience

Project funding under the Union Civil Protection Mechanism (UCPM) supports prevention and preparedness activities across borders and risks, and in-depth within systems, for better prevention of and preparedness for crises when they do happen. Until 2022, there were two funding instruments to support multi-country projects targeting these topics: 'Prevention and preparedness on cross-border risks and marine pollution' (first introduced in 2007), and the 'Knowledge Network Partnership' (launched in 2020).

Under the umbrella of the multi-country grants, a total of 55 multi-country projects were implemented<sup>1</sup> throughout 2022 and 2023. They brought together 224 organisations from 47 eligible countries: UCPM member and participating states, as well as enlargement and neighbourhood countries (see Figure 1). The consortia truly reflected the diverse civil protection and DRM community, engaging in collaboration with national civil protection authorities, local and regional authorities, first responders' organisations, universities and research institutes, civil society organisations and private sector entities.

1. 'Projects implemented' refer to those projects which actively carried out activities within the given timeframe.

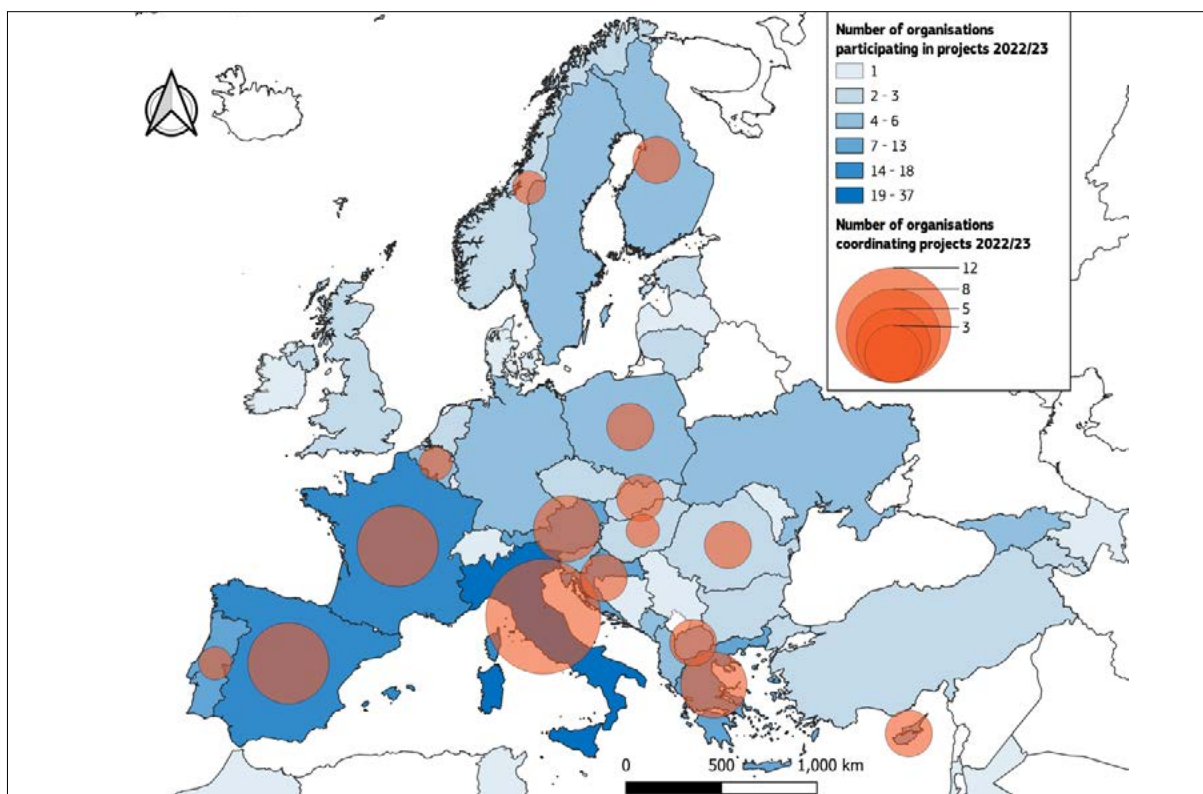


Figure 1. Organisations participating in multi-country projects implemented in 2022 and 2023, © EU

The projects tackled a broad range of topics, from improving local and regional risk assessment and risk management methodologies (e.g. see Trans-Alp project, below), through the development of tools and procedures to enhance early warning or inform response operations, to the collection of good practices across the DRM cycle. The projects' consortia implemented many research and capacity-building activities, including those with a multi-hazard or hazard-specific approach (e.g. wildfires, floods, earthquakes) and with a regional (e.g. Danube region, Baltic Sea, Alpine region) or pan-European focus. Results of most of these projects were captured on a dedicated online platform developed by the Knowledge Network.

### Transboundary Storm Risk and Impact Assessment in Alpine regions (Trans-Alp)

**EU contribution:**  
EUR 501 795

**Implementation:**  
01/01/2021 - 31/12/2022

**Partner countries:**  
Italy, Austria

Funded through the call for cross-border prevention and preparedness projects, the Trans-Alp project analysed multi-hazard risk assessments and their impact for mountainous cross-border regions between Italy and Austria. It focused on severe storms because of their representation of complex hazards with cascade or compound elements – such as wind gusts, floods, or landslides. Trans-Alp's practical tools and methodologies for cross border impact support risk assessments for impact forecasting and prevention of events like severe storms in Alpine regions.

## International Network of Evaluators and Guideline for a Methodological Approach to Exercise Evaluation (INEGMA-E2)

### EU contribution:

EUR 459 950

### Implementation:

01/02/2022 – 30/06/2023

### Partner countries:

Romania, Finland, Germany, Poland, Austria

The Knowledge Network partnership project INEGMA-E2 developed Standard Operating Procedures for the evaluation of civil protection exercises. Good practices were examined during the pre-exercise, exercise, and post-exercise phases. By exploring several existing data collection methodologies and technical solutions, tools for the evaluation of disaster management exercises were further developed. Additionally, the project identified and prioritised a set of skills and competencies that evaluators should have and developed a training concept to ensure high-quality evaluation of exercises.

In 2023, the different funding instruments for prevention and preparedness were merged, giving rise to the **Knowledge for Action in Prevention and Preparedness (KAPP)** call. The KAPP call aims to identify projects strengthening cooperation among UCPM member and participating states on disaster prevention and preparedness, as well as providing a testing environment and a learning opportunity for all stakeholders involved in civil protection assistance interventions, through full-scale field exercises. It also supports the implementation of the Union Disaster Resilience Goals<sup>2</sup>.

The first edition of the call resulted in a total of 30 submissions, of which 16 were selected for funding. A total amount of EUR 13.7 million has been made available to co-finance the selected projects (see Figure 3). This is an increase of EUR 2.6 million when compared with the combined budget of the Knowledge Network Partnership and Prevention and Preparedness calls in 2022<sup>3</sup>.

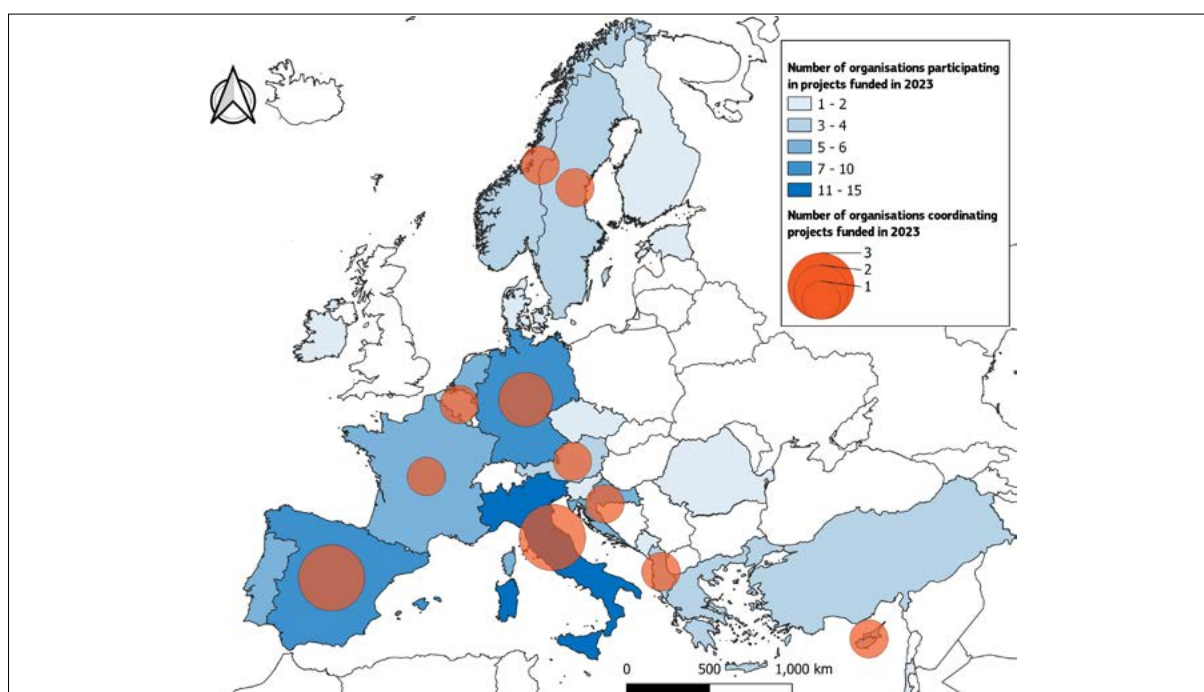


Figure 2. Multi-country projects selected for funding under the 2023 Knowledge for Action in Prevention and Preparedness call, © EU

2. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, European Union Disaster Resilience Goals: Acting together to deal with future emergencies, [EUR-Lex - 52023DC0061 - EN - EUR-Lex \(europa.eu\)](#)

3. The UCPM full-scale exercises call for proposals was not implemented in 2022.



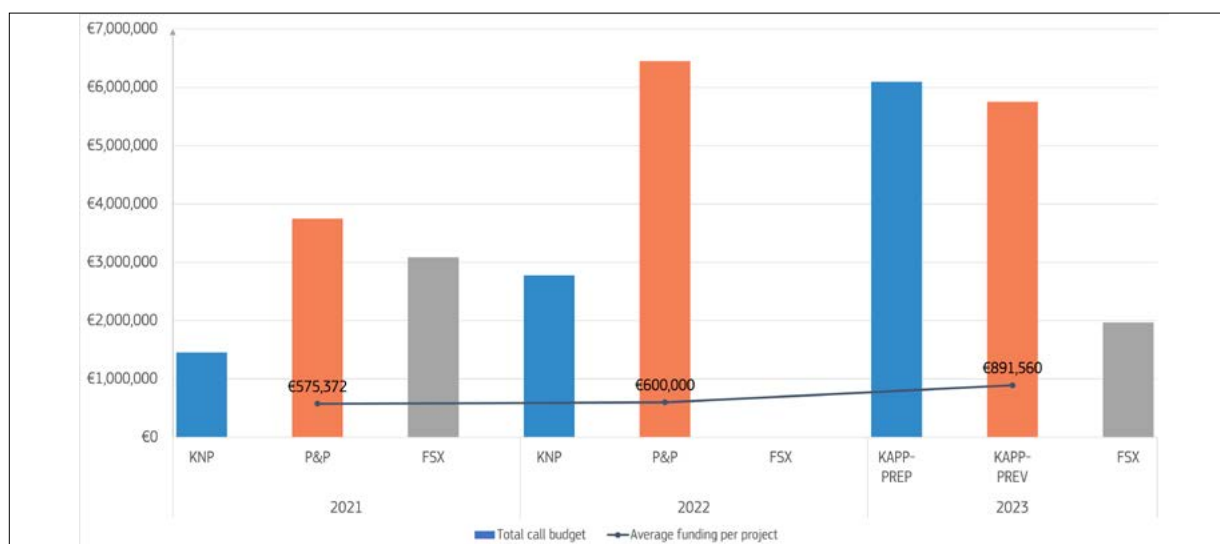


Figure 3. Overview of funds awarded to projects on cross-border prevention and preparedness action (Knowledge Network Partnership – KNP and Prevention and preparedness on cross-border risks and marine pollution – P&P), as well as full-scale exercises (FSX), between 2021 and 2023, © EU

## Technical assistance as a key to strengthening national capacity

In order to support national civil protection authorities directly, grants are awarded to single-country projects under 'Technical Assistance for Disaster Risk Management' (launched in 2019).

24 single-country technical assistance projects funded by the UCPM were implemented in 14 countries in 2022 and 2023: Belgium, Croatia, Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Montenegro, North Macedonia, Romania, Slovenia, Spain, and Türkiye (see Figure 4). Their respective national civil protection authorities used the funding to improve their information and communication systems, to strengthen their risk management planning, and to enhance their overall civil protection systems (e.g. see technical assistance project in Türkiye, below).

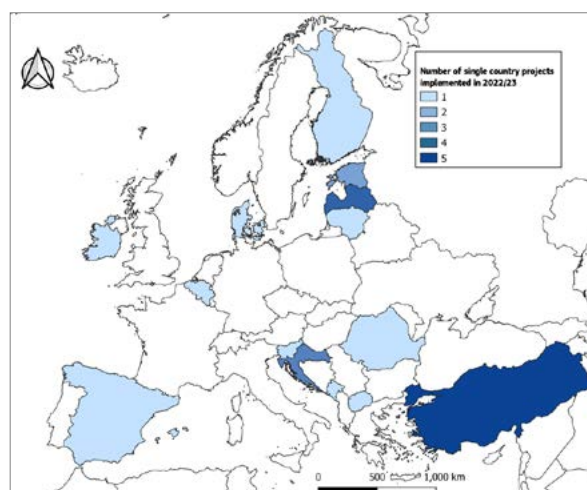


Figure 4. Single country projects implemented throughout 2022 and 2023, © EU

### Technical assistance project: 'The Effect of Climate Change on Critical Infrastructures specifically for the Energy Sector in Pilot Region: İzmir – Aliağa (Türkiye)'

#### EU contribution:

EUR 536 500

#### Implementation:

01/01/2021 – 28/02/2022

Supported through the technical assistance strand of the UCPM Prevention and Preparedness funding, the project was managed by the Ministry of Interior, Disaster and Emergency Management Presidency (AFAD) of Türkiye and finished in February 2022. The project analysed the risks of technological disasters and climate change for critical infrastructure in the energy sector, investigated good practices, and offered capacity building and awareness raising for the adaptation of critical assets to climate change in the pilot region İzmir – Aliağa.

15 additional projects were selected for funding in 2023 under **Technical Assistance for Disaster Risk Management** (previously known as 'Track 1'), providing financial support to national civil protection authorities of UCPM member and participating states for the development of prevention and preparedness strategic activities, with funding totalling EUR 7.6 million. Albania, Belgium, Bulgaria, Croatia, Estonia, Finland, Lithuania, Moldova, Montenegro, Portugal and Türkiye benefitted from these grants in 2023. The projects focused, for example, on risk assessment and public awareness raising.

## Networking and collaboration as a key to inclusive community

Since its inception, the Knowledge Network has delivered a range of services and products to its community, which supported exchange and networking between peers and cooperation across different sections of the civil protection and DRM community. Highlights of the two years included the Knowledge Network's participation in the 7th edition of the European Civil Protection Forum, two editions of the study visit for young professionals in civil protection, a significant expansion in the distribution of the Knowledge Network newsletter, and a sharp increase in activity on its online platform.

With around 1,000 online and in-person participants, the **7th European Civil Protection Forum** was 'the' place in 2022 to meet the civil protection community and find opportunities for knowledge sharing, networking, and collaboration.

The Knowledge Network was actively involved in the organisation of the Forum, with an exhibition stand (see Figure 5) and workshops on the digitalisation of UCPM training (see Figure 6) and on the use of data and science for understanding and reducing risks. The Forum will continue as one of the flagship activities of the Knowledge Network, with the next edition planned for 4–5 June 2024.



Figure 5. The Knowledge Network stand at the exhibition accompanying the 2022 European Civil Protection Forum, © EU

While the Forum was a unique opportunity to engage with established professionals, the Knowledge Network proposed to go one step further and invest in the emerging generation of the UCPM community. In the spirit of the **European Year of Youth**, it organised a **two-day study visit in Brussels in October 2022** for young people interested or already involved in civil protection and DRM. The event was an opportunity to learn about the general architecture of the UCPM and different realities of working in the civil protection sector, explore the topic of evidence-based decision making in crisis situations, share experiences, and network (see Figure 7). The 55 young participants from 25 UCPM countries and the European Commission who attended the event also had an opportunity to visit the Emergency Response Coordination Centre (ERCC) and participate in a simulation exercise on UCPM Information Management.

Renamed as the '**Young Civil Protection Professionals Event**' (YCPP), the second edition in October 2023 brought together another 66 young participants from the member states and participating states and from the European Commission, providing an opportunity to connect and collaborate through interactive and stimulating workshops. A new line-up of workshops was proposed in 2023 on wildfire response management (see Figure 8), strategic foresight in DRM and virtual operations support teams.

A unique feature of the event for young community members was the diversity of their profiles and richness of the experience they could already share at the onset of their careers in the sector. Among the participants there were students, researchers, professional and volunteer firefighters, medical personnel, civil protection experts, police and military officers, communication and IT experts, vulcanologists, and a marine biologist.



Figure 6. Participants of the workshop on digitalisation of civil protection training at the 2022 Civil Protection Forum, © EU



Figure 7. Participants of the UCPKN Youth Event 2022, © EU



Figure 8. Wildfire workshop at YCPP event 2023, © EU



## Communication as a key to better understanding

One of the Knowledge Network's objectives is to facilitate communication between civil protection and DRM stakeholders at different levels and across disciplines. This extends to providing additional visibility to UCPM activities and nurturing the sense of community among key audiences.

The Knowledge Network's main communication channel is its **online platform**, which in the long run aims to become the information and collaboration hub for the civil protection and DRM community in Europe. The platform received a soft launch in December 2021. It served at that time as an information site, with details on the Knowledge Network, its governance set-up, and key activities under its capacity development and science pillars.

The main development during the first year was the addition of the news, stories, and events features, as well as dedicated project working spaces. Since then, a total of **260+ news stories, 90+ community stories and 190+ events** have been published on the platform. In 2023, 25% of this rich content was directly contributed by the community members (e.g. coordinators of UCPM-funded projects).

Content was published based on an editorial calendar which incorporated the main civil protection events across UCPM member and participating states, as well as proactive ideas for stories or interviews, often based on suggestions received by projects themselves. International 'days' (for example, the International Day for Disaster Risk Reduction) also provided an opportunity to spotlight the work of individuals in the Knowledge Network community, such as volunteers, young people and firefighters, and themes like maritime safety and disaster risk reduction.

### Community story: Women in civil protection

On International Women's Day 2023, we heard from some of the women working in civil protection. The theme of International Women's Day was #EmbraceEquity, calling for gender equity to be part of every society's DNA. Our featured experts shared their thoughts on how the UCPM is achieving this and gave us an [insight into their own work](#).

UCPM projects can now create content on their own project pages<sup>4</sup>, and 2022-2023 saw an increasing number of them using this space to promote their events and project results. At the end of 2023, the project working spaces were also opened to relevant Horizon research projects to facilitate better knowledge exchange between their research activities and the more operational or capacity development focus of UCPM projects.

In 2023, development continued with the addition of discussion and information sharing groups, a more secure onboarding process for the platform, and the creation of a resource library for easy access to files and documents from various stakeholders. The latter is currently undergoing testing and content development, and will be launched publicly in early 2024.

4. As of 2023, projects funded under the UCPM no longer receive financial support to develop and maintain their websites. Instead, they are invited to use the UCPKN platform as their space for online communication, engagement with the civil protection and DRM community, and sustainability of the project results.

New features for both information sharing and collaboration, as well as additional content (for example, the [EU overview of risks and risk drivers](#)), have resulted in a steady increase in traffic and engagement of the community (see Figure 9), with more than tenfold growth of visitors (from 410 in February 2022 to 4,765 on average in the last quarter of 2023) and unique page views (from 2,800 in February 2022 to 12,974 on average at the end of 2023). In addition, close to 900 individuals decided to join the Union Civil Protection Knowledge Network (UCPKN) online community by the end of 2023. While there is a lot of space for growth and improvement, these trends are clear evidence that the UCPM community was in need of an online space that they could claim as their own.

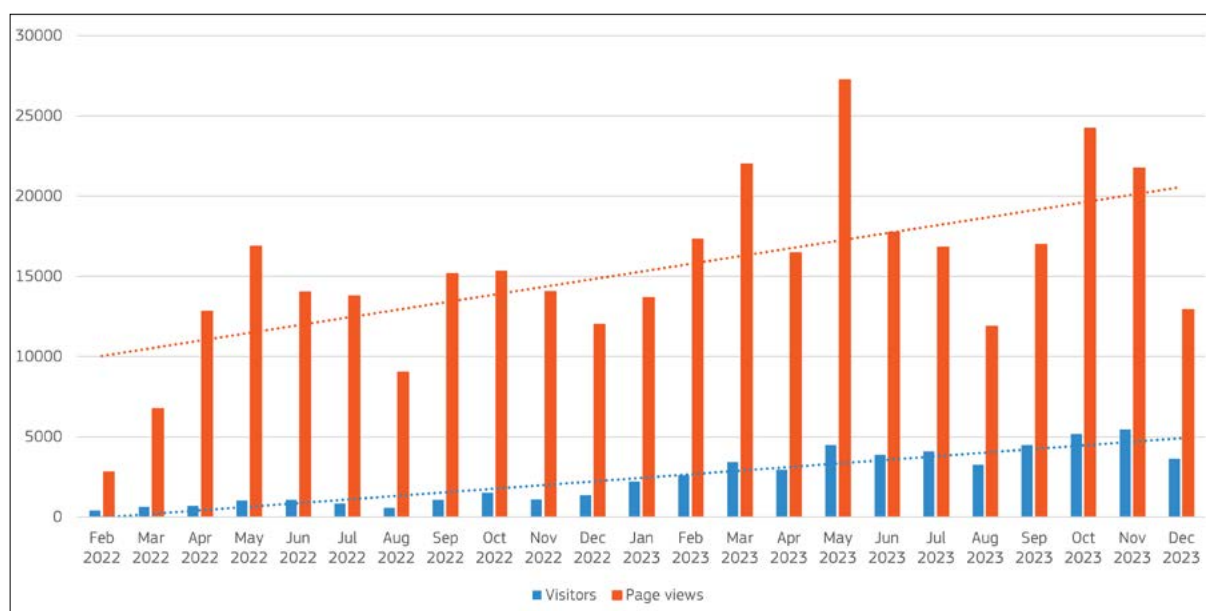
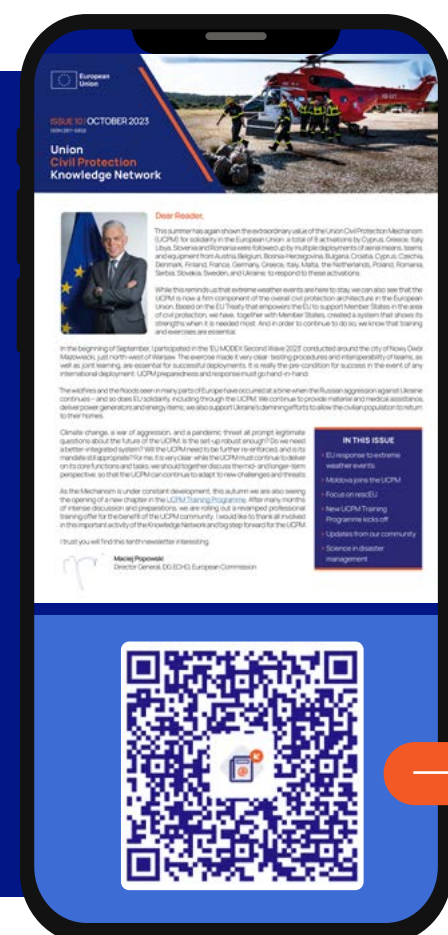


Figure 9. Monthly visitors and page views of the Knowledge Network online platform, © EU



## Have you subscribed to the UCPKN Newsletter yet?

Another example of how the Knowledge Network provides visibility to the diverse activities of the UCPM is its newsletter. Published quarterly and in its 11th edition, it now reaches over 1,500 subscribers and features news, stories and resources contributed by community members.

The Knowledge Network further supports awareness raising about different activities in civil protection and DRM by creating dedicated communications products (e.g. factsheets for the UCPM Training Programme, exercises and the Exchange of Experts). It was also heavily involved in communications around the launch of the [Disaster Resilience Goals](#) in early 2023.

→ Sign up to receive quarterly updates from the community.



## Goal 2: Shared Knowledge for Action

### Strengthening the collective capacity to prevent, prepare for and respond to emergencies

The Knowledge Network 'Capacity Development' pillar is designed to help build the capacity of stakeholders in the civil protection and DRM sectors by enabling them to share and develop their knowledge, and increasing resilience against the most critical risks.

Its tailored range of projects and programmes integrate the latest lessons learnt, good practices and innovative solutions, and prepare UCPM stakeholders for rapid deployment in multi-hazard, cross-sector and cross-border scenarios. In doing so, the Knowledge Network acts as a knowledge broker by facilitating knowledge sharing among experts, and offering them a space to learn, work, and grow together.

#### A high-quality training offer at the disposal of the community

In 2022–2023, the UCPM Training Programme has undergone big changes in terms of its content, format, modalities of delivery and functional links with other capacity development activities (civil protection exercises and exchanges of experts).

First, the training courses returned to face-to-face delivery in 2022 after they were forced to go digital in 2020–2021 due to the global COVID-19 pandemic. The community appreciated the opportunity to reconnect in-person for the completion of the training cycle. Overall, a total of 50 training courses took place in 2022, with almost 1,000 course places offered to experts at introduction, operational and management level. In addition, 14 online modules were maintained as part of the training offer, with 3 new modules developed during the year for EU Delegation and ECHO Field Staff, ERCC Liaison Officers, and Forest Firefighting Capacities.



The core Training Programme was supplemented by specialised courses developed jointly with the UN (of which three were implemented in late 2022), and ad hoc training course: the Burns Assessment Teams Course (with three editions implemented in 2022-2023) and the On-site Integration Course (three editions). In addition, to support the UCPM in responding to emerging risks and training needs, the Knowledge Network developed a more flexible training set-up on specific thematic areas. The new framework contract can be used to request online modules, ad hoc training courses, training of trainers, thematic seminars, and workshops in order to swiftly respond to new learning needs.



Figure 10. Union Mechanism Introduction course in Italy in September 2023, © EU

The first half of 2022 was also a period of intense work to finalise the revision of the UCPM Training Programme launched already in 2020, with six meetings of the Training Policy Group organised between February and July 2022. This paved the way for the successful completion of a tender procedure and subsequent contract signature for the new programme. After a long period of reflection with the cooperation of a variety of stakeholders, the programme was ready to be relaunched with a new look in September 2023.

The new **UCPM Training and Exercises Programme** is made up of various training courses and exercises tailored to specific target groups:

- The core of the Training Programme prepares different categories of experts – European Union Civil Protection Team (EUCPT) experts, Technical Assistance and Support Team (TAST) members, technical experts, modules and other response capacities key personnel – for deployment on UCPM missions. This so-called **deployable training pathway** includes the **joint European Commission–United Nations (EC-UN) courses**, which are specialised courses designed to prepare experts for specific deployments, like environmental or medical emergency missions. Since the end of 2022, four EC-UN courses have taken place, bringing together more than 90 UN and UCPM experts to learn about logistics, USAR coordination, environmental emergencies, and emergency medical coordination in the field.
- Additionally, along this training path, EU MODEX exercises aim to better prepare UCPM experts and capacities for international deployments (see following page). The experts take part first in a table top and then a field exercise. Other UCPM exercises, such as full-scale, are refresher opportunities for already trained experts.
- If experts belong to a general civil protection or disaster management stakeholder group performing a UCPM coordination role at national level (and hence will be involved, in some form, with UCPM assistance), they can complete courses under the training offer linked to their role or profile in the national emergency management system. This **training for civil protection and disaster management stakeholders** mainly targets staff who will not necessarily be deployed on an international UCPM mission.
- **Online modules** are available on different disaster management topics and in different languages, from stand-alone modules, such as 'Cultural Sensitivity and Gender' or 'Information Management', to refresher and pre-learning for blended training courses.

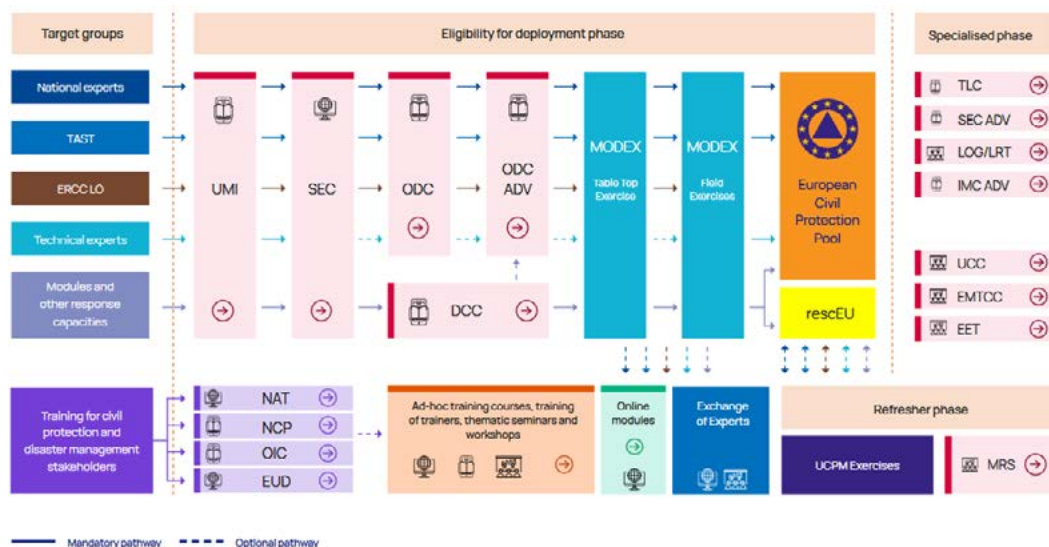


Figure 11. Overview of the UCPM Training, Exercises and Exchange of Experts Programme, © EU

The UCPM Learning Management System hosted by the 'EU Academy' offers a central place for all learning activities and events under the UCPM. The Online UCPM Training Registration Tool and Expert Database on the ERCC Portal have continued to be developed to facilitate the overall management of UCPM training courses and exercises, as well as automatised nomination and selection of participants in different activities.

From September 2023 until the beginning of December 2023, the Knowledge Network organised over **18 new UCPM training courses**, with **close to 320 training places** offered to EU Member States, Participating States, third countries, ECHO staff, and UN and international organisations.

## Turning knowledge into action: Civil protection exercises

With the UCPM exercises programme being key to enhancing the level of preparedness for UCPM response operations, over 40 different civil protection exercises took place during 2022–2023.

**Module exercises (EU MODEX)** were among the most numerous activities, with 29 of them implemented as part of the exercise cycle 2022–2023 (see Figure 12). These included a variety of scenarios tested (e.g. forest fire, flood and earthquake response), different target groups (e.g. specialised modules, TAST teams, or EUCPT Team Leaders) and different formats of delivery (table top, virtual reality and field exercises). The exercises were hosted by 16 different EU Member States, as well as in UCPM participating states Türkiye and Serbia, and in Georgia.

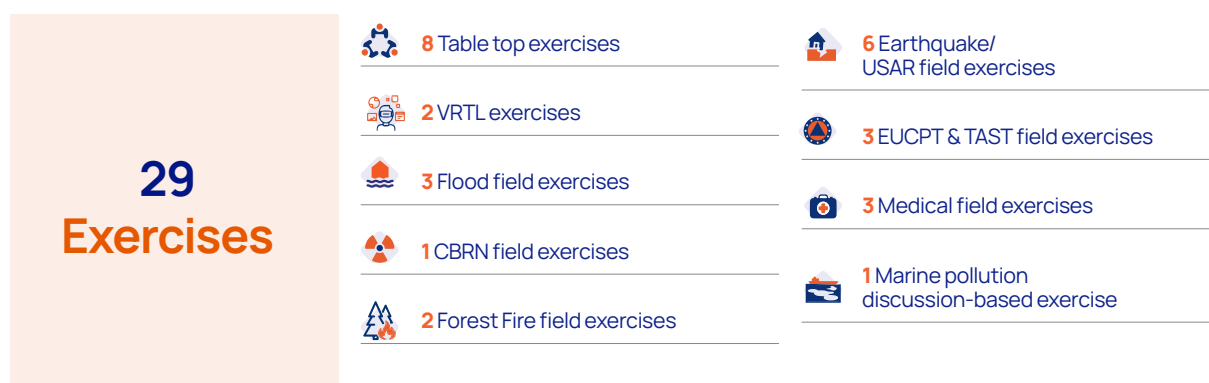


Figure 12. Overview of EU MODEX exercises carried out in 2022–2023, © EU

The main objective of EU MODEX is to enhance the coordination of civil protection assistance interventions by developing the competence of the experts involved, and ensuring improved compatibility and interoperability between the intervention teams and other intervention support.

### MODEX on forest firefighting in Portugal

This field exercise took place in the context of the global threat caused by the rising number of forest fires, especially in Southern Europe, and the fact that Portugal is one of the most prone countries, with a significant number of forest fires occurring in 2023. The EU MODEX on forest firefighting took place from 3–6 May 2023 in Abrantes, Portugal.

This exercise tested the skills in site assessment, coordinated ground and aerial operations, and post-mission handover. Ground Forest Firefighting Teams using vehicles from France, Italy and Germany were joined by a Spanish Fire Assessment and Support Team, Ground Forest Firefighting Team, and an Aerial Forest Firefighting Team in a simulated UCPM activation. They practiced and assessed their own Standard Operating Procedures (SOPs), operational response, cooperation, self-sufficiency, and interoperability.

Another type of exercise that is organised under the Knowledge Network umbrella are **UCPM full-scale exercises**. These aim to improve civil protection preparedness and response to all kinds of disasters inside or outside the UCPM member states by providing a test environment and a learning opportunity for all actors involved in civil protection assistance interventions. They combine three types of exercises: table top, command post, and full-scale field exercises.

Nine UCPM full-scale exercises – in Armenia, Austria, Bosnia and Herzegovina, France, Hungary, Jordan, Moldova, Montenegro and Norway – took place in the last two years (see Figure 13). During this time, an impressive range of scenarios were exercised, such as on chemical risks and marine pollution during DOMINO (France, May 2022), or on search and rescue operations following a major earthquake during PDEX-JIP (Jordan, March 2023).

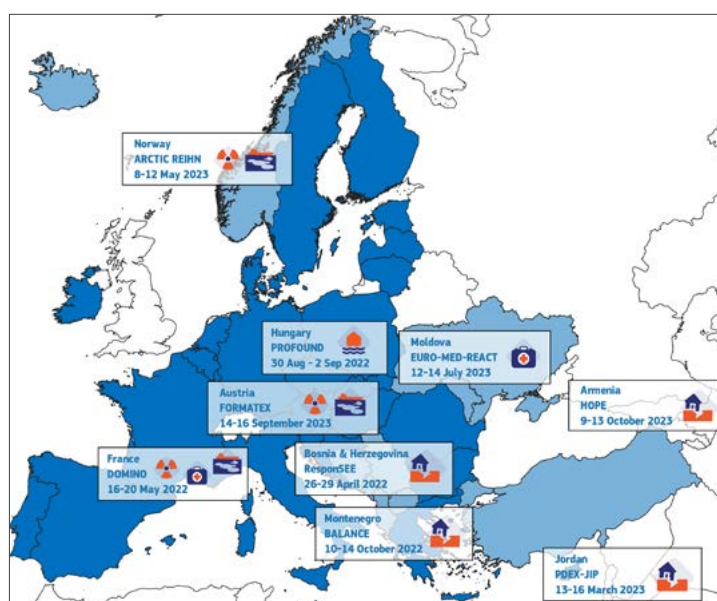


Figure 13. Full-scale exercises carried out in 2022 and 2023, © EU

### Arctic REIHN

The UCPM Arctic REIHN full-scale exercise simulated a nuclear-powered vessel in distress on the Norwegian coastline. With the participation of teams from Denmark, Finland, Iceland, the Netherlands, Sweden, Portugal and Norway, the exercise was held on 10–11 May 2023 in Bodø, Norway.



Additional host nation support (HNS) table top exercises were organised to test and improve HNS of disaster-affected countries in receiving, integrating and coordinating international assistance in response operations. Cooperation between civil protection and other actors involved in DRM is vital to achieve a smooth and efficient integration of any external assistance sought, including through the UN/UCPM. Two exercises of this type took place, in Jordan (November 2022) and in Moldova (February 2023).

## Facilitating engagement among the training community

As part of its knowledge broker role, the Knowledge Network has also supported knowledge exchange and networking between key members of the civil protection training community.

To start with, close collaboration continued with the **National Training Coordinators (NTCs)**, a group not only playing a crucial role in selection of experts for training activities, but also in their implementation and oversight. During an annual NTCs meeting in Prague (Czechia) in September 2022, participants discussed the strengthened role of the NTCs in the revised UCPM Training Programme and exchanged good practices on managing training placements and selecting participants.

A subsequent meeting hosted by the Spanish Presidency in Alcalá de Henares in November 2023 brought together both NTCs and training organisers to take stock of the implementation of the new Training Programme, and continue dialogue in relation to the NTC role and responsibilities to support the UCPM Training, Exercises and Exchange of Experts Programmes' implementation at national and European level.

In addition, the Knowledge Network made its first steps in engaging the community of civil protection and firefighting vocational training and higher education institutions. As part of its Presidency of the Council of the EU, France organised the first meeting of the **Directors of Civil Protection and Firefighting Schools** in April 2022. Its purpose was to structure previous networking initiatives of civil protection training managers, increase awareness of them, and introduce it as a reoccurring activity of the Network. The French Presidency also encouraged the creation of a network of schools, with the purpose of (i) promoting the exchanges of students and enhanced interoperability and (ii) introducing a training and pedagogical dimension to support the newly established thematic communities.

Sweden continued this initiative in May 2023, when representatives from 23 UCPM member and participating states attended the second meeting of Directors of Civil Protection and Firefighting Schools in Lund. Organised by the Swedish Contingencies Agency (MSB) in collaboration with the Knowledge Network, the event was structured around plenary sessions and workshops, opening discussions to find synergies between civil protection and firefighting schools and UCPM funded projects in order to acquire and pool capacities, sharable methods and techniques.



Figure 14. Group picture during the annual NTC meeting 2023, © EU

## Peer to peer learning and knowledge exchange

The **Exchange of Experts Programme** provides participants with the opportunity to access knowledge and gain experience on all aspects of emergency intervention and the different approaches of national systems, as well as to broaden their operational knowledge and skills through practical experience in the field. It serves to improve the effectiveness of transnational cooperation.

During 2022–2023, a total number of **368 experts** (out of which 347 were from member and participating states) attended 30 exchanges hosted by civil protection organisations. Topics included industrial chemical risks, diving and hyperbaric medicine, training methods on mountain rescue, rope rescue, water rescue, forest fires, early warning system development, search and rescue operations, and use of drones.

The Exchange of Experts Programme was also used for the pre-positioning pilot project to pre-position ground forest firefighting (GFFF) teams and vehicles in Greece for the forest fires season in 2022 (July–August). In total, 215 experts from six countries participated in the exchange. The deployment of the GFFF teams was organised well in advance by road, air, and sea. In addition to the already planned training activities, the experts were actively involved in the response to forest fires, together with Greek local firefighters.

Another activity involving peer support is the UCPM **Peer Review Programme**. It offers eligible countries and regions independent peer reviews, which allow a country to reflect on its readiness to cope with natural and human-induced disasters and identify ways of improving risk prevention and preparedness. The peer reviews are guided by the [Peer Review Assessment Framework](#) (PRAF). This document assists both the country under review with identifying key priorities for their review, and the peer team in carrying out the review analyses and drafting the peer review report.

After two years of inactivity due to challenges related to the COVID-19 pandemic, the programme restarted in 2022 with a peer review for Romania. It focused on disaster risk reduction governance, risk management planning, risk prevention and risk preparedness measures. It was followed with a comprehensive peer review in Moldova, completed in October 2023, just ahead of it joining the UCPM.

In addition, in May 2023, a wildfire-specific version of this analytical framework was launched, the [Wildfire PRAF](#). Offering peer reviews focused on wildfire risk management was an essential component of the Wildfire Risk Prevention Action Plan put forward following the disastrous fire season in 2022.



Following a call for expressions of interests launched in June 2023, an unprecedented high number of requests for peer reviews were received: nine in total, of which seven were from Member States. Three of these requests could be accommodated up until the end of the current programme cycle (Greece, Italy and the region of Brandenburg, Germany). In autumn 2024, when a new service contract for the technical assistance will be put in place, a new peer review cycle is expected to start, offering a new set of peer review slots.

Figure 14. DG Maciej Popowski hands over a peer review report to Adrian Efros, Minister of Internal Affairs of the Republic of Moldova, © EU

## Learning from experience

Another of the Knowledge Network's activities, the **Lessons Learnt Programme (LLP)**, aims to identify what worked well (good practices) and what could be improved (lessons identified), with an objective of continuous learning and development. The programme covers the whole DRM cycle and applies an integrated approach (i.e. ensuring that the process involves and shares the knowledge and experience among all relevant stakeholders). It is a continuous process that feeds identified lessons and good practices into future deployments, training, exercises, and policy work.

Inputs for the programme are gathered from deployed UCPM teams, reports and meetings with Liaison Officers or representatives from affected UCPM member and participating states, as well as civil protection authorities and other stakeholders or partners.



Figure 15. Lessons learnt meeting on the 2023 wildfire and flood season in Rome, Italy, © Dipartimento della Protezione Civile

An LLP annual meeting is organised by the European Commission at least once a year. Other thematic or ad hoc meetings are organised following relevant activation or recent needs. In the last two years, the following LLP meetings took place:

- February 2022, Brussels (Belgium): An annual meeting to identify lessons and good practices from UCPM deployments and activations in 2021;
- September 2022, Brussels (Belgium): A meeting dedicated to exchanging preliminary lessons from Russia's war on Ukraine (for details, see following page);
- January 2023, Lisbon (Portugal): A thematic meeting to summarise experiences from the 2022 wildfire season and to facilitate preparation for the upcoming ones;
- March 2023, Rzeszow (Poland): A meeting focused on the topic of medical evacuation of severely ill patients from Ukraine to the EU/EEA;
- April 2023, Brussels (Belgium): An annual meeting to capture lessons from UCPM operations in 2022, as well as to report on the implementation of lessons identified from earlier operations;
- October 2023, Brussels (Belgium): A follow up meeting on the subject of Russia's aggression against Ukraine, combined with an opportunity to exchange lessons learnt from the response operations to the earthquakes in Türkiye and Syria;
- November 2023, Rome (Italy): A thematic meeting focused on analysing the 2023 wildfire and flood season, fostering dialogue on risk management strategies and sharing lessons learnt.



## Lessons Learnt Programme meeting - Preliminary lessons from Russia's war on Ukraine (15 September 2022)

This LLP meeting allowed UCPM member and participating states to share their experiences and identify preliminary lessons from the UCPM response to Russia's war on Ukraine. The meeting focused on lessons learnt from UCPM response operations to the war in Ukraine, which represents by far the largest and most complex UCPM operation since the establishment of the Mechanism, featuring some remarkably innovative solutions.

The meeting allowed exchanges of experience about first lessons learnt from the delivery of assistance, from the national and UCPM perspective, and a forward-looking discussion about cross-sectoral cooperation initiatives that have been launched since the invasion.

Preliminary lessons and good practices identified on UCPM response and operations, establishment of UCPM logistics hubs, and Medevac operations should also serve to enhance prevention and preparedness, and improve the future response to large-scale and cross-sectoral emergencies.





## Goal 3: Research that Matters

### Providing access to high-quality data and supporting innovation

With the increasing impact and complexity of natural and human-induced disasters, identifying, assessing and understanding disaster risks is critical. The Knowledge Network's Science pillar was set up in order to provide the UCPM community with access to high-quality data and analytical tools, and to help support evidence-based decision making and operations.

By sharing research and comparison of good practices, it aims to support innovation and to fill in any gaps that may exist in the area of civil protection and DRM, making scientific knowledge both easily accessible and operational. In doing so, the Knowledge Network capitalises on the work of the European Commission's Disaster Risk Management Knowledge Centre (DRMKC), which serves as a hub for the science pillar and reinforces science-policy links between the Commission, EU Member States and the DRM community.

#### Anticipation and building links with the research community

Since 2021, the European Commission has been developing ten different disaster scenarios<sup>5</sup> in close collaboration with UCPM member and participating states. For example, this includes scenarios for an energy crisis within the Union, a severe pandemic, and extreme heatwaves. The scenario-building initiative has been underpinned with strong scientific evidence and, since mid-2023, its meetings have been hosted under the new **Disaster Risk Management Science and Planning Working Group**, a sub-group to the Knowledge Network Board. The results of the process are expected to be finalised in 2024.

Earthquake	Flood	Heatwave / cold wave	Major storm
Health threats including pandemics	Tsunami	Volcanic eruption	Wildfire
Blackout and energy disruption	Effects of an armed conflict	Effects of a cybersecurity incident	Effects of a terrorist attack
Industrial emergencies	Marine pollution	Nuclear emergencies	Population displacement in emergencies

Figure 16. Natural and human-induced hazards considered in the development of disaster scenarios by the Commission in collaboration with UCPM member and participating states, © EU



The Working Group has also been striving to integrate UCPM policies into Horizon Europe (the EU's funding programme for research and innovation) planning in a more consistent and coherent way. Since 2022, this has involved a process of clarifying within the Commission the way in which the Knowledge Network engages with the Community for European Research and Innovation for Security (CERIS), the related Expert Group, projects currently running under Horizon Europe, and relevant DRM consortia. For example, there are good examples of synergy within the CERIS collaboration, such as research-oriented Horizon projects becoming UCPM grants whereby the research can be put into action, or exercise coordinators sharing their insights into end users' needs during the annual meetings.

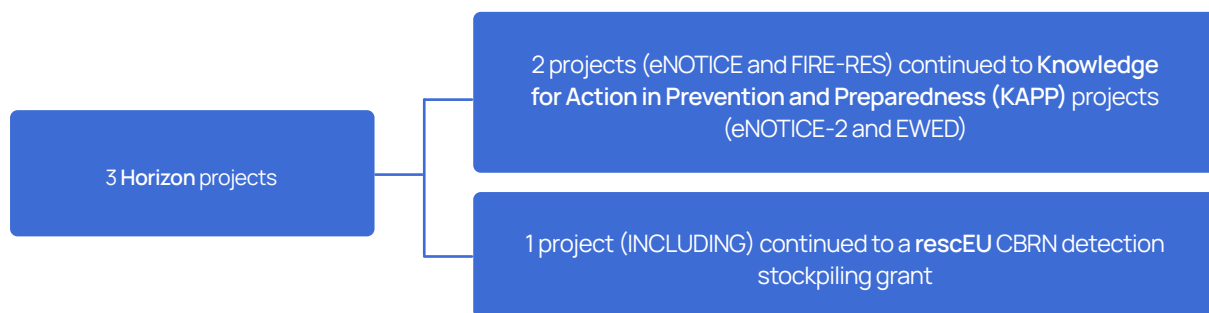


Figure 17. Examples of Horizon and UCPM synergy, © EU

After a **scientific needs assessment survey** with the UCPM member and participating states, further collaboration was initiated with Horizon Europe Cluster 3, 'Civil Security for Society', which funds research and innovation actions, as well as with the EU Mission Adaptation to Climate Change. The annual available funding for research projects in the above sectors ranges from EUR 30 million to EUR 150 million. In addition to facilitating a closer and more fitting UCPM with Horizon Europe, the work strand also aims for better knowledge and stronger uptake of research outcomes of Horizon Europe projects.

## The Risk Data Hub and development of risk assessment methodologies

The Risk Data Hub (RDH) is a central repository for multi-hazard risk information and disaster loss data. In order to enhance cooperation across different projects dealing with climate risk assessment and impact, disaster resilience, and adaptation to climate change, the Hub acts as an integrator of existing and new data that will be produced in the context of EU-funded projects (e.g. the World Bank Study on the Economics for Disaster Prevention and Preparedness in Europe and the data produced under the Adaptation Mission for the EU regions and cities, and by national authorities in UCPM member and participating states). A dedicated [training session](#) for UCPM member and participating state representatives on how to best use the data and information available on the platform was carried out in June 2022.



Figure 18. Dashboards available on the Risk Data Hub, © EU

Throughout 2022 and 2023, major improvements and new features were implemented in the RDH. A new user interface, new disaster loss and risk dashboards, and a user corner to support UCPM member states in their climate adaptation actions and risk assessment needs were developed.

A Vulnerability Dashboard and methodological report, which allows users to measure and monitor the vulnerability to disasters in Europe at different scales, was launched in June 2023. In October, a new Disaster Loss Dashboard was opened, allowing users to explore economic losses and fatalities recorded for different types of hazards at country and regional levels.

### Technical Report 'Evidence for Disaster Risk Management from the Risk Data Hub'

The latest technical report on the Risk Data Hub was published in August 2023, and focuses on how the data available on the RDH can support risk management activities throughout Europe. Compiling five different use-cases, the report showcases, for example, how the data hosted on the RDH allows examination of historical trends and current risk levels for single hazards. It also demonstrates how it can be used to identify regions with multi-hazard potential, emerging or increasing risks, as well as drivers of vulnerability and disaster risk.



These improvements were of key importance, as a robust understanding of risks is a prerequisite to address them effectively through prevention, mitigation, adaptation and preparedness actions. The DRMKC has been contributing analytical reports from the RDH throughout 2022 and 2023 to underpin the assessment of disaster risks in relation to disasters that can have multi-country transboundary effects.

Likewise, the DRMKC has been analysing the 22 National Risk Assessments (NRAs) reports submitted in 2021 as part of an overview update, as well as to identify methodological lessons emerging from the reporting exercise. The first progress report on DRM under the 'Prevention' pillar of the UCPM (Article 6 report) was finalised in 2023. An update of the technical report 'Overview of natural and man-made disaster risks the European Union may face' will be published in early 2024.

### Enhancement of crisis-related analytical tools at the disposal of the community

The [INFORM suite](#) of quantitative, analytical products support decision making on crises and disasters globally. They range from current expected risk levels to observation of crisis severity and projection of climate change risk. The suite helps with decision making at different stages of the disaster management cycle, specifically climate adaptation and disaster prevention, preparedness and response. INFORM develops methodologies and tools for use at the global level, and supports their application at sub-national level. The INFORM suite is a multi-stakeholder initiative and is used, for example, by the European Commission and the UN for assessment and resource allocation.

For the latest product, **INFORM Warning**, an extensive literature review and consultations with humanitarian stakeholders indicate there is a clear need for open, aggregated, multi-hazard early warning information that is easy to use for decision making. In recent years, the multilateral system has become more aware and focused on the importance of anticipatory and early action. The Knowledge Network has therefore



been working to integrate existing systems and models targeting early warning for a forecast period of 6–12 months (i.e. seasonal forecasts for floods, droughts, and wildfires; the Dynamic Conflict Risk Model (DCRM); food security aspects), and to develop a first step towards a methodological framework for a comprehensive mid-term early warning.



Figure 19. Suite of INFORM tools available and under development, © EU

Recent conflict events around the world underpin the need for robust analytics. Anticipation and early warning are essential capabilities required to fulfil that mission. The development of the **Global Conflict Risk Index (GCRI)** conflict model started in 2014 to provide an accessible, objective and open-source evidence base to support the EU's conflict prevention capacities and decision making on long-term conflict risks. The output of the GCRI serves as the quantitative input to the EU conflict early warning framework for identifying countries at high risk of conflict and those whose risk is worsening significantly.

At the end of 2022, a prototype for DCRM was developed for Africa, which aims to complement the GCRI to improve the EU's early warning capacity. The new model estimates conflict risk at the sub-national level over the next one to six months. In 2023, the DCRM was further enhanced for Africa and a new model was developed for Eurasia. The goal of the DCRM is to provide monthly risk forecasts at the sub-national level and on a global scale. In autumn 2023, the DCRM was made available on the new [Science4Peace portal](#) as one of the tools and features offered by the portal for predicting, monitoring and mapping armed conflicts on a global scale.



Figure 20. Conflict mapping and modelling tools on the Science4Peace portal, © EU

## Support to the science-policy-practice interface

One of the key objectives of the Knowledge Network is to bridge the gap and facilitate communication between different parts of the science-policy-practice interface. It does so through creating opportunities for researchers and civil protection practitioners to meet and share their knowledge and perspectives.

For several years now, the European Commission and DRM community have collaborated on organising the DRMKC Annual Seminars. These seminars were set up to bring together members of the broader DRM community (scientists, civil protection practitioners, policy and decision makers) to investigate needs and gaps in this area, as well as to look at solutions and examples of good practices.



Figure 21. Participants of a workshop at the 7th DRMKC Annual Seminar 2023, © EU

The 6<sup>th</sup> Annual Seminar was organised in partnership with the French Ministry of Interior in Paris in November 2022. It was a two-day event, which gathered close to 100 participants and provided an opportunity to share good practices and challenges across areas like risk communication, Disaster Resilience Goals monitoring, and DRM science operationalisation. The 7th Annual Seminar took place in November 2023 as a one-day event in Brussels, back-to-back with an Expert Group for Disaster Prevention and Risk Management (DPEG) meeting. Under the banner 'A roadmap to disaster resilience,' the event was jointly organised with the Spanish EU Presidency. Within the framework of the Science pillar of the Knowledge Network, the aim was to bring together different voices from the Commission's policy and research directorates general, national authorities, and other stakeholders to reflect on how to define the pathways to a more resilient EU, especially in relation to climate and disaster risks.



Figure 22. The 2023 Summer School in Pisa, Italy, © EU

Immediately following the Annual Seminar, a Wildfire Risk Management Project Clustering Event with 80 attendees was organised by Firelogue, an EU Coordination and Support Action aiming to unite fire-related projects. The European Research Executive Agency (REA) and the Knowledge Network supported the exchanges, including between Horizon-funded and UCPM projects.

Another meeting format proposed by the Knowledge Network are its summer schools exploring key DRM dilemmas from different perspectives. Following a successful pilot of the format in 2020, the Evidence for Policy in DRM School was organised in May 2023 in Pisa, Italy. The aims were twofold: for scientists to learn how to better communicate their results and align their projects with policy needs, and for policymakers to consider how research can support policy, and how to source and interpret science useful to their fields. Participants were able to gain new knowledge on how to better integrate scientific evidence into policymaking.

The Evidence for Policy School 2023 brought together 70 scientific experts and policy and decision makers from a wide range of organisations, including research institutions, national civil protection agencies, EU institutions, the private sector and the UN. As a result of the high evaluation rates from the participants, the next edition is planned for September 2024 in Vienna.

These events are designed as interactive and hands-on training for policymakers, operational staff and scientists to develop skills in using evidence for creating policy solutions together, as well as gather good practices from recognised experts during masterclasses (to further bridge the science-policy-practice gap).

# Conclusion

The activities report on the first two years of the Knowledge Network has provided the European Commission and its partners with a valuable opportunity to take stock of how the Network responds to the UCPM community's needs, review what works well, and consider where any improvements need to be made. The Knowledge Network mid-term review, expected in April, will provide another opportunity to consider progress and lessons learnt from the Knowledge Network so far.

When we write this report, 2024 is already in full swing for the colleagues involved in the implementation of Knowledge Network activities. The first training courses of the year are taking place, while NTCs are busy selecting participants for the dozens of other courses yet to come. The EU MODEX consortia are planning a calendar of field and table top exercises for the civil protection modules to be ready to restart in autumn. A group of peer experts is preparing for their mission in Greece to support national authorities in their wildfire risk management efforts. Similar missions to Italy and Brandenburg, Germany will follow later in the year.

Project coordinators, alongside their partners, are busy with the launch of their new collaborative ideas, while their project officers are on standby to provide support when needed. The latter are also preparing for the outcome of the two calls for proposals launched in January (KAPP and Technical Assistance for DRM), an outcome that could not be possible without both innovative ideas coming from the community, and a group of committed evaluators offering their expertise in the process.

The different teams and colleagues from the Commission, national and regional civil protection authorities, academia, scientists and researchers, first responders and civil society organisations are also preparing for the next edition of the European Civil Protection Forum. The community will meet once again in Brussels, this time on 4-5 June 2024, just ahead of the European elections, to look back together at what the UCPM has achieved so far and consider where it needs to go next. The UCPKN will be there as well, facilitating knowledge exchange and engagement with stakeholders ready to support the civil protection community as it looks to the future.









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