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.
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
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

- Practitioner-driven
- Co-creative
- Realistic
- Iterative
- Robust assessment
- Scalable
- Craftsman nature
- Mutual Learning
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 (20)

Innovation stage
- Stage 1: Research and development (1)
- Stage 2: Initial piloting (6)
- Stage 3: Early adoption distribution (12)
- Stage 4: Market growth (8)
- Stage 6: Widescalse adoption (4)

Crisis size
- Crossborder (18)
- Large scale (16)
- Local (29)
- Regional (28)

Solution of the day:
- ICM - Incident & Crisis Management
- EMT - Emergency Mapping Tool
- Debris Tool
- Social Media Analysis Platform
- I-REACT
- XVR Crisis Media
- SE-Star : THALES Crowd

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

SOCRATES QC
SOCRATES QC 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 QGIS 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, biasing the resources and following up the accomplishment.

3DI - Water Management
3DI is a cloud-based serviceable 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 crowdsourcing information from them.

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

I-O-DA
On the one hand, the information about the crisis situation is brought thanks to the use of dedicated models: Participant model. This model allows the crisis manager to model crisis management stakeholders that can be mobilized in case of crisis situation and their capabilities.

PROTECT
Using the knowledge 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 warning) 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.
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 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;

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**
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
EXAMPLE:
CROWDTASKER

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.

Trial type
Trial
Crisis size
Regional
Local
Crisis Cycle Phase
Preparedness
Response
Recovery

Trial Location
Austria

Trial illustrations

RESEARCH QUESTIONS
TRIALED SOLUTIONS
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 provided to 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 also operating in crisis situations, the crisis managers need to:
- Dramatically reduce the time and effort to take action to protect life, assets, property or the volunteers;
- Differentiate between the volunteers based on their expertise, their environment (health) and positions;
- Address the people that potentially possess local knowledge;
- Alleviate the workload for emergency and response organizations.

Unstable condition involving an impending abrupt or significant change that requires urgent attention and...
Crisis Management Innovation Network (CMINE) 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
CMINE ADDED VALUE
ONLINE COMMUNITY PLATFORM & FACE-TO-FACE MEETINGS

- Fostering multi-stakeholder & cross-sectoral interaction
- Facilitating the uptake of research and innovation
- Evolving into a pan-European hub for Crisis Management Innovation
- Providing visibility & networking opportunities to the CM community
SELF-ORGANISING VIA THE CMINE PLATFORM

FIRST CMINE THEMES

Cross-cutting activities

• Standardisation
• Competition to identify crisis management solutions with highest innovation potential

• CMINE is open for other ideas
GLIMPSE INTO CMINE

Events

Trial - Austria
9th – 15th September 2019,
Eisenerz (Austria)

CMINE Trial Austria is being organised by the Austrian Red Cross (AMC) together with the Austrian Institute of Technology (AIT).
A trial was conducted as a real-life test exercise under the framework of the project partner’s EU project "European Civil Protection exercise in the Alps" (E dryer). The main scenarios were a heavy earthquake in the local region of Eisenerz.

Directory

Results: 274

Andreas H
Austria

Ronald C
Netherlands

Thomas S
Austria

CMINE H
Paris France

Erik V
Netherlands

Vitor R
Portugal

Marijn R
The Hague Netherlands

Zygryd Z
Poland
CMINE SNAPSHOT

RESILOC H2020
Frankfurt, Germany
The RESILOC H2020 team is working to support local...

NO-FEAR
Novara, Italy
Network Of practitioners For Emergency mediCAI ...

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

- Wildfires
  - 7 Followers

- Volunteer Management
  - 13 Followers

- Flooding
  - 6 Followers

- CMINE Steering Committee
  - 6 Followers

- Trial Guidance Methodology
  - 6 Followers

- Portfolio of Solutions
  - 7 Followers

- 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)
- ....
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
TRIALLED SOLUTIONS
SELECTED THROUGH DOUBLE BLIND REVIEW AND SOLUTION DEMONSTRATION

<table>
<thead>
<tr>
<th>GAP 1: Long-term planning of resources</th>
<th>3Di</th>
<th>ZKI</th>
<th>Keep Operational</th>
<th>CrisisSuite</th>
<th>HumLog</th>
<th>SIM-CI</th>
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<th>GAP 2: Extending information exchange</th>
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<th>GAP 3: Managing large-scale evacuation</th>
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OVERVIEW OF TRIAL “THE NETHERLANDS TRIAL”

DRIVER+ Project

21-23 MAY 2019

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**

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

17 Trial Committee Members

16 Observers

38 Practitioners

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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