

Cluster 3: Civil Security for Society

Destination
“Disaster-Resilient Society for Europe”

CALL

DISASTER-RESILIENT SOCIETY (DRS)

2024



DRM INTERNATIONAL DIALOGUE

Need to ensure links among different disaster risk reduction policies and networks of actors of various horizons and disciplines from “upstream” (research) to “downstream” (practitioners)

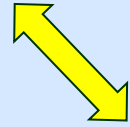
RESEARCH & INNOVATION

FLAGSHIP PROJECTS
Joint communication, critical mass / synergies among:
H2020 / Horizon Europe
Capacity-building, education, training

- DG RTD
- DG HOME
- DG DEFIS
- DG CNECT
- DG ECHO
- DG ENV
- DG EAC
- JRC

POLICY FRAMEWORK

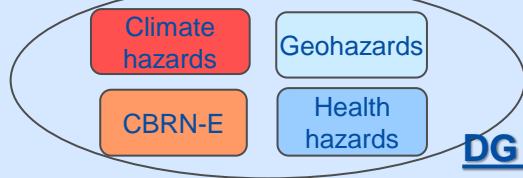
UN Sendai Framework for Action (Disaster Risk Reduction – UNDRR)



POLICIES

POLICIES
Key Actors:
United Nations (UN)
EU Policies
National Policies

NETWORKS
Information, interface
Practitioners, policy-makers



UNION CIVIL PROTECTION MECHANISM

NATURAL HAZARDS

EU Adaptation Strategy to Climate Change

DG CLIMA

Water Framework Directive

DG GROW

Flood Directive

DG ENV

Marine Strategy

Health threats

Decision 1082

MAN-INDUCED RISKS

Non-Intentional Intentional

DG SANTE

HERA

Directive SevesoIII

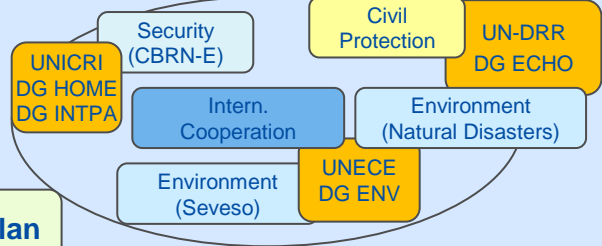
DG ENV

DG HOME

CBRN-E Action Plan

Protection of critical infrastructures

Protection of public spaces



MARKET UPTAKE
Industry / SME
Standardisation

Societal Resilience
Integrated Disaster Risk Management
Standardisation
Technologies for First Responders

EU INTERNAL SECURITY STRATEGY

Policy sectors, research, industry / SME, practitioners, civil society

Destination “Disaster-Resilient Society for Europe”

- **Expected impact of the Horizon Europe Strategic Plan 2021-2024:**
 - “Losses from natural, accidental and human-made disasters are reduced through enhanced disaster risk reduction based on preventive actions, better societal preparedness, and resilience and improved disaster risk management in a systemic way.”
- **Specific impacts:**
 - Enhanced exploitation of the latest scientific results (e.g., from research programmes and institutions) and integrated technologies (e.g. Earth observation, in situ data collection, advanced modelling, AI) into enhanced understanding of high-impact hazards and complex compound and cascade events and improved prevention, preparedness to mitigation, response, and recovery tools;
 - Enhanced understanding and improved knowledge and situational awareness of disaster-related risks by citizens, empowered to act and involved in relevant research initiatives (including citizen volunteers) and consider innovative solutions, thus raising the resilience of European society;
 - More efficient cross-sectoral, cross-disciplines (including SSH), cross-border coordination of the disaster risk management cycle and governance (from scientific research to prevention, preparedness to mitigation, response, and recovery, including knowledge transfer and awareness of innovative solutions) from international to local levels;

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- **Specific impacts:**
 - Enhanced collaboration, interactions and cross-discipline dialogue and networking between the scientific community, research institutions and programmes (e.g., HE, ESA scientific activities, national science programmes, FutureEarth RIS-KAN) and first and second responders through dedicated networking and collaboration actions fostering a faster transfer of results from science into practice;
 - Support of harmonised and/or standardised and interoperability of guidelines / protocols / tools / technologies in the area of crisis management, natural disasters and CBRN-E;
 - Strengthened capacities of first responders in all operational phases related to any kind of natural and human-made disasters so that they can better prepare their operations, have access to enhanced situational awareness, have means to respond to events in a faster, safer and more efficient way, and may more effectively proceed with victim identification, triage and care;
 - Improved impact forecasting capability and scenario building for enhanced stress testing of critical entities and adaption of protection and resilience-enhancing activity accordingly;
 - Improve the capacity of institutions and professionals to respond to natural hazards, whose frequency and severity for human activities have increased and are partly resulting from climate change;
 - Improved ability to rescue and manage the first phases of emergencies that take into account extreme climatic events and/or geological hazards that may threaten urban areas (e.g. interface fires, floods, earthquakes, tsunamis, volcanic eruption etc.).

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- All proposals of projects under this Destination should aim to be complementary and avoid overlaps with relevant actions funded by other EU instruments, including the European Defence Fund and its precursors (the European Defence Industrial Development Programme (EDIDP) and the Preparatory Action on Defence research (PADR)), based on the information publicly available and while maintaining a focus on civilian applications only.
- Investments in this Destination contribute substantially to the European Union’s objectives in terms of climate change adaptation and resilience to climate change. The funded projects are aimed at developing new technologies and solutions that can be used to understand the long-term effects of climate change, as well as to improve capacities of first responders and institutions for climate mitigation and prevention of natural disasters. Improved understanding of hazards and strengthened knowledge of the risks that these entail for human communities and their activities are cornerstones for more a resilient economy and society.
- Where possible and relevant, synergy-building and clustering initiatives with successful proposals in the same area should be considered, including the organisation of international conferences in close coordination with the Community for European Research and Innovation for Security (CERIS) activities and/or other international events.
- Following the deadly earthquakes in Southern and Southeastern Türkiye in February 2023, consortia may consider to involve partners from Türkiye in their proposals.

Destination “Disaster-Resilient Society for Europe” (Disaster-Resilient Society – DRS)

TOPICS CALL 2024



HORIZON-CL3-2024-DRS-01-01: Prevention, detection, response and mitigation of chemical, biological and radiological threats to agricultural production, feed and food processing, distribution and consumption (RIA)

Area: Improved Disaster Risk Management and Governance

Expected Outcomes:

- Increasing EU capabilities to assess risks, detect, alert, mitigate and respond to feed and food intentional and accidental contamination from chemical, biological and radiological (CBR) agents, through the entire food chains (soils and agro-production, feed and food industry, transporting, retail and hospitality industry, public catering);
- Increasing the understanding on food terrorism threats and on food chain vulnerabilities to intentional and accidental contaminations;
- Raising awareness among feed and food companies and authorities to CBR threats arising from malicious use of hazardous agents that pose danger to animal and public health. This should be done under the premises of feed and food as a critical infrastructure and risks pertaining therein;
- In addition to raising awareness, proposals should develop possible preparedness, mitigation and response plans for national authorities and the private sector.

Total indicative budget: 8 M€ (2 grants) - This topic requires the active involvement, as beneficiaries, of at least 3 organisations from at least 3 different EU Member States or Associated Countries as follows: (i) at least one organisation representing citizens or local communities; (ii) at least one organisation representing practitioners (first and/or second responders); and (iii) at least one organisation representing local or regional authorities.

HORIZON-CL3-2024-DRS-01-02: Open Topic (RIA)

Area: Improved Disaster Risk Management and Governance

Expected Outcomes:

- More efficient interactions among the scientific community, research institutions and programmes, first and second responders, city's risk managers of major crises and citizens or local communities for an enhanced coordination of the disaster risk management cycle and governance (including knowledge transfer and awareness of innovative solutions) from international to local levels, fostering a faster transfer of results from science into practice.

Total indicative budget: 6 M€ (2 grants) - This topic requires the active involvement, as beneficiaries, of at least one representative of each of the following categories: (i) European city's crisis risk managers, (ii) organisations representing citizens or local communities, (iii) practitioners (first and/or second responders), (iv) local or regional authorities, and (v) private sector, from at least 3 different EU Member States or Associated Countries.

HORIZON-CL3-2024-DRS-01-03: Harmonised / Standard protocols for the implementation of alert and impact forecasting systems as well as transnational emergency management in the areas of high-impact weather / climatic and geological disasters (IA)

Area: Improved harmonisation and/or standardisation in the area of crisis management and CBRN-E

Expected Outcomes:

- Enhanced links between scientific community and first and second responders promoting user-targeted research and faster transfer of science results into best practices;
- Enhanced adoption of novel technologies such as advanced Earth Observation capabilities and capabilities such as those from Earth Observation space technologies into prevention and management practices and tools;
- Improvement of meteorological input (wind, temperature, precipitation, soil humidity) for extremes related to heat and drought (forest fires, heatwave, agricultural damage, low water for hydro power), especially concerning the support of counter activities;
- Improved methods for cross-border and cross-sectoral knowledge transfer about risk, vulnerability, exposure, and monitoring methods;
- Development of common technical standards of alert and impact forecasting systems that cope more efficiently with transboundary emergencies and for GIS-based information systems dealing with high-impact weather / climatic and geological disasters management during emergencies;
- Identification of needs and opportunities for transferring advanced scientific results into enhancement in disaster logistics and responses, including tailor-made education and training programmes for emergency management teams.

Total indicative budget: 6 M€ (2 grants) - This topic requires the active involvement, as beneficiaries, of at least one organisation representing each of the following: - Practitioners (first and/or second responders), - Local and/or regional authorities, - Standardisation organisations, from at least 3 different EU Member States or Associated Countries

HORIZON-CL3-2024-DRS-01-04: Hi-tech capacities for crisis response and recovery after a natural-technological (NaTech) disaster (RIA)

Area: Strengthened capacities of first and second responders

Expected Outcomes:

- Development of a holistic vision of crisis management after telluric (e.g. volcanic, seismic, tsunami, landslide) or extreme climate events (e.g. floods, storms, storm surges, fires, droughts) producing impacts on critical assets (e.g. infrastructures, industries) and creation of new management framework for handling NaTech crises;
- Enhanced existing crisis management tools to develop a common platform (shared among public and private operators) allowing cross-border exchanges and decisionmaking, while respecting legal frameworks and responsibilities;
- Demonstrated operational protocols and development of standard operating procedures able to respond to NaTech crises in cross-border configurations, including comprehensive risk modelling of worst-case scenarios taking into account cascading effects and future impacts of climate change, and taking into consideration spatial information and data;
- Improvement of our understanding and capabilities to identify and mitigate risks associated with interdependencies across infrastructures and other human (social and economic) systems.

Total indicative budget: 4 M€ - This topic requires the active involvement, as beneficiaries, of at least 2 first responders' organisations or agencies, and 1 representative of local or regional authorities in charge of managing NaTech events, from at least 3 different EU Member States or Associated Countries.

HORIZON-CL3-2024-DRS-01-05: Cost-effective sustainable technologies and crisis management strategies for RN large-scale protection of population and infrastructures after a nuclear blast or nuclear facility incident (RIA)

Area: Strengthened capacities of first and second responders

Expected Outcomes:

- Based on existing national practices, improved understanding of the radioactive fallout and methodology regarding robust and rapid monitoring of dose rate and nuclide specific determination with purpose of facilitating safe evacuation after a nuclear or radiological event;
- Improved tools and methods for risk assessment following a nuclear or radiological event and optimized actions after a disaster that are based on risk analysis rather than probabilities;
- Identification of the relevant range of different protective measures, including medical countermeasures, needed after a RN disaster, and improved protection of population and infrastructures through better analysis of sensor data resulting in adequate protective actions;
- Improved understanding of contamination and decontamination of population and infrastructure, and improved rapid procedures for decontamination of individuals after a RN-incident;
- Recommendations on integration of improved technologies and assessment methodologies in the RN crisis managements systems.

Total indicative budget: 6 M€ - This topic requires the active involvement, as beneficiaries, of at least two first responders' organisations or agencies, and one representative of local or regional authorities in charge of disaster response, from at least 3 different EU Member States or Associated Countries.

Thank you for your attention. Any questions?



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