

Logo	Project	Date	Coordinated by	Objectives	Outcome	Website
	COPE - Common Operational Picture Exploitation	2008 2011	VTT Technical Research Centre Finland	Achieve a significant improvement in emergency response management command and control performance, reliability, and cost => improvement in information flow both from and to the first responder in order to increase situational awareness across agencies and at all levels of the command chain in emergency management situations	The technological innovations and specifications resulting from COPE project efforts will be integrated into rescue service procedures as and when appropriate. This integration requires additional planning and future research in order to adapt the project's solutions and fully exploit its technology.	<a href="http://cope.vtt.fi">http://cope.vtt.fi</a>
/	PROFITEX - Providing Fire Fighters with Technology for Excellent Work Safety	2009 2012	RWTH Aachen - Germany	Support fire fighters in their perilous work with a system that supplies mission-relevant information without overwhelming the fire fighter.	The technology involves a high-tech firefighting jacket with an infrared camera and sensors, as well as a braided security rope to facilitate communication and transmit crucial data to controllers. Known as Smart LifeLine, the system was designed to overcome limitations in transmitting data such as movement and localisation using wireless communication. The solution enables firefighters to view information delivered rapidly onto their visors in order to make their task easier, while providing more comprehensive data to commanders outside the building for quick decision making.	<a href="https://cordis.europa.eu/project/id/228855">https://cordis.europa.eu/project/id/228855</a>
	FIRESENSE - Fire Detection and Management through a Multi-Sensor Network for the Protection of Cultural Heritage Areas from the Risk of Fire and Extreme Weather Conditions	2009 2013	CERTH - Centre for Research & Technology - Greece	Develop a remote monitoring and automatic early-warning system to protect these cultural heritage sites => benefits of advanced multi-sensor surveillance technologies for monitoring sites of interest.	Software platforms for fire/smoke detection and for a wireless sensor network (WSN). This WSN is used to monitor environmental parameters, and together with a wireless data network (WDN) for video surveillance, can be used for detecting fire.	<a href="https://cordis.europa.eu/project/id/244088">https://cordis.europa.eu/project/id/244088</a>
	INDIGO - Innovative Training & Decision Support for Emergency operations	2010 2013	Diginext - France	Research, develop and validate an innovative system integrating the latest advances in Virtual Reality, Simulation and Artificial Intelligence in order to homogenise and enhance both the operational preparedness and the management of an actual complex crisis.	A crisis training and crisis management system has been developed that enables public authorities to better plan and train organisations and crisis managers for emergency situations.	<a href="http://indigo.diginext.fr/EN/index.html">http://indigo.diginext.fr/EN/index.html</a>
/	CRISIS - Critical Incident management training System using an Interactive Simulation environment	2010 2013	Middlesex University - UK	Research and develop an advanced critical incident management, interactive simulation environment for training security and emergency personnel in airport operational security.	Train-on-demand security solution by developing software to simulate complex group behaviours in exercise scenarios and integrating related technologies to allow for robust functionality.	<a href="https://cordis.europa.eu/project/id/242474">https://cordis.europa.eu/project/id/242474</a>
	DITSEF - Digital and Innovative Technologies for Security and Efficiency of First Responders operation	2010 2013	Safran Electronics & Defense - France	Enhance the efficiency of information gathering and sharing between first responders (FRs) and control centres to ensure optimal response and minimise trauma	The technology integrates the latest in indoor localisation, wireless communication, human interfaces, sensor equipment and other key innovations, facilitating data exchange with higher command levels. All these technologies were integrated into an easy-to-use wearable system for every FR. It provides technology for safer and more efficient navigation of FRs while on mission through constant monitoring of their changing location. FRs are fed commands by the control centre on the best and safest routes to complete their mission.	<a href="https://cordis.europa.eu/project/id/225404">https://cordis.europa.eu/project/id/225404</a>
/	FUME - Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world	2010 2013	Universidad de Castilla-La Mancha - Spain	Documenting and evaluating which changes in the land or in other factors occurred in the last decades that affected forest fires in Europe and other fire-affected areas of the world to foresee future risks and impacts on the vegetation and landscapes, and on fire regimes.	The FUME project achieved its goals concerning study of likely future fire-risk scenarios affecting Europe. The group also suggested options for mitigation.	<a href="https://cordis.europa.eu/project/id/243888">https://cordis.europa.eu/project/id/243888</a>
	IDIRA - Interoperability of data and procedures in large-scale multinational disaster response actions	2011 2015	Fraunhofer - Germany	Conceptualized, developed, demonstrated and assessed approaches to facilitate coordination of large-scale disaster situations by improved interoperability. Several layers have been considered: from physical communication over semantic information interoperability up to the information interoperability on the application layer.	Common operational picture for all stakeholders involved. A system for the exchange of the most relevant information during crises aftermath - among them information on incidents, alerts, resources, missing persons and urgent needs - has been designed and implemented. IDIRA helps to overcome language barriers and achieve technical interoperability.	<a href="https://www.ivi.fraunhofer.de/de/forschungsfelder/zivilschutz-und-sicherheit/planung-und-einsatzfuehrung.html">https://www.ivi.fraunhofer.de/de/forschungsfelder/zivilschutz-und-sicherheit/planung-und-einsatzfuehrung.html</a>
/	CATO - CBRN crisis management: Architecture, Technologies and Operational Procedures	2012 2014	TSG IT Advanced Systems Israel	Develop a comprehensive Open Toolbox for dealing with CBRN crises due to terrorist attacks using non-conventional weapons or on facilities with CBRN material.	CATO toolbox features tools for use at different phases of the disaster life cycle and can be accessed by users through a web browser. The technology features a set of cooperating algorithms that improve situation awareness, support decision making, and facilitate resource management if and when a CBRN incident arises. The system will be able to interface with different services such as fire, rescue and medical emergency facilities.	<a href="https://cordis.europa.eu/project/id/261693">https://cordis.europa.eu/project/id/261693</a>
	PEP - Public Empowerment Policies for Crisis Management	2012 2014	University of Jyväskylä Finland	Investigate how the crisis response abilities of the public can be enhanced and to clarify what public empowerment policies are successful in realising these objectives.	Crisis communication wiki for professionals => online tool help improve resilience through collaboration between response organisations and citizens. It contains crisis communication resources and public empowerment guidelines that provide characteristics of the three crisis phases (before, during, after), recommendations and best practice examples.	<a href="http://www.crisiscommunication.fi/pep/">http://www.crisiscommunication.fi/pep/</a>
/	DARIUS - Deployable SAR Integrated Chain with Unmanned Systems	2012 2015	BAE Systems Operations UK	Newly developed systems and technologies will ultimately mean improved SAR operations in complex missions. Aside from the safety benefit, the outcomes also mean commercial opportunity for European businesses.	Conversion of military-style unmanned vehicles to general rescue use. Focusing on interoperability, the team successfully adapted existing technologies while also creating a new generic ground station to control many vehicles simultaneously. The team also adapted the technologies for multi-agency SAR operations. The ground station also provided visualisation of the vehicles' sensor data.	<a href="https://cordis.europa.eu/project/id/284851">https://cordis.europa.eu/project/id/284851</a>
	CRISMA - Modelling crisis management for improved action and preparedness	2012 2015	VTT Technical Research Centre - Finland	Provide a simulation-based decision support system for modelling crisis management in both natural and man-made crisis, specially those complex ones with low probability and high impact.	Integrated planning and decision support toolset that enables simulation and modelling of large-scale man-made and natural disasters. The toolset also helps determine the effects of decision-making on alternative preparedness and response measures.	<a href="https://cordis.europa.eu/project/id/284552">https://cordis.europa.eu/project/id/284552</a>
	COSMIC - The COntribution of Social Media In Crisis management	2013 2015	European Dynamics - Greece	Identify the most effective ways to utilise new information and communication technologies (ICTs) in crisis situations for the protection of ordinary citizens => ensure better linkages between prevention, detection, reporting and rescue in crisis situations as well as assist officials and first responders in using new ICTs and applications to be more effective and efficient during crises.	Guidelines for the use of new media by the public before and during crisis situations, as well as the use of new media by public and private organisations + database of more than 2 000 crisis management stakeholders from 43 countries.	<a href="https://cordis.europa.eu/project/id/312737">https://cordis.europa.eu/project/id/312737</a>
/	MIRACLE - Mobile Laboratory Capacity for the Rapid Assessment of CBRN Threats Located within and outside the EU	2013 2015	Université Catholique de Louvain - Belgique	Harmonize the definition of a CBRN mobile laboratory and to identify the needs and solutions for deployment in- and outside the EU.	Established the operational principles and guiding concepts for a new European rapid, on-site forensic CBRN capacity. Once realised, the initiative will mean faster and more effective emergency response + recommendations	<a href="https://cordis.europa.eu/project/id/312885">https://cordis.europa.eu/project/id/312885</a>
	COBACORE - Community Based Comprehensive Recovery	2013 2016	TNO - Netherlands	Support common needs assessment and recovery planning efforts in complex multi-sectorial, multi-stakeholder crisis environments by building upon the community as an important source of information and capabilities. COBACORE aims to help bridge the so-called collaboration gap: failure of collaboration through insufficient information sharing among partners, incompatible work practices and misaligned decision making processes.	Strategies to close the collaboration gaps through a web-based platform that was vigorously tested to ensure that it can achieve its aims. The platform is meant to address needs and capacities during a disaster, such as accommodation, health, food, transport and security.	<a href="https://cordis.europa.eu/project/id/313308">https://cordis.europa.eu/project/id/313308</a>
/	TACTIC - Tools, methods And training for CommuNities and Society to better prepare for a Crisis	2014 2016	Helmholtz Centre for Environmental Research Germany	Increase preparedness to large-scale and cross-border disasters amongst communities and societies in Europe.	Online platform, assessing the connection between risk perception and individual behaviour and development of suitable educational materials.	<a href="https://cordis.europa.eu/project/id/608058">https://cordis.europa.eu/project/id/608058</a>
	FORTRESS - Foresight Tools for Responding to cascading effects in a crisis	2014 2017	Berlin Technical University Germany	Gain a greater understanding of cascading effects and provide stakeholders with tools to cope better with these complex phenomena.	'FORTRESS model builder' (FMB) models cross-system or cross-stakeholder dependencies in crisis scenarios and 'FORTRESS incident evolution tool' (FIET) provides users with a wide range of instruments to analyse how crises are likely to evolve or consider the consequences of entity failure while mitigation measures are not available.	<a href="https://cordis.europa.eu/project/id/607579">https://cordis.europa.eu/project/id/607579</a>
	EMERGENT - Emergency Management in Social Media Generation	2014 2017	Paderborn University Germany	Understanding the positive and the negative impact of social media in emergencies in order to enhance objective and perceived safety and security of citizens before, during and after emergencies. Furthermore, EmerGent aims at strengthening the role of European companies dealing with services and products related to the aimed research and development results.	Guidelines for Emergency Services & Guidelines for Citizens	<a href="https://www.f7-emergent.eu/">https://www.f7-emergent.eu/</a>

	EPISECC - Establish Pan-European Information Space to Enhance seCurity of Citizens	2014 2017	Austrian Institute of Technology - Austria	Enabling the definition of a concept for a common information space. A requirement for a successful pan European information space is the definition of a common taxonomy. The common information space, which implies an EU wide standardization activity, will widen the EU wide market for organization developing solutions and tools for crisis management.	The final goal of the EPISECC project is to create an integrated pan-European crisis and disaster response capacity. A common information space design is an integral part of these joint initiatives and EPISECC results will definitely contribute in the "de-fragmentation" process.	<a href="https://cordis.europa.eu/project/id/607078">https://cordis.europa.eu/project/id/607078</a>
	SECTOR - Secure European Common Information Space for the Interoperability of First Responders and Police Authorities	2014 2017	E-GEOS SPA - Italy	Establishing the foundations of future Common CCM Information Spaces by expanding the European scientific knowledge base on (cross-border) multi-agency CCM processes and the complications these imply when aiming at setting-up and design cross-border supporting information Systems	SECTOR Common Information Space is not just a repository of information constituted once and for all, it also enables to share an adaptive common global view of all crisis management aspects. Interoperability Box (IBX) : Interoperability box might provide its own implemented Services to the platform	<a href="https://cordis.europa.eu/project/id/607821">https://cordis.europa.eu/project/id/607821</a>
	SecInCoRe - Secure Dynamic Cloud for Information, Communication and Resource Interoperability based on Pan-European Disaster Inventory	2014 2017	Paderborn University Germany	Design a Secure Dynamic Cloud based concept for Information, Communication and Resource Interoperability including information exchange and access to a 'common information space'. This will be based on a pan-European disaster inventory focusing on specific artefacts of response to regional, national as well as cross European emergencies and disasters.	The result is a visionary interdisciplinary concept developed in a co-design process and an exploration of its future 'environment'. This delineates need for long term innovation beyond the SecInCoRe concept (such as implications for organizational practice, crisis management interoperability and models, policy, regulatory and legal reform and social expectations). Each part has several modules and each module is connected to a certain task within the DoW of the SecInCoRe project.	<a href="https://cordis.europa.eu/project/id/607832">https://cordis.europa.eu/project/id/607832</a>
	C2-SENSE - Interoperability Profiles for Command/Control Systems and Sensor Systems in Emergency Management	2014 2017	Safran Electronics & Defense - France	Develop a profile based Emergency Interoperability Framework by the use of existing standards and semantically enriched Web services to expose the functionalities of C2 Systems, Sensor Systems and other emergency/crisis management systems.	Emergency Interoperability Framework	<a href="https://c2-sense.eu/">https://c2-sense.eu/</a>
	DARWIN - Expecting the unexpected and know how to respond	2015 2018	SINTEF - Norway	Development of European resilience management guidelines. These will improve the ability of stakeholders to anticipate, monitor, respond, adapt, learn and evolve, to operate efficiently in the face of crises.	DARWIN Resilience Management Guidelines (DRMG) for critical infrastructures are developed around Capability Cards (CC) representing interventions to develop and enhance specific resilience management capabilities.	<a href="https://cordis.europa.eu/project/id/653289">https://cordis.europa.eu/project/id/653289</a>
	TransCrisis - Enhancing the EU's Transboundary Crisis Management Capacities: Strategies for Multi-Level Leadership	2015 2018	London School of Economics and Political Science - UK	Analyses the capacities of political leaders in EU institutions and member states to fulfill these leadership functions. It will pinpoint the existing and required capacities to support these functions. It investigates the crisis management capacities of individual political leaders, and EU institutions. It explores the effects of political leadership on the member state level and studies how crisis management capacity is exercised in various policy sectors.	Recommendations for effective and legitimate crisis leadership. It establishes a 'crisis management capital index' that allows for an evidence-based assessment. It proposes strategies to build support for transboundary crisis management in a multilevel system, reconnecting citizens with an idea of what the EU can do for them.	<a href="https://www.lse.ac.uk/accounting/carr/research/TransCrisis/transcrisis">https://www.lse.ac.uk/accounting/carr/research/TransCrisis/transcrisis</a>
	MEDIA4SEC - The emerging role of new social media in enhancing public security	2016 2018	University of Warwick - UK	Enhancing understanding of the opportunities, challenges and ethical consideration of social media use for public security => seek a better understanding of how social media can, and how social media cannot be used for public security purposes and highlight ethical, legal and data-protection-related issues and implications.	Future roadmap of social media use for public security planners comprising directions for future training, standards, research agendas, technological developments, ethical and legal frameworks, and future recommendations for effective and acceptable social media use.	<a href="https://cordis.europa.eu/project/id/700281">https://cordis.europa.eu/project/id/700281</a>
/	EVAPREM - Developing an evaluation model to assess prevention measures	2017 2018	Estonian Rescue Board Estonia	Develop a comprehensive and systematic model (system of performance indicators) on the basis of academic research to assess the prevention measures in the rescue services. ☑	Model on evaluating the public's safety readiness as a general index system in all areas of prevention. Evaluation model for determining the impact of prevention measures on the public's awareness, attitudes and actions. Model for implementation how to enhance the safety culture at local level.	<a href="https://civil-protection-humanitarian-aid.ec.europa.eu/funding-evaluations/financing-civil-protection/prevention-and-preparedness-projects-civil-protection/overview-past-track-i-and-track-ii-projects/developing-evaluation-model-assess-prevention-measures-evaprem_en">https://civil-protection-humanitarian-aid.ec.europa.eu/funding-evaluations/financing-civil-protection/prevention-and-preparedness-projects-civil-protection/overview-past-track-i-and-track-ii-projects/developing-evaluation-model-assess-prevention-measures-evaprem_en</a>
	TOXI-triage - Integrated and adaptative responses to toxic emergencies for rapid triage: engineering the roadmap from casualty to patient to survivor	2015 2019	Loughborough University - UK	TOXI-triage developed and integrated numerous technologies to address the operational, technological, ethical and societal dimensions of CBRN response and recovery, and to ensure a path to a sustainable CBRN and multiuse system.	Platform for medical care and site management during triage of CBRN crises will enhance information access and utilisation to enhance outcomes => Field toolbox including Tag and Trace technology integrated with traceable point-of-care diagnostic tests delivers casualty traceability. The tests detect exposure to many CBRN agents. In a pioneering world-first, metabolites of injury from exposure (volatile organic compounds) in breath, respired skin vapours and saliva can be assessed with a single platform + continuous mapping of a casualty as the person moves from the site of contamination to the site of medical care.	<a href="https://cordis.europa.eu/project/id/653409">https://cordis.europa.eu/project/id/653409</a>
	E2mC - Evolution of Emergency Copernicus services	2016 2019	E-GEOS SPA - Italy	Demonstrating the technical and operational feasibility of the integration of social media analysis and crowdsourced information within both the Mapping and Early Warning Components of Copernicus Emergency Management Service (EMS)	Platform to filter and organise all that information to enhance value in varied applications and exploit user-generated data, improving accuracy and resolution of near real-time event maps for numerous applications.	<a href="https://www.virux.me/e2mc-project">https://www.virux.me/e2mc-project</a>
	SAYSO - Standardisation of situational Awareness sYstems to Strengthen Operations in civil protection	2017 2019	Ministry of Interior - Germany	Development of innovative European cost-effective Multi-Stakeholders SA Systems (MSSAS) which will provide practitioners with user-friendly solutions, providing a clear picture of the situation at hand with relevant advices. Addressing both the technical and human aspects of technology implementation, SAYSO will define the specifications of future MSSAS on the basis of practitioners' requirements and specify the corresponding Reference Architecture to support the integration of various data into a common operational picture.	SAYSO defined specifications, functionalities, tools and a reference architecture for future MSSAS on the basis of practitioners' requirements. SAYSO also delivered roadmaps for future Situational Awareness Systems for multi-stakeholders and for standardisation in this area. The roadmap for further Advanced MSSAS optimisation includes the proposal to create a European Crisis Management Competence Centre (ECMCC). The project also established the SAYSO Governance Body (SGB).	<a href="https://cordis.europa.eu/project/id/740872">https://cordis.europa.eu/project/id/740872</a>
	HELIOS - Second Generation Beacon for GALILEO/EGNOS EGNSS Search And Rescue applications	2016 2020	OROLIA (SAFRAN) - France	Address the critical challenges. With a focus on developing a second generation range of beacons and associated antennas, HELIOS will revolutionise satellite-based distress alert detection and information distribution systems	Products compatible with the SAR/Galileo services and in accordance with latest end-users' requirements. The products and demonstrators developed within HELIOS provides innovations moving the state of the art to: • The access for the Beacon Users to the Galileo Navigation signals in Aviation, Maritime and Land • The access to the Galileo Return Link Service by the user in Maritime, Land and Aviation sectors (PLBs and EPIRBs) • An aviation device called ELT Distress Tracking, able to be triggered also in flight, in addition to current state of the art which is able to be triggered only upon a crash, associated to a new compatible single fuselage antenna able to provide ELT, GNSS and IRIDIUM signals • To send both an alert signal and flight data parameters over the air in multiple channels thanks to a Satcom Recorder platform and its associated fuselage antenna.	<a href="http://helios-gsa-project.eu/">http://helios-gsa-project.eu/</a>
	EASer - Enhancing Assessment in Search and Rescue	2017 2020	Fire Department of Pisa - Italy	Targets a specific aspect of USAR assessment called "barrier effect" during emergency interventions in response to natural catastrophes, especially earthquakes => provide a practical strategy to carry more efficiently the assessment in SAR with a positive cascade effect on the general performance of all subsequent operations.	3 main deliverables including : International Standard Operating Procedures & Recommendations.	<a href="https://www.easerproject.eu/">https://www.easerproject.eu/</a>
	IN-PREP - An Integrated next generation PREParedness programme for improving effective inter-organisational response capacity in complex environments of disasters and causes of crises	2017 2021	Institute of Communication and Computer Systems (ICCS) - Greece	Overarching goal is to support collaborative response planning and training for transboundary disasters and causes of crises	IN-PREP Handbook of Transboundary Preparedness and Response Operations Mixed-Reality Preparedness Platform – A Holistic Training Tool Dynamic and Collaborative Response Planning	<a href="https://www.in-prep.eu/">https://www.in-prep.eu/</a>
	HEIMDALL - Multi-Hazard cooperative management tool for data exchange, response planning and scenario building	2017 2021	German Aerospace Center - Germany	Provide integrated tools for emergency planning and management, including the definition and sharing of multi-disciplinary scenarios, and addressing the needs of the involved first responders and relevant stakeholders in terms of interoperability, inter-organisational coordination and information sharing.	Flexible platform for multi-hazard emergency planning and management, which makes use of innovative technologies for the definition of multi-disciplinary scenarios and response plans, providing integrated assets to support emergency management, such as monitoring, modelling, situation and risk assessment, decision support and communication tools.	<a href="https://heimdall-h2020.eu/">https://heimdall-h2020.eu/</a>

	<p>XENIOS - An integrated application platform to protect and promote cultural and tourist sites</p>	<p>2018 2020</p>	<p>Department of Forestry and Natural Environment of AUTH - Greece</p>	<p>Develop services for the short-, medium-, and long-term forecast of extreme natural phenomena and natural disasters in sites of tourist and cultural interest, which are also vulnerable to natural hazards. The ultimate objective is to contribute towards a more effective management and mitigation of these risks.</p> <p>In addition, the project aspires to enhance safety and improve the tourism product at these sites, through a mobile app which will offer visitors prompt and reliable information.</p>	<p>XENIOS system is a platform of web applications for predicting and managing risks (fires, floods), which interact with each other, providing information / forecasts to site administrators, whereas visitors are informed through a mobile application, which also interacts with the platform.</p> <p>More specifically, the services provided through the XENIOS system are the following : Natural hazard forecasting, Natural hazard alert reporter, Site management featuring a call center system and Visitors' attraction guide</p> <p>In addition, the XENIOS system has a modular structure that allows it to easily introduce forecasts of other hazards (lightning, tornadoes, avalanches, etc.), simply by developing suitable modules.</p>	<p><a href="https://xenios-project.eu/en/">https://xenios-project.eu/en/</a></p>
--	--	----------------------	--	--	---	--