

DRIVER+

MAIN RESULTS

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05/11/2019, Ministry of Interior, Helsinki, Finland



DRIVER+ seeks to improve the way **capability development** and **innovation management** are tackled, by **assessing** and **validating** (in realistic environments) **solutions** that are addressing the operational needs of Crisis Management practitioners



Atos

TNO

AUSTRIAN RED CROSS | RESEARCH
GmbH

THALES

ARTIC
INTERNATIONAL MANAGEMENT SERVICES

EOS
EUROPEAN ORGANISATION FOR SECURITY

DLR

DANISH
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ECORYS



PRIO

EDISOFT
DEFENCE & AEROSPACE TECHNOLOGIES



FREQUENTIS

HKV

A THALES Group Company

ITTI
e-technologies & business

XVR

PSCEurope
Public Safety Communication Europe

DIN

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AUSTRIAN INSTITUTE
OF TECHNOLOGY

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WILHELMS-UNIVERSITÄT
MÜNSTER

SDM
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Den Haag

ARMINES

MAGEN
DAVID
ADOM
IN ISRAEL



מגן דוד
אדום
בישראל

gmv
INNOVATING SOLUTIONS



SISEKAITSEAKADEEMIA
ESTONIAN ACADEMY OF SECURITY SCIENCES

Disaster
Waste
Recovery

CITET

MAIN RESULTS SO FAR

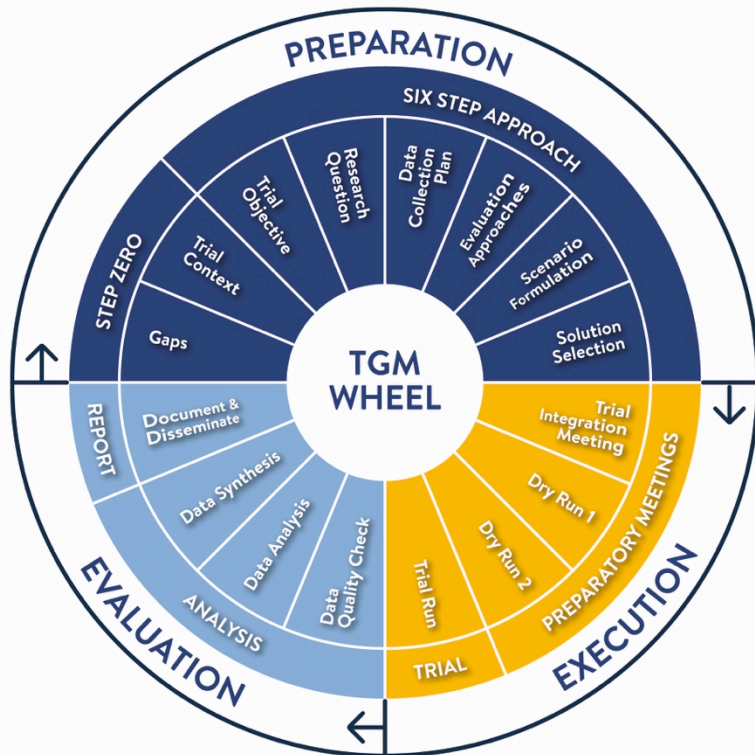
WORK IN PROGRESS

- Pan-European Test-bed:
 - Trial Guidance Methodology Handbook (and Trial Guidance Tool)
 - Technical infrastructure
 - Training Module
- Portfolio of Solutions
- CMINE – Crisis Management Innovation Network Europe
- Centre of Expertise
- Standardisation



TRIAL GUIDANCE METHODOLOGY

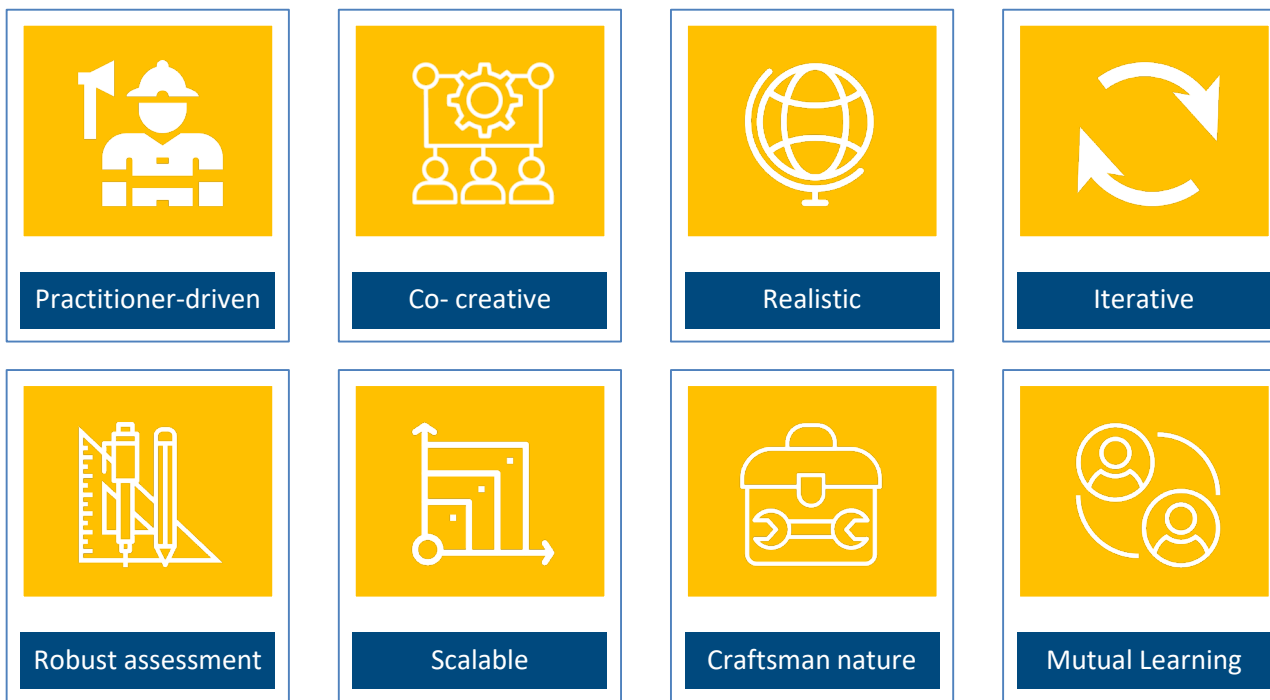
KEY MESSAGES / UNIQUE SELLING POINTS



Structured approach (Step-by-step guidelines) to carry out a robust assessment of solutions and their potential impact on the socio-technical set-up of a Crisis Management organisation

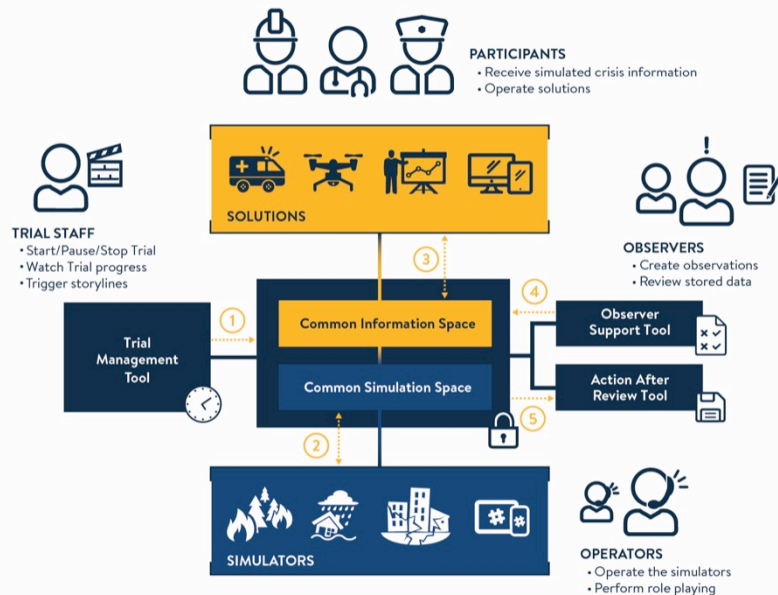
TRIAL GUIDANCE METHODOLOGY (TGM)

A PRAGMATIC AND SYSTEMATIC SUPPORT



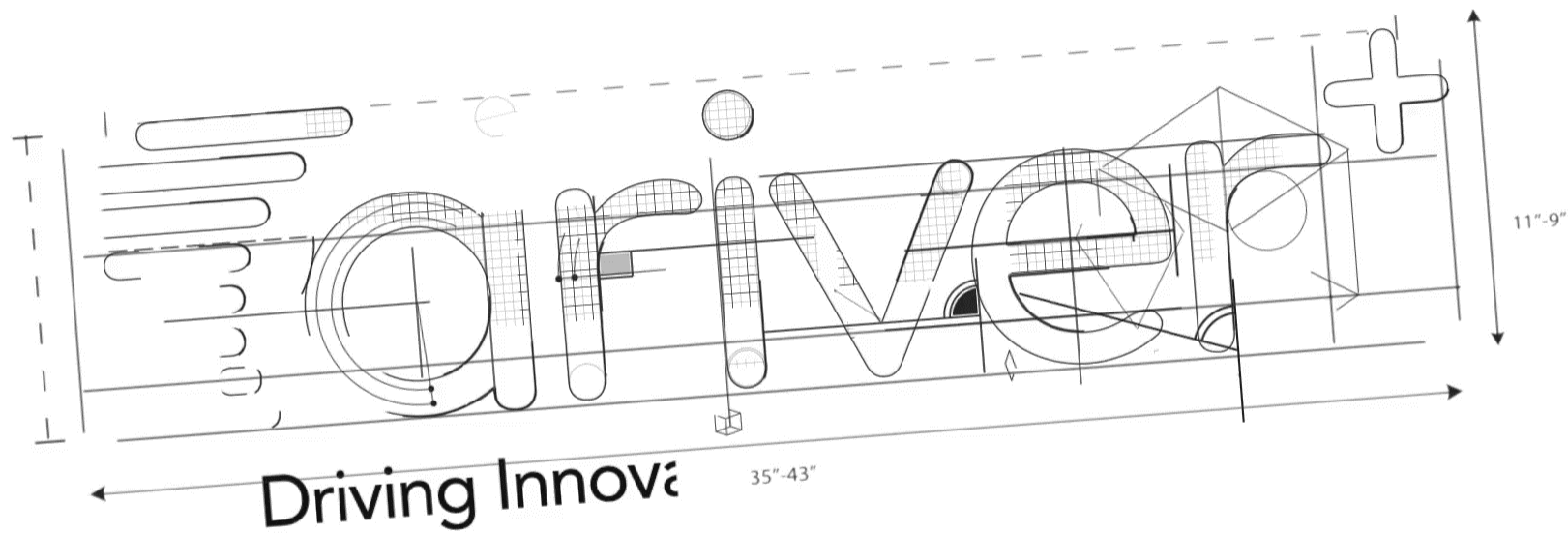
TEST-BED TECHNICAL INFRASTRUCTURE

KEY MESSAGES / UNIQUE SELLING POINTS



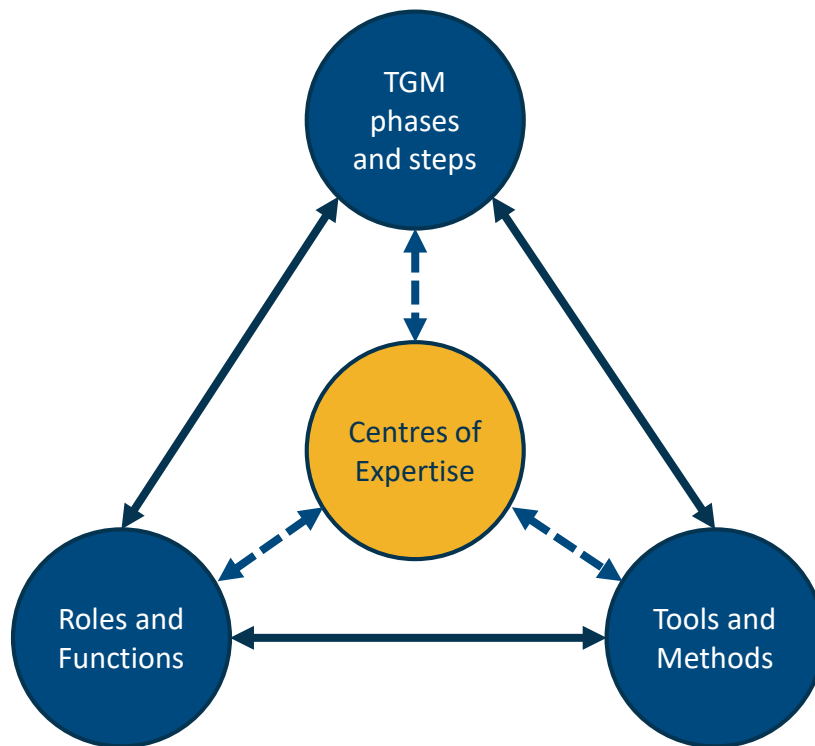
Free of charge and open source toolkit that allows to:

- Connect innovative Crisis Management solutions to each other to enable an exchange of information between them
- Connect different simulators to create and control realistic crisis environments/scenarios



TRAINING MODULE

BOTH E-LEARNING AND CONTACT PHASE



Multiple target groups:

- Trial organisers & CM practitioners
- Solution providers
- Technicians

Various didactics:

- E-lectures (video lectures)
- Quizzes
- Animations
- Video interviews
- Q&A and discussion forum
- Face-to-face workshops
- Group assignments

PORTFOLIO OF SOLUTIONS

KEY MESSAGES / UNIQUE SELLING POINTS



Open-source and interactive database for CM solutions (online market place) that:

- Provides access to information about available CM solutions (supply) and matches it with practitioner needs (demand)
- Enriches solution descriptions with experiences and lessons identified from practitioners
- Feel free to upload information on solutions yourselves (pos.driver-project.eu/)

OVERVIEW OF SOLUTIONS

Crisis Cycle Phase

- ☐ mitigation (14)
- ☐ preparedness (20)
- ☐ recovery (17)
- ☐ response (30)

Innovation stage

- ☐ stage 2 research and development (1)
- ☐ stage 3 initial piloting (6)
- ☐ stage 4 early adoption distribution (12)
- ☐ stage 5 market growth (8)
- ☐ stage 6 widescale adoption (4)

Crisis size

- ☐ crossborder (18)
- ☐ large scale (16)
- ☐ local (29)
- ☐ regional (28)

Solution of the day:

ICM - Incident & Crisis Management



PDF export



UAV-ASIGN

UAV-ASIGN is a software solution that helps reduce emergency and disaster response time by collecting and sending UAV photos and videos while in-flight even through low or constrained bandwidths.



SOCRATES OC

SOCRATES OC enhances analysis and decision-making capabilities by means of an improved shared situational awareness based on relevant information about the operational situation including crisis events, missions and resources, created by the operator or coming from external sources.



MDA command and Control system

MDA C4i system allows for efficient, real time response to tasks on the field (e.g. people in need for medical assistance), by allocating the site, allocating the resources needed and available, tasking the resources and following up the accomplishment.



3Di - Water Management

3Di is a cloud-based versatile water management instrument that enables flood forecasting and risk mapping. 3Di models are fast, accurate and visual.



LifeX COP

LifeX COP is a web-centric multi-user Solution developed by Frequentis to address the lack of a Common Operational Picture in the field of Crisis Management.



GDACSmobile

GDACSmobile is a support platform for collecting and sharing situational awareness information. It aims to serve two main target groups with different rights and roles: people concerned with disaster relief and the (affected) population itself.



CrowdTasker

CrowdTasker enables crisis managers to instruct large numbers of non-institutional (either spontaneous or pre-registered) volunteers with customizable tasks, contextual information, warnings and alerts, as well as to crowdsource information from them.



Rapid Mapping

DroneRapidMapping enables rapid mapping of incident/crisis area.



CrisisSuite

The main objective of CrisisSuite (online crisis management software) is to enable organisations to successfully manage information during a crisis.



IO-DA

On the one hand, the information about the crisis situation is brought thanks to the use of dedicated modelers: Partner modeler: This modeler allows the crisis manager to model crisis management stakeholders that can be mobilized in case of crisis situation and their capabilities.



Airborne and Terrestrial Situational Awareness

The solution "Airborne and Terrestrial Situational Awareness" is composed of several individual components and tools, which are integrated into a complete system, ready to be deployed in different scenarios.



HumLogSuite

HumLog Suite is a performance assessment platform that serves logistic processes in crisis management. It can operate on both current operational logistics network and fictional (planned) network configurations.



Emergency Mapping Tool (EMT)

EMT facilitates seamless exchange of information for stakeholders in the crisis management.



Debris Tool

The Debris Tool is a software based solution designed to amalgamate various defined inputs from the field, historic survey data and other sources, for the prediction and modelling of waste and debris removal options in a post-crisis environment.



PROTECT

Using the know-how and expertise acquired during the development of the CECIS tool, the PROTECT application is a web-based alert and notification system for emergency (and early warnings) situations concerning civil protection.



Scenario enabled Psychological First Aid (PFA) training

The scenario enabled psychological first aid (PFA) training comprises knowledge on what PFA is, guidelines on how to perform PFA and an experiential training package to build the capacity to deliver quality PFA.



Social Media Analysis Platform



I-REACT



XVR Crisis Media



SE-Star : THALES Crowd

FILTER AND SELECT SOLUTIONS

HOME » THE PORTFOLIO OF SOLUTIONS

Items per page

24 ▾

Apply

Crisis Cycle Phase

- ☐ mitigation (17)
- ☐ preparedness (32)
- ☐ recovery (22)
- ☐ response (41)

Innovation stage

- ☐ stage 1 concept (1)
- ☐ stage 2 research and development (2)
- ☐ stage 3 initial piloting (9)
- ☐ stage 4 early adoption distribution (17)
- ☐ stage 5 market growth (11)
- ☐ stage 6 widescale adoption (6)

Alternatively to directly searching for the solution

[PDF export](#)



CITY MANAGEMENT PORTAL

The city management portal is special designed for routine management of operations as well as large-scale events and crisis situations.



Nordic GTV (gyro terrain vehicle)

Nordic Gyro Terrain Vehicle is a small trailer designed for offroad use. It can be pulled by any motorized off-road vehicle (ATV), including snowmobiles.

Filter by CM function

- provide decision support (11)
- collect information from deployed sources (10)
- maintain shared situational awareness (10)
- orient and decide (7)
- provide situational awareness share cop (7)
- conduct damage and needs assessment (6)
- develop and sustain cop (6)
- provide communications and information support to c3 (6)
- conduct coordinated tasking and resource management (5)
- provide information on the crisis impact (5)
- establish and share detailed cop (4)
- response (4)
- review and adjust the response plan (4)
- train individuals teams and organisations (4)
- command response operations (3)

of mortality and morbidity risk to facilitate optimal risk management, risk transfer, and risk mitigation decisions that align with organisation's strategic goals.

are addressing the gaps you are interested in.



EPISECC CIS

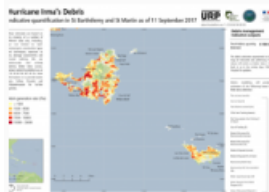
Common Information Space as Enabler for Collaboration in Disaster Management



Scenario Building Tool

A dynamic tool regarding multiple hazard scenarios simulation for the training civil protection actors

Solution of the day:



Debris Tool

▶ [CONTACT](#)

CrowdTasker enables crisis managers to instruct large numbers of non-institutional (either spontaneous or pre-registered) volunteers with customizable tasks, contextual information, warnings and alerts, as well as to crowdsourcing information from them. The received feedback is evaluated and visualized and provides *crisis* managers with a detailed overview of the situation, which in turn to trigger adequate *disaster* relief services.

When working with the volunteers that are already at a disaster site CrowdTasker allows the crisis managers to:

- Dramatically reduce the time and effort needed to exchange information with these volunteers;
- Differentiate between the volunteers based on their profiles (e.g. skills, health) and positions
- Address the people that potentially possess local knowledge;
- Alleviate the workload for *emergency* and *response* organizations;

▶ [SUPPORTED USE CASES](#)

Crisis/Incident category

[Any](#)

Innovation stage

- [Stage 4: Early Adoption/ Distribution](#)

Readiness

- [TRL 7 - System prototype demonstration in operational environment](#)

Crisis size

- [Cross-border](#)
- [Large scale](#)
- [Regional](#)
- [Local](#)

Crisis Cycle Phase

- [Preparedness](#)
- [Response](#)

Illustrations



▼ [SUPPORTED USE CASES](#)

CT-01 Address spontaneous volunteers

CrowdTasker supports *volunteer* managers and incident commanders by offering a lightweight mode of registration and low barrier to entry for spontaneous volunteers that are not officially affiliated with the *organisation*.

Registration of volunteers is implemented as self-service sign-up via the smartphone application. Volunteers can create an account easily, by providing an email address and password. Later, they can provide information about their skills via a profile page. This information may also be vetted and validated by volunteer managers to provide an indication of trust in the volunteer's profile.

Alternatively, volunteers can use the social media interface of CrowdTasker (provided via chatbots) as initial means of signing up with an even lower barrier to entry. By starting a conversation with the CrowdTasker chatbot, they can sign up to receive information and tasks and provide profile information, similar as in the smartphone application, but in an environment that they already use and are familiar with.

Related CM functions

- [Provide communications with volunteers](#)
- [Maintain registers of volunteers](#)
- [Establish organisation for spontaneous volunteers](#)

CT-02 Interact with existing informal volunteers groups

Spontaneous volunteers often use social media as infrastructure for *self-organisation* and managing their participation as a group. Social media networks have an especially low barrier to entry, as many people are already familiar with their use and mode of operation. Therefore, social media represents an attractive channel for guiding efforts of spontaneous volunteers.

CrowdTaskers community module offers volunteer managers an interface with self-organised groups that is easily established by adding the CrowdTasker chatbot to the group. Subsequently, the group can receive information about the

▼ REFERENCES

DRIVER+ Trial 3 -
AUSTRIA

▼ DOCUMENTATION

[PDF export](#)

▼ CONTACT

Trial Description

The main objective of Trial 3 is to

▼ GAPS

▼ OBJECTIVES

Overarching scenario

The central area of Austria has been struck by a heavy earthquake and subsequent heavy rains! The local region of Eisenerz (in Styria, Austria) is one of the most affected with missing persons, casualties, collapsed buildings, blocked roads, and endangered industries working with hazardous substances. *Trial scenario* simulates the large-scale response to the crisis involving the national emergency response organizations, international assistants and a large amount of spontaneous volunteers.

▼ SCENARIOS

Trial type

Trial

Crisis size

[Regional](#)
[Local](#)

Crisis Cycle Phase

[Preparedness](#)
[Response](#)
[Recovery](#)

Trial Location

[Austria](#)

Trial illustrations




▼ RESEARCH QUESTIONS

▼ TRIALED SOLUTIONS

LANGUAGE AND TERMINOLOGY SUPPORT

ENHANCING A SHARED UNDERSTANDING IN CRISIS MANAGEMENT



[PDF export](#)

▸ [CONTACT](#)

CrowdTasker enables crisis managers to instruct large numbers of non-institutional (either spontaneous or pre-registered) volunteers with customizable tasks, contextual information, warnings and alerts, as well as to crowdsource information from them. The received feedback is evaluated and visualized and provides crisis managers with a detailed overview of the situation, which is used in turn to trigger adequate disaster relief services.

When working with the volunteers that are affected by an unstable condition involving an impending abrupt or significant change in the environment that requires urgent attention and action to protect life, assets, property or the environment, the crisis managers to:

- Dramatically reduce the time and effort to protect life, assets, property or the environment;
- Differentiate between the volunteers based on their (age, gender, health) and positions
- Address the people that potentially possess local knowledge;
- Alleviate the workload for emergency and response organizations;

[read more](#)

▸ [SUPPORTED USE CASES](#)

CRISIS MANAGEMENT INNOVATION NETWORK EUROPE

KEY MESSAGES / UNIQUE SELLING POINTS



Community of Practice with the aim to:

- LinkedIn for Crisis Management Innovation in Europe ('One-stop shop')
- Foster innovation through multi-stakeholder and cross-sectoral interaction
- Contribute to an enhanced understanding of CM in Europe

JOIN [HTTPS://WWW.CMINE.EU](https://www.cmine.eu)

CMINE ADDED VALUE

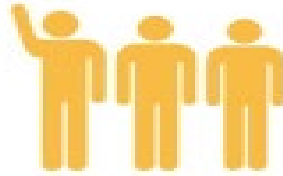
ONLINE COMMUNITY PLATFORM & FACE-TO-FACE MEETINGS



- 1 Fostering multi-stakeholder & cross-sectoral interaction
- 2 Facilitating the uptake of research and innovation
- 3 Evolving into a pan-European hub for Crisis Management Innovation
- 4 Providing visibility & networking opportunities to the CM community

SELF-ORGANISING VIA THE CMINE PLATFORM

FIRST CMINE THEMES



Volunteer Management



Wildfires




Floods

Cross-cutting activities


- Standardisation
- Competition to identify crisis management solutions with highest innovation potential
- CMINE is open for other ideas

GLIMPSE INTO CMINE

Events


 Christiane A

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DRIVER+ TRIAL - AUSTRIA

[Register for this event](#)



Trial - Austria
9th - 15th September 2019,
Eisenertz (Styria)

 DRIVER+ Trial Austria is being organised by the Austrian Red Cross (ARC) together with the Austrian Institute of Technology (AIT).

 It will be conducted as a multi-day field exercise under the framework (and in parallel) of a Large Scale European Civil Protection exercise in Eisenertz, Austria.

The Scenario: A heavy earthquake in the local region of Eisenertz

The central area of Austria has been struck by a heavy earthquake and subsequent heavy rains.

The local region of Eisenertz (in Styria, Austria) is one of the most affected with missing persons, casualties, collapsed buildings, blocked roads, and endangered industries working with hazardous substances.

Date
September 9, 2019 10:00 - September 15, 2019 18:00 UTC
[Add to calendar](#)

Location
Eisenertz
[See location](#)

1 people are attending









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DRIVER+

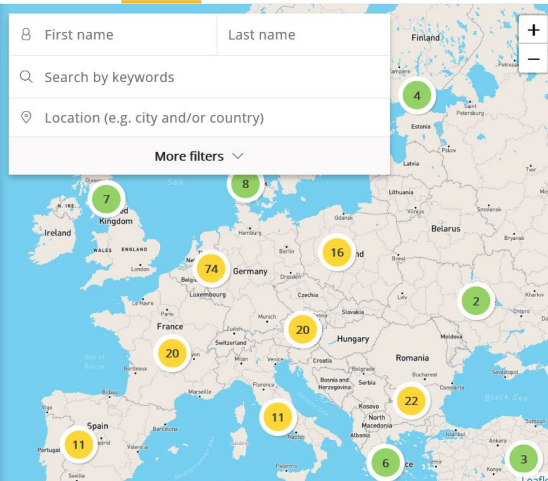
Directory

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Results: 274 ☐ Refresh results as I move the map

	Andreas H ☆ Austria		Ronald C ☆ Netherlands
	Thomas S ☆ Austria		CMINE H ☆ Paris France
	Erik V ☆ Netherlands		Vitor R ☆ Portugal
	Marijn R ☆ The Hague Netherlands		Zygfryd Z ☆ Poland

More filters ▾



Map showing locations of CMINE members across Europe. Markers are numbered: 11 (Spain), 20 (France), 74 (Germany), 16 (Italy), 20 (Hungary), 11 (Italy), 22 (Romania), 6 (Czechia), 3 (Poland), 2 (Belarus), 4 (Finland), 7 (Ireland), 8 (Sweden).

CMINE SNAPSHOT



Search for people



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Post



Trip



Event



Check-in



To notify individual users, type '@' (ex: @Alex). To notify multiple users, click 'Notify people'.

Notify people

Publish

Live feed

Filters: All items



James E created an event

2 hours ago

Recently active members



Marcel Va...



James E



Vitor R



Kim L



Myriam B



CMINE H



Todor T



Nina D



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RESILOC H2020

Frankfurt, Germany

The RESILOC H2020 team is working to support local...

NO-FEAR

NO-FEAR

Novara, Italy

Network Of practitioners For Emergency medical ...



FIRE-IN

Aix-en-Provence, France

RE-IN has been designed to raise the security level o...



BroadWay

Brussels, Belgium

BroadWay is Procuring Innovation activity to ...



EUROPA THAT PROTECTS - ...

France

consolidate EU by CP reinforcement



TERRIFFIC



beAWARE



EXUS



DRIVER+



HITEC Luxembourg

CMINE SNAPSHOT

Groups

DRIVER+ internal & external sources

Wildfires

7 Followers

DRIVER+ internal & external sources

Volunteer Management

13 Followers

DRIVER+ internal & external sources

Floods

6 Followers

Others

CMINE Steering Committee

6 Followers

Trial Guidance Methodology

Trials

6 Followers

Portfolio of Solutions

Innovative Solutions

7 Followers

News

ARE YOU INTERESTED IN OUR TRIALS? GET READY FOR TRIAL...

Jun 10

TRIAL THE NETHERLANDS: THANKS

Jun 10

TRIAL THE NETHERLANDS: DAY-1

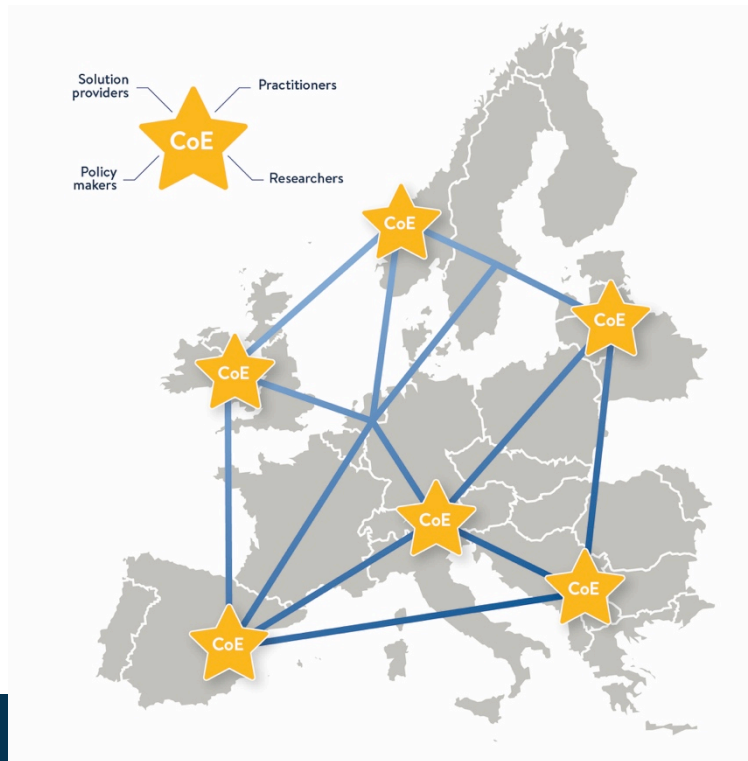
Jun 10

DRIVER+ STANDARDISATION ACTIVITIES PRESENTED AT THE...

Jun 07

CENTRES OF EXPERTISE

KEY MESSAGES / UNIQUE SELLING POINTS



- Organisation that supports the capability development and innovation management of practitioner organisations at the national or regional level
- Adopts either the whole suite of DRIVER+ outputs or only some of its components
- Ambition to establish a pan-European network

CENTRES OF EXPERTISE

CURRENT STATE OF PLAY

Internal

- Entente Valabre (France)
- Austrian Red Cross (Austria)
- Satellite Research Centre / SRC PAS (Poland)
- Main School of Fire Service / SGSP (Poland)
- Estonian Academy of Security Sciences / EASS (Estonia)
-

External

- Disaster Competence Network Austria / DCNA (Austria)
- Institute for Safety / IFV (the Netherlands)
- Resilience Advisors Network (UK)
- Baltic cluster (established within SPARTA project): L3CE, Polish Platform for Homeland Security, Tartu university, Kaunas University of Technology, General Jonas Zemaitis military academy, Vilnius Gediminas Technical university
- MSB (Sweden)
- Campus Vesta (Belgium), partner within eNotice project
- The International Emergency Management Society / TIEMS (Norway/Belgium)



TRIALS + FINAL DEMO

Five events to operationalise and test both the solutions and the Test-bed components

1. Poland – Toxic mud flood (May 2018)
2. France – Forest fire (October 2018)
3. The Netherlands – Flooding (May 2019)
4. Austria – Earthquake (September 2019)
5. Poland and the Netherlands – Multi hazard (November 2019)



Based on updated Crisis Management gaps and practitioner needs



Benefiting from the DRIVER+ Test-bed components



Testing the potential benefits of DRIVER+ Solutions and Test-bed at EU-level



All results to be made available in the Portfolio of Solutions

TRIAL THE NETHERLANDS - SELECTED GAPS

PRIORITISED THROUGH PRACTITIONER WORKSHOPS

Gap 1 - Objective: Enhance capability to plan/coordinate resources for large-scale/long-term events

Gap 2 - Objective: Improve ability to exchange crisis-related information among agencies and organizations

Gap 3 - Objective: Facilitate planning and management of large scale evacuation in urban areas



TRIALED SOLUTIONS

SELECTED THROUGH DOUBLE BLIND REVIEW AND SOLUTION DEMONSTRATION

INNOVATIVE SOLUTIONS						
	3Di A state-of-the-art hydrodynamic simulation software for pluvial, fluvial and coastal floods	ZKI Up-to-date situational awareness information such as satellite or aerial imagery as well as geo data	Keep Operational Provides information about the current traffic situation and routes regarding the flood information	CrisisSuite Provides a Common Operational Picture for those Crisis Teams not having direct access to LCMS	HumLog An adaptable simulation environment for discrete event-based and agent-based simulations	SIM-CI Creates digital visualisation of the disaster, showing cascading effects on critical infrastructure and utility networks
GAP 1: Long-term planning of resources	X				X	X
GAP 2: Extending information exchange	X	X		X		X
GAP 3: Managing large-scale evacuation	X		X		X	X

FLOOD SCENARIO IN THE HAGUE

Severe weather conditions cause the Scheveningen lock to fail, flooding The Hague city centre, putting more than 500,000 people at risk. Cascade effects will be loss of electricity, gas, drinking water, telecoms networks and damage to roads, houses, cars, shops, tramlines...

PHASE 1: THREAT

Serious flood risk: The Safety Region prepares for evacuation (routes, shelters, organisations), protects vital infrastructure and strengthens weak spots.

PHASE 2: IMPACT

Severe inundation: The Safety Region coordinates emergency response and rescue operation; plans for evacuation of trapped people in flood areas.

TRIAL SET-UP

TWO DAYS – FOUR BLOCKS

Trial Day	Phase	Simulation time	Block	Objective of Block
1	1. Threat	- 48 h	1: Cascade effects	▪ Assessment of 3 areas (The Hague City Centre, Wateringse Veld & Leidscheveen) and cascade effects
1		-24 h	2: Evacuation	▪ Assessment of evacuation strategy, actions / measures for one area expected to be flooded (The Hague City Centre)
2	2. Impact	+24 h	3: Damage assessment	▪ Assessment of damage in the flooded area (The Hague City Centre and mitigation measures)
2		+ 48 h	4: Damage control	▪ Answering questions of International Organizations, planning personnel police, mitigation measures



TRIAL PARTICIPANTS

17



**Trial Committee
Members**

38



Practitioners

16



Observers

13



**Solution
Providers**

16



**Trial Support
Staff**

8



**Consortium
Members**

37



**Visiting
Guests**

VIDEO

TRIAL – THE NETHERLANDS

CONTRIBUTIONS TO STANDARDISATION

CWA: CEN-CENELEC WORKSHOP AGREEMENTS

Standards support the transfer of knowledge and technology, and play a pivotal role in implementing and disseminating innovations and research findings.

A CWA is quicker alternative to formal standards and open to any experts whether they are members of a Technical Committee or not.

1. Terminology and Taxonomy in Crisis and Disaster Management
2. Trial Guidance Methodology
3. Common Simulation Space
4. Syntactical and Semantic Interoperability

One ISO New Work Item Proposal:

1. Societal Impact Assessment





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DRIVING INNOVATION IN CRISIS MANAGEMENT FOR EUROPEAN RESILIENCE

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Groups:
Driver Project



Driver Project

More information about the project - coordination@projectdriver.eu
Interested in collaborating with us? - cooperation@projectdriver.eu
Communication and media contact communication@projectdriver.eu



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