



# Success stories: Prevention and preparedness projects supported by the Union Civil Protection Mechanism

Find out more about recent projects and how they have benefitted the UCPM, including innovative disaster risk management tools and solutions

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Union **Civil Protection**  
Knowledge Network



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## Foreword



As we navigate an evolving disaster risk landscape in Europe, we should acknowledge the lessons we have learned and the progress we have made in finding solutions to some of the challenges we have been grappling with. Several initiatives funded by the Union Civil Protection Mechanism (UCPM) have helped come up with innovative and effective solutions, and contributed to improving our overall level of prevention and preparedness.

From 2020 to 2023, we have proudly allocated funding to a total of 106 projects, amounting to more than EUR 55.8 million in co-financing and more than EUR 63.2 million through the overall projects budget. These initiatives have directly benefitted 48 countries, including not only EU Member States and other participating states in the UCPM, but also Neighbourhood countries, fostering a collective approach to mitigating a diverse array of hazards.

This brochure provides examples of 46 of the most representative UCPM prevention and preparedness projects of recent years. The chosen projects represent a diverse array of countries, hazards, risk management practices, and funding modalities. Each one of them makes a unique contribution to building the capacity and knowledge needed for a more resilient Europe.

A key feature of the projects we showcase is their potential for adaptability and replication. Learning from each other's experiences brings an invaluable opportunity for collective growth. Different stakeholders will find inspiration for future projects, possibly adapting them to local contexts or facilitating expert exchanges through our [Exchange of Experts Programme](#). At the heart of this process is the Union Civil Protection [Knowledge Network](#), which ensures that good practices and knowledge (including project deliverables) are accessible and disseminated.

As we look forward, it is important to note that our prevention and preparedness grants are now aligned with the Union Disaster Resilience Goals. This alignment brings forth our strategic vision and long-term commitment, which is set to continue in 2024 and beyond.

Together, we continue to build a safer and more resilient Europe.

### **Hanna Jahns**

*Director for Strategy and Policy, Directorate General for European Civil Protection and Humanitarian Aid Operations (DG ECHO), European Commission*

# Disaster Resilience Goals for a resilient Europe

In the last few years, Europe has faced an alarming convergence of disasters and threats, both natural and man-made, some of which have hit all EU Member States simultaneously. While we were recovering from the COVID-19 pandemic, Russia's war against Ukraine broke out on our eastern borders. Meanwhile, the climate and ecological crisis has gone from an abstract concept to a daily reality with record-breaking floods, heatwaves, and wildfires.

Recent experience has taught us two things. First, we need to strengthen our resilience going forward, as challenges are not likely to subside. Second, we must work on this closely together as the EU, because a coordinated response is stronger than the sum of individual Member States acting alone.

Against this background, in February 2023, the Commission established five [Union Disaster Resilience Goals](#) to guide our joint efforts towards better anticipation of and preparedness for disasters. These five goals are accompanied by five flagship initiatives to help make them a reality.

The goals and the flagship initiatives are as follows:

		<b>Anticipate</b> Improve risk assessment, anticipation, and disaster risk management planning	<b>Flagship initiative:</b> 10 Europe-wide disaster scenarios covering 16 key hazards
		<b>Prepare</b> Increase risk awareness and preparedness of the population	<b>Flagship initiative:</b> Pan-European awareness-raising programme for disaster resilience targeting European citizens
		<b>Alert</b> Enhancing early warning	<b>Flagship initiative:</b> Link global early warning to local action in Europe
		<b>Respond</b> Enhance the capacity of the EU Civil Protection Mechanism to respond to disasters	<b>Flagship initiative:</b> Scale up the strategic reserve of EU response capacities 'rescEU'
		<b>Secure</b> Ensure a robust civil protection system	<b>Flagship initiative:</b> Stress-test the emergency operation centres across Europe

The Union's Disaster Resilience Goals represent a comprehensive approach to addressing the diverse challenges confronting Europe. Through better anticipation, alerting and communication of potential disasters, stepping up of preparedness efforts, and strengthening of the resilience of civil protection as a critical societal function, Europe will enhance its ability to prevent and withstand disasters and protect its citizens.

# UCPM financing for prevention and preparedness projects

The UCPM serves as the main platform to foster cooperation among EU Member States and UCPM participating states on disaster prevention and preparedness. Recognising the transboundary nature of disasters, the UCPM facilitates joint efforts to safeguard lives and economies.

The UCPM's financing for prevention and preparedness aims to achieve the following key objectives:

- **Enhancing cross-border protection against disasters:** The UCPM aims to achieve a higher level of protection against multi-country disasters by reducing their impact and promoting a culture of prevention and preparedness.
- **Implementing EU disaster resilience goals:** The UCPM supports the implementation of the EU Disaster Resilience Goals by fostering the development of risk management tools, operational concepts, procedures and knowledge exchange.
- **Capacity building:** The UCPM supports the development of competencies, skills, knowledge, and expertise in civil protection and disaster risk management.
- **Fostering knowledge partnerships:** The UCPM strengthens collaboration between civil protection and disaster risk management entities, integrating scientific findings into operational strategies.
- **Raising community awareness:** The UCPM aims to raise awareness among communities about risks and strategies to mitigate vulnerabilities.

The UCPM offers funding opportunities through annual calls for proposals. As of 2023, grants for prevention and preparedness actions fall under the '[Technical Assistance for Disaster Risk Management](#)' (single-country, also known as 'Track 1') and the '[Knowledge for Action in Prevention and Preparedness](#)' (multi-country) categories.

## 1. Technical Assistance for Disaster Risk Management (Track 1)

These grants provide financial support to eligible countries to carry out strategic disaster risk management actions. These actions could include, for example, a strategic framework for disaster risk management, investments for disaster risk management and improvement of crisis management capabilities, as well as investments to improve crisis preparedness. The technical assistance grants have been known as 'Track 1: Single-country grants' during the period 2019–2022.

- Level of EU co-financing: 95%
- 2023 awarded budget: EUR 7.6 million
- Average grant per project in 2023: EUR 507 170
- Beneficiaries: National authorities of EU Member States and UCPM participating states<sup>1</sup>, Georgia and Kosovo<sup>2</sup>

1. Albania, Bosnia and Herzegovina, Iceland, the Republic of Moldova, Montenegro, Norway, North Macedonia, Serbia, Türkiye, Ukraine

2. This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

## 2. Knowledge for Action in Prevention and Preparedness (KAPP)

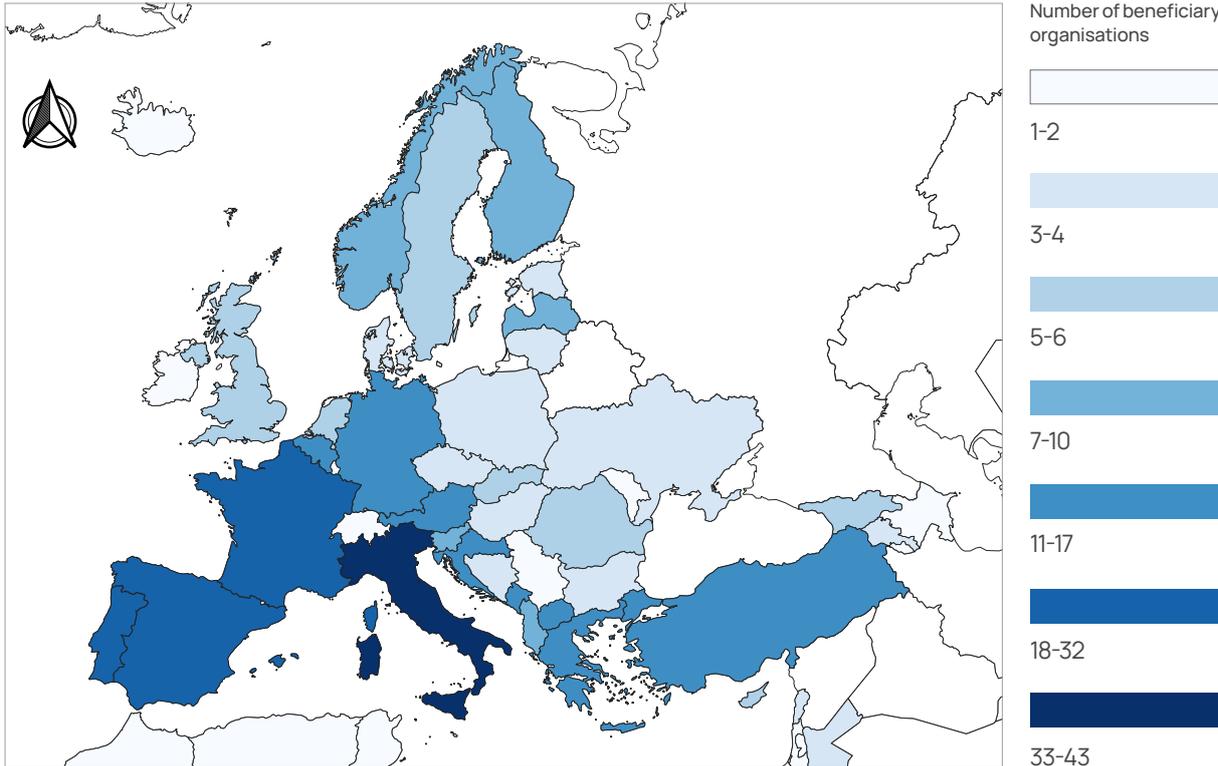
This call for multi-country project proposals strengthens cooperation among EU Member States and UCPM participating states through disaster prevention and preparedness actions, including by providing a testing environment and a learning opportunity through full-scale exercises. It merges three previous calls ('Prevention and Preparedness', 'Knowledge Network Partnership' and 'Full-Scale Exercises') for a streamlined application process.

- Level of EU co-financing: 85%
- 2023 awarded budget: EUR 13.7 million
- Average grant per project in 2023: EUR 859 822
- Beneficiaries: Civil protection and disaster risk management stakeholders from EU Member States, UCPM participating states, and Neighbourhood countries (e.g. local and national civil protection authorities, first responders' organisations, universities, research institutes, and NGOs)

### Number of project beneficiaries per country

This map showcases the geographical spread of UCPM project partners across Europe. The darker the blue, the higher the concentration of beneficiaries in that country.

The map covers the following calls for proposals between 2019 and 2023: Technical Assistance for Disaster Risk Management (Track 1), Prevention and Preparedness (Track 2), and Knowledge Network Partnership.







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Find out more about recent projects and how they have benefitted the UCPM, including innovative disaster risk management tools and solutions.

# Assistance in developing a stronger baseline for effective disaster risk management



Anticipate



Prepare



© Civil Protection Directorate, Ministry of the Interior of Croatia

## Main outputs:

- Draft Disaster Risk Management Strategy and new national Risk Assessment and Data Collection Guidelines, which were subsequently adopted by the Government of Croatia
- Brochures and leaflets to inform the population on how to manage their personal risks and participate in community risk management

## Project summary:

The key objective of the project was to establish a more efficient national disaster risk management system in Croatia by drafting a new national Disaster Risk Management Strategy and improving risk assessment guidelines.

The [Disaster Risk Management Strategy](#) was developed with support from the project and adopted by the Croatian government in October 2022. The strategy builds synergies with other sectoral strategies in the areas of environment, climate change adaptation, sustainable development and spatial planning. The document provides guidance for disaster risk management financing activities in the period 2021–2027. It also makes it possible to track disaster

risk management investments and monitor progress. The strategy is accompanied by an action plan that outlines the pipeline of projects and investments aimed at boosting prevention of and resilience to disasters.

Another important output of the project were new Risk Assessment and Data Collection Guidelines, which provide a basis for a robust assessment of disaster risks faced by the country. The new guidelines address gaps identified in the national risk assessment process, such as data gaps.

In addition, dedicated awareness-raising measures focused on informing the general public of the 11 highest disaster risks in Croatia. Brochures and leaflets produced by the project are available for download through the [DRR Portal](#) (under the subtitle „Podizanje svijesti i edukacija“).

## Key benefits for the UCPM:

- The Disaster Risk Management Plan fulfilled the relevant enabling condition for the 2021–2027 Cohesion Policy Funds Programming, allowing for increased investment in disaster risk management financed by national and international sources

**Funding source:** 2019 UCPM Track 1 grants

**EU contribution:** EUR 72 376

**Beneficiary country:** Croatia

**Beneficiary name:** Ministry of the Interior of the Republic of Croatia

**Implementation period:** 2019–2020



# Development of a National Disaster Risk Management Plan

## Anticipate



© Ministry for Climate Crisis and Civil Protection, Hellenic Republic

### Main outputs:

- Greek National Disaster Risk Management Plan

### Project summary:

This project set out to draft a Greek National Disaster Risk Management Plan. [The plan](#) sets out horizontal risk management measures relevant to multiple hazards, as well as hazard-specific measures, their implementation timeline, and responsible authorities. It helps translate goals set out in the Paris Agreement, the Sendai Framework for Disaster Risk Reduction 2015–2030, and the Sustainable Development Goals into concrete action in Greece. The plan supports the fulfilment of the enabling conditions that had to be met in order to access the EU Cohesion Policy funds for disaster resilience available to Greece in 2021–2027.

The project has been continued with financing from the [EU Technical Support Instrument](#), which notably aims to develop and support the implementation of a risk prevention, emergency preparedness and response action plan, as well as a comprehensive climate change adaptation and civil protection strategy and action plan.

### Key benefits for the UCPM:

- Increased awareness of the cross-sectoral nature of civil protection and disaster risk management, built consensus between stakeholders, informed the wider public about risk management measures and resources, and contributed to building a culture of disaster prevention
- An example of a National Disaster Risk Management Plan for other countries who are considering developing or updating theirs

**Funding source:** 2020 UCPM Track 1 grants

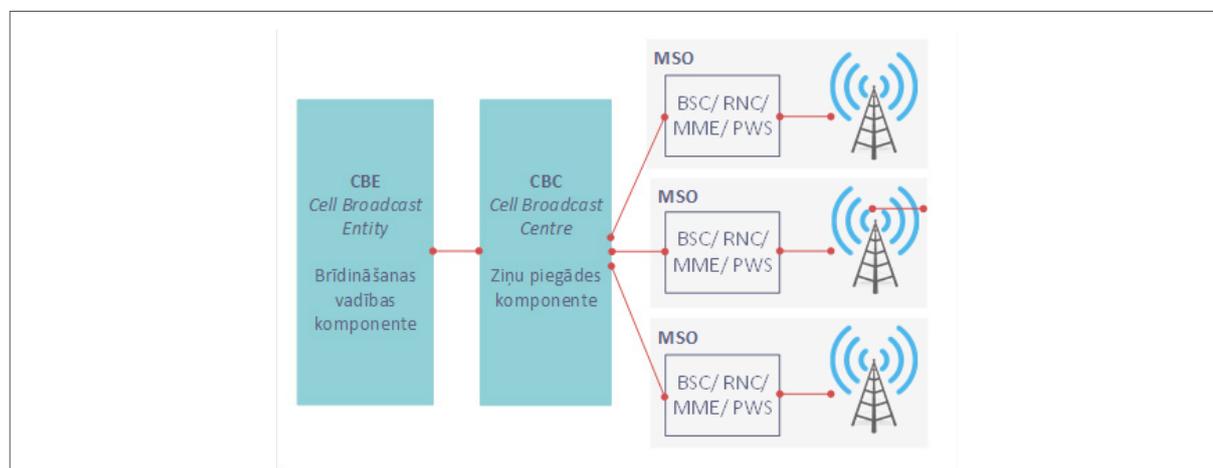
**EU contribution:** EUR 617 500

**Beneficiary country:** Greece

**Beneficiary name:** General Secretariat for Civil Protection, Ministry of Citizen Protection of Greece

**Implementation period:** 2020–2021

# Feasibility study for the development of an early warning system based on telecommunication technologies for the State Fire and Rescue Service of Latvia



© State Fire and Rescue Service of Latvia

## Main outputs:

- Feasibility study for the development of a national early warning system, including its architectural and technical specifications

## Project summary:

The project aimed to implement a new all-hazard early warning system for the State Fire and Rescue Service of Latvia in order to fulfil the national and European regulations.

The key outcomes of the project included a feasibility study comparing the various solutions that telecom companies could provide, a survey among the population to understand the disaster-alert awareness level of the Latvian population, and a draft of the architecture of the proposed system, including the required infrastructure and interoperability.

The implementation of the early warning and public information system designed with Track 1 funds is expected to be supported by 2021–2027 EU investment funds.

## Key benefits for the UCPM:

- An example for other UCPM countries seeking to develop early warning and public information systems

**Funding source:** 2019 UCPM Track 1 grants

**EU contribution:** EUR 81 122

**Beneficiary country:** Latvia

**Beneficiary name:** State Fire and Rescue Service of Latvia

**Implementation period:** 2019–2021

# Preparation of a proposal (investment project) addressing disaster risk management due to possible threats from the Belarussian nuclear power plant



Anticipate



© Fire and Rescue Department under the Ministry of the Interior of the Republic of Lithuania

## Main outputs:

- Investment proposal to support the management of risks linked to a Belarussian nuclear power plant located near the Lithuanian border

## Project summary:

The main objective of the project was to prepare an investment proposal to support the management of risks linked to a Belarussian nuclear power plant located near the border with Lithuania. As such, the project intended to identify Lithuania's needs to prepare and respond to a severe nuclear accident at this nuclear power plant.

The investment proposal aimed to assess and describe the preparedness of Lithuanian state institutions and municipalities to implement the functions set out in the State Plan for the Protection of the Population in the Event of a Nuclear Accident or Radiological Emergency. The proposal evaluated the investment needs (e.g. equipment, works, services), and identified and compared alternative investment options.

During the project implementation, several workshops and meetings were organised. Some aimed to consult relevant national and international stakeholders on the investment proposal, while others aimed to disseminate the project results.

An international workshop was organised on the draft investment plan, with more than 100 representatives from Lithuanian ministries, institutions and municipalities, and 17 representatives of other EU Member States, including Romania, Latvia, Poland and Sweden. The recommendations of the workshop informed the final version of the investment project.

## Key benefits for the UCPM:

- Basis for comprehensive and evidence-based preparedness for the risk of a nuclear accident, including the use of available EU, national and other international funding for this purpose

**Funding source:** 2019 UCPM Track 1 grants\*

**EU contribution:** EUR 127 439

**Beneficiary country:** Lithuania

**Beneficiary name:** Fire and Rescue Department, Ministry of the Interior of Lithuania

**Implementation period:** 2019–2021

(\*some of the priority components designed with the support of Track 1 have already been funded by the Lithuanian national budget – in future, EU funds could also be used)

# Development of a national risk assessment for all types of hazards affecting Montenegro



© Rescue and Protection Directorate, Montenegro

## Main output:

- Multi-hazard national risk assessment of Montenegro

## Project summary:

The aim of the project was to develop the national risk assessment of Montenegro. The risk assessment is key to enable a more realistic and comprehensive overview of the risk characteristics and levels of impact that citizens and the environment face in Montenegro. It should also serve as the foundation for planning in the implementation of many programmes and projects in the field of disaster risk reduction, through EU funds and other sources of funding.

The national risk assessment of Montenegro outlines the types of risks which endanger citizens, material and cultural goods, as well as the environment. The document provides different scenarios with one or more risks and a varying degree of threat posed by those risks. It contributes to fostering a culture of prevention and enhancing cooperation between civil protection authorities and other rescue and protection services.

This document also helps Montenegro to fulfil a legal obligation of the EU Civil Protection Mechanism – namely, to develop risk assessments at national or appropriate sub-national level (Article 6 of Decision no 1313/2013/EU on a Union Civil Protection Mechanism). It enables a better understanding of risks and threats faced by its citizens, material and cultural assets, and the environment.

Follow-up to the project has included the development of a Disaster Risk Management Capability Assessment of Montenegro (to be completed in 2023) and a Strategy for Disaster Risk Reduction of the Government of Montenegro, with an action plan for the period 2025–2030.

## Key benefits for the UCPM:

- Up-to-date national risk assessment to be used as a key tool for improving national disaster risk management in Montenegro

**Funding source:** 2020 UCPM Track 1 grants

**EU contribution:** EUR 447 618

**Beneficiary country:** Montenegro

**Beneficiary name:** Directorate for Emergency Management, Ministry of Interior of Montenegro

**Implementation period:** 2020–2021

# Feasibility studies on the promotion of better practices and on raising the capacity of the State Fire and Rescue Service of Latvia



Prepare



Respond



© State Fire and Rescue Service of Latvia

## Main outputs:

- Feasibility study on the promotion of clean and energy-efficient road transport vehicles for the State Fire and Rescue Service
- Feasibility study on the creation and implementation of risk prevention awareness-raising classes
- Feasibility study on the creation and establishment of an educational training complex (Fire Safety and Civil Defence College)

## Project summary:

The first feasibility study explored the possibility of integrating the use of environmentally friendly and energy-efficient vehicles in the activities of the State Fire and Rescue Service. This included analysis of the costs and capabilities of environmentally friendly firefighting trucks and passenger cars, as well as determination of the capacity needed to create a new technical and repair base model.

The second feasibility study focused on identifying the most effective way to set up stationary and mobile practical training facilities to educate the public on

the right behaviour in emergency situations, thereby contributing to raising awareness of fire safety and civil protection issues.

The last feasibility study aimed to study the educational processes, resources and infrastructure necessary for the college to improve its operation.

All studies were performed via subcontracting to consulting companies. All the studies of this project have been made public and published on the website of the beneficiary. The studies were used for planning and designing projects to further develop the Latvian State Fire and Rescue Service; discussions are ongoing on possible use of EU funding for financing the identified investments (EU Cohesion Policy 2021–2027).

## Key benefits for the UCPM:

- Feasibility studies created a pipeline of projects to be co-funded by the European Regional Development Fund
- 'Clean vehicle' component supports efforts to green civil protection, and may be replicated in other countries

**Funding source:** 2020 UCPM Track 1 grants

**EU contribution:** EUR 200 090

**Beneficiary country:** Latvia

**Beneficiary name:** State Fire and Rescue Service of Latvia

**Implementation period:** 2020–2021

# Preliminary target group studies for the development of a risk and crisis communication platform



© RMinistry of Interior, Estonia

## Main outputs:

- Research on the use of crisis information by the general public and official institutions in Estonia
- National web platform for crisis communication

## Project summary:

The project's first phase consisted of analysing people's crisis awareness, users' information management and media consumption habits (to better design different messages and disseminate them through traditional and social media, as well as an app, for a more effective impact), and international good practices on crisis awareness raising.

Its second phase focused on researching the need for and use of crisis information among key target groups – the general population and institutions. This included co-creation workshops to study different crisis scenarios.

Currently, the Rescue Board of Estonia manages a national crisis communication platform (<https://www.olevalmis.ee/en>), while the Women's Voluntary Defence Organisation manages an application called 'Olevalmis!' for smartphones and tablets (downloaded by 104 627 people: nearly 10% of the Estonian population). This platform forms part of a larger package of tools to inform and educate the public on risks and crises, as well as to prepare and activate individuals to safeguard their wellbeing and that of others in the context of risk and crisis situations.

The government's website (<https://kriis.ee/en/main-page>) is connected to this platform, and provides official information about ongoing crises. Finally, the state helpline '1247' (<https://www.112.ee/en/instruction/state-helpline-1247>) provides information about ongoing crises.

## Key benefits for the UCPM:

- Risk and crisis awareness-raising and communication tools which may inspire other countries

**Funding source:** 2020 UCPM Track 1 grants

**EU contribution:** EUR 95 000

**Beneficiary country:** Estonia

**Implementation period:** 2020–2022



REPUBLIC OF ESTONIA  
MINISTRY OF THE INTERIOR

# The Effect of Climate Change on Critical Infrastructure in the Energy Sector in Pilot Region: İzmir – Aliağa (Türkiye)



Anticipate



Prepare



© Workshop and closing meeting held by AFAD within the scope of "The Impact of Climate Change in the Pilot Region on Critical Infrastructures in the Energy Sector: İzmir – Aliağa (Turkey) project" in 2022

## Main outputs:

- Report on prioritising critical assets
- Report on analysis of disaster risks caused by climate change
- Development of risk assessment maps

## Project summary:

The project aimed to identify and safeguard critical infrastructure within the energy sector of Türkiye's İzmir Aliağa Region, with a primary focus on minimising the adverse effects of climate-induced technological disasters. To achieve this goal, it took several strategic steps.

First, it conducted a comprehensive review of global good practices to assess their suitability for implementation in the region. It also provided training and awareness-raising activities for stakeholders from 43 different institutions, ensuring a broad spectrum of expertise and perspectives.

Then, the project generated a detailed roadmap grounded in an extensive risk analysis of the region. This analysis considered data spanning from 1980 to 2022, encompassing a variety of natural events like fires, floods, and storms.

As a result, the project successfully applied a risk analysis methodology tailored to the İzmir Aliağa region, pinpointing critical infrastructure vulnerable to climate change and natural disasters.

A seminar was held to disseminate the project's findings and recommendations. Notably, the project documents received official endorsement from the Disaster and Emergency Management Presidency (AFAD) in February 2022.

## Key benefits for the UCPM:

- Collected and investigated good practices and methodologies from around the world for the management of critical infrastructure

**Funding source:** 2020 UCPM Track 1 grants

**EU contribution:** EUR 509 675

**Beneficiary country:** Türkiye

**Beneficiary name:** Disaster and Emergency Management Presidency (AFAD), Ministry of Interior of Türkiye

**Implementation period:** 2020–2021

# PREVAIL: PREvention Action Increases Large fire response preparedness



Anticipate



© D. Ascoli et al. 'Fire-smart solutions for sustainable wildfire risk prevention: Bottom-up initiatives meet top-down policies under EU green deal.' International Journal of Disaster Risk Reduction 92 (2023) 1037515. <https://doi.org/10.1016/j.ijdrr.2023.103715>.

## Main outputs:

- Decision support system for effective fuel management
- Catalogue of innovative and smart fire prevention solutions
- Dedicated repository for smart fuel management programmes: 'Lessons on fires' platform

## Project summary:

The PREVAIL project evaluated the effectiveness of fuel management in reducing the likelihood of large fires occurring and spreading. The project found that although the probability of a fire to become large seems to be influenced by the simultaneous occurrence of large fires and relatively low humidity, a diversified landscape with a mosaic of vegetation and other types of land use – including areas with low fuel levels (such as vineyards and orchards, annual crops and grazing land) – offers more opportunities to stop and control wildfires.

The project results show that 'smart' solutions – that are sustainable over time, cost-efficient and innovative, and achieve synergies and cooperation – can help make fire suppression more effective and less costly. The objective of such a solution could be, for example, to transform the landscape to become more fire resilient by promoting sustainable land management strategies and practices.

## Key benefits for the UCPM:

- Innovative and cost-effective solutions for integrated wildfire management through landscape fuel management solutions

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 496 891

**Beneficiary countries:** Italy, Spain, Greece, Portugal

**Implementation period:** 2019–2021

# CASCADE: Community Safety Action for Supporting Climate Adaptation and Development



Anticipate



© CASCADE project

## Main outputs:

- Toolbox of disaster risk management in relation to climate driven disasters
- Training course in disaster risk reduction for civil protection experts and city planners

## Project summary:

The CASCADE project focused on local climate change risk management in the Baltic Sea region through collaborative efforts between civil protection specialists and climate change adaptation experts.

The project began by creating a comprehensive overview of climate change-related risks specific to the Baltic Sea region. This overview encompassed both existing risks and emerging climate-related threats, including their potential impacts.

Subsequently, the project developed a local-level risk assessment methodology designed to factor in the unique climate change context of the region. Simultaneously, CASCADE initiated a region-wide policy dialogue centred on the UN Sendai Framework for Disaster Risk Reduction. This dialogue aimed to establish

cross-sectoral cooperation across different governance levels, fostering greater policy coherence regarding climate risk assessments.

CASCADE also formulated 'Guidelines for integrated climate change and risk reduction management for local authorities'. These guidelines offer practical support to local authorities and advocate for the creation of cross-sectoral working groups at the local level, bringing together all relevant stakeholders. Furthermore, they facilitate local risk assessments and contribute to enhancing preparedness and response efforts in the face of climate change-related disasters.

To implement this methodology effectively, CASCADE developed a training course specifically tailored to civil protection experts and city planners. This ensures that the project's insights and tools can be put into practice for the benefit of the Baltic Sea region's resilience and preparedness.

## Key benefits for the UCPM:

- Improved risk assessments and enhanced cross-border and regional cooperation

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 635 839

**Beneficiary countries:** Finland, Sweden, Poland, Germany, Latvia, Estonia, Denmark

**Implementation period:** 2019–2021



# WUIVIEW: Wildland-Urban Interface Virtual Essays Workbench



Anticipate



Prepare



© WUIVIEW project

## Main outputs:

- Tools for wildfire hazard and vulnerability analysis in wildland-urban interface (WUI) communities

## Project summary:

WUIVIEW aimed to enhance wildfire resilience in wildland-urban interface (WUI) communities by developing a set of essential risk management tools.

First, WUIVIEW introduced a framework for conducting an in-depth analysis of fire impact on properties situated in a wildland-urban interface. This served as the foundation for assessing the potential risks and vulnerabilities faced by these communities. Additionally, the project generated the methodology for a self-assessment tool. This tool focused on evaluating structural vulnerability and the suitability of sheltering in place (as opposed to evacuating) during wildfires.

The project conducted surveys to examine the aftermath of wildfire incidents, helping to identify patterns and scenarios that were commonly responsible for the destruction of houses. Furthermore, fire experiments were carried out to analyse the physical processes involved

and vulnerabilities to fire. Particular attention was given to the role of residential fuels, including green hedges, domestic gas tanks, and accumulated fuel packs, in fire infiltration and its impact on buildings.

Drawing from these findings, the WUIVIEW project established critical criteria for safety distances and residential fuel management. These criteria were integrated into the risk management tools, making them even more practical and effective.

Moreover, WUIVIEW provided fresh insights into the vulnerability of materials and buildings, and these insights were translated into performance criteria for assessing the vulnerability of structures. This comprehensive approach ensured that the project's tools covered a wide spectrum of factors, ultimately contributing to the wildfire resilience of WUI communities.

## Key benefits for the UCPM:

- Evidence on what makes a residence vulnerable to wildfires, which could be translated into public guidance by national authorities

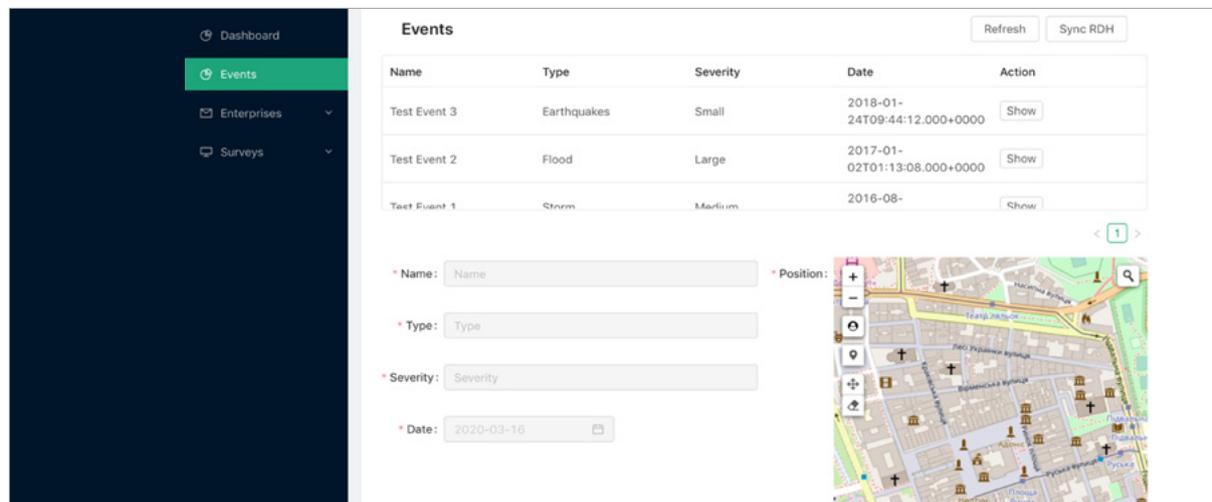
**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 572 015

**Beneficiary countries:** Spain, Portugal, France, Italy, Sweden

**Implementation period:** 2019–2021

# LODE: Loss Data Enhancement for DRR and CCA Management



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## Main outputs:

- Disaster loss database information system
- Input to scoping work on the climate protection gap (with gap analysis and experience from its showcases on disaster loss data)

## Project summary:

The LODE project tackled the issue of post-disaster damage and loss data management by identifying weaknesses in existing systems. It then focused on developing an information system tailored to optimise data collection, storage, and retrieval, serving multiple purposes for disaster mitigation and preparedness.

To eliminate duplication and inconsistencies, the database was designed to incorporate sector-specific data. In this process, LODE engaged extensively with a wide network of stakeholders, drawing upon their collective knowledge, experience, and good practices related to data collection in various European countries.

Several public administrations are already implementing adaptations to their procedures and tools as a result of the project's insights. For example, the Catalonia Civil Protection Authority in Spain introduced a dedicated tool for emergency use which supports the collection of damage data for infrastructure and assets. This improvement helps them to better identify priorities during emergencies.

Similarly, the Umbria Region utilised the LODE methodology by testing it on previous flood events and leveraging the obtained results in their preparation for a Solidarity Fund application. This showcases how the LODE project has had a tangible impact on enhancing data management and preparedness measures across different European regions.

## Key benefits for the UCPM:

- Improved collection of disaster loss data, one of the components of the Sendai Framework for Disaster Risk Reduction

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 799 108

**Beneficiary countries:** Italy, Spain, Finland, France, Greece, Portugal, Serbia

**Implementation period:** 2019–2021



# West MoPoCo: Western Mediterranean Region Marine Oil and Hazardous and Noxious Substances Pollution Cooperation



© French Navy

## Main outputs:

- Multi-regional Marine Hazardous and Noxious Substances Response Manual
- National manuals providing an overview of available response equipment and experts at the national and sub-regional level

## Project summary:

The Western Mediterranean is home to vulnerable marine ecosystems. As a semi-closed sea, it faces dense maritime traffic and significant human activity. Pollution from oil and hazardous substances poses severe environmental, social, and economic risks, emphasising the need for regional cooperation.

To address these challenges, the West MoPoCo project played a pivotal role in fostering collaboration among partner institutions and streamlining approaches. It facilitated knowledge exchange among participating nations and leveraged their experiences to create a 'Multi-regional Marine Hazardous and Noxious Substances Response Manual'. This manual is a valuable resource for the broader marine pollution response community. It received endorsement from key Regional Seas Conventions, including the Convention for the Protection

of the Marine Environment in the North-East Atlantic, the Bonn Agreement, and the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea.

In addition to this, the project upgraded the Maritime Integrated Decision Support Information System at the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), focusing on chemical substance transport.

Finally, the project conducted a comprehensive feasibility study exploring synergies among three sub-regional actors. This study resulted in a set of recommendations encompassing legal requirements, institutional structures, and operational procedures, which aim to enhance cooperation among Western Mediterranean countries.

These efforts collectively contribute to safeguarding the fragile environment of the Western Mediterranean and the wellbeing of its communities.

## Key benefits for the UCPM:

- Enhanced cross-border marine pollution preparedness
- Improved information management during marine pollution events among affected countries

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 651 312

**Beneficiary countries:** France, Italy, Algeria, Malta, Spain, Tunisia, Morocco, United Kingdom

**Implementation period:** 2019–2021



# SCORCH: Supportive Risk Awareness and Communication to Reduce the impact of Cross-Border Heatwaves



© SCORCHproject

## Main outputs:

- Recommendations for national heatwave risk communication plans for the general population and vulnerable groups in Israel, Georgia and Tunisia

## Project summary:

SCORCH aimed to mitigate the impact of heatwaves on vulnerable urban populations by enhancing risk communication strategies based on existing EU plans and guidelines.

To achieve this, the project conducted a comprehensive review of 15 national heatwave plans/guidelines and international literature. This review served as a foundation for understanding existing strategies and good practices.

Next, SCORCH compiled scientific evidence related to heatwave planning processes, and identified relevant stakeholders involved. It specifically focused on supporting vulnerable populations such as older individuals, outdoor workers, and children. Additionally, the project analysed various risk communication approaches used to protect these vulnerable groups.

To engage the community and raise awareness about heatwaves and associated health risks, the project organised focus groups and workshops. These events aimed to educate participants on the importance of better preparation and response to heatwaves.

The project culminated in the publication of an [article](#) summarising its key findings. This article serves as a valuable resource for the broader risk management community, highlighting the need for a more comprehensive and structured approach to governance within national heat health action plans. This approach should involve stakeholders from diverse sectors beyond health, recognising the multi dimensional nature of heatwave risks.

## Key benefits for the UCPM:

- Recommendations for the national heatwave risk communication plans can be used as inspiration by other countries

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 715 212

**Beneficiary countries:** Germany, Belgium, The Netherlands, Israel

**Implementation period:** 2019–2021

# EVE: European Volcano Early warning system



Anticipate



Alert



©EVE project

## Main outputs:

- VOLCANBOX platform to conduct volcanic hazard assessment and forecast volcanic eruptions

## Project summary:

The [EVE](#) project aimed to provide an easy and rapid way to forecast real-time volcanic eruptions, facilitating prediction of eruption scenarios and their potential impacts. This early warning system benefits civil protection authorities by enabling better prevention and preparedness for these potentially destructive events.

The project conducted short-term analyses of several eruptions in different locations, such as La Palma in the Canary Islands, Reykjanes Peninsula in Iceland, Piton de la Fournaise in Reunion Island, and Etna and Stromboli in Italy. These analyses underscored the critical importance of real-time volcano monitoring and long-term hazard assessment for predicting potential eruptions.

EVE promoted cooperation among authorities at regional and international levels. The project contributed to the consolidation of a scientific working group focused on volcanic hazard assessment and management at the European level. This group's purpose is to provide scientific evidence to inform policymakers and risk managers.

The VOLCANBOX multiplatform developed by the project fosters interaction and cooperation between scientists and national civil protection authorities, facilitating the sharing and standardisation of procedures, methodologies, and technologies for improved volcanic risk assessment and management.

## Key benefits for the UCPM:

- Improved early warning systems for volcanoes

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 718 300

**Beneficiary countries:** Spain, Iceland, France, Italy, Portugal

**Implementation period:** 2019–2021

# BALTPREP: Enhancing regional preparedness and response capacity for major accidents in the Baltic Sea region



© Baltprep project

## Main outputs:

- 15 preparedness plans or agreements, the majority at national level
- Regional disaster preparedness plan of the Baltic Sea region's Red Cross national societies, tested in a table-top exercise

## Project summary:

The BALTPREP project aimed to enhance the response capabilities for major incidents in the Baltic Sea region. It began with an assessment of existing response capacities and assets across participating countries, leading to a better understanding of the region's readiness.

This understanding paved the way for comprehensive training and skill development to ensure that staff and volunteers were well-prepared for effective responses. Simultaneously, the project established a solid sub-regional framework for preparedness, fostering cooperation through working groups and preparedness planning.

The project recognised the importance of psychosocial support during emergencies, and worked to increase capacities and interoperability in this area. It also focused on enhancing cooperation between civil protection and humanitarian aid actors, acknowledging the need for collaboration among different organisations.

The project emphasised trans-border and macro-regional cooperation to address incidents that transcend national boundaries. The result was improved coordination, response quality and interoperability among civil protection authorities, communities and Red Cross National Societies.

The project's long-term vision was to contribute to building lasting capacity within each participating Red Cross Society. Beyond these Societies, the project's impact extended to a broader circle of civil protection professionals and volunteers, as well as the general public, raising awareness about the importance of preparedness for major emergencies.

## Key benefits for the UCPM:

- Enhanced preparedness for major emergencies within Red Cross Societies and among various actors, including civil protection authorities

**Funding source:** 2017 UCPM Prevention and Preparedness call

**EU contribution:** EUR 749 127

**Beneficiary countries:** Finland, Denmark, Germany, Estonia, Latvia, Lithuania, Poland

**Implementation period:** 2019–2021



# ProCultHer: Protecting Cultural Heritage from the Consequences of Disasters



© PROCULTHER Group

## Main outputs:

- Key elements of a European methodology to address cultural heritage protection during emergencies
- Standard operating procedures for emergency preparedness and response
- Multidisciplinary capacity to provide guidance on preparedness measures for cultural heritage protection (and to be deployed when needed)

## Project summary:

**PROCULTHER** aimed to enhance the protection of cultural heritage during emergencies. The project focused on establishing the necessary technical and operational tools and procedures for the activation and deployment of an interdisciplinary UCPM module dedicated to preserving cultural heritage.

Drawing on the collective experience and competencies of the project countries, PROCULTHER demonstrated the urgent need for cross-sectoral cooperation between disaster risk managers and cultural heritage actors. The collaboration aimed to reduce the risk of disasters affecting cultural heritage.

One of the project's significant achievements was the definition of 'Key elements of a European methodology for protecting cultural heritage during emergencies'. This methodology provides a standardised approach to safeguarding cultural heritage in times of crisis. PROCULTHER also contributed tools to facilitate initial actions for developing national and European capacities in cultural heritage protection, thus enhancing preparedness and response capabilities.

Furthermore, building on the contacts and knowledge established during the PROCULTHER project, the PROCULTHER-NET project (which ended in December 2023) aimed to create a European thematic community dedicated to cultural heritage protection. Its goal was to equip civil protection experts with the knowledge and skills they need to ensure the continued preservation of cultural heritage during emergencies.

## Key benefits for the UCPM:

- Enhanced awareness of civil protection authorities on the importance of integrating preparedness measures for cultural heritage protection in national plans
- Multidisciplinary capacity readily deployable in international emergencies

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 599 307

**Beneficiary countries:** Italy, France, Spain, Türkiye

**Implementation period:** 2019–2021



# Ready to Respond: Modernised preparedness and response capacity in South Caucasus



© Ready to Respond project

## Main outputs:

- Development and strengthening of the Armenian and Georgian Red Cross Societies' standard operating procedures, disaster response teams, and emergency operation centres
- Better integration of the Red Cross Societies in national emergency response plans

## Project summary:

The [Ready to Respond](#) project strengthened interoperability, experience exchange, and coordination between civil protection authorities and humanitarian aid actors in Armenia and Georgia. This was achieved through the development and strengthening of the Armenian and Georgian Red Cross Societies' standard operating procedures, disaster response teams, and emergency operation centres, which also helped to further clarify the specific roles and responsibilities of the Armenian and Georgian Red Cross Societies in national emergency response plans.

A key achievement of 'Ready to Respond' was strengthening the use of volunteers in emergencies through disaster response teams. This was realised through the development of contingency plans and standard operating procedures, as well as by conducting training and exercises.

The capacities of the Red Cross Societies were further enhanced in relation to cash preparedness and mental health and psychosocial support. The vital nature of a cash and voucher assistance methodology and related training was shown during the COVID-19 response.

## Key benefits for the UCPM:

- Enhanced cross-border interoperability of EU Neighbourhood Red Cross Societies and clearer national emergency response plans

**Funding source:** 2018 UCPM Prevention and Preparedness call

**EU contribution:** EUR 425 652

**Beneficiary countries:** Denmark, Armenia, Georgia, Austria, Iceland

**Implementation period:** 2019–2021



# oVERFLOW: Vulnerability assessment of embankments and bridges exposed to flooding hazards

## Anticipate



© oVERFLOW project

### Main outputs:

- Vulnerability assessment of critical infrastructure, including a risk tool and a GIS online platform containing the inventory of critical infrastructure in pilot areas
- Guidelines for civil protection authorities on how to implement the risk assessment and vulnerability results in existing procedures and plans

### Project summary:

The [oVERFLOW](#) project sought to contribute to climate adaptation through climate-resilient infrastructure. This was achieved through an improved risk-based methodology to assess the vulnerability of flood defence levees and bridges, and the assessment of vulnerable infrastructure in high-risk areas.

After an information management platform was developed and implemented in the geographic information systems of relevant stakeholders, a vulnerability assessment of critical infrastructure was undertaken. This included development of advanced protocols for investigation works and monitoring of embankments and riverbanks, as well as bridge monitoring.

Due to significant seismic events during the project implementation, activities also addressed the seismic vulnerability of the flood protection system. Based on the identified vulnerability, a risk tool was developed and applied on two case study areas in Croatia and the Netherlands. Both the vulnerability assessment methodology and the risk tool were taken on board by the participating civil protection agencies.

Furthermore, oVERFLOW developed an adaptation plan to increase the resilience of identified critical infrastructure to flood events.

### Key benefits for the UCPM:

- Improved risk assessment understanding and tools, which contribute to the protection of citizens and property in case of disasters

**Funding source:** 2019 UCPM Prevention and Preparedness call

**EU contribution:** EUR 4,982,600

**Beneficiary countries:** Croatia, The Netherlands, Slovenia

**Implementation period:** 2019–2022



# SAVEMEDCOASTS 1 and 2: Sea level rise scenarios along the Mediterranean Coasts



Anticipate



Prepare



© SaveMedCoasts-2 project

## Main outputs:

- Geospatial data sharing hub with interactive thematic maps
- Detailed sea level rise, flood and multi-hazard scenarios for 2100
- Awareness-raising actions in communities within areas of high flooding risk

## Project summary:

The SAVEMEDCOASTS project developed a methodology to improve the assessment of risks stemming from sea level rise, and highlighted the most exposed coastal areas – 163 'hotspots' (that are less than two metres above sea level) – around the Mediterranean Sea. The project provided detailed sea level rise projections, including information on the local acceleration due to land subsidence, and potential amplification of tsunami risk and storm surge events (abnormal rise in seawater level during a storm) for selected zones.

The second phase of the project (SAVEMEDCOASTS 2) expanded this work to other vulnerable Mediterranean areas. The project conducted awareness-raising actions in communities in areas of high flood risk through the 'KnowRiskFlood' campaign for schools. It focused on youth, involving students and their teachers in workshops, and providing them with knowledge resources and educational tools. It also improved sea level rise projections, flood and multi-hazard scenarios, spatial decision support systems, and disaster risk management plans in the target areas.

## Key benefits for the UCPM:

- Improved risk assessment for coastal areas in the Mediterranean basin
- Disaster risk awareness-raising and education tools

**Funding source:** 2016 and 2019 UCPM Prevention and Preparedness calls

**EU contribution:** EUR 1 117 580

**Beneficiary countries:** Italy, Cyprus, Greece, Spain

**Duration of the projects:** 2017–2019 and 2019–2022



# IMAROS: Improving response capacities and understanding the environmental impacts of new generation low sulphur MARine fuel Oil Spills



Anticipate



Secure

imaros



© IMAROS project

## Main outputs:

- Overview of existing products of low sulphur fuel oils
- Suitability analysis of different response technologies for low sulphur fuel oil spills

## Project summary:

Successful oil spill response after ship incidents reduces impacts on the marine environment and socio-economic impacts for affected coastal communities. Recent changes in the International Maritime Organisation's regulations to reduce air emissions from ships have resulted in a 'new generation' of fuel oils (very low sulphur and ultra-low sulphur fuel oils). These new fuel types may be challenging during accidental oil spills, and their behaviour after a spill was previously not well known.

IMAROS aimed to bridge this gap by identifying relevant characteristics of the new generation of low sulphur fuel oils used in Europe. The suitability of different response technologies for such spills was established through practical equipment tests.

IMAROS developed recommendations for oil spill response involving the new generation of fuel oils, including capacities and methods for response at sea and on shorelines. The project results can guide European countries on possible challenges in responding to low sulphur fuel oil spills. An effective response at sea will reduce the amount of oil that reaches the shorelines.

## Key benefits for the UCPM:

- Improved understanding of the environmental risks of 'new generation fuel oil' spills and appropriate response solutions

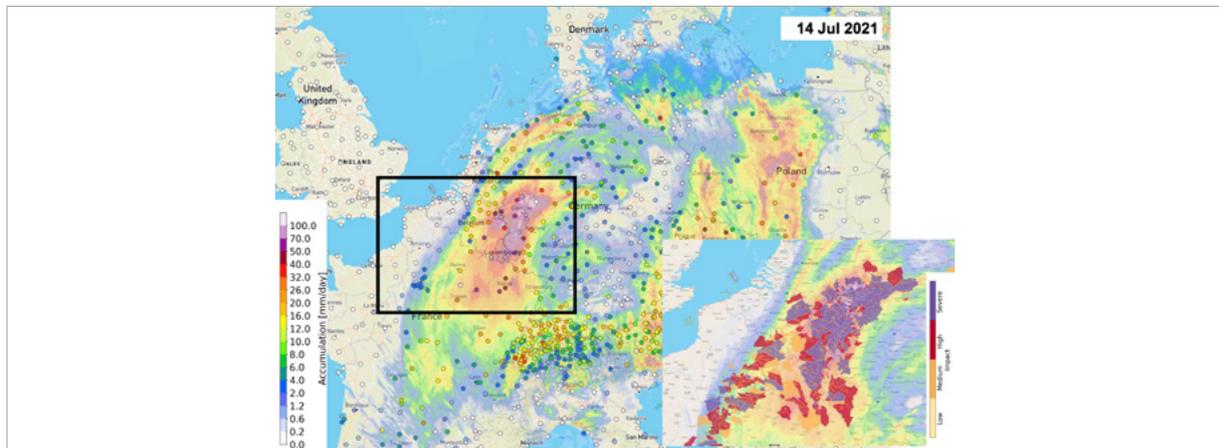
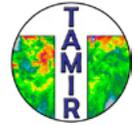
**Funding source:** 2019 UCPM Prevention and Preparedness call

**EU contribution:** EUR 747 507

**Beneficiary countries:** Norway, Sweden, Belgium, Denmark, France, Malta

**Implementation period:** 2020–2022

# TAMIR: Advanced tools for pro-active management of impacts and risks induced by convective weather, heavy rain and flash floods in Europe



© TAMIRtoolscreenshot

## Main outputs:

- Improved European early warning systems to support decision making by civil protection authorities
- Flash flood impact forecasts
- Multi-hazard nowcasts for convective storms on a regional level

## Project summary:

The TAMIR project built on a series of previous UCPM projects that developed improved early warning systems for extreme events. TAMIR developed flash flood hazard and impact forecasting tools (translating the physical hazard characteristics into socio-economic consequences) on a pan-European scale. The forecasts extend from current time to five days ahead.

Different exposure datasets, including population density and critical infrastructure, have been integrated to better assess potential impacts. TAMIR outputs have also been added into the European Flood Awareness System (EFAS), thus providing added-value on a pan-European level.

On a regional scale, the project demonstrated convective storm impact nowcasting (description of weather conditions now and in the immediate future, up to 60 minutes ahead). These high-resolution multi-hazard nowcasts enable, for example, a local emergency responder to visualise the potential impact more easily at town level. Nowcasts have been used to improve hazard level estimation, effectively reducing false alarms of flash flood events during snowfall episodes.

## Key benefits for the UCPM:

- Protection and early warning of population and assets from extreme natural hazards
- Tools accessible to national authorities in the EU

**Funding source:** 2019 UCPM Prevention and Preparedness call

**EU contribution:** EUR 987 140

**Beneficiary countries:** Finland, Spain

**Implementation period:** 2020–2022

# TEAMS 3.0: Training for Emergency Medical Teams and European Medical Corps 3.0



© TEAMS 3.0 project

## Main outputs:

- Training package for Emergency Medical Teams through an open, free-of-cost eLearning platform
- Evidence-based operational exercises and trainings for four teams

## Project summary:

The [TEAMS 3.0](#) project followed two previous project phases that supported the European Medical Corps to mobilise medical and public health teams and equipment for emergencies inside and outside the EU. TEAMS 3.0 continued efforts to improve the capabilities of national emergency medical teams by revising and updating the training package developed in the previous projects with new scenarios and exercises, as well as an extended consortium.

The TEAMS 3.0 project worked on emerging training needs by identifying global disaster risk trends, and new scenarios and operational challenges encountered by national emergency medical teams in disasters. The TEAMS training package was then updated accordingly, including with new exercises.

The new TEAMS training was delivered to four emergency medical teams from Türkiye, Norway, Portugal and Germany, and was evaluated with the support of the academic partners. [The TEAMS training package](#) is available through an open, free-of-charge eLearning platform, which allows the training to reach a global audience.

## Key benefits for the UCPM:

- TEAMS training package allows UCPM emergency medical teams to harmonise their training activities

**Funding source:** 2020 UCPM Prevention and Preparedness call

**EU contribution:** EUR 492 808

**Beneficiary countries:** Italy, Sweden, Israel, Türkiye, Norway, Portugal, Germany

**Implementation period:** 2020–2022

# StrengthVOL: Strengthening Civil Protection Systems through Volunteer Capacities



© Strength-VOL project

## Main outputs:

- Action plan for increased deployability of volunteer response capacities
- Civil protection volunteering models corresponding to specific country context

The [StrengthVOL project](#) significantly strengthened civil protection volunteering in the framework of the Eastern partnership by consolidating emergency response in the municipalities where volunteer groups have been established. The project also supported dialogue on civil protection volunteering within three countries – Ukraine, Georgia and Armenia – of the EU Eastern Neighbourhood partnership. The role of civil protection volunteers and their diverse needs have been part of the discussions, as well as lessons identified in the past.

StrengthVOL prepared recommendations for developing a civil protection volunteering model that can also be used by other countries. Furthermore, the project strengthened cooperation between civil protection authorities and the Red Cross National Societies on long-term volunteering development. The project showed that civil protection volunteer groups can be established with limited financial means if municipalities are strongly involved in the process.

## Key benefits for the UCPM:

- Strengthened capacities for emergency response in the EU Neighbourhood
- Volunteering models and recommendations may be used by other countries for inspiration

**Funding source:** 2019 UCPM Prevention and Preparedness call

**EU contribution:** EUR 400 000

**Beneficiary countries:** Austria, Ukraine, Georgia, Armenia, Ireland

**Implementation period:** 2020–2022



# AIDERS: Real-time Artificial Intelligence for decision support via RPAS data analytics



© AIDERS project

## Main outputs:

- An artificial intelligence toolkit that provides relevant, reliable, and timely information
- First responders training on the use of the project's results

## Project summary:

The [AIDERS](#) project focused on the development of a technologically advanced solution for first responders seeking to introduce remotely piloted aircraft systems into their operations, enabling them to quickly make sense of the deluge of data to inform incident commanders in the field. AIDERS set out to develop an artificial intelligence toolkit to allow first responders to quickly and accurately convert the large volume of data collected into actionable decisions for improved emergency response.

AIDERS was able to facilitate cooperation between first responders and technical partners to identify application-specific needs. A novel artificial intelligence toolkit was developed and tested in real-life exercises, providing relevant, reliable, and timely information from data collected through sensors on drones. The testing and evaluation during the field exercises allowed for drafting of processes and procedures for use of artificial intelligence. This materialised into training activities, which provided a platform for first responders to familiarise themselves with artificial intelligence techniques and the AIDERS artificial intelligence toolkit.

The AIDERS artificial intelligence toolkit is an open-source software available to any interested party for download through the [AIDERS project website](#).

## Key benefits for the UCPM:

- Enhanced tools for better situational awareness in emergencies

**Funding source:** 2019 UCPM Prevention and Preparedness call

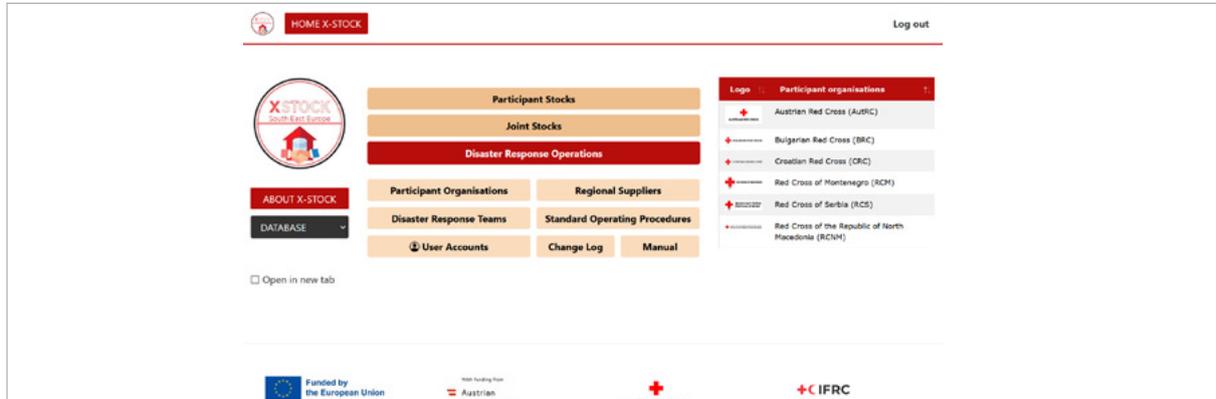
**EU contribution:** EUR 920 406

**Beneficiary countries:** Cyprus, Italy, France, Greece

**Implementation period:** 2020–2022



# X-Stock: Enhancing cross-border preparedness through shared management of emergency stock in South East Europe



© X-Stock project

## Main outputs:

- Software for shared emergency stock management
- Standard operating procedures for relief goods transfer among South-Eastern Europe Red Cross national societies

## Project summary:

The X-Stock project boosted cross-border preparedness for emergencies through collaborative management of emergency stockpiles, and establishment of cross-border agreements for joint stock management. This resulted in the development of a comprehensive regional stock management strategy, complemented by a user-friendly software application often referred to as a 'virtual warehouse'. This innovative tool enables users to seamlessly access information about shared relief supplies in neighbouring countries and, when necessary, request support directly through the system. Notably, it also automates much of the paperwork required for shipping relief items across south-eastern Europe.

Furthermore, the project introduced standardised operating procedures for the transfer of relief goods among partner organisations, significantly enhancing

operational efficiency. This minimised excessive stockpiling and eliminated unnecessary expenditures on new purchases, representing a substantial cost-saving measure.

The tool's benefits extend beyond Red Cross Societies, as it also provides civil protection authorities with access to crucial stock information. This enhanced coordination means civil protection authorities can leverage the Red Cross's resources to complement their national efforts.

Additionally, the X-Stock project contributed valuable recommendations for refining procedures, policies, and agreements related to emergency stock management, and called for the revision of pre disaster agreements between civil protection authorities, the Red Cross, and other emergency response stakeholders. Looking ahead, X-Stock aims to share recommendations for replicating and scaling up this successful initiative in other countries, further advancing cross-border preparedness on a global scale.

## Key benefits for the UCPM:

- More efficient use of emergency stocks and shorter response times

**Funding source:** 2020 UCPM Prevention and Preparedness call

**EU contribution:** EUR 492 197

**Beneficiary countries:** Austria, Bulgaria, Croatia, Montenegro, North Macedonia, Serbia

**Implementation period:** 2021–2023



# EUROWA-2: EUROpean Wildlife pollution emergency Assistance-2



©Eurowa-2 project

## Main outputs:

- New educational tools and guidelines for authorities on how to plan for and manage an effective response to oiled wildlife
- A coordinated international network of accredited wildlife response experts

## Project summary:

The [EUROWA-2](#) project built upon its predecessor by expanding the pool of accredited experts available for mobilisation within the EUROWA module. This expansion was designed to address incidents occurring in Europe or the broader Mediterranean region, particularly those affecting sea turtles.

EUROWA-2 aligned with the strategic goals of the European Regional Sea Agreements and the European Union, fostering a comprehensive approach to managing marine pollution emergencies. It delivered a valuable toolkit of technical guidance tools for authorities, including exercise guidelines and a forward-looking vision document outlining the future of oiled wildlife response in Europe.

To ensure effective utilisation of these resources, the project conducted informative workshops for national authorities, and developed instructional animation videos illustrating key challenges in responding to oiled wildlife incidents.

Furthermore, EUROWA-2 introduced three new training packages covering oiled sea turtle response, biological risk and impact assessment, and a managerial course for oiled wildlife response. New protocols specifically for oiled sea turtle response were also established.

Overall, EUROWA-2 contributed to enhancing Europe's readiness and capability to respond to incidents involving oiled wildlife, aligning with regional and EU strategies for effective marine pollution emergency management.

## Key benefits for the UCPM:

- Supports authorities to increase their preparedness to protect wildlife from marine pollution

**Funding source:** 2020 UCPM Prevention and Preparedness call

**EU contribution:** EUR 602 955

**Beneficiary countries:** Belgium, Spain, Finland, The Netherlands

**Implementation period:** 2021–2023

# SEE ME: Safe and Equal in Emergencies



© SEE ME project 2023

## Main outputs:

- Awareness-raising campaign on equal rights in emergencies
- Guidelines related to the protection and rescue of people with disabilities in emergencies

## Project Working-Source-Filesry:

[SEE ME](#) aimed to ensure that people with disabilities have equal access to help in emergency situations. In disasters and their aftermath, people with disabilities are disproportionately more at risk of injury and death than the general population, and their lives depend almost exclusively on the knowledge, skills and equipment of first responders. While in the past, concerns for people with disabilities played a marginal role in disaster management planning, civil protection actors have become more concerned with improving the consideration given to this vulnerable group.

The SEE ME project sought to improve the safety of persons with disabilities and ensure they have equality in emergencies by raising awareness of equal rights in emergencies, analysing gaps and needs in the protection and rescue of persons with disabilities, collecting and exchanging good practices, and developing guidelines and protocols for local authorities. This included 'Guidelines for dealing with people with disabilities in emergency situations'. Accompanying training was also delivered on this topic, as well as an exercise to test the learners' acquired skills. Overall, the project advocated for people with disabilities to play an active role in civil protection prevention and planning activities.

## Key benefits for the UCPM:

- Concrete ideas for better reflecting the needs of vulnerable groups in disaster prevention and preparedness activities

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 312 642

**Beneficiary countries:** Croatia, Slovenia, Montenegro

**Implementation period:** 2022–2023

# TRANS-ALP: Transboundary storm risk and impact assessment in Alpine regions



Anticipate



© ARPAV/project partners

## Main outputs:

- Multi-hazard storm risk assessment and impact forecasting methodology
- Cross-border risk assessment reports for storm-related hazards in the Alps, supported by common standardised methodologies and a data sharing tool

## Project summary:

The overall goal of TRANS-ALP was to provide innovative multi-hazard storm risk assessment and impact forecasting methodology, tailored to the needs of civil protection authorities in cross-border mountain regions. This involved critically scrutinising the vulnerability of existing multi-hazard risk assessment approaches and socio-economic asset mapping techniques.

The project also supported decision making processes for disaster risk prevention in mountain areas, and encouraged the adoption of common standards by comparing good practices across borders.

In order to better understand extreme weather events and develop more efficient impact forecasting methodologies, TRANS-ALP built a database of selected events that occurred between 1980 and 2020 which had damaging effects in the border area between Austria and Italy.

The project created a cross-border framework to model possible exposure to natural hazards, which accounts for issues like the changing number of people in given areas during daytime, at night, and during peak commute times. It also created a cross-border risk re-assessment framework to estimate the potential increase in avalanche hazard in the months following a wind-storm event.

## Key benefits for the UCPM:

- Innovative solution for prevention and preparedness in case of extreme meteorological phenomena (heavy snow, rain, avalanches) in mountain areas

**Funding source:** 2020 UCPM Prevention and Preparedness call

**EU contribution:** EUR 501 795

**Beneficiary countries:** Italy, Austria

**Implementation period:** 2021–2022

# AFAN: Advanced Fire Analysis Network



Anticipate



© AFANProject

## Main outputs:

- European wildfire expert knowledge sharing network
- AFAN Toolkit
- Compilation of key outcomes for wildfire experts and practitioners

## Project summary:

The AFAN Toolkit offers various resources on fire risk analysis and risk reduction, with one notable example being the guidelines for fire analyst competencies and skills. These guidelines represent an initial effort towards establishing a unified European framework for fire analysis. They encompass an inclusive approach, involving organisations at various levels, and aim to assess current knowledge, existing gaps and opportunities in the field.

The toolkit also includes guidelines that focus on the utilisation of tools, scientific principles and good practices for fire analysis. These guidelines consolidate a diverse array of tools and methodologies commonly employed by fire analysts across the European Union.

Moreover, to highlight the advantages of remote assessment and analysis support during wildfires, the guidelines for remote assessment units concentrate on seven crucial areas: communication flow and analysis translation, essential information requirements, support tools for remote analysis, exchanged analysis outputs, communication channels, delineation of responsibilities, and the identification of critical issues and lessons learned.

In summary, the AFAN Toolkit encompasses valuable resources and guidelines that promote standardisation and knowledge sharing within the field of fire analysis, benefiting organisations at all levels and fostering collaboration between fire analysts throughout the EU.

## Key benefits for the UCPM:

- Increased visibility of the existing fire analysis knowledge and network
- Mutual learning and exchange of experience between ten European countries
- Compilation of open access guidelines for fire analysts

**Funding source:** UCPM Knowledge Network Partnership

**EU contribution:** EUR 298 054

**Beneficiary countries:** France, Italy, Spain, United Kingdom

**Implementation period:** 2021–2022



# ARTION: Disaster Management Artificial Intelligence Knowledge Network



Anticipate



© ARTIONProject

## Main outputs:

- Increased capacity of first responders in the use of artificial intelligence (AI) technology
- Stimulation of further AI research towards application-specific challenges in the disaster risk management (DRM) cycle
- A disaster management AI portal

## Project summary:

ARTION was built on four main pillars: Research and Innovation, Quantifiable Field Exercises, Training and Networking, and Open Knowledge.

The first pillar, Research and Innovation, reviewed existing AI tools, identified open research questions, and developed and tested novel algorithms.

The Training and Networking pillar focused on developing a training manual on a selection of topics, such as modelling approaches for different hazards, and a detailed approach for testing and evaluating AI disaster management technologies. Additionally, this pillar provided training and networking opportunities to relevant stakeholders.

These opportunities included Quantifiable Field Exercises, where the most promising algorithms were tested and new open-source data sets were created to develop under the last pillar of the project – Open Knowledge.

## Key benefits for the UCPM:

- Creation of training material for first responders
- Compilation of data sources and algorithms for AI in disaster management

**Funding source:** UCPM Knowledge Network Partnership

**EU contribution:** EUR 299 928

**Beneficiary countries:** Cyprus, France, Italy, Poland

**Implementation period:** 2021–2022

# INtegrated DIaster MAnagement - go digital



© INDIMA Project

## Main outputs:

- A network concept for better, holistic civil protection and DRM
- Integration of all stakeholders in pre-planned preparedness and response activities

## Project summary:

The network concept developed by INDIMA aimed to create a matrix for the integration of new stakeholders into the DRM framework. To this end, a checklist was created to ensure proper response to a variety of natural and manmade hazards. This concept was tested in a simulation exercise with participants from four UCPM member states. This virtual reality-supported table-top exercise simulated a severe weather event, and tested both national and cross-border response.

Key take-aways from this exercise include the need to make checklists adaptable to each country, the importance of further back-up strategies, and resource prioritisation. Using the feedback from the exercise, an updated disaster risk management checklist was developed as the final outcome of this project.

## Key benefits for the UCPM:

- A strategic framework for the integration of new stakeholders into existing disaster risk management structures
- Exchanges between different types of stakeholders from the public and private sector

**Funding source:** UCPM Knowledge Network Partnership

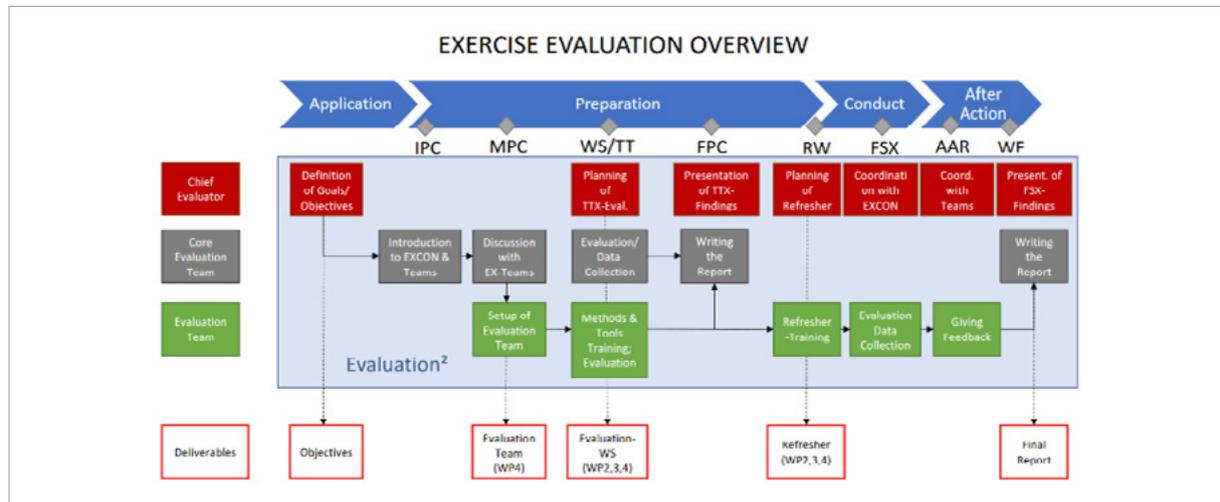
**EU contribution:** EUR 166 598

**Beneficiary countries:** Austria, Hungary, Romania, Poland

**Implementation period:** 2021–2022



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



© INEGMA-E2 Project

## Main outputs:

- Versatile evaluation strategy for civil protection exercises
- Training concept and skillset for evaluators
- Review and development of existing data collection tools

## Key benefits for the UCPM:

- Harmonised evaluation strategy for a range of civil protection exercises
- Potential to create an international pool of evaluators to be accessed by relevant institutions

## Project summary:

INEGMA-E2 developed standard operating procedures for the evaluation of civil protection exercises. The evaluation concepts were based on table-top, functional, command post, and full-scale exercises. Good practices were examined during the pre-exercise, exercise, and post-exercise phases.

By exploring a number of existing data collection tools, like software and technical solutions, tools for 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.

**Funding source:** UCPM Knowledge Network Partnership

**EU contribution:** EUR 459 950

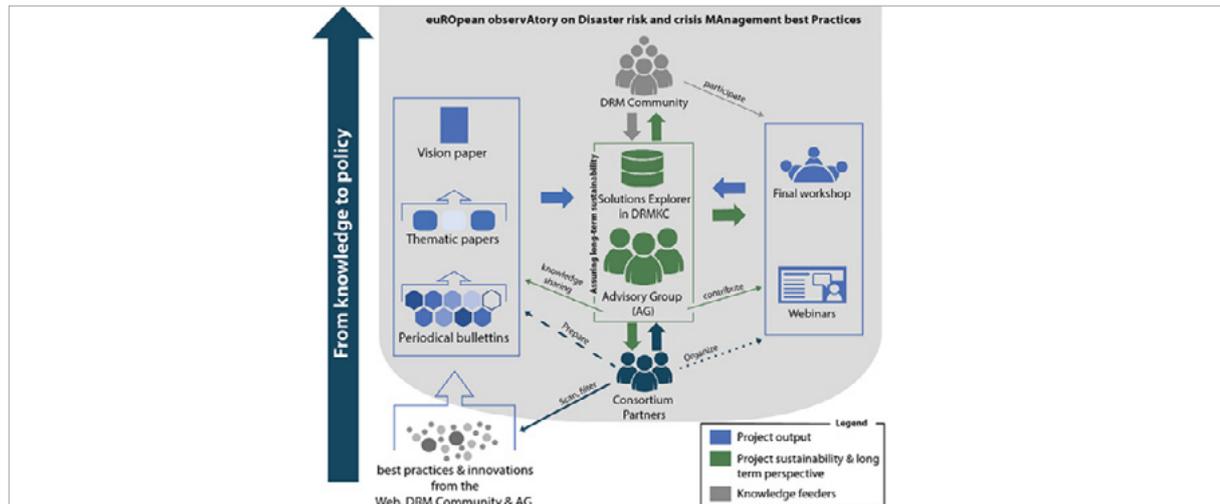
**Beneficiary countries:** Austria, Finland, Germany, Poland, Romania

**Implementation period:** 2022–2023

# ROADMAP: European Observatory on Disaster Risk and Crisis Management Best Practices



Anticipate



© ROADMAP Project

## Main outputs:

- A European doctrine on disaster risk and crisis management
- Review of over 40 case studies and identification of 59 good practices
- Continuation with follow-up project, ROADMAP2

## Project summary:

The good practices identified by ROADMAP were published in three thematic papers.

'Multi hazard risks stemming from a pandemic scenario' examines the context of simultaneous, cascading or cumulative hazardous events, using the example of the COVID-19 pandemic.

'Risk and crisis communication' evaluates good practices based on criteria from the Sendai Framework, focusing on aspects such as data accessibility and dissemination of disaster risk information through community-based stakeholders.

The final thematic paper, 'Build back better and leave no one behind', identifies good practices for operational continuity, new legislation for building back better, and increasing preparedness and response capacities.

## Key benefits for the UCPM:

- Further development of a common European approach and shared vision on disaster risk management
- Exchanges and cooperation between the scientific community and disaster risk management authorities
- Identification of good practices from UCPM member and participating states

**Funding source:** UCPM Knowledge Network Partnership

**EU contribution:** EUR 279 350

**Beneficiary countries:** Italy, Norway, Portugal

**Implementation period:** 2021–2022



# Ireland: FutureProof-IE



## Anticipate



Tánaiste Micheál Martin, Chair of the Government Task Force on Emergency Planning (on the left) and European Commissioner for Crisis Management Janez Lenarčič (on the right) attending the presentation on the results of the study. © European Union, 2024

### Main outputs:

- Research methodologies in emergent risk forecasting.
- National risk assessment methodology.

### Project summary:

The [FutureProof-IE](#) project developed a new national risk assessment methodology, with a focus on horizon scanning for emerging risk and emergent risk management. This new methodology comprised the assessment of traditional risks, emergent risks, and emergent risk management to produce a comprehensive model for national strategic risk management. This research also links with another EU funded project, which sees Ireland partnering with Finland and Estonia to develop a methodology to integrate the risk assessment requirements of Article 5 of the EU Directive on the resilience of critical entities with the requirements of Article 6 of Decision no 1313/2013/EU on a Union Civil Protection Mechanism.

The partnership, within FutureProof-IE, of the Department of Defence of Ireland and Dublin City University, highlights the importance of academic research in policy-making, particularly given the cross-sectoral nature of national risk assessment.

The project improved the Irish national risk assessment methodology by integrating a horizon scanning methodology to identify emerging risks which could trigger a national-level emergency. The final report of the project presented risk management reporting system to embed the oversight of key and emerging risks in the annual programme of the Government Task Force for Emergency Planning.

The report also described how the Irish methodology includes public consultation, while setting out a seven-step process for identification of emerging risks, including how horizon scanning for emerging risks could be integrated into the national system. Finally, it provided an implementation guide to deliver an improved approach to strategic risk management.

### Key benefits for the UCPM:

- Innovative approach to national risk assessment which could be replicated elsewhere.

**Funding source:** 2022 UCPM Track 1 grants

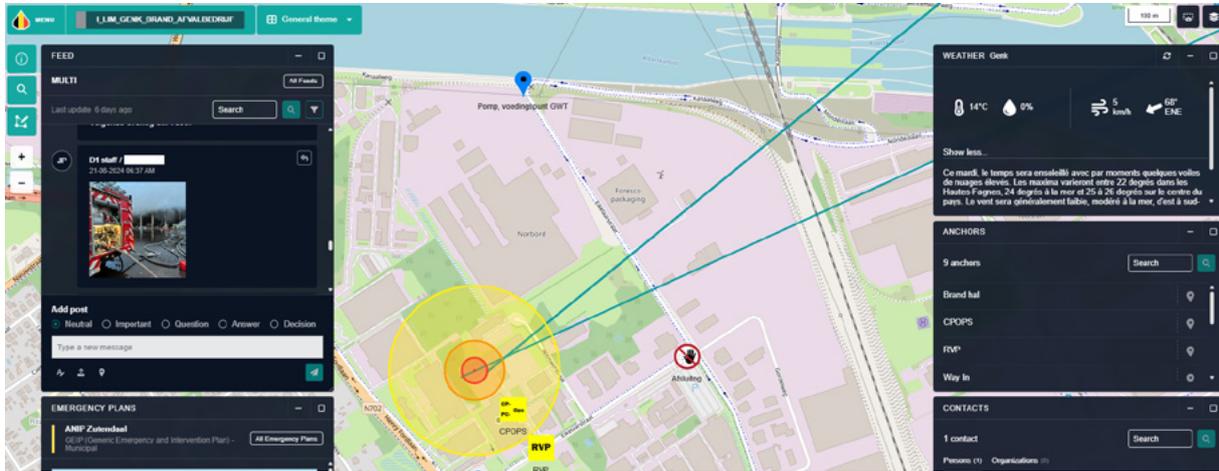
**EU contribution:** EUR 57 027

**Beneficiary country:** Ireland

**Implementation period:** 2023–2024



# Belgium: Paragon – Analysis of the needs and requirements for making a Crisis Information Management System usable within the Benelux



Paragon shows an operational view of a real-life case: a fire in a waste treatment company. Different users from different emergency authorities communicate and collaborate.  
© Paragon Benelux project

## Main outputs:

- Development of the *Paragon* crisis information management system, adapted to an international context and for cross-border application.

## Project summary:

The [Paragon Benelux](#) project contributed to the development of an information and communication online platform for crisis management. The project also consisted of an extensive literature study describing the institutional and legislative situation in Belgium, Germany, Luxemburg, Netherlands and the EU as regards crisis and disaster management.

Paragon's ambition was to develop a crisis management solution on an international level. The Belgian National Crisis Center (NCCN) launched Paragon, the new Belgian emergency management portal, in July 2024. Its purpose is to allow all Belgian emergency management authorities to share information quickly and efficiently during a crisis. Paragon is a map-based interface including a number of useful features, such as a repertoire of approved emergency plans that can be activated and feeds to record actions. Paragon already has over 9 000 users and continues to train future ones.

The Paragon team is now invested in a follow-up project called 'IMPACT' ('Implementation of Paragon Cross-Territory'). In this project the previously delivered literature study and analysis will be developed, implemented and released in the current Paragon platform to enable the cross-territory use of Paragon and connection with crisis management systems of the neighbouring countries, with a primary focus on the Benelux countries.

## Key benefits for the UCPM:

- Functional crisis management platform connecting all relevant stakeholders, in a multi-country and cross-sectoral approach.
- Good practice for a web-based platform connecting risk assessment, with planning, prevention, preparedness, and response.

**Funding source:** 2021 UCPM Track 1 grants

**EU contribution:** EUR 740 000

**Beneficiary country:** Belgium

**Implementation period:** 2022–2024

# Lithuania: Grant for disaster risk management in Lithuania



Anticipate



Secure



Seminar on the Development of IT application: Integration of WHO "Hospital Safety Index". 2024, Vilnius.  
© Grant for disaster risk management in Lithuania project

## Main outputs:

- Feasibility study on the national health emergency management system.
- Information technology application to facilitate coordination and promote cross-sectoral management of COVID-19 and similar major health crises.
- Training courses on crisis prevention, risk identification and management for health professionals.

## Project summary:

The [project](#) aimed at enhancing emergency preparedness and response capabilities, focusing on managing risks like COVID-19 and major health crises. Key accomplishments include the development of a feasibility study for a Lithuanian national health emergency management system, identifying systematic problems and proposing solutions such as regulatory changes and IT system modernisation. Moreover, a new 'National health system hazards and emergencies risk analysis' framework was established and piloted, aligning with the World Health Organization's guidelines ('Strategic Toolkit for Assessing Risks' methodology) and improving emergency preparedness monitoring.

The project prioritised training and capacity building, conducting training needs assessments and providing crisis

management training to employees of the Health Emergency Situations Centre and other healthcare institutions of the Lithuanian national health system. Business processes within the Health Emergency Situations Centre were optimised through workshops, documentation development, and risk management system implementation, enhancing efficiency and effectiveness.

Communication and public awareness initiatives were strengthened through the development of a communication strategy and its implementation plan, crisis communication training for the Health Emergency Situations Centre employees, and the improvement of the centre's website. Social media presence was expanded, bolstering visibility and outreach efforts.

Overall, the project accomplished its objectives, demonstrating a holistic approach to improving emergency management systems, enhancing response capabilities, and fostering cross-sectoral coordination. By focusing on policy development, system enhancements, capacity building, and communication strategies, the project significantly contributed to bolstering emergency preparedness and response mechanisms for current and future crises.

## Key benefits for the UCPM:

- Improved resilience of the Lithuanian health system.

**Funding source:** 2021 UCPM Track 1 grants

**EU contribution:** EUR 647 429.75

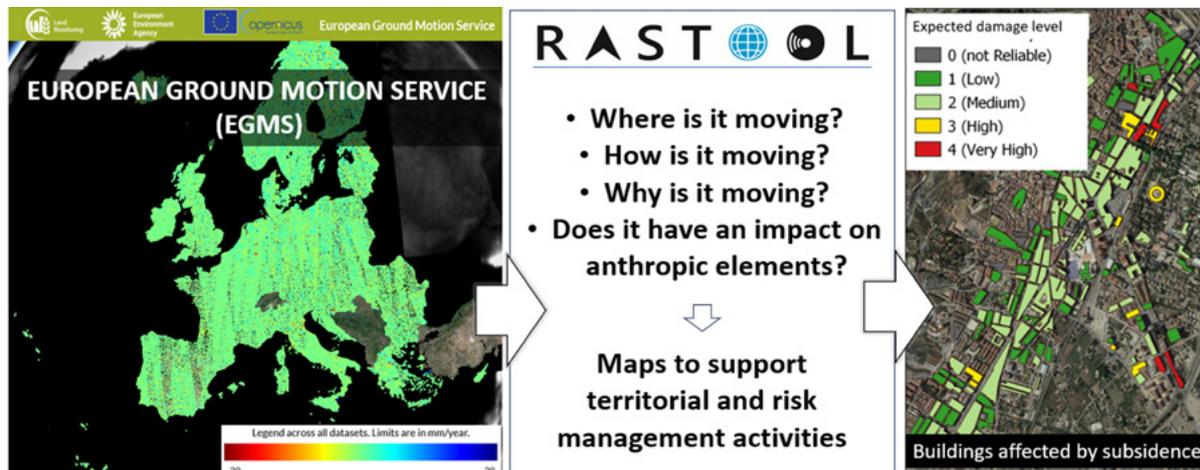
**Beneficiary country:** Lithuania

**Implementation period:** 2022–2024

# RASTOOL: European ground motion risk assessment tool



RASTOOL



The project developed tools to support risk management activities. © European Ground Motion Service (screenshot on the left) and Centre Tecnològic de Telecomunicacions de Catalunya (text and potential damage map on the right).

## Main outputs:

- New free and user-friendly tools to ease the use of the European Ground Motion Service for territorial and risk management activities.
- Maps to support ground motion risk assessment over the Spain-Portugal, Poland-Czech Republic, Belgium-The Netherlands cross-border areas, and over regional areas of Italy, and Spain.
- European ground motion web map for national and regional civil protection authorities, geological and geohazard risk management entities, research, and citizens.

## Project summary:

RASTOOL provided crisis professionals with a set of tools for simplifying the Copernicus European Ground Motion Service (EGMS) data, to automatically analyse them and to generate maps supporting hazard, exposure, and risk-assessment against geohazards, both natural and anthropogenic.

The Active Deformation Areas tools (ADAtools) aim to increase the uptake of the EGMS by any actor involved in disaster risk reduction and disaster risk management. The tools facilitate the extraction and interpretation of the most significant information about ground motion

phenomena from the huge amount of pan-European ground motion service data. The final output of the ADAtools is a map that clearly indicates where ground motion is affecting exposed elements like structures and infrastructures, together with a ranking class to prioritise necessary further analysis or interventions.

The tools have been adapted to the volume, format, and specifications of the ground motion service data. Together with the scientific groups of the consortium, the tools were tested and internally quality controlled by the national geological surveys and civil protection authorities of Spain and Portugal as well as by the regional geohazard risk management authority of Valle d'Aosta (Italy). They were then distributed to users, to be applied and validated in the cross-border areas of Spain-Portugal, Poland-Czech Republic, and Belgium-The Netherlands, the Valle D'Aosta and Lazio Regions in Italy, and the coastal area of Granada (Spain).

## Key benefits for the UCPM:

- Tools to simplify EGMS data, automatically analyse it and generate maps to support risk-assessment against geohazards.

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 449 604.12

**Beneficiary countries:** Spain, Italy, Portugal, Belgium

**Implementation period:** 2022–2024

# NEPTUNE: Nowcasting and impact-based Predictions of Inundations in Mediterranean catchments



ARPAL meteorologists and hydrologists during daily forecast in the forecast room. © ARPAL Communication Office

## Main output:

- Forecasting tools and methods to improve flash flood preparedness and prevention in the transboundary French Alpes-Maritimes and Italian Liguria districts of the Roya catchment.

## Project summary:

The **NEPTUNE** project developed tools and methods that helped improve preparedness and prevention in transboundary areas affected by Mediterranean flash flood events. The project reinforced the cooperation between services of civil protection in the French Alpes-Maritimes and the Italian Liguria districts with a particular focus on the Roya catchment.

The Roya catchment is an interesting example to analyse, being a trans-boundary river basin (severely hit by Storm Alex in 2020) and an area where fast and effective cross-border collaboration is key to improve disaster risk reduction.

The project collected hydrological and meteorological data over the study area. It provided methods and tools for improved precipitation predictions, especially in the northern part of the Roya catchment, at present poorly covered by weather radars. The project also improved

hydrological and impact-based predictions dedicated to civil protection services.

The project implemented precipitation predictions, hydrological modelling (by collecting river-gauge data from the various data providers), impact-based predictions, evaluation, and implementation.

The Neptune project poster was promoted at the European conference on RADar in meteorology and hydrology (ERAD 2024) in September.

## Key benefits for the UCPM:

- Improved data and methods for early warnings on flash floods and enhanced cross-border cooperation.

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 269 437.56

**Beneficiary countries:** France, Italy

**Implementation period:** 2022–2024

# EvRe: Evacuation Ready



Respond



Secure



© Liis Ehrminger, Estonian Red Cross. Field training exercise in Estonia: Red Cross volunteers and staff, and harbour staff, set up an Emergency Evacuation Unit.

## Main outputs:

- Joint standard operating procedures for evacuation centre activities and cross-border operations of four Red Cross national societies in the Baltic Sea Region (Finland, Estonia, Latvia and Lithuania).
- Training packages for 'Training of Trainers' and for leading cross-border operations piloted in Finland, Estonia, Latvia, and Lithuania, and translated into Finnish, Estonian, Latvian, and Lithuanian.
- Social media alarm group set up among all the project's Red Cross national societies to share information about real-time emergencies for cross-border co-operation.

## Project summary:

The [EvRe](#) project aimed to improve cooperation in prevention, preparedness, and response activities of the Red Cross national societies and civil protection authorities in Finland, Estonia, Latvia, and Lithuania. The project strengthened the complementary role of Red Cross national societies to the authorities in large-scale emergencies at national and regional levels.

More specifically, the project had a focus on enhancing capacities for setting up and organising evacuation centres. EvRe created joint standard operating procedures (SOPs) for the establishment and management of evacuation centres in an emergency context to support Red Cross staff, volunteers and other stakeholders in planning and providing humanitarian aid

in those situations. The project also created joint SOPs for cross-border operations, with the main objective of harmonising host nation support activities in emergency situations. During the project implementation, the Red Cross national societies trained their staff members on their host nation support guidelines, created a volunteers' training package for evacuation centre activities, and organised training of trainers in three of the involved Baltic Sea Region countries.

The Red Cross national societies involved in the project also tested the developed cross-border cooperation capacities in a tabletop exercise and a field training exercise. The tabletop exercise focused on receiving international assistance and working together between Red Cross partners and civil protection authorities. The field training exercise was based on a maritime incident scenario with a focus on establishing and running evacuation centre activities.

The project also created a joint tracking package for leading cross-border operations, and a joint host nation support alarm group in Signal (private messaging app) to share information and raise the first alarm about real emergencies requiring cross-border cooperation.

## Key benefits for the UCPM:

- Enhanced cooperation among Red Cross national societies and civil protection authorities in Finland, Estonia, Latvia, and Lithuania.

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 286 231.47

**Beneficiary countries:** Finland, Estonia, Latvia, Lithuania

**Implementation period:** 2022–2023

# CROSScade: Cross-border cascading risk management for critical infrastructure in Sava River Basin



Anticipate



Geotechnical investigations of levees in the cross-border areas between Croatia and Slovenia. © CROSScade project

## Main outputs:

- Inventory of critical infrastructure in the cross-border area of Croatia and Slovenia and quantified earthquake and flood scenarios.
- Methodology for risk assessments in the same area to support civil protection authorities' and municipalities' prevention and preparedness decision-making.
- Action plans to increase the structural resilience of critical infrastructure and to enhance the cross-border communication between critical infrastructure managers and civil protection agencies.

## Project summary:

The [CROSScade](#) project developed a risk assessment methodology quantifying cross-border hazard scenarios with earthquake and high water as triggering hazards. This enabled a classification of critical infrastructure in the cross-border area of Croatia and Slovenia, based on their vulnerability to single and cascading hazards. It also developed a risk assessment methodology for cross-border areas, providing the basis for development of two actions plans: one for increasing the resilience of critical infrastructure and one for enhancing the cross-border communication between critical infrastructure managers and civil protection agencies, to reduce the risk of cascading event crises.

The project also implemented the developed methodology and calculated the critical infrastructure vulnerability in the cross-border area of Slovenia and Croatia, stretching from the Brežice power plant in Slovenia to the Jankomir bridge in Croatia. This approach helps direct financial resources towards the most critical assets. It ensures cost-effective improvements in areas that lack resilience, and helps create effective and coordinated response strategies.

While the focus of the project was the cross-border area of Croatia and Slovenia, the developed methodology and tools for vulnerability assessment and risk analysis are easily adaptable to any other region sharing similar flood and seismic-related issues. After the end of the project, the CROSScade partners continue to improve the cross-border flood prediction and risk awareness model in collaboration with the Sava Commission, which provides a geographic information (GIS) service across several countries. Common use of this platform will enable quicker and more direct transfer of information during a cross-border hazard event.

## Key benefits for the UCPM:

- The development of a risk assessment methodology for cross-border hazards affecting critical infrastructure that could be replicated by other countries.

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 498 017

**Beneficiary countries:** Croatia, Slovenia

**Implementation period:** 2022–2024

# IRA-MAR: Improving the Integrated Response to pollution Accidents at sea and chemical risk in ports



Respond



Secure



© Julie Rigaud

## Main outputs:

- Study on emergency response in ports, identifying good practices and gaps to provide recommendations for port authorities.
- Tabletop and operational exercises with the main stakeholders involved in hazardous and noxious substances incidents at sea and in ports.
- Study and good practices guide on the use of Unmanned Aircraft Systems (UAS) in maritime emergency response.
- 'One Incident, One Response' framework for holistic incident management at sea and on shore.

## Project summary:

Coastal states face complex risks from maritime emergencies caused by a wide variety of chemical pollutants, with uncertainties about their impacts on the marine environments and human health, as well as the safety of first responders and anti-pollution teams. The [IRA-MAR](#) project aimed at enhancing the response to marine pollution, with a particular focus on hazardous and noxious substances (HNS) traffic in ports along the western Mediterranean and Atlantic coasts. The project conducted studies and exercises to identify good practices and address gaps in emergency response.

The IRA-MAR project explored the use of UAS in maritime emergencies through a comprehensive approach that included a study, field trials, and the creation of a video tutorial. The project's goal was to identify optimal drone configurations for responding to marine environmental scenarios such as oil spills, search and rescue missions, and pollution monitoring. Additionally, the project addressed evolving maritime risks that require changes in emergency preparedness at the maritime-coastal interface. It developed a holistic incident management framework, called 'One Incident, One Response', which was supported by tabletop exercises and serious games (OneX) to discuss objectives, strategies and operational needs for a coordinated response.

## Key benefits for the UCPM:

- A holistic marine emergency management framework for at-sea and on-shore responses, which can also be used by other countries or regions.
- Technical guides on the best available technologies and practices for deploying UAS in maritime emergencies.
- Good practices and recommendations to enhance security and response to HNS incidents in ports.

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 499 999

**Beneficiary countries:** France, Italy, Tunisia, Belgium, Morocco, Malta, Portugal, Spain

**Implementation period:** 2022–2024

# BORIS: Cross-border risk assessment for increased prevention and preparedness in Europe



Anticipate

# BORIS



River flooding.  
©DCNA, Christian Resch

## Main outputs:

- Shared methodology for single and multi-risk assessment to evaluate expected consequences of natural hazards, impact comparison and ranking in transboundary regions.
- Platform for transboundary single and multi-risk assessment and representation, facilitating the storage and updating of data, visualisation and sharing of damage and impact results.

## Project summary:

The [BORIS](#) project harmonised cross-border approaches for assessing and communicating about the multiple risks posed by seismic and hydro-meteorological hazards in the eastern Alps transboundary regions. The project developed a shared cross-border methodology for single and multi-risk assessment, facilitating impact evaluation for single natural hazards and multi-risk comparison in Italy, Slovenia, and Austria. It also analysed the current national risk assessments in the project countries, underlining differences in their approaches. These results were used as input to develop a methodology for cross-border single and multi-risk risk assessment.

The project also developed a web-GIS (geographical information system) platform for single and multi-risk assessment and representation. This facilitates the storage and updating of data, models, and documentation, as well as the representation of damage and impact results. The web-GIS allows adaptation to different regions and inclusion of various hazards. It was tested notably in the cross-border regions between Italy and Slovenia and between Slovenia and Austria.

A follow up project, BORIS2, continues the efforts started as it will enhance the risk assessment methodology and enhance the platform for application at sub-municipality scale. It runs from January 2024 to December 2025. The civil protection department of the Friuli Venezia Giulia region (Italy) joined as partner in the BORIS2 project.

## Key benefits for the UCPM:

- A methodological approach for sharing and comparing seismic and flood risk assessments cross-risk and cross-border, which may be replicated by other regions.

**Funding source:** 2020 UCPM Prevention and Preparedness call

**EU contribution:** EUR 748 173

**Beneficiary countries:** Italy, Slovenia, Austria, Türkiye, Montenegro

**Implementation period:** 2021–2022

# Latvia: Feasibility study on the development of solutions for the provision of forest fire protection and firefighting functions in public and private forests in Latvia



Anticipate



Secure



Image from Pixabay (<https://pixabay.com>).  
©Price Waterhouse Coopers SIA

## Main outputs:

- Comparative and cost-benefit analysis on scenarios to increase forest fire protection and firefighting functions of the State Fire and Rescue Service and State Forest Service of Latvia.
- Recommendations based on good practices from four countries on forest fire protection and firefighting.

## Project summary:

The [project](#) delivered evidence-based recommendations for ensuring forest fire protection and firefighting functions in public and private forests in Latvia and ensuring the fulfilment of civil protection tasks and the State Civil Protection Plan. It delivered an analysis of the current situation in the field of forest fire protection and firefighting in Latvia, and on the necessary investments to improve the material and technical base, including the financial impact on the state budget.

The project developed a feasibility study on the evaluation of the current situation and developed solutions for the introduction of the optimal model for further provision of forest fire protection and firefighting functions in public and private forests in Latvia. This feasibility study included proposals and recommendations on the optimal solution and subsequent measures to be taken.

This study assessed the capacity of both the State Fire and Rescue Service and the State Forest Service in forest and bog firefighting, analysed the services' preventive activities of forest fire protection, fire protection and firefighting implementation, calculation of damage caused by fires, and reduction of CO<sub>2</sub> emissions. It also analysed the experience of Estonia, Poland, Sweden, and Germany in protecting forest and swamps from fire.

A workshop to present the solutions proposed was organised with the State Fire and Rescue Service, State Forest Service, Ministry of Agriculture, Ministry of the Interior, and Ministry of Environmental Protection and Regional Development. An optimal model has been developed for further provision of state and private forest and swamp fire protection and firefighting functions, and for improving efficiency and solutions for its implementation, which will serve as the basis for the preparation and submission of the conceptual report to the Cabinet of Ministers.

## Key benefits for the UCPM:

- Evidence-based analysis of the forest fire protection and firefighting governance arrangements in Latvia and of options for further strengthening it.

**Funding source:** 2022 UCPM Track 1 grants

**EU contribution:** EUR 75 050

**Beneficiary country:** Latvia

**Implementation period:** 2023–2024



# Türkiye: Development of a long-term wildfire prevention framework for the Istanbul Forest Region – The implementation phase with an emphasis on green growth



Volunteers from various NGOs were trained on August 27, 2023, as part of the capacity-building activities of the project. © Murat Çördük from the General Directorate of Forestry, Ministry of Agriculture and Forestry, Türkiye

## Main outputs:

- Long-term fire prevention action plan for the Istanbul region created by academia, research, and government authorities during workshops.
- Training of volunteers and staff of ministries and universities on fire prevention, and training of trainers on greenhouse gas emission mitigation for fire management.
- Reports on climate adaptation and mitigation, and on greenhouse gas emission calculations for forest fires.

## Project summary:

The [project](#) operationalised the previously developed wildfire management strategy (from the 2020 Track 1 [project](#)) with an action plan and strong capacity building components. The action plan also considers greenhouse gas emission mitigation options in wildfire prevention, with a view to supporting the long-term climate strategy of Türkiye. The project also carried out wildfire risk awareness activities in primary schools. The technical assessments explored the linkage between forest fire management and emission reduction objectives of the country, serving the green transition in the forestry sector.

The project developed a training programme report and completed several training workshops for both volunteers and staff. Workshops for training of trainers on the greenhouse gas mitigation options related to fire management were held for staff working for relevant ministries, universities, and other related agencies. The project also carried out a study visit to Spain to discuss state-of-the-art approaches in fire prevention and management including a field exercise on prescribed burning. A report on climate adaptation and mitigation in relation to forest fires, and a report on greenhouse gas emission calculations for forest fires were produced.

The project also conducted stakeholder feedback on the structure of the action plan via a workshop, resulting in positive feedback from the stakeholders, which serves as a starting point for the action plan.

## Key benefits for the UCPM:

- Enhanced wildfire prevention and preparedness in Türkiye.
- Good practices on greenhouse gas emissions calculations for wildfire management activities.

**Funding source:** 2022 UCPM Track 1 grants

**EU contribution:** EUR 324 900

**Beneficiary country:** Türkiye

**Implementation period:** 2023–2024

# NAMIRS: North Adriatic Maritime Incident Response System



Anticipate



Respond



Secure



Picture taken by the official operators of the Italian Coast Guard, partner of the project, during the NAMIRS exercise at sea, organised in Trieste on 20 November 2023. All rights reserved ©NAMIRS project

## Main outputs:

- Analysis of the anti-pollution system in the North Adriatic Sea by mapping resources from Croatia, Italy, and Slovenia, identifying stakeholders, services, assets, and equipment.
- Risk assessment maps for oil spills and identification of priority areas in the North Adriatic Sea combining traffic analysis, oil spill simulations, expert knowledge, and stakeholder opinions.
- Training activities for onshore cleaning and response planning in Trieste, Rijeka, and Koper for sea response actors, and updating of standard operating procedures (SOPs).

## Project summary:

In the North Adriatic Sea, accidental marine pollution from oil spills is a dangerous threat with potentially devastating environmental and economic consequences. Existing national contingency plans are not sufficient to tackle such a transboundary risk. NAMIRS contributed to better preparedness and a more coordinated response at a transnational level in the North Adriatic Sea, which is in line with the Barcelona Convention and related protocols.

Strengthened regional cooperation and cross-sectoral coordination was achieved by integrating the knowledge, tools, and resources available within the NAMIRS multi-stakeholder partnership. The consortium put together

specific guidelines for the revision and update of the Sub-Regional Contingency Plan for the Adriatic Sea, which was signed by the three partner countries in 2005 but never entered into force and is currently being revised and updated thanks to the support of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC). The NAMIRS national partner authorities were involved in the revision, and the project contributed with its outputs and by participating in consultation meetings.

The project also outlined standard operating procedures for first responders, tested in a dedicated training programme and later validated in a simulation exercise at sea. This cooperative process will result in smoother communication and interoperability through the establishment of a ready-for-operations sub-regional mechanism at prompt disposal of North Adriatic Sea countries and facilitate links with the Union Civil Protection Mechanism (UCPM). Furthermore, the approach is easily transferable to other Adriatic-Ionian countries, which is the goal of a new project funded by the Interreg IPA ADRION Programme (ASAP project: Adriatic Sensitive Areas Protection Mechanism). This project aims to transfer the results of NAMIRS to Albania, Bosnia-Herzegovina, and Montenegro.

## Key benefits for the UCPM:

- Oil spills knowledge and risk assessment maps for the North Adriatic Sea.

**Funding source:** 2021 UCPM Prevention and Preparedness call

**EU contribution:** EUR 807 835

**Beneficiary countries:** Italy, Slovenia, Croatia

**Implementation period:** 2022–2024



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