



D953.12 - ENHANCING THE SHARED UNDERSTANDING OF CM - PROGRESS REPORT N°2

SP95 - IMPACT, ENGAGEMENT AND SUSTAINABILITY

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The DRIVER+ project

Current and future challenges, due to increasingly severe consequences of natural disasters and terrorist threats, require the development and uptake of innovative solutions that are addressing the operational needs of practitioners dealing with Crisis Management. DRIVER+ (Driving Innovation in Crisis Management for European Resilience) is a FP7 Crisis Management demonstration project aiming at improving the way capability development and innovation management is tackled. DRIVER+ has three main objectives:

- 1. Develop a pan-European Test-bed for Crisis Management capability development:
 - a. Develop a common guidance methodology and tool, supporting Trials and the gathering of lessons learnt.
 - b. Develop an infrastructure to create relevant environments, for enabling the trialling of new solutions and to explore and share Crisis Management capabilities.
 - c. Run Trials in order to assess the value of solutions addressing specific needs using guidance and infrastructure.
 - d. Ensure the sustainability of the pan-European Test-bed.
- 2. Develop a well-balanced comprehensive Portfolio of Crisis Management Solutions:
 - a. Facilitate the usage of the Portfolio of Solutions.
 - b. Ensure the sustainability of the Portfolio of Solutions.
- 3. Facilitate a shared understanding of Crisis Management across Europe:
 - a. Establish a common background.
 - b. Cooperate with external partners in joint Trials.
 - c. Disseminate project results.

In order to achieve these objectives, five sub-projects (SPs) have been established. **SP91** *Project Management* is devoted to consortium level project management, and it is also in charge of the alignment of DRIVER+ with external initiatives on crisis management for the benefit of DRIVER+ and its stakeholders. In DRIVER+, all activities related to Societal Impact Assessment are part of SP91 as well. **SP92** *Test-bed* will deliver a guidance methodology and guidance tool supporting the design, conduct and analysis of Trials and will develop a reference implementation of the Test-bed. It will also create the scenario simulation capability to support execution of the Trials. **SP93** *Solutions* will deliver the Portfolio of Solutions which is a database driven web site that documents all the available DRIVER+ solutions, as well as solutions from external organisations. Adapting solutions to fit the needs addressed in Trials will be done in SP93. **SP94** *Trials* will organize four series of Trials as well as the final demo. **SP95** *Impact, Engagement and Sustainability*, is in charge of communication and dissemination, and also addresses issues related to improving sustainability, market aspects of solutions, and standardization.

The DRIVER+ Trials and the Final Demonstration will benefit from the DRIVER+ Test-bed, providing the technological infrastructure, the necessary supporting methodology and adequate support tools to prepare, conduct and evaluate the Trials. All results from the Trials will be stored and made available in the Portfolio of Solutions, being a central platform to present innovative solutions from consortium partners and third parties, and to share experiences and best practices with respect to their application. In order to enhance the current European cooperation framework within the Crisis Management domain and to facilitate a shared understanding of Crisis Management across Europe, DRIVER+ will carry out a wide range of activities. Most important will be to build and structure a dedicated Community of Practice in Crisis Management, thereby connecting and fostering the exchange of lessons learnt and best practices between Crisis Management practitioners as well as technological solution providers.

Executive summary

The overarching objective of the DRIVER+ project is to improve the way capability development and innovation management are tackled, by testing and validating (in realistic environments) solutions that are addressing the operational needs of practitioners dealing with Crisis Management (CM). However, CM is an intricate and multi-layered field, involving many different organisations and disciplines throughout its cycle (mitigation, preparedness, response, recovery). With newly arising, cross-border security threats in Crisis Management (natural disasters, terrorist threats, pandemics, migration, etc.), Europe is in need of a convergence of resources, but also of equipment and knowledge, to better manage those ever-changing risks and threats. Market fragmentation, lack of common certification, as well as common standards in the field, adds to the challenges practitioners are facing. To overcome these limitations, and therefore to reach a shared understanding in Crisis Management across Europe, there is a clear necessity for the creation of a united ecosystem in Crisis Management, the establishment of common practices, the access to similar information and the set-up of mechanisms for exchanges on lessons learnt.

Currently, no overarching strategy yet exists to involve all these stakeholders to discuss crisis management challenges at a macro level, i.e. at all phases of the crisis management cycle, which could play a role in facilitating the implementation of policy and the uptake of research and innovation by practitioners and other end users. While the European Union Civil Protection Mechanism (EUCPM) (1) and the European Forum for Disaster Risk Reduction (EFDRR) (2) are helping Member States to better align their national policies in line with the Sendai framework (3), there is a need to complement this by offering practitioners and end-user a collaborative space in which innovative solutions and best practice tool kits for crossnational and multi-faced risk scenarios can be discussed and enhanced.

For the reasons stated above, and in spite of its limited timeframe, the project ambition with regards to stakeholders engagement and the emergence of a shared understanding is first and foremost a long-term one: to build and engage with an active and structured Community of Practice in the field of Crisis Management that will be sustainable after the end of the project duration: the Crisis Management Innovation Network Europe (CMINE).

The engagement of policy makers, researchers, practitioners, industry representatives, and citizens in Crisis Management innovation is a key to reduce fragmentation, create a shared understanding, and find better solutions smarter and faster. Therefore, the CMINE, supported by the Community Management Tool (CMT) and in-person gatherings, will constitute a crucial element of the DRIVER+ project by acting as an overarching body that will link and connect stakeholders dealing with Crisis Management and allow them to exchange on challenges at all levels of the crisis management cycle (preparedness, response, recovery, resilience). This will facilitate the implementation of policies and the uptake of research and innovation by practitioners and other end-users.

Being the second iteration of a series of reports, and while the initial version (D953.11) intended to set the overall framework necessary for the creation of the CMINE, the present document specifically focuses on providing the reader with an updated version of these requirements, based on (1) the feedback received during the past review meeting and (2) the outcomes of the activities carried out since March 2018 (M47). Moreover, further details on the concrete implementation of the related tasks will also be provided. The next iteration of this living document (D953.13) will aim at providing updated versions of these requirements, based on feedback and outcomes of the activities to be carried out over the next period. Further details on the concrete implementation of the related tasks will also be provided. The last iteration (D953.14) will include the final version of the strategy and implementation plan for developing the CMINE, providing also concrete options on how to maintain this Community of Practice (CoP) after the end of the project duration.

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List of Acronyms

Acronym	Definition
CEN/TC	European Committee for Standardization/Technical Committee
СМ	Crisis Management
CMINE	Crisis Management Innovation Network Europe
CMT	Community Management Tool
СОР	Common Operational Picture
СоР	Community of Practice
CoU	Community of Users
CWA	CEN Workshop Agreement
D&C	Dissemination & Communication
DDR	Disaster Risk Reduction
DG	Directorate General
DoW	Description of Work
EC	European Commission
EU	European Union
EUCPM	European Union Civil Protection Mechanism
EFDRR	European Forum for Disaster Risk Reduction
F2F	Face-to-face
GDPR	General Data Protection Regulation
I4CM	Innovation for Crisis Management
ISO	International Organization for Standardization
PoS	Portfolio of Solutions
PRDR	Policy Research Dialogue Roundtable
Q&A	Questions & Answers
RAN	Radicalization Awareness Network
REA	Research Executive Agency
SMR	Smart Mature Resilience
SP	Subproject
SPCC	Subproject Coordination Committee
SRE	Security Research Event
UNISDR	United Nations International Strategy for Disaster Reduction

Acronym	Definition
USAR	Urban Search and Rescue
WG	Working Group
WP	Work package

1. Introduction

1.1 Background and objectives for engaging with the Crisis Management Ecosystem

The engagement with the Crisis Management (CM) ecosystem is of utmost importance for DRIVER+ to jointly progress in the critical areas of CM and to create acceptance for new solutions and approaches towards the successful introduction of innovation. In particular, the systematic participation of the DRIVER+ stakeholders in the project activities will help the DRIVER+ consortium to align with and to follow-up on relevant policies, challenges, gaps and community needs faced within the wide spectrum of thematic areas dealing with CM. To increase the relevance of the results and ensure that the DRIVER+ Trials are conducted taking into account the technological state-of-the-art and relevant knowledge available outside of the consortium, the DRIVER+ Trials, final demonstration and events will therefore follow an inclusive approach. The DRIVER+ specific objectives for engaging with the Crisis Management ecosystem are the following:

- Extend the knowledge base: Involving new network partners and practitioner organisations will allow the project to gain access to new knowledge and expertise, in particular with respect to operational and management challenges, specific technological requirements, challenges related to regulations and standardisation, or challenges related to the evaluation processes; moreover, sharing of best practices and lessons learnt will allow to learn about new and innovative solutions supporting their operations.
- Ensure the relevance of the project activities: Enabling the participation of external innovative solution providers, concerned practitioners and relevant experts to the DRIVER+ Trials and the final demonstration should ensure their high quality, appropriateness and relevance.
- Enhance the cooperation framework: Developing synergies with related initiatives and projects at
 international, and at local levels should increase the outreach and multiply the impact of the
 project, therefore enhancing the transfer of knowledge and research's outputs to the practitioner
 networks.
- Enhance the data flow to the Portfolio of Solutions (PoS): Achieving a fluid communication with solution providers should ease and increase the introduction of new solutions or solutions already used by practitioners in the Portfolio of Solutions and therefore extend the technological state of the art.
- Get support and attract potential users: Involving stakeholders properly to assure they can act as
 advocates of the project, multiplying the outreach and ultimately improving the possibilities of
 obtaining endorsement and therefore, finding appropriate options for securing the sustainability of
 the project results i.e., the Test-bed, the Portfolio of Solution and the CMINE.

However, beyond the project itself, it is to be highlighted that currently there is no existing overarching strategy to involve all these stakeholders to discuss Crisis Management challenges at a macro level, i.e. at all phases of the crisis management cycle, which could play a role in facilitating the implementation of policy and the uptake of research and innovation by practitioners and other end users. While the European Union Civil Protection Mechanism (EUCPM) (1) and the European Forum for Disaster Risk Reduction (EFDRR) (2) are helping Member States to better align their national policies in line with the Sendai framework (3), there is a need to complement this by offering practitioners and end-user an in-person and online platform where innovative solutions and best practice tool kits for cross-national and multi-faced risk scenarios can be discussed and enhanced.

Given the above mentioned gap, and in spite of its limited timeframe, the project ambition with regards to stakeholders engagement and the emergence of a shared understanding is first and foremost a long-term one: to build and engage with an active and structured Community of Practice in the field of Crisis Management that will be sustainable after the end of the project duration: the Crisis Management Innovation Network Europe (CMINE).

1.2 WP953 – Enhancing the shared understanding of CM rationale

WP953 Enhancing the shared understanding of Crisis Management (CM), led by ARTTIC, is a specific building block of DRIVER+ which aims at supporting the realisation of the third main objective of the project (i.e. to foster a shared understanding in CM), and at setting the basis for the creation of a European CM culture necessary to ensure (i) the adoption and uptake of the project's results; and (ii) ultimately enhance the European CM capabilities. Building on the achievements of the past periods, this work package (WP) therefore seeks to enhance the cooperation framework and to facilitate a shared understanding of CM across Europe, by fostering the existing CM community through the facilitation of exchanges between its members; the identification of best practices, but also by addressing issues of common interest, and discussing as well as contributing to a common research roadmap and programming.

This will be achieved by building a Community of Practice in Crisis Management (i.e. the Crisis Management Innovation Network Europe) closely aligned with the Community of Users (CoU) on Secure, Safe and Resilient Societies initiative run by DG HOME and complementing other already existing ones. Close liaison and engagement with relevant stakeholders as mapped in **D952.11** *Dissemination and Communication Strategy and action plan* (4) will be pursued in this regard.

The CMINE will be supported by a certain number of tools, channels and forums aiming at facilitating inperson and online exchanges and cooperation between the members of the community. In particular, based on the requirements for the establishment of the CMINE, WP953 will develop a Community Management Tool (CMT), support events organised for the CM community at the EU level (CoU), and organise in-person events aiming at (i) addressing the CM practitioners and stakeholders at regional level (i.e. the Innovation for Crisis Management (I4CM) events) and (ii) strengthening the Policy-Research Dialogue on research and demonstration activities in Crisis Management and increasing the EU added value of the DRIVER+ Trials. The latter will be achieved by organising Policy-Research Dialogue Roundtables (PRDR) involving policy-makers and related initiatives in the area of Crisis Management, resulting in the joint publication of a collaboratively produced report. report.

1.3 Scope and structure of the document

While **D953.11** Enhancing the shared understanding of CM – progress report 1 (M46) (4) intended to detail the concept and approach behind the creation of the CMINE and describe the initial set of requirements laying down the foundations of its implementation, the present deliverable aims at providing updated versions of these requirements, based on (1) the feedback received during the past review meeting and (2) the outcomes of the activities carried out since March 2018 (M47). Moreover, further details on the concrete implementation of the related tasks will also be provided. It has to be noted that both D953.11 and D953.12 should serve as the main frameworks for the WP953 partners, and more generally, the DRIVER+ consortium, to support the development and implementation of all the activities supporting the CMINE (i.e. Policy-Research Dialogue Roundtables, Innovation for Crisis Management events, Community Management Tool developments, joint-publication, etc.).

The present document is divided into 4 core sections:

Section 2 provides the reader with information on the current status of the CMINE development, including information on (1) key activities carried out (e.g. announcement on the occasion of the 11th Community of Users (CoU) meeting) during the past period, (2) the revision of the related concepts (e.g. governance structure) to ensure applicability and maximize the impact. Finally, Section 2 opens up to the way forward and next steps to be taken during the forthcoming period.

While the core of the CMINE will be the offline activities, providing a space for in-person meetings (cross-thematic working groups and annual meetings) where stakeholders from different backgrounds are able to

interact, exchange ideas and enhance their networks, the cement of the CMINE will be the online environment where these stakeholders can interact with each other from any location and at any time. This online feature will be crucial to ensure the effectiveness and success of the in-person meetings. Moreover, it will be an important tool to ensure the scaling of best practices and, ultimately, the impact delivery across Europe. In this regard, Section 3 elaborates upon the specific features and structure of the CMINE's online environment, supported by the Community Management Tool (CMT). Further to the developments described under **D953.11** *Enhancing the shared understanding of CM – progress report 1* (4), several technical developments have been made to the Community Management Tool (CMT) and are reported in this section. The future developments are also depicted, and security and data protection considerations are addressed.

In addition to the above, the Innovation for Crisis Management (I4CM) events to be organised in the frame of DRIVER+ also aim to contribute to building a momentum/shared understanding in CM. this will be achieved through the organisation of a local event focusing on CM topics, allowing addressing issues of common interest, to develop synergies between initiatives, and to discuss the research roadmap for Horizon 2020 and beyond. While the first aim of the event is in first place to allow local/regional practitioners and solution providers to meet and exchange on best practices and lessons learnt, it has been designed to support the CMINE and will serve to promote and raise awareness about the initiative. **Section 4** describes the status of the organisation of the 3rd edition of the I4CM event which will take place in Warsaw (Poland) on the 3rd and the 4th of September 2018, provides the reader with the detailed agenda and will inform on the way forward for the next period.

Finally, complementary to the CMINE in-person meetings, and in order to further strengthen the Policy-Research Dialogue on research and demonstration activities in the field of Disaster Risk Reduction (DRR) and CM, a Policy Research Dialogue Roundtables (PRDR) will be organised in the frame of DRIVER+. However, given its limited scope as described in the DoW it has been decided to revise its concept to maximise the impact. Therefore, **Section 5** presents the draft revised concept of the event, the links with the elaboration of the joint-publication, and the rationale behind its reorientation.

This deliverable is the second of a series of progress reports which intend to inform on the related activities, taking into account continuous feedback and developments within the project as well as those outside of DRIVER+. Therefore, this set of requirements is not set in stone but is expected to evolve over time, taking into account feedback received from an increasing community of practitioners and other stakeholders from various disciplines.

Two additional updates of this deliverable are foreseen:

- D953.13 Enhancing the shared understanding of CM Progress report 3 (M58).
- D953.14 Enhancing the shared understanding of CM Final report and way forward (M70).

These deliverables will reflect the activities and results achieved by the project and its contributing partners at the respective points of time and will inform the adjustments of the CMINE framework and strategy and its corresponding activities. This will align future actions with the dynamics of the actual project workflow and ensure that the right measures are taken at the right time to maximise the project's impact and to ensure the sustainability of the initiative as described in **D953.11** *Enhancing the shared understanding of CM – progress report 1* (M46) and to be further refined in **D953.14** *Enhancing the shared understanding of CM – Final report and way forward* (M70).

2. Development of the Crisis Management Innovation Network Europe

2.1 Current status

Since the submission of **D953.11** Enhancing the shared understanding of CM – progress report 1 (4), the CMINE has developed significantly. Based on the timeline included in the report, the CMINE is progressing according to plan and the official launch of the network is planned for the end of 2018. Whereas in D953.11 the CMINE was still in a conceptual phase, it has now moved to a stage in which concrete activities are undertaken. In other words, the CMINE is slowly transforming from an abstract idea towards a tangible initiative with solid foundations.

Currently, a number of activities and actions are undertaken to optimally prepare the CMINE for its formal launch, after which outreach activities and campaigns will need to unfold to ensure proper engagement with potential members. In this phase, much emphasis is placed on a broad validation and refinement exercise that will help to verify whether the envisaged concept, structure, and content of the CMINE is in line with the needs and wishes of the end-users; i.e. members and relevant stakeholders of the initiation. Various stakeholder consultation activities are planned (e.g. a dedicated workshop during the DRIVER+ I4CM, a targeted survey) that will help to further fine-tune the concept of the CMINE.

The CMINE was initially announced during the 11th Community of Users (CoU) High Level meeting early June. This short presentation served as a teaser for CoU members and was intended to spark the interest of security stakeholders, create awareness about the existence of CMINE and foster enthusiasm to engage. The Community Management Tool (CMT) – the online platform supporting the CMINE – has been fully aligned with the structure and content of the CMINE and interested end-users have been invited to test the tool and to familiarise themselves with the multitude of functions that the CMT offers. The CMINE announcement requested potential users to provide feedback on the CMT and the CMINE as a whole. Their views will be included in the validation exercise and taken into account when refining the structure and content of the CMINE moving forward.

In conjunction with the validation process, the CMINE team is conducting a targeted stakeholder and project mapping exercise that takes into account the refined scope of the CMINE. This mapping builds upon the initial mapping by looking specifically into the work being undertaken by already existing networks and initiatives in the field of disaster risk reduction (DRR) and natural hazards.

2.2 Announcement during 11th CoU meeting

The CMINE was formally announced during the 11th Meeting of the Community of Users on Secure, Safe and Resilient Societies held in Brussels from 4 to 7 June 2018. The presentation on the CMINE was brief and intended to spark interest, awareness, and engagement among the CoU participants. Apart from the 130 in-person participants, this included a much broader CoU membership base attending via live steaming. During the presentation, the concept of the CMINE, its rationale, structure, features, scope and added-value were addressed, as well as the envisaged activities in the short and medium term. It was emphasized that the CMINE is currently still in a developing phase, meaning that input and feedback from experts and professionals about the general approach are still taken into account. CoU members were encouraged to visit the CMT and to register in order to receive updates on the development of the CMINE.

In addition to the announcement, the CMINE was represented at a dedicated CMINE booth to provide further information about the initiative and to demonstrate the functionalities of its online platform (CMT). This was organised on the fringe of the thematic workshops covering Mainstream Disaster Risk Reduction (DRR) and Climate Weather Extremes topics.

The announcement and demonstration during the CoU meeting served as a teaser to make the public – and potential members in particular – aware of the CMINE. It was also used as an opportunity to encourage those interested to share their feedback on the initiative in order to address the needs of the end-users as accurately as possible. To ensure an inclusive approach, the CMINE was presented independently from the DRIVER+ project, to demonstrate its potential as overarching umbrella initiative, also beyond the project's lifespan.

2.3 Positioning the CMINE

As a result of the slightly adapted scope of the CMINE (see Section 2.4.1), the positioning of the initiative, as initiated in **D953.11** *Enhancing a shared understanding of CM – Progress Report 1* (4), needs to be adjusted accordingly.

While the mapping in the previous report remains valuable as it provides an overview of the relevant initiatives related to Crisis Management in the broader sense, the refinement of the scope of the CMINE requires the team to look at the currently existing initiatives and to tailor the mapping to position the CMINE more accurately towards the existing landscape of communities related to DRR and natural hazards. Furthermore, for the CMINE to become a successful and embedded network, regional and local level organisations and initiatives need to be included in an effective manner.

Given the above, the 3rd edition of the Innovation for Crisis Management (I4CM) event represents an excellent opportunity to liaise and connect both with stakeholders at the regional and local level, but also to interact with related initiatives and experts. To this end, a dedicated workshop on the CMINE will be prepared and facilitated (see Section 4.3.2.4 for the agenda and invited initiatives). And should play a pivotal role in the positioning of the CMINE as it allows for interaction, feedback and thought exchanges between already existing initiatives in the field of Crisis Management, in particular with other practitioner networks. Anchoring the CMINE in an accurate manner is deemed essential for the success of the network since the CMINE wants to refrain from posing competition to already existing networks and it does not intend to duplicate what there is already. Therefore, the continued mapping exercise will be useful to identify the gaps that currently exist and to determine in which way the CMINE can address those gaps and be of added-value. This session will allow experts to provide feedback on the CMINE, and thereby enhance its utility and positioning. On the other hand, the CMINE team will be able to spark the interest of the workshop's participants and can slowly create a critical mass around the CMINE that can push the network forward once it has been launched.

The inputs that will be gathered will also be complemented by the findings of the interviews and surveys to be circulated over the next period.

2.4 Revised concept

The concept of the CMINE as presented in **D953.11** *Enhancing the shared understanding of CM – progress report 1* (4) was reviewed and feedback was provided in the spring of 2018. Based on the recommendations and comments received from the project reviewers during the first technical review meeting, several elements of the CMINE have been revised and adjusted accordingly. The reviewers commented that the CMINE, as presented in D953.11, was still very much in its conceptual phase. They especially mentioned the necessity to revise the Governance structure to ensure its feasibility and implementation. Now, six months later, the CMINE team has been able to address many of the issues flagged by the reviewers. The issues that have been subject to change and/or updated will be addressed in the following sub-sections.

2.4.1 Scope and mapping

Based on the recommendations by the reviewers and discussions with DG HOME, the scope of the CMINE was narrowed down to focus on the following specific crisis management area: Disaster Risk Reduction (DRR) in relation to natural hazards. As these fields are multi-layered and imply the involvement of multiple types of actors and disciplines, they particularly suffer from fragmentation and lack an overarching network of practitioners that can draw connections between various initiatives and projects. Various local and regional initiatives do exist, but a broader connector is lacking which limits the effectiveness and the uptake of solutions in this particular field. CMINE's objective will be to provide an overarching platform that can facilitate exchanges, foster synergies and draw linkages between existing initiatives in the realm of DRR in relation to natural hazards.

The choice for narrowing down the scope also makes sense in terms of the DRIVER+ project objectives. Natural hazards are closely related to the trials that are being held and both the Test-Bed and Portfolio of Solutions are intended to provide services to practitioners working in this field. Hereby, a close link between the CMINE, the trials and the DRIVER+ project as a whole is ensured. Since the topic of natural hazards will remain relevant even after DRIVER+ has ended, a critical point of attention will be to what extent the CMINE can continue to function beyond the project lifetime. To this end, measures have been undertaken in the sustainability work package (WP954) to integrate CMINE into the DRIVER+ sustainability plan. One of the sustainability board members was assigned to specifically focus on the sustainability of the CMINE in relation to the DRIVER+ project but also beyond the lifespan of the project. These dedicated efforts are envisaged to result in an integrated approach regarding the sustainability of the CMINE.

Furthermore, in order to anchor the CMINE, and while it intends to be closely aligned with the Community of Users (CoU) on Secure, Safe and Resilient Societies, the UN Sendai Framework¹ and the European Civil Protection Mechanism (ECPM) will be further explored and integrated into the design of the CMINE. Thus, the national networks and initiatives that already exist and intend to support the implementation of the Sendai Framework and the ECPM into national policies should be carefully considered and evaluated to avoid duplication in the CMINE. This mapping exercise allows for a more thorough understanding of a targeted section of the DRR and, thereby, it provides a great opportunity to identify the gaps that currently exists in the landscape of natural hazards.

CMINE should not only foster links within the field of DRR. Synergies and connections across domains can be built, thus allowing to further strengthen the position of the CMINE in the field of DRR. This ties in with the transboundary nature of natural hazards which requires stakeholders from across domains, sectors, initiatives and Member States to collaborate in order to enhance the preparedness, response, recovery and resilience of society.

Finally, the CMINE does not only provide an environment where experts are invited to discuss pressing topics in the field of disaster risk reduction. A key component of the CMINE is to identify common gaps in the field of disaster risk reduction and to create innovative solutions which contribute to improving the day-to-day work of practitioners.

 $^{^1\,}https://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf$

2.4.2 Themes

Content wise the themes of the CMINE should provide a complement and added-value to the implementation work being undertaken for the Sendai Framework and, in the immediate term, relate to the DRIVER+ trials. As described in **D953.11** *Enhancing the shared understanding of CM – progress report* 1 (4) the themes will be selected in an open call (see section 2.5.3) but will also closely be monitored from the CMINE Advisory Board as Quality Control mechanism. Therefore, transparent and pre-defined criteria, upon which the selection of the themes will be made, need to be established.

In the early phase of the CMINE, three initial themes focusing on natural disasters will be selected. While the chosen themes are fixed for a period of two years, each theme can consist of sublevel working groups where different topics within the realm of a specific theme can be discussed. It is important to note that the Chair of each theme is free to determine, in close discussion with the working group members, the length and goal of a project. In case the themes are deemed unpopular and drives few discussions or inputs, a new open call for themes will be launched.

2.4.3 Governance structure of the CMINE

The governance structure of the CMINE has been further refined and advanced since the submission of **D952.11** *Dissemination and Communication strategy and action plan* (5) and **D953.11** *Enhancing the shared understanding of CM – progress report 1* (4). This section provides an overview of the revised governance structure of the CMINE in the short term after the launch in December 2018, during the interim phase until the end of the DRIVER+ project (April 2020), as well as the long-term governance vision (beyond DRIVER+).

As a reminder, a thematic working group should always consist of different types of stakeholders to make sure the topic is addressed from different angles and incorporates different perspectives on the topic. At the same time, the size and membership configuration will be the responsibility of the thematic Chair. At the launch of the CMINE, the thematic Chair will be taking on the role of the working group Chair in an effort to keep the governance structure of the CMINE simple. However, as the project develops, separate working group Chairs will be appointed to alleviate the burden on the thematic Chair. The working group serves as a "mini project" within the theme, with each project having a pre-defined set of objectives, tasks and concrete output(s) in the form of project deliverables. In order to make the selection process of working group members fair and transparent, interested participants can apply to be accepted to the group by sending their CVs and a short motivation letter which will be reviewed by the working group Chair and the CMINE Advisory Board. The selection criteria together with the revision of the Governance structure of the CMINE are elaborated in more detail hereafter.

In the short term, the DRIVER+ SP95 team responsible for the CMINE task will be fully responsible for governing the CMINE and taking initial responsibility for the chair roles. Firstly, role descriptions will be drawn up to clarify the requirements and functionalities of the positions. By February 2019, the team will establish a list of suitable candidates that could be approached for a volunteer chair position. Selection criteria include:

- Demonstrated experience in the field of crisis management and disaster risk reduction.
- Expert affiliation with the theme s/he would be chairing.
- Demonstrated commitment to collaborate across sectors.

The Chair's motivation will also be a key factor for the CMINE to review, including a background check to avoid any conflicts of interest. Ideally, the *initial* candidate list would consist of people who are already active in the Community of Users initiative or the DRIVER+ project, so that the CMINE's short term objectives can be immediately pursued.

Once the right candidates have been selected, they will be asked to sign a leadership pledge that commits them to the chairperson task for a specified time period (2 years). To not overburden the initial Chairs, the SP95 team would offer the Chairs substantial support, so that they can fully focus on the content side of their role and invest their time in relationship building. It is of great importance that the Chairs are able to build alliances with relevant stakeholders and use their network to promote and further develop the CMINE as soon as they are appointed. The admin support and the technical management of the CMT would fully be the responsibility of the SP95 team for the duration of their chairmanship.

The work and commitment of the initial thematic Chairs will be a crucial starting point for the next phase of the CMINE governance structure, which involves attracting policymakers and government representatives to take over the governance of the CMINE, namely to serve as rotating chairs for a duration of two years. The main incentive for them to get involved would be to have a professional interest in the themes and gaps that will be discussed in the CMINE working groups and to learn from peers active in the process. If the themes discussed in the CMINE working groups are matching or at least similar to the policy priorities at the country level, there is a higher likelihood that EU governments will be interested in becoming involved. At the same time, the CMINE will also aim at including industry representatives who could have a high interest for the outputs being developed by the CMINE working groups.

In the long run, the goal is to elect new Chairs every two years as part of the Annual CMINE meeting. Such a rotating chairmanship will allow the CMINE to explore a diverse range of issues in new and innovative ways. To ensure the continuation of the CMINE and to make sure lessons learned will not be lost, the CMINE working groups should start and end in alternate years, so that it is not necessary to set up an entire new team every two years. When the CMINE is launched, the thematic Chairs are expected to also act as working group Chairs, supervising the 'mini-projects' that are linked to a particular theme. As the project matures, this supervisor role will be outsourced to dedicated working group Chairs.

Overall, the success of the CMINE depends on finding a balance between a professional or national incentive to drive the CMINE onwards and upwards. The International Forum to Advance First Responder Innovation (IFAFRI), which will be run under the chairmanship of DG HOME for the remainder of the DRIVER+ project, can be regarded as an important reference point for the governance structure for the CMINE. It also relies on volunteer government commitment, rotating chairmanship and an inherent self-interest to push the agenda forward.²

Another important aspect for the active involvement of CMINE chairs and members is to include both aspects (bottom up and top down) in its governance structure. To this end, CMINE members should have a vote in the nomination of the Chairs and in the selection of (working group) themes. For the general strategic development of the CMINE an external Advisory Board will be appointed consisting of key experts in the field of Disaster Risk Reduction in relation to natural hazards. The Advisory Board will consist of one representative per stakeholder group (i.e. Industry, Policy, Science, Practitioner and Civil Society), to make sure the CMINE remains a truly inclusive initiative. The total size of the Advisory Board will, thus, amount to five members. The first CMINE Advisory Board will be appointed until by the end of 2019 and convenes virtually four times a year and on an ad hoc basis. At the CMINE Annual Meeting the Advisory Board will convene in person. Therefore, the workload will remain rather low to not disincentive stakeholders to get involved

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² See: https://internationalresponderforum.org/.

In summary, the governance structure of the CMINE will consist of a Head Chair (rotating national government representative), theme Chairs (rotating national government representatives), and in a later stage working group Chairs (experts on specific topic). An Advisory Board (stakeholder representatives) will provide guidance and support, and a Project Management Office will take care of the day-to-day management of the CMINE (support the Head Chair), and a Technical Support Staff responsible for hosting and maintaining the CMT platform. The so-called chair-of-chair function described in the initial concept paper has been removed and will be replaced by the Head Chair. The visualization below depicts the governance structure of the CMINE.

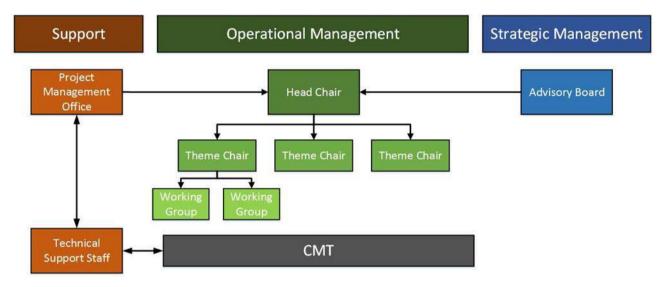


Figure 2.1: CMINE Governance structure

2.4.4 Role of practitioners and other end-users

The core of the CMINE is to connect already existing networks, initiatives, and projects in order to address pressing challenges in disaster risk reduction (DRR) in the field of natural hazards. The I4CM Workshop involving practitioner networks and initiatives serves as a positive example in this regard. Therefore, the CMINE team will be working on a mapping of relevant projects and initiatives to ensure the CMINE positions itself appropriately in the existing stakeholder environment and to identify more specifically the gaps it could address. Furthermore, the CMINE team understands that the success of its work is determined by whether or not the network matches the requirements of practitioners. Rather than applying a top-down approach, the CMINE will gauge bottom up what the needs and gaps are of those who will eventually benefit from the network. To this end, the CMINE team places great emphasis on the validation exercise, which will facilitate the above process of positioning the CMINE optimally as umbrella platform in the highly fragmented landscape of networks, initiatives and projects in the field of DRR and natural hazards.

2.4.5 Solutions

The CMINE is designed to run a number of thematic working groups that will each focus on identifying solutions for a given challenge in disaster risk reduction focusing on natural hazards. The challenge or gap to be addressed by the working groups will be publicly voted on, while the working group members themselves will aim at identifying either (potential) existing solutions or identifying the needs for the development of a specific solution to address the gap or challenge that is selected. A solution can take on the form of a tool, method, training, or other deliverable that can be used by CMINE members in tackling a specific challenge. In doing so, there will be an opportunity to link up with the DRIVER+ Trials, Test-Bed, and Portfolio of Solutions as well as broader projects or initiatives (e.g. IFAFRI) looking at enhancing the innovations for practitioners working in the field of disaster risk reduction in relation to natural hazards.

2.5 Future evolution

The next section outlines the main activities that will be undertaken in the next project cycle of DRIVER+.

2.5.1 Validation process

The workshop during the I4CM meeting constitutes one element in a broader process in which the CMINE's structure, content, and strategy will be validated with various experts. The CMINE will be discussed with both professionals that have expertise on the topic of natural hazards in DRR as well as with experts experienced in building and maintaining a Community of Practice.

The validation process consists of two components: the I4CM workshop and a survey. The session during the 3rd I4CM is elaborated upon in Section 4.3.2.4 and forms the core element of the validation process. To complement the results stemming from the I4CM workshop, a survey will be disseminated with the intention to further enhance the inputs received on the concept of the CMINE. The survey will be used to gather feedback from a broader audience in an efficient) manner. A draft version of the survey questions can be found in Annex 3. All DRIVER+ partners will be requested to disseminate the survey within their network in order to boost response levels. Furthermore, the survey will be posted on the CMT and participants to the I4CM workshop will be encouraged to fill out the survey, too.

Additionally, when the workshop results and survey outcomes require further deepening, targeted interviews with relevant experts will be conducted. These interviews would be conducted by the partners involved in WP953 'Enhancing the Shared Understanding of CM'. Hereby, efficient use will be made of the partners' networks and expertise. In practice, this means that partners who have a strong network within a specific group of stakeholders will be tasked to conduct interviews with a number of representatives of this stakeholder group (i.e. TNO would interview industry representatives).

To ensure all partners conduct the interviews in a similar manner, the CMINE team will provide the partners with detailed instructions, a list of questions to guide the interview, and a template in which the interview minutes can be recorded. The draft list of questions and the template can be found in Annex 3. The partners are expected to conduct three interviews each and are requested to take minutes. The minutes will ultimately be analysed by the Ecorys team who will then report on the findings of the interviews. To avoid duplication, a coordination file will be uploaded to the DRIVER+ CoW. This allows partners to provide information on the interviewees they have contacted which will help streamlining the process of conducting validation interviews.

Finally, the results of the workshop, survey and possibly the interviews will be compared and analysed. Based on the outcomes and conclusions, the CMINE concept and implementation plan will be updated.

2.5.2 Workshop on the occasion of the 3rd I4CM event

During the 3rd I4CM event taking place early September, a dedicated CMINE workshop will be held. During this session, the CMINE will be introduced. The rationale, structure, and goal of the CMINE will be presented as well as the current status of development. Further information on the workshop structure and invited participants can be found under Section 4.3.2.4.

Besides the CMINE introduction, the workshop will also be part of the validation process to verify whether the CMINE meets the needs of practitioners and other end-users and in which ways the current structure and content needs to be adjusted. To this end, participants of the workshop will be invited to discuss the CMINE concept and to provide their feedback on the design and structure of the network. The participants will be selected based on their expertise on community building and/or on their content knowledge of DRR and Natural Hazards. This allows the participants to identify the gaps in the currently existing landscape of community-building initiatives in the field of DRR and natural hazards.

The workshop is envisaged to further fine-tune the structure, content, and positioning of the CMINE and therefore, it will play a key role in the overall validation process that is taking place in the run up to the launch of the CMINE in late 2018. Moreover, the exposure of the CMINE to practitioner networks pre-prior to its launch should reduce the risk of CMINE duplicating already existing work efforts and, thereby, the session will aid to maximize the CMINE's positioning, impact, utility, and added value.

Avoiding duplication is closely connected to the second objective of the workshop; namely, to anchor the CMINE solidly in the domain of DRR in relation to natural hazards. The participants of the workshop are invited to share their knowledge and vision on the CMINE in the already existing landscape of DRR community-building initiatives. The accurate positioning of the CMINE is crucial to ensure the network is able to address the needs of the end-users and to avoid competition with already existing initiatives.

Finally, the workshop will also be useful to establish an initial idea of which synergies could potentially be established. The current relations between the various types of stakeholders will be further explored and from there, gaps will be identified that can be addressed by the CMINE.

Thus, the envisaged outcomes of the workshop are to identify the gaps that the CMINE should address in the short- and medium term, to anchor the position of the CMINE in the field of DRR in relation to natural hazards, and to explore potential partnerships and synergies. Once the workshop has ended, participants are encouraged to continue providing feedback to the various aspects of the CMINE through the CMT.

2.5.3 Call for Themes

Initially, the CMINE will be structured along three main thematic areas to which the different working groups will be linked. Two of these themes stem from the broader DRIVER+ project. More specifically, these themes are selected based on the topics of Trial 1 and Trial 2. Hereby, the CMINE establishes another strong connection with the DRIVER+ project while the theme is of such importance that it can continue to be discussed even after its lifespan.

The third theme will not be selected based on the topics of DRIVER+ trials, instead, it will be selected using the input of the potential members. During the I4CM and after the workshop on the CMINE has ended, visitors of the CMT are able to propose and vote for a theme they deem pressing on the CMT's 'Vote 4 Challenges'-tool. End-users can propose a challenge that should become a theme in the CMINE or they can upvote a challenge that has already been proposed. Hereby, the bottom-up approach that is inherent to the CMINE can be clearly detected. The input from the visitors and users of the CMINE CMT and its Knowledge Factory (see section 3.1.1) will be gathered once the 'Vote 4 Challenges' has closed mid-December 2018. The results of the call will be analysed upon the pre-defined criteria and, subsequently, and the one having received the highest ranking will be featured in the CMINE. This selection process will occur back-to-back with the selection of the Chairs. This allows the project team to select a Chair who is familiar and knowledgeable on the selected theme.

2.5.4 Launch

The launch of the CMINE is envisaged to take place during the 12th CoU High level meeting and the SRE 2018 which will take place in the first week of December 2018. The exact time and date of the launch are still to be determined, however, during this week many relevant experts, government representatives, practitioner network representatives, industry professionals and representatives from the field of civil protection will be present. The highly knowledgeable audience will provide a fertile landing ground for the CMINE and can help the community to take-off effectively.

The launch will take the shape of a presentation in which the rationale, structure, objectives, features, and outlook of the CMINE will be presented alongside the technical aspect of the CMT. The project team aims

to have a registration booth present during the event and immediately after the launch in order for interested future members to register themselves on the spot.

The specific contributions from DRIVER+ to SRE 2018 are currently being discussed with DG HOME (see also Section 5), but its participation has been already approved.

2.5.5 Call for Chairs

The Call for Chairs will be opened as soon as the CMINE is launched. From then on, those interested in the position of Head Chair or Theme Chair can submit their motivation letter, CV and references for the project team to review. The Call is envisaged to remain open until mid-January which allows the team a couple of weeks to reflect on the submissions and select the most competent candidates. This process will take place back-to-back to the selection of the second and third theme and, therefore, the final selection of the Theme Chairs is likely to depend on the themes that have been identified through the 'Call for Themes'.

3. The Community Management Tool developments

3.1 Current status

As described in the previous section, one of the key enabling tools for the CMINE will be the creation of an online community platform to facilitate professional social networking and stimulate discussion on the key issues and challenges facing by the Crisis Management community. The platform shall therefore serve multiple functions and will be promoted as a one-stop shop where users can obtain information on current security RDI, propose innovative ideas, and pave the way for future RDI research when the CMINE will be officially launched.

Further to the developments described under **D953.11** *Enhancing the shared understanding of CM – progress report 1* (4), several technical developments have been made to the Community Management Tool (CMT) and are reported in the sections hereafter.

3.1.1 Development and management of the CMINE Knowledge Database (Knowledge Factory)

As planned under **D953.11** Enhancing the shared understanding of CM – progress report 1 (4), the Knowledge Factory has been developed and is available for use by the members. The objective of the Knowledge Factory is to harness the collective expertise and experience of the CMINE members, and to use that communal know-how as a platform to provide answers; provoke thoughts; generate questions and create a highly motivated community of knowledge sharers. Through collective sharing, the Knowledge Factory will become a dynamic catalogue of resources for members to keep themselves informed about current research and innovation taking place in the security domain. Through peer evaluation, the CMINE members will be able to rank and recommend the content, therefore enriching the Knowledge Factory experience.



Figure 3.1: CMT - CMINE Knowledge Factory function

The Knowledge Factory consists of three elements:

Knowledge Sharing: Contributors will be able add to the collective body knowledge their own expertise or experiences, from a range of information sources - academic publications or papers, interesting information from conferences or events, links to relevant websites, internal documents on policy, strategy, innovation, etc. Basically, anything that is of relevance to the Network. Members can 'add' their knowledge by selecting the 'Add a knowledge' button on the Knowledge Factory widget, as depicted in Figure 3.1

above. Figure 3.2 below shows an example of the "Add a knowledge template", developed to support the identification of themes of relevance for the CMINE. However, it is to be noted that many templates can be created and adapted depending on the needs and support to be provided to the network (see Figure 3.2 and Figure 3.3).

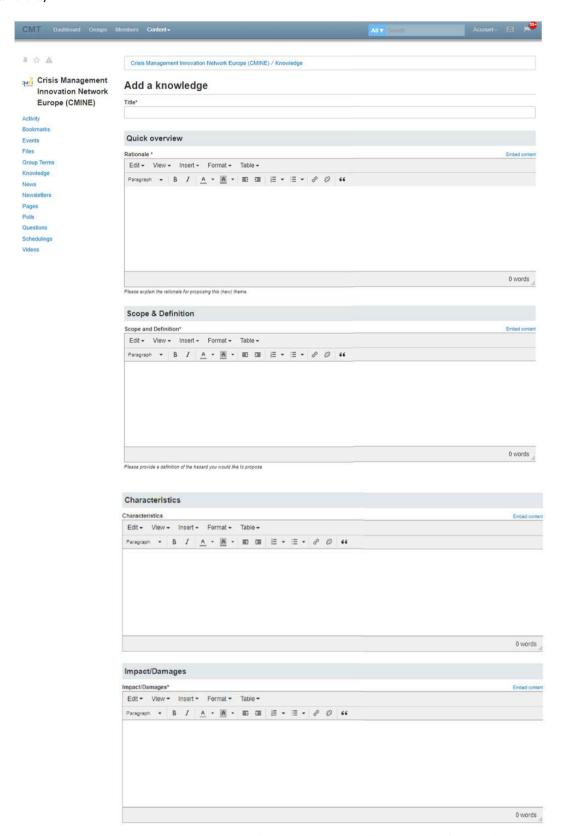


Figure 3.2: Knowledge Factory - "Add a knowledge" template 1 (CMINE)

	Ε
Knowledge Contribution Template	
Knowledge Category: The categories below have been identified as priority challenges for law enforcement. If your submission does lease select the 'Other' option' Migration Terrorism Cybercrime Organised Crime Other Other Other Other Other Other	not cover one of these topics, then
lease enter a short description of your knowledge contribution:	Embed conte
Edit + View + Insert + Format + Table +	
Paragraph ▼ B I A ▼ A ▼ E E E E 66	
Please enter the type of knowledge* Academic Publication Report or White Paper Policy Documents	0 words
Sevent General information	
Sevent General Information Other	
Sevent General Information Other	
Event General Information Other Tags	
Event General Information Other Tags It is important to add some keywords that describe the content of your knowledge. This makes it easier for others to find your contribution.	
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Event General Information Other Tags It is important to add some keywords that describe the content of your knowledge. This makes it easier for others to find your contribution. Additional Information Author(s) Date of Publication	

Figure 3.3: Knowledge Factory - "Add a knowledge" template 2 (test)

Knowledge Evaluation: Members can evaluate the knowledge items in the factory by providing recommendations. Evaluating the knowledge adds value and applicability to the information. Knowledge contributions can be 'ranked' based on a range of criteria to be defined during the creation of the template (see Figure 3.4:). As for the "Add a knowledge" template above, the "add your recommendation" template can also be customised.

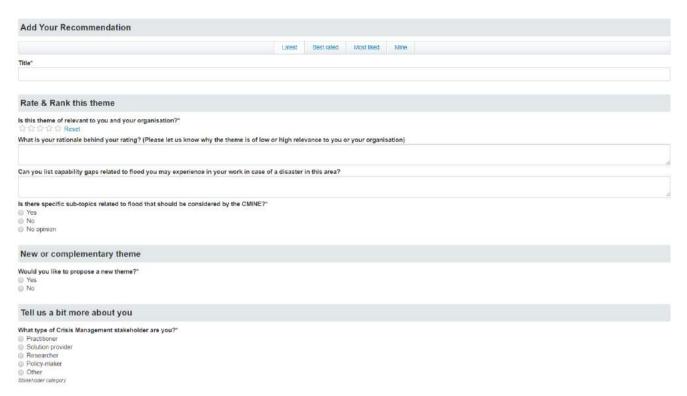


Figure 3.4: Knowledge Factory - "Recommend knowledge" template

Knowledge Search: Users can search the Knowledge Factory to find ideas, solutions, events, collaboration opportunities (depending on the above templates created) – members will find a range of knowledge covering a range of topics. Knowledge can be searched by using keywords and by using the most recommended and/or ranked options (see Figure 3.5).



Figure 3.5: Knowledge Factory: "Knowledge Search" feature

With the Knowledge Factory as the vehicle, and once officially launched, the CMINE will become the 'one-stop' shop for practitioners, policy makers, solution providers and academics looking for the up-to-date information on security research. The range of resources will be easily searchable, and as the factory is constantly added to and enhanced by the members, the information will always be current and relevant.

The Knowledge Factory has been created for the community, and is dependent upon the participation of the members. The user interface still needs some minor improvements, but the Knowledge Factory will be ready to go live, and data collection (such as identification of new solutions, research results, needs, requirement, regulations, standards, etc.) can begin as soon as the thematic working groups have been identified and the CMINE initiative is launched.

3.1.2 Development of the CMINE entry page for the identification of themes and widgets

The <u>CMINE landing page</u> (see Figure 3.6: CMINE landing page - Header and Figure 3.7) created during the first period has developed significantly. The structure of the group was revised to raise the immediate attention of the visitor and invite him/her to vote on its preferred group themes focusing on natural disaster and to become a member of the network. At this stage it was decided to make the group public to invite as many visitors as possible to (a) become familiar with the group and its main features, but also (b) to receive as many votes as possible on themes following the announcement made on the occasion of the 11th Community of Users (CoU) meeting (see Section 2.2).



Figure 3.6: CMINE landing page - Header

The starting page features a slide show that in a few words explains the main benefits of becoming a member of the group and its key features and summarises the core objectives of the CMINE network. Furthermore, in order to facilitate the visitor to quickly navigate through the page and to vote for his/her preferred themes of discussion, the first widget on the page entitled "where to start and how to contribute" briefly explains the differed steps to undertake in order to vote or to share a knowledge.

The following widgets explain more in detail "What the CMINE is about"? and which topics will be discussed in the group in order to provide the visitor a more coherent picture of the core topics to be addressed and the key components of the CMINE.

As the CMINE will be structured around concrete topics focusing on natural disasters, addressing challenges that have not yet been sufficiently addressed in the Crisis Management domain and allowing to exchange lessons learnt and experience resulting from the 4 Trials currently being conducted within the frame of the DRIVER+ project, the CMINE group proposes identified themes to vote on to elect the most relevant one for the community, besides the ones already addressed by the DRIVER+ Trials. Moreover, by using the "Add a knowledge" function (see Figure 3.1), the visitor is invited to share a knowledge related to a new natural disaster not yet listed, therefore allowing to create a new theme to the original list, opened for vote.

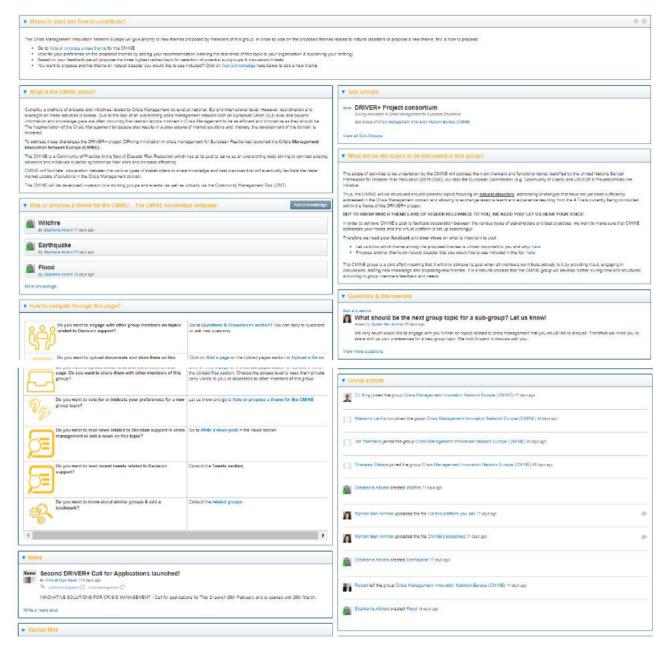


Figure 3.7: CMINE landing page - full page

In addition to vote or to propose a new theme to be considered for the positioning of the CMINE, the visitor is also invited to discuss and exchange on a specific topic, using the widget Questions & Discussion. This widget allows interacting directly with other stakeholders on a topic of interest (see Figure 3.8).

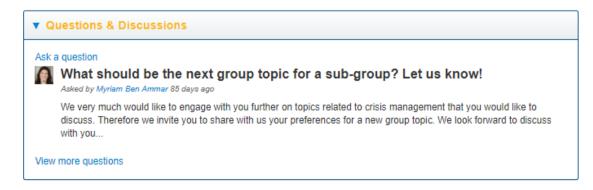


Figure 3.8: CMINE – Questions & Discussion widget

In addition to the above, other widgets such as news and tweets have been applied to provide recent tweets of interest for the Crisis management community and the opportunity to share news with other group members. The current automatic tweets stem from Preventionweb.net (UNISDR initiative) but can be changed according to the preferences of the group members. Moreover, the widgets such as "Upload files and documents" have been set up to allow the visitor to share documents of interest with other group members.

The widget group activity (see Figure 3.9) has been chosen in order to show at a glance the latest activities of group visitors.



Figure 3.9: CMINE - Group activity widget

The CMINE group also aims to promote other groups of interest to establish a strong connection with similar initiatives and projects. Therefore, the page features a widget entitled "Related groups and Subgroups".

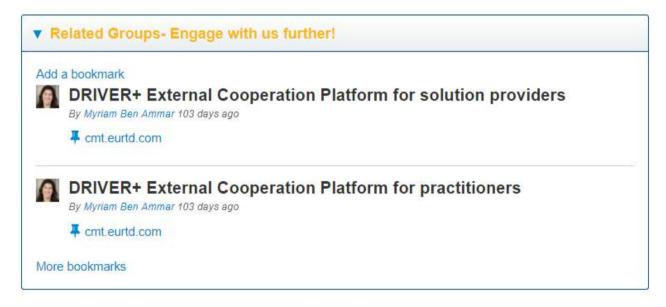


Figure 3.10: CMINE - Related groups and Sub-groups

Last but not least, the group provides further guidance by providing two "How To's", one explaining how to navigate through the page and one more general one explaining how to navigate through the CMT.

3.2 Future evolution and way forward

3.2.1 From Public to Private

The development of the CMINE group page is a joint effort. Based on the interest and engagement of the group members the group will be further developed and shaped according to the needs and wishes of its members. The CMT in its current stage allows to apply various features (widgets), thereby providing a great flexibility to set up the groups according to the needs of its users. However, it is to be noted that once the themes of the future thematic working groups have been identified, the CMINE will evolve as a closed group. Users, who wish to join the group, access the content and the sub-groups, will either have to be invited or will have to request for membership, by providing motivation statement to be approved by the Chair. The structure of the CMINE will significantly evolve over time based on the growing size of the Community and its needs.

3.2.2 Terms of use

When directed to the CMINE landing page, thematic groups or directly accessing the Community Management Tool, and before entering the Community, the CMINE Group Terms will be presented to the visitor. The CMINE Group Terms will provide the terms of reference for the functioning of the CMINE, to which all members must abide. This will be done by clicking the respective "Accept" button, before the visitor can enter the Platform. It formalises in particular the rights and obligations of respectively the members of the CMINE. In principle, the CMINE Group Terms will provide details regarding the membership, confidentiality, content appropriateness, publications, copyright and security issues, ethics, privacy policy, and technical use of the CMINE. The main principles are summarised below and will be implemented as soon as the CMINE is officially launched and the final version of the groups have been created.

- Confidentiality: The CMINE is a closed group and all members respect confidentiality of the exchanges.
- **Content appropriateness:** All members conduct themselves in a courteous and reasonable manner in connection with CMINE and its members.
- Publications: It is a declared aim and contractually binding obligation of the DRIVER+ project to analyse
 the exchanges that take place within the CMINE, and to publicly disseminate findings. This does not
 change the equally contractual obligation to protect results, the confidentiality obligations, the
 security obligations, or the obligation to protect personal data, all of which apply. Before any document
 is published, a validation procedure is being applied according to the DRIVER+ Grant Agreement and
 Consortium Agreement.
- **Copyright materials:** The CMINE Community Management Tool is based on the sharing and collaborative paradigm of the Web 2.0. Thus, where content is clearly identified as subject to copyright by the use of the symbol ©, the rights of the copyright owner(s) remain applicable.
- Security issues: The DRIVER+ Consortium will be assisted in all information security-related issues by the DRIVER+ Security Assessment Committee ensuring that the DRIVER+ Consortium is compliant in the execution of Grant Agreement (GA) n° 607798.
- **Privacy Policy**: By using the CMINE Community Management Tool, all members consent to the collection, use and sharing of your personal data within the CMINE under this Privacy Policy and agree to the CMINE Group Terms.
- Technical use of the CMINE Community Management Tool: The CMINE chairs and administrators will
 have the right at any time to change or discontinue any aspect or feature of the CMINE Community
 Management Tool.

A link to the Group Terms will be permanently provided to all registered CMINE members.

3.2.3 Enhancement and analysis of the online profiles of the registered members

Currently, the CMINE group has 50+ users, with the majority being members of the project consortium. The next stage is to grow the membership beyond the consortium, as soon as the CMINE has been launched. However, it was agreed amongst involved partners that before opening the CMINE platform to other users, it will be necessary to make some adjustments to the format and layout of the platform. In particular, it was deemed important to create more transparency on the user profiles.

The original default setting for users signing up to the platform was Private. The Private setting means that the only profile information visible is the user name (see Figure 3.11).

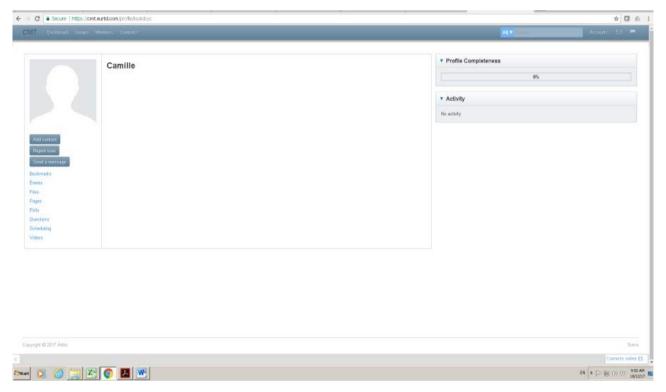


Figure 3.11: CMINE user profile - private

As the purpose of the CMINE is to generate and motivate discussion on the Disaster Risk Reduction (DDR) and natural hazards' specific issues faced by the Crisis Management community, it is important to create an environment of trust. Trust requires transparency, and a better identification of users should assist with this. Therefore, the default setting on the user profiles will be amended to Visible. This will allow users to better know the other members of the CMINE, and to feel more comfortable when interacting with them. An example of a full profile can be seen in Figure 3.12.

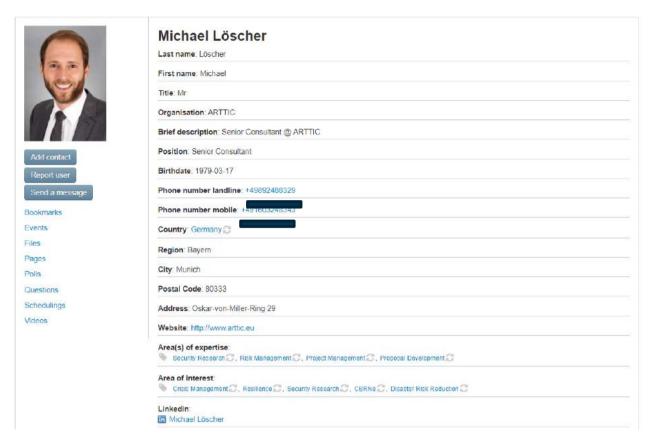


Figure 3.12: CMINE user profile - full

However, amending the default settings for new members will not impact the profiles of existing platform members, and so an immediate task as soon after the CMINE has been officially launched and the working groups created, is to reach out to those members and request that they

- a. Expand their profile information to include relevant details, such as name, organisation, position, areas of interest etc.
- b. Make that profile visible.

To facilitate the change of profile settings, a button will be created on the platform allowing the users to simply click the button and share their profile information with the CMINE members (see Figure 3.13).

Share your profile

Figure 3.13: "share your profile" button

3.2.4 The entry point: the DRIVER+ public website

A soon as the CMINE has been launched, a dedicated webpage will be created on the DRIVER+ public website, directly addressing all stakeholders and inviting them to join the CMINE and to contribute with relevant information to the CMINE Knowledge Factory. A short motivating and explanatory text will be provided stating the added value and benefits to join. Very prominently, in the middle of this section, a "Join the CMINE" button will be placed. When clicking on this button, the user will be directed to the CMT and CMINE landing page (by using a link to the platform).

3.2.5 National languages

In order to lower language barriers, ARTTIC is currently programming a plugin for the Community Management Tool which will enable to change the site menu and settings into national languages. For the time being the CMT menu is in English language. Furthermore, options on integrating automated translation modules (such as Google translate) are currently investigated.

3.3 Security and data protection of the CMT

3.3.1 Data Privacy and the EU General Data Protection Regulation (GDPR)

As mentioned above, the default setting for new profiles will be a Custom setting where all profile information will be visible to the CMINE members. New joiners will need to be made aware of this, and so they will be required to tick a check box acknowledging that they are aware of, and agree to, their profile information (see Figure 3.12) being seen by other members of the community. At the same time, there will be only three mandatory fields — name, organisation and position. All other fields are optional, and therefore users are able to control the amount of information seen by other members by limiting the information they include in their profile. Furthermore, users will have the ability to switch to Private mode once their profiles have been created.

Any individual providing directly, or indirectly, personal data remains the owner of his/her own personal information, independently whether this information is provided by himself or a third party. By joining the CMINE, the individual member makes his/her data available to enable the CMINE governance bodies and DRIVER+ to enter into contact within the limitations specified in his/her registration. The information about DRIVER+ events and activities will become the property of the DRIVER+ Consortium. The content uploaded to the CMINE Virtual Structure remains the property of its authors.

In summary, the IPR for the CMINE Virtual Structure are conditioned by:

- The data protection legislation: data of users remain their property.
- **Copyrights**: content uploaded to the CMINE remains the property of their authors.
- The DRIVER+ Consortium Agreement: the CMINE will be continued after the project, subject to a sustainability concept which is in itself a forthcoming project result.

With regards to the GDPR, in force since 25/05/2018, the generic CMT developed by ARTTIC already ask for consent when joining and give access to the privacy policy.

Until now, the user needs to ask the CMT administrators to be deleted from the CMT, but in short, the users will have the possibility to delete their account themselves. The contents created by a user in a community belong to the community (except where content is clearly identified as subject to copyright by the use of the symbol ©). Therefore, if a user leaves the CMT, the contents and interactions will be kept but anonymised. This feature is still to be developed. Today the use of data provided by the users is limited to displaying information to identify the users. No further use is being done by the CMT of user's personal information.

3.3.2 Server security

The CMT servers are hosted by OVH³, in France. OVH is a leading company in server hosting and has proven to be very efficient and reliable in terms of security.

The following structure has been put in place to secure the platforms. The servers are saved, and backups created to restore at any time the CMT and its full database. The virtual machines are accessible only on the ARTTIC's network. A firewall protects the servers against basic attacks and another security has been put in place to validate new members manually. This allows a final validation by the administrators of the CMT, avoiding thus that any robot may get access to the platform.

Concerning the software protection, the CMT is based on the architecture as shown in Figure 3.14.

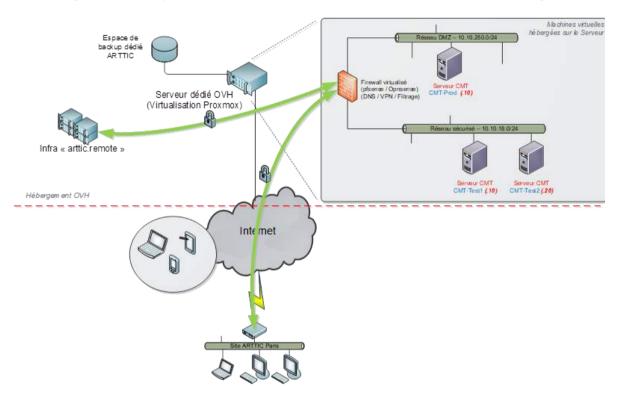


Figure 3.14: CMT Architecture

Concerning the access to the CMT infrastructure:

- Only the https access is authorised to the production server (public way). The http traffic is always re-routed via https for safety.
- The CMT server is located in a DMZ (demilitarized) zone isolated from the development elements situated in a secure area (Test server 1 & 2)
- The administration activities are made through the Virtual Private Network (VPN) protected by the infrastructure firewall. Through the VPNs the access is possible towards all the different servers.

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³ https://www.ovh.com/fr/apropos/securite.xml

3.3.3 CMT group security

Each group is defined by its level of accessibility and visibility. Depending on the context, open visible groups can be created and they can be found using any research engine like Google or closed invisible groups where only members can either see or access the group.

For contents, the accessibility is set at creation but can be edited later. The creator of the content can choose the accessibility from Public to Private with the possibility to add the access to certain groups. Thus, depending on the aim of a group, access to group information and content can be limited or forbidden to non-group members, which is the reason why it has been decided to make the CMINE group and thematic groups Private once launched, thus lowering any security issues.

4. The third edition of the I4CM event – current status and programme

4.1 Rationale and objectives

The rationale and objectives of the event can be found in **D953.11** Enhancing the shared understanding of Crisis Management – progress report 1 submitted at M46. The third edition of the Innovation for Crisis Management (I4CM) event will focus on standardisation and identified regional-national pressing issues faced by local practitioners such as inter-agency cooperation and sharing and coordinating information during a crisis. Furthermore, this edition will give the participants to hear about (1) the initial results of the first Trial organised by DRIVER+, conducted in Warsaw from 21 to 25 May 2018 but also to receive the latest information about the organisation of the second Trial to be organised in Valabre (France) in October 2018. Especially, this edition of the event will act as platform for the Crisis Management stakeholders to:

- Provide insights on standardisation potentials in Crisis Management.
- Be informed on standards that have been developed in the field of Crisis Management (e.g., TS17091 Crisis Management Guidance for developing a strategic capability).

4.2 Status of the organisation of the 3rd edition

4.2.1 Date and location

The third edition of the event will take place in Warsaw (Poland) from the 3rd to the 4th of September 2018 at the Copernicus Conference Centre. It will be hosted by ITTI (Poland), DIN (Germany) and PSCE (Brussels).

4.2.2 Specific objectives and synergies with CENT/TC 391

Due to the fact, that standardisation is the main theme of this edition, all topics presented in the detailed programme in Section 4.3 hereafter have been selected to showcase the critical importance of standardisation efforts to facilitate innovation, promote the adoption of new technologies and facilitate cross-border/inter-agency cooperation.

Given the above, close synergies have been established with CEN/TC 391 Societal and citizen security and the Chair of the Technical Committee (TC), Patricia Compard, taking advantage of the fact that the working group would have their annual meeting back to back with the I4CM, from the 05-06/09/2018 in Warsaw.

The programme has been further discussed with her and several teleconferences were organised with the members of TC 391 in order to exchange views and ideas on how best to shape the programme so as to be of benefits for all parties.

4.2.3 Hosts' responsibilities

It had been agreed that the hosts of the event would be responsible for the panels. One panel has been allocated to each of them, depending on their respective expertise, and their responsibility is to ensure the coordination with the chairs and the panellists so as to discuss and agree on the contributions and general frame of the debates. Several preparatory meetings have been planned in this regard and will be conducted prior the start of the event.

ITTI will host Panel 1 on inter-agency cooperation, PSCE will host Panel 2 on sharing and coordinating information during a crisis and DIN will host Panel 3 on the importance of standards development (see Section 4.3.1 for description and composition of the panels).

4.2.4 Special invitees: chairs, panellists, solution providers and related initiatives

Once the main topics of the event were identified, a draft description for each of the panels has been proposed by ARTTIC and refined together with the Programme Management Committee. Upon internal agreement on the titles and descriptions, potential chairs for each of the panels were discussed amongst the Programme Management Committee and the ones identified were invited and secured.

In addition, bilateral teleconferences were organised with the chairs to discuss and agree on a list of potential panellists to be invited, taking into consideration that the panels should, as far as possible, gather representatives from the spectrum of CM stakeholders, namely, policy-makers, practitioners, solution providers, and researchers, from Poland and beyond. The list of panellists per panel can be found in Section 4.3.1 hereafter. It is to be noted that efforts have been spent in trying to reach out to both FRONTEX and DG ECHO. While no answer was received from the first despite different attempts, DG ECHO/ERCC informed the I4CM organisation team that despite their interest in the event, they have not been able to identify a representative due to the unavailability of key personnel for the dates. They however, expressed their wish in being kept informed about the outcomes of the event.

In addition to securing chairs and panellists, efforts have been invested in securing the participation of various related projects and initiatives by giving them an opportunity to increase their visibility and impact. Depending on their relevance with the topics of the I4CM, they have been offered either a presentation at the Forum of Ideas (see Section 4.3.1.6), a space in the poster area (see Section 4.3.2.10), the possibility to organise a dedicated workshop (see Sections 4.3.2.1 and 4.3.2.2), a booth at the market place (see Section 4.3.2.9), or they have been specifically invited as contributors to key sessions (namely the CMINE and the practitioners innovation network workshop – see Sections 4.3.2.4 and 4.3.2.4). By doing so, not only it should benefit the event itself, but it should also foster the emergence of additional cooperation opportunities and cross-synergies amongst them and with DRIVER+ in the near future.

Finally, external solution providers which had been pre-selected for Trial 1 and 2, and all DRIVER+ internal solution providers have been offered a space at the market place to give them an additional opportunity to showcase their solutions to the attendees. Especially, the intention towards the external solution providers was to increase the added value for them to partake in the DRIVER+ activities.

4.2.5 Registrations

The expected number of participants is in between 130 and 180 over the 2 days and the target audiences will consist of:

- Crisis Management practitioners with operational knowledge to guide research and innovation, primarily from Poland but also from beyond to exchange on their experiences, lessons learnt and best practices.
- Crisis Management solution providers from industry and research offering innovative technology and/or knowledge, from Poland and beyond.
- Experts on various aspects of Crisis Management having specific knowledge and expertise with respect to operational and strategic/political challenges, specific technological requirements, challenges related to regulations and standardisation, and challenges related to evaluation processes.
- Related projects and initiatives from the EC and beyond.
- Policy makers working on the regulatory framework for Crisis Management operations, operating at EC or national level.
- Standardization experts, mainly from CEN/TC 391 WG3 Crisis Management/Civil protection.

At the time of writing the document, 200 participants have registered to the 3rd I4CM and the registration page will remain open until August 24th to secure as many participants as possible.

An in-depth analysis of the participants will be provided after the I4CM and will be included in **D953.13** *Enhancing the shared understanding of CM – progress report – 3*.

4.2.6 Logistics aspects and D&C support

At the time of writing the present deliverable, the venue and the catering company have been secured. Moreover, as it is a local event, translation from English to Polish and Polish to English will be provided during the main panels in order to allow all participants to take full advantage the programme and lower potential language barriers that may hinder interactions.

Furthermore, close liaison with the partners involved in **WP952** *Dissemination and Communication* has been established in order to leverage efforts and support with regards to the production of D&C material specific to the event (e.g. brochure of the event, poster-agenda for each of the sessions and rooms, event webpage linked to the registration page, promotional activities and the creation of specific D&C material, video and photo shooting, etc.) and the elaboration of Press Releases, news and articles. All details can be found under **D952.12** *Dissemination and communication activities – progress report – 2* (6).

Finally, a specific <u>event registration page</u>, linked to the <u>event webpage</u> available on the public website has been created to facilitate the logistics and gather information about the type of participants.

4.3 Final concept and detailed programme

Following the past two editions of the event held in Marseille (France) and Berlin (Germany), the feedback received from the participants allowed to highlight one major aspect that should be improved for the 3rd edition: interaction. Even though the event in Berlin featured an exhibition area and more workshops than the event in Marseille, it appears that there is still great room for improvement to foster interactions amongst the various types of stakeholders partaking in the I4CM. For this reason, the design of the event has been reconsidered to support improved interactions between the practitioners, solution providers and policy-makers, but also openness and participation.

Moving away from the traditional plenary-only type of event, the I4CM will thus be structured around two parts having different objectives and whose concepts are introduced below: the CONFERENCE and the OFF programmes.

4.3.1 September 3rd – The I4CM CONFERENCE programme

The I4CM CONFERENCE Programme aims at linking the European Commission and its policy-makers with the national policy representatives, practitioners, solution providers and related projects to interact and exchange on current challenges faced in the field of Crisis Management.

To reach a certain level of interactivity, it has been decided to shape the CONFERENCE part of the event around interactive panels rather than traditional presentations. This approach should support both bottom-up but also a top-down approach, giving the floor to different stakeholders who are not often provided with a forum to exchange and confront their views.

The agenda overview and map of the venue where the CONFERENCE will take place are depicted in Figure 4.1 hereafter.



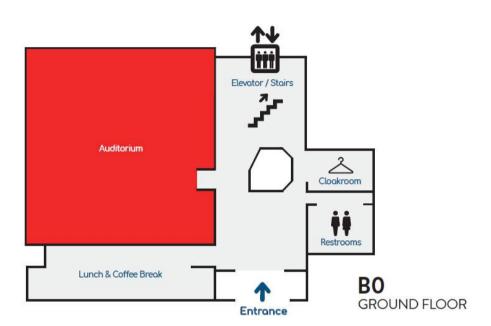


Figure 4.1: I4CM CONFERENCE programme and plan

4.3.1.1 Opening address and introduction

The Opening address will be delivered by Philippe Quevauviller (DG HOME) in order to reemphasis the linkages with the Community of Users and the importance of research in the field of Crisis Management.

Following the Opening address, Marcel van Berlo (DRIVER+ Technical Coordinator, TNO) will provide an introduction on DRIVER+ and explain the objectives of the event to the audience.

4.3.1.2 The panels and Forum of Ideas: pressing issues and standardisation

Three different panels will be organised on the first day of the event. The themes have been selected based on the feedback received by the practitioners following a survey sent out by ITTI (host of the event, located in Poland) to their network. The panels will work in fennel: the first one will address the bigger picture (inter-agency and cross border cooperation), while the second and the third will add more granularity levels: (1) sharing and coordinating information in case of a crisis involving inter-agency cooperation and (2) the importance of standards development in such a context. While the third panel will specifically focus on standardisation, it is to be noted that each of the two other panels will keep standardisation as a red wire, thus setting the scene for the last one.

Each of the panel will be opened with a keynote speech from their respective Chair, thus allowing to set the scene and frame the discussions amongst the panellists.

The panels and the Forum of Ideas are described hereafter.

4.3.1.3 Panel 1: Inter-agency and cross-border cooperation

One of the key challenges identified par the practitioners in Poland relates to inter agency and cross border coordination. In this regard, one panel has been organised to tackle this topic and foster exchanges on "Challenges and opportunities in complex Crisis Management situations: Inter-agency and cross border cooperation processes and instruments. Lessons from national experiences and research projects: Real Cases, Exercises and Good Practices".

The growing complexity of crises may often lead to severe consequences for several areas of state competence, and hence horizontal and vertical coordination between different actors from the public area, and partnerships with the private sector, may be necessary to curb such events. Furthermore, the spectrum of potential risks that may induce a crisis has increased through the integration of several dimensions (i.e. political, social, etc.) and natural or man-made disasters may lead to crisis with cascade effects across national or even international systems. Against this context there is a strong need for exchange of experiences and good practices of inter-agency crisis management and cross border cooperation. Many practitioners involved in Crisis Management and the private sector agree that the complexity of modern crises calls for adaptation of measures in terms of interoperability and basic standards. Moreover, there is a need to meet and be acquainted with partners from national crisis management agencies and experts from the private sector, international organisations, and think tanks to exchange knowledge and strengthen cooperation in crisis management.

Given the above, the aim of the session will be to bring together Crisis Management experts to discuss (national) processes and instruments for crisis management, to share good practices supporting interagency and cross-border cooperation in complex Crisis Management situations.

The session will open to a Q&A session to allow interactions with the public.

The session will be chaired by **Jakub Ryzenko**, Head of the Crisis Information Centre, Space Research Centre – Polish Academy of Sciences (Poland).

The panellists who have confirmed their participation are:

- Dusan Zupka, Senior Expert in Crisis Management, UNDP (Switzerland)
- Tomasz Zwęgliński, Head Internal Security Department, The Main School of Fire Service (Poland)
- Jan Kuipers, Cluster Commander, Safety Region of Haaglanden (The Netherlands)
- Krzysztof Samp, Vice President, ITTI (Poland)

4.3.1.4 Panel 2: Challenges and obstacles in sharing and coordinating information during multiagency disaster response.

The second key challenge identified par the practitioners in Poland relates to the obstacles in sharing and coordinating information during a crisis involving multiple agencies.

Generally, after the event of 11/09/2001, the attacks in Paris in 2015 and the ones in Brussels in 2016, there has been a surge of interest in developing and implementing interoperable communication systems for first responders. Such voice, data and radio interoperability are a critical need for first responders (police, fire, emergency services, etc.) at the scene of an emergency or disaster, whether of natural or manmade origin. The use of properly planned, established, and applied communication tools can enable the dissemination of information among command and support elements and cooperating agencies and organisations. Shortcomings in the ability to exchange crisis-related information among agencies and organisations, also related to as interoperability, is a topic that has been identified by the DRIVER+ project with the help of practitioners as a major Crisis Management gap that the project should address.

Interoperability is multi-dimensional; it can be legal, organisational, semantic or technical. Organisational and legal aspects refer to the mandate and willingness to share such information between levels of government or agencies that remain low, with confidentiality issues laid down as a limiting factor. The technical dimension of interoperability is the huge amounts of available and shared information that can have adverse effects in terms of efficiency.

This panel will thus aim at presenting the state of the art at EU level and beyond but also to provide a space for practitioners and initiatives to share best practices and lessons learnt. Finally, it will also provide a space for research projects to inform about activities carried out to improve the situation and present emerging or newly identified solutions.

The session will also open to a Q&A session to allow interactions with the public.

The session will be chaired by **Manfred Blaha**, President of PSCE and Chair of the User Committee, Police Officer, Ministry of the Interior (Austria).

The panellists who have confirmed their participation are:

- Stefan Tangen, The International Forum to Advance First Responder Innovation (Sweden).
- Adam Widera, Managing director of the Competence Center for Crisis Management, European Research Center for Information Systems (Germany).
- Sanja Holen, BroadWay project, Chair of the Technical Validation Committee PSCE (Croatia).
- Daniele Galliano, Joint Research Centre (European Commission).

4.3.1.5 Panel 3: The importance of standards development in case of multi-agency disaster response: How can standardisation improve the capabilities of the European Union and Members States?

The last panel of the CONFERENCE programme will specifically focus on standardisation and its importance, in the context of the two topics addressed in the two previous panels.

Standards are powerful instruments to achieve better interoperability of procedures and technology, as well as effective and efficient communication, collaboration, cooperation, and coordination between the multiple agencies involved during a disaster. Standardisation is also a valuable tool that all types of organisations can use to improve their capabilities in handling incident response in any crisis. For those who are less familiar with the standardisation area, standards in the field of Crisis Management are developed by Technical Committees (TCs) at either global or European levels. On a global level, many standards regarding disaster resilience are developed within ISO/TC 292 Security and Resilience while at the European level, CEN/TC 391 Societal and Citizen Security develops relevant standards and decides on the adoption of ISO standards as European ones. However, developing these standards requires involving those who will use them, benefit from them, and who might be best equipped to describe and prioritise future standardization needs, which is of critical importance.

This panel aims at presenting key standards (e.g., TS 17091, "Crisis management – Guidance for developing a strategic capability" or ISO 22320:2011 "Societal security - Emergency management – Requirements for incident response") and best practices which can be of help for the Crisis Management community. Experts composing the panel will exchange and inform the audience on how standardisation can establish a fertile ground to improve Crisis Management capability as well as a solid ground for cooperation. Finally, the importance of community participation in the development of standards will be discussed.

As for the other panels, the session will open to a Q&A session to allow interactions with the public.

The session will be chaired by Patricia Compard, Chair of CEN/TC 391 Societal and citizen security.

The panellists who have confirmed their participation are:

- Philippe Quevauviller, Policy Officer DG Migration and Home Affairs (European Commission).
- David Adamson, Lead Programme Manager, British Standards Institution (UK).
- Paweł Rybicki, President, European Forensic Initiatives Centre (Poland).
- Lorenza Jachia, Secretary, Working Party on Regulatory Cooperation & Standardization Policies, United Nations Economic Commission for Europe (Switzerland).
- Rainer Koch, Institute for Fire Fighting and Rescue Technology (Germany).

4.3.1.6 Forum of Ideas

The Forum of ideas will provide a space for Crisis Management projects and initiatives to deliver a 10-minute impactful presentation to inform the audience about their respective activities, solutions and results.

The following projects and initiatives have been invited and the session will be moderated by Stéphanie Albiéro, DRIVER+, SP95 Impact, Engagement and sustainability leader:

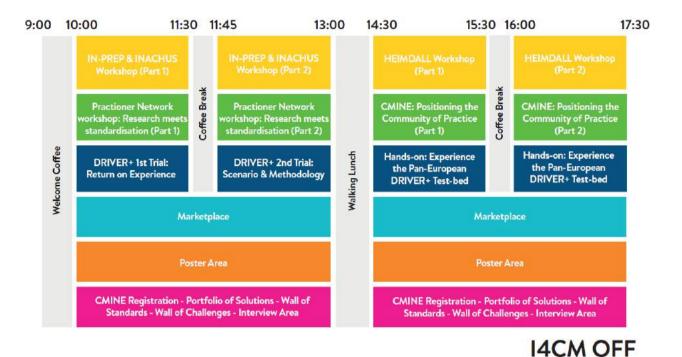
- The BROADWAY project: Procuring Innovation activity to enable a pan- European broadband mobile system for PRDR / Sanja Holen Chair of the Technical Validation Committee.
- **The DAREnet project**: Developing a practitioner network to strengthen flood resilience in the Danube Region / Dr. rer. nat. Christian J. Illing Project coordinator.
- The IFAFRI initiative: International Forum to Advance First Responder Innovation / Stefan Tangen -Chair of the Capability Gap committee.
- **The BRIGAID project**: Bridging the gap Innovation in Disaster Resilience / Justyna Waysocka-Golec and Paweł Wiktor Project partners.
- The SOURCE project: Creating a robust and sustainable virtual centre of excellence capable of advancing societal issues in security / Dr. Irina van der Vet - Work package coordinator.
- **CEN/CENELEC**: The European Committee for Standardisation / Patricia Compard Chair of CEN/TC 391 Societal and citizen security.
- **The SAYSO project**: Standardisation of situational awareness systems to strengthen operations in civil protection / Christoph Lamers Project partner.

Specific guidelines have been developed and provided to all the speakers. Especially, it has been highlighted that the presentations shall provide the audience with a short but impactful overview of their respective activities, solutions and results. As this year's I4CM event focuses on standardisation, interagency cooperation and interoperability of communication systems, the presentations shall put a focus on these aspects and bring them to the forefront. Finally, the maximum number of slides has been limited to 5-8 slides to avoid too long presentations and ensure that the key points have been summarized.

4.3.2 September 4th – The I4CM OFF programme

To provide a dynamic environment that is ripe for interactivity, the OFF programme alternate parallel workshops and hands-on sessions. Following the CONFERENCE programme which aimed at introducing the main topics tackled throughout the event, this part of the programme allows attendees to partake in interactive sessions, to meet, share experiences and learn more about EC-funded projects as well as other ongoing Security and Crisis Management initiatives.

The agenda overview and map of the venue where the CONFERENCE will take place are depicted in Figure 4.2 hereafter.



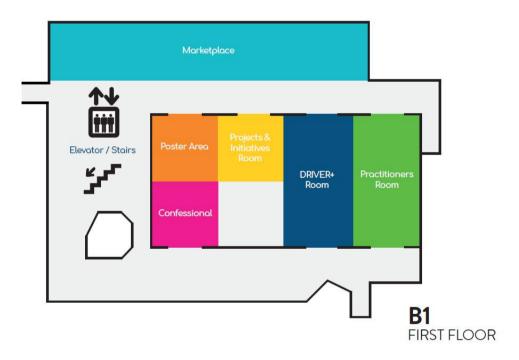


Figure 4.2: I4CM OFF programme and plan

4.3.2.1 The IN-PREP and INACHUS workshop: From Response Planning and Training to USAR operations in the field

Crisis incidents may result in difficult working conditions for Urban Search-and-Rescue (USAR) crews and civil protection agencies need an accurate, real time picture of the situation on the ground as well as the bigger picture. INACHUS aims to achieve a significant time reduction related to Urban Search and Rescue (USAR) phase by providing wide-area situation awareness solutions for improved detection and localisation of the trapped victims assisted by simulation tools for predicting structural failures and a holistic decision support mechanism incorporating operational procedures and resources of relevant actors. IN-PREP is

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creating a training platform to enable responders to share their viewpoints with each other while staying connected to the control room, so that the bigger picture is always in view and immediate actions can be directed in the most effective way possible.

The purpose of the workshop will be to provide the audience with an overview of the USAR tools developed by INACHUS and elaborate on how response planning and training can be optimised, by reflecting the experience of the IN-PREP project. The workshop will seek to engage with the audience and exchange best practices on how collaborative response planning for transboundary crises can be enhanced. Finally, it will facilitate a discussion on the standardisation aspects in preparedness including standards for robotic platforms in Search and Rescue and different levels of interoperability.

The specific agenda will be as follows:

09:00 - 09:30	Optimising Response Planning and Training – The IN-PREP Action
09:30 - 10:10	Tools for USAR teams to respond – The INACHUS Project
10:00 - 10:40	How to enable collaborative response planning for transboundary crises – Needs, Requirements and Recommendations
10:30 - 11:10	Standardisation aspects in Preparedness
11:30 - 11:45	Coffee break
11:45 – 12:15	Towards standards for robotic platforms in Search and Rescue
12:15 – 13:00	Break out session – From preparing to responding to disasters and causes of crises: Open discussion on levels of interoperability and Best Practices

The workshop organisers and moderators will be Evangelos Sdongos (ICSS, IN-PREP and INACHUS coordinator) and Antonis Kostaridis (Satways Ltd. IN-PREP technical coordinator).

4.3.2.2 The HEIMDALL workshop: Decision-making principles and support tools

In recent years wildfires in Europe have been increasing in terms of intensity, occurrence and spread due to the impacts of climate change and the lack of consistent and adequate prevention strategies. While intense and complex wildfires affect Southern countries with dramatic consequences of hundreds of people killed and large economic losses, drought in Northern Europe is causing a wave of wildfires in an unprecedented way. The current wildfire situation stresses the need to re-think the decision-making principles in order to avoid the collapse of the emergency services that fight wildfires everywhere in Europe.

The workshop will discuss the decision-making process using a scenario from a cross-border vegetation fire in Scandinavian countries. The scenario will be designed to allow a discussion of the factors and values that should be considered in decision-making to reach the resolution scenario using the method developed by the fire services in Mediterranean countries and also the decision support tools being developed in HEIMDALL to support that process. Especially, the workshop will aim to define opportunities for supporting strategic decision making on firefighting across Europe and to identify gaps in Decision Support during the Response Planning phase:

- Technological: use of technical tools as HEIMDALL.
- Remote support: remote decision support services within the EU states.
- Standardization: standardization processes in DSS.
- Network/connectivity: the role of different actors (research, first responders, lobbies).

The methodology that will be applied during the session is based on the one used in the FireContinuum Conference Workshop: *Empowering Strategic Decision Making for Wildfire Management: Avoiding the Fear Trap and Creating a Resilient Landscape.* The discussion will be focused on the resolution of the fire

scenario mentioned above, using the method developed by Fire Services in Mediterranean countries and currently applied by the Catalan Fire Service (Castellnou et al., in preparation). The Pau Costa Foundation (PCF), partner in the project, will introduce the method and the participants will have to define the best decisions to be made at a strategic level to reach the expected results for this specific scenario. During the discussion, the workshop moderators will insert items of decision support tools (HEIMDALL), standardization, remote support and the role of different actors, to trigger discussions and asses the values that participants will give to these items.

The workshop methodology steps will be as follows:

- 1. The overall methodology and the objectives of the workshop will be presented to the participants by the workshop organizers.
- 2. HEIMDALL DSS functionalities will be presented.
- 3. The four principles, and FIRE-IN gaps in decision making from where they derive, will be explained.
- 4. Strategic Decision-Making Polygons method will be explained.
- 5. The fictive scenario will be presented.
- 6. Participants will be split in groups.
- 7. Workshop participants will be invited to choose the evolution of the scenario among the options available based on the Strategic Decision-Making Polygons method.
- 8. Conclusions.

The sessions will be moderated by Monika Friedemann (DLR, HEIMDALL coordinator), Jordi Vendrell i Flotats, Núria Prat-Guitart and Marc Castellnou (PCF, Project partner).

4.3.2.3 Practitioner innovation network workshop: Research projects meets standardisation

How does research and innovation fit with standardisation? Which role does standardisation play in research projects and how can new solutions influence the standardisation work? These questions will be answered in the workshop which will, for the first time, provide a space for research projects and standardisation bodies to interact on the importance of standards development. Members of the standardisation bodies and committees (CEN/TC391, BSI, DIN) will explain the basics in standardisation on national and European levels and will present new developed standards in crisis management. Standards can be developed in research projects – why and how this happens will be explained by researchers who went through the process. An exchange of experiences from different the SEC-GM21 projects will complete the picture.

The specific agenda for this workshop is as follows:

10:00 - 10:20 Break the ice session: Small intro to agenda of the day/Round table to get feedback on the general expertise/knowledge on standardization/Initial discussions on the benefits of standardization and the usage of standards.

10:20 - 10:40 Introduction presentation to standardization in crisis management: General information on the standardization system (incl. CEN/TC 391 WGs, relevant standards)/Introduction to relevant Crisis Management Standards: prEN 17091:2017 Crisis management — Guidance for developing a strategic capability; (CWA 17300 series on 'City Resilience Development').

10:40 - 11:30 Exchange of experiences: Methodology for the integration of standardization in research and innovation projects by using a practical example (e.g. SMR – Smart Mature Resilience)/Short presentations of the practitioners/research projects (e.g. SEC GM21 projects) having integrated standardization in their projects (or not), including Q&A sessions after each presentation.

11:30 - 11:45 Coffee Break.

11:45 -12:15 Importance of standardization in crisis management: Roundtable to discuss the importance of integrating standardization in crisis management and new ways on how to cooperate best between research/innovation and standardization.

12:15 - 12:45 Identification of standardization potentials: Introduction to CWA 17300 series on 'City Resilience Development' and roundtable discussion on DRIVER+ standardization potentials (to check whether their project results are feasible and appropriate to transfer into standardization).

12:45 - 13:00 Conclusions: Wrapping up the workshop / Inviting participants to CEN/TC 391 or to integrate in future projects/proposal standardization.

The session will be moderated by Patricia Compard (Chair of the CEN/TC 391 Societal and citizen security), David Adamson (Lead Programme Manager, British Standards Institution (BSI)) and René Lindner (Senior project manager, DIN German Institute for Standardisation).

While the workshop will be opened to any interested I4CM participant to attend, special invitations have been sent out to the SEC-GM21 projects, and the following confirmed their participation: I-LEAD, DAREnet, ILEAnet, FIRE-IN, eNOTICE, NO-FEAR, PEN-CP, ARCSAR.

4.3.2.4 The CMINE workshop: Positioning the Community of Practice

As mentioned under Section 2.5.2, the goal of the workshop will be to introduce the Crisis Management Innovation Network Europe (CMINE) to the I4CM participants. During the workshop, participants will be invited to start a discussion about the CMINE concept and provide their initial feedback. Specifically, we will seek to investigate how the CMINE can address untapped needs and gaps within the existing landscape of DRR/natural hazards initiatives in Europe. To avoid duplication, allow for synergies, and fine-tune the initiative's objectives as much as possible, individuals and project with relevant expertise on community building are invited to share their vision and ideas on the CMINE, both during the workshop and via the CMINE online platform, the so-called Community Management Tool, run by DRIVER+.

The envisaged outcomes of this workshop are threefold.

- First, to formulate concrete gaps that CMINE should address in the short and medium term.
- Second, to anchor and position the CMINE in the broader DRR field focusing on natural hazards.
- Third, to explore potential partnerships and synergies with other relevant other projects and initiatives, taking into consideration the fat that the CMINE will be launched soon after the I4CM.

It is to be noted that the workshop will be part of the validation process to verify whether the CMINE meets the needs of practitioners and other end-users and in which ways the current structure and content needs to be adjusted.

To achieve the above, the workshop will be divided into two parts, which are each divided into an introductory session and an interactive working group session in which the participants get the chance to exchange ideas and discuss the inputs received. The participants will be invited to give feedback and questions throughout the workshop to ensure that as much inputs and feedback as possible is gathered.

The first part of the introductory session aims to inform the workshop participants about the features and the objectives of the CMINE, which is a crucial requirement for any further workshop activity. At the same time, the Community Management Tool (CMT) will be introduced. Based on the presentations, the participants will be asked to break out in small working groups (max. 4 participants) and are invited to discuss the CMINE based on a short questionnaire, which covers the core elements of the CMINE. At the end of the break out session, each group is asked to present their main findings and ideas. The knowledge and feedback of the experts involved in the workshop will enable the CMINE project team to shape and refine the network according the needs of the future users.

In the second part of the workshop, the workshop groups will be invited to propose their own ideas on pressing challenges in the field of Disaster Risk Reduction and identify initial common capability gaps that could be addressed in a CMINE online work group. In a second step, they will have the opportunity to already draft a work plan/timeline for a potential CMINE solution work group, which would tackle a gap within the field (objectives, participants, setup and way of working) by using the existing CMINE CMT toolkit. They will be asked to use as many elements of the toolkit as needed, and determine which tools are relevant for setting up and working in a collaborative CMINE working space and which tools they are still missing in the current portfolio of tools or add-ons.

After the workshop, all the ideas and feedback will be carefully analysed and used to further refining the CMINE as well as to setup its initial themes before the launch of the network in December 2018.

The detailed agenda for this workshop is as follows:

14:30 – 15:30 Introduction CMINE: The first part of the workshop will include an introduction to the CMINE, a presentation of its current state of play, a reflection on the position of the CMINE in the currently existing landscape of Crisis Management and a demonstration of the Community Management Tool (CMT) that supports the online environment of the CMINE. This part of the workshop sets the baseline and creates a level playing field from which the interactive sessions are initiated.

15:30 - 16:00 Coffee break.

16:00 – 16:30 CMINE Lab I: CMINE features: Participants and audience are invited to join the interactive session in which various features of the structure and framework of the CMINE are being addressed and discussed. The floor will be open for the participants to voice their opinions, ideas and share their experiences. This part provides a unique opportunity to play a significant role in the shaping process of the CMINE.

16h30 – 16:45 Dive-in: Potential DRR/natural hazards challenges for the CMINE: This section of the workshop will focus on the content-side of the CMINE reflecting upon the different challenges that feature the field of Disaster Risk Reduction. The methodology for selecting the initial challenges that will guide the CMINE at its inception will be presented.

16:45 – 17:20 Dive-in: CMINE Lab II: DRR/natural hazards challenges: In the final part of the workshop, the participants are invited to engage in a mock workgroup and to experience all stages of a CMINE workgroup, from the gap identification towards the creation of a solution. Through familiarizing oneself with the journey of a workgroup, participants are invited to reflect on the role of the CMINE in this process.

17:20 – 17:30 Closing: Summary workshop and way forward.

The sessions will be moderated by Laura Birkman and Alexandra Schmid (Ecorys, DRIVER+ partners and leader of the CMINE developments).

While the workshop will be opened to any interested I4CM participant to attend, special invitations have been sent out to relevant projects and initiatives having established specific communities in the field of Crisis Management. The projects and initiatives having confirmed their participation are: TIEMS, e-NOTICE, ENCIRCLE, DAREnet, FIRE-IN, FIRE-IN, ILEAnet, i-LEAD, PAU Costa Foundation, ARCSAR, PEN-CP, NO-FEAR, SOURCE. Preventionweb.org (UNISDR) confirmed their interest in being associated to the workshop; however, they won't be able to attend this session due to other obligation. They however asked to be informed about the outcomes of the session and next steps.

4.3.2.5 DRIVER+ Trial 1: return on experience

DRIVER+ first Trial was held from 21 to 25 May 2018 in Warsaw (Poland) and intended to demonstrate the potential interest in a more integrated high-level Crisis Management system in the European Union, in terms of improved situation assessment and awareness, coordination, resource pooling & sharing, and cross-border cooperation. The Trial, which involved both tabletop and field components, served as a demonstration of a Common Operational Picture (COP) approach potential at the European level.

This session will aim to present how the DRIVER+ Trial Guidance Methodology was carried out for Trial 1 and will be divided into two parts. First, the Trial owners (Tomasz Zwęgliński and Marcin Smolarkiewicz (SGSP)) will present for the first-time key elements of the Trial, its preparation, execution, evaluation and initial results. Second, Ciska Overbeek from Nelen & Schuurmans, one of the solution providers selected for the Trial, will present her experience and lessons learnt, while practitioners (respectively, Dusan Zupka (UNDP expert) and Tarmo Kull (EASS) who were involved in the Trial will give feedback about their own experience and impressions. Discussions with the audience will follow.

4.3.2.6 DRIVER+ Trial 2: scenario and methodology

DRIVER+ second Trial will be held from 22 to 26 October 2018 in the premises of Entente pour la Protection de La Forêt Méditerranéenne (Valabre), located in the south of France. The event will aim to improve cooperation and coordination between different organisations and agencies from different countries using innovative solutions for large scale and complex multi-event crisis. To reach this goal, the event will be conducted to investigate innovative solutions on how they improve Crisis Management by developing interoperability and coordination in response operation, supporting a common understanding among the actors involved in the crisis.

The session will present the overall preparation of a Trial following the DRIVER+ methodology. The different speakers will share, in a panel discussion, their experiences as Trial 2 is by then in the last preparation phase. After a short introductory speech given by the Trial owner (Alice Clémenceau, Valabre) presenting the Trial objectives and rationale, each panelist will provide his own perspective on the trial and explain her/his contributions in terms of deployment of the DRIVER+ Test-bed for Trial 2, selection and technical integration of the solutions, support in implementing DRIVER+ methodology, etc. The panelists will be:

- Steven van Campen, leader of the DRIVER+ Test-bed development (XVR).
- Laurent Dubost, Trial 2 solution coordinator (Thales).
- Ruud van den Beukel, Trial 2 external solution provider (Merlin Software).
- Nicola Rupp, research assistant for the DRIVER+ Trial Guidance Methodology (WWU).
- Rob Munro, DRIVER+ external cooperation, dissemination & communication activities of DRIVER+ (ARTTIC).

4.3.2.7 DRIVER+ installation: experiencing the Pan-European Test-bed

The DRIVER+ installation will allow the visitors to experience the Pan-European environment developed in the project. The main assets of DRIVER+, the Test-bed, the Portfolio of Solutions and the networks that will benefit from the outcomes of the project, will be presented as a hands-on session that encourages a holistic experience. Visitors will be engaged in variety of activities according to their interests and curiosity through hands-on sessions which will offer the opportunity to explore freely as well as engaging on a number of levels.



Figure 4.3: DRIVER+ installation and moderators

4.3.2.8 The confessional room

The confessional room will be the place for the attendees to share their views, feedback, best practices and experiences and engage on a number of tools and topics.

The description of each area is as follows:

CMINE registration booth: Are you a practitioner, a researcher, a policymaker or a solution provider in the field of Disaster Risk Reduction? Find out about and become a member of the Crisis Management Innovation Network Europe (CMINE)! Discover the online platform which provides a forum to meet and exchange with peers on challenges, best practices and lessons learnt in the field.

The Portfolio of Solutions booth: Come, discover and put your hands on the DRIVER+ Portfolio of Solutions, an online database-driven catalogue that will document all the DRIVER+ solutions and provide information on: the results and outcomes of their usage during the trials, the specific needs they address, the type of practitioner organisations that have used them and much more!

Wall of standards: It is colorful, it is interactive, it collects ideas – it is the wall of standards. Find out what is standardised in crisis management, which kind of standard is most appropriate to your work or let us know about your ideas on standardisation.

Wall of challenges: Come and stick your ideas, lessons learnt and success stories in the field of Crisis Management on the wall! It will help us identify additional challenges faced by the Crisis Management community, and highlight innovative solutions supporting the practitioners, to reduce the gaps they are facing on a daily-basis!

Interview area: Let us hear your voice! Come behind the screen to let us know your feedback about the event, allow us to discover more about your activities, your own research, and your ideas on standardisation. We will then use these valuable inputs to better frame the next edition of the I4CM event and make sure to include your views in our DRIVER+ activities. Don't be shy, speak up!

4.3.2.9 The I4CM market place

A marketplace will be central to the event, allowing practitioners to discover innovative solutions in the field of Crisis Management, including the ones that have been tested during the DRIVER+ Trial 1 and selected for Trial 2. The following solutions will be showcased on this occasion, giving the opportunity for the attendees to interact with the solution providers:





vieWTerra Evolution, vieWTerra Mobile and vieWTerra Base provide a Common Operational Picture to both the Crisis Centre and the rescue units out in the field.



3Di is a cloud-based versatile water management instrument that enables flood forecasting and risk mapping. This solution is provided by Nelen & Schuurmans.



IODA, developed by Armines, supports CM decision-makers during the crisis response phase by inferring on-the-fly collaborative process that propose a way for the responders to resolve the crisis.



BRIGAID clears the path to deliver Disaster Resilience innovations to the market through the assessment and improvement of Technical, Social and Market readiness.



The INACHUS project will present technological & methodological solutions for integrated wide area situation awareness & survivor localisation to support search and sescue crews.



Hexagon has developed Drone Rapid Mapping, enabling an incident or a crisis area to be mapped quickly using cloud computing and a drone operator.



GMV created SOCRATES Operation Centre, a web-based tool for generating a Common Operating Picture whose objective is to improve the shared situation awareness amongst the different bodies involved in the management of a crisis events and to help the practitioners to make well-informed decisions by providing and supporting the real time exchange of information about the operational situation.

THALES

SMAP (Social Media Analysis Platform), developed by Thales, automates a user-defined collection process and proposes content mining tools able to filter down the information collected from the social media based on based on content, time, and space constraints.



PROCeed Laboratory, developed by ITTI, is a web-based analytical application for exercising crisis management and response, capable to support decision makers by simulating of materialisation of possible threats and presenting of the consequences of people's behaviour.



I-REACT (Improving Resilience to Emergencies through Advanced Cyber Technologies) is a European project funded under Horizon 2020. It integrates existing services, both local and European, into a platform that supports the entire emergency management cycle.



The AIT's CrowdTasker application enables the skill-based geolocation-aware distribution of tasks within specified target groups like pre-registered volunteers in the field. Thus, volunteers can be more effectively and efficiently integrated in the resolution of large crisis incidents.



Emergency Maps Tool (EMT), from AIT, provides end users or a network of users with a collaboration tool for representation and sharing of available geo-referenced data and information. It mashes up and displays the emergency data from a dedicated data repository, map layers and data from external services.



The web-based Crisis Information System (CIS), developed by AIT, lowers the interoperability and information exchange gap between different stakeholders during large-scale events in the crisis and disaster management (CDM) domain.



HEIMDALL will present a Multi-Hazard Cooperative Management Tool for Data Exchange, Response Planning and Scenario Building, to be used by a large variety of emergency services



MVM Tel has developed APM-40, an alternative, standalone, rapidly deployable voice communication system for emergency and disaster situations and other applications where secure and autonomous communication is necessary.



PrepSurvey is an AIT solution that offers support for the difficult assessment of resilience and vulnerability on any societal level (individual, household, regional). PrepSurvey provides an innovative approach to this important, yet difficult task in disaster preparation and mitigation.



CrisisSuite, developed by Merlin Software, is an online software application, enabling organisations to successfully manage information during a crisis. All crisis information is securely stored in the cloud and is available anytime, anywhere.



The IN-PREP project will showcase their solution enabling a reference implementation of coordination operations (Handbook of Transboundary Preparedness and Response Operations that synthesises the lessons learnt, recommendations, check-lists from past incidents) and a training platform.

4.3.2.10 Poster session

Crisis Management projects and initiatives have been invited to present a poster during the event as an additional opportunity to engage with the audience and present their main activities and results: BROADWAY, ENCIRCLE, SOURCE, DAREnet, GEO-VISION, eNOTICE, i-LEAD, FIRE-IN, E2mC, NO FEAR, BRIGAID, SAYSO, PEN-CP, Mobnet, ARCSAR, ILEAnet.

4.4 Way forward

During the event, secretaries per session will be appointed. Each of the secretaries will be provided with a template form, in order to gather information of relevance for the production of the event report. The information will allow to monitor the overall event, but also to highlight the key outcomes of each session.

The documents will then be collected, and the data analysed and compiled in the event report to be included in the next progress reports. Information such as: "number of attendees", "typology of attendees", "Interaction and format", "summary", "benefits drawn" and "way forward" will be highlighted and should provide new directions for the organisation of the 4th edition of the I4CM event, whose organisation will be kick-started on the occasion of the next SP95 F2F meeting, to be organised on the 6th of September during the DRIVER+ General Assembly in Warsaw (Poland).

5. The Policy-Research Dialogue Roundtables and annual reports – Reorienting the activities to maximise their respective impact

5.1 Background

In order to further strengthen the Policy-Research dialogue, originally, three roundtables were to be organised in the context of DRIVER+ to discuss together with policy-makers the results of the Trials/final demonstration and of the related workshops as well as the potential EU policy implications with policy-makers:

- Two editions before the Trials and the Final Demonstration to allow exchanges on the potential EU
 policies to be addressed and the involvement of DG HOME, DG ECHO/ERCC staff.
- One after the events to allow exchanges on the results and the potential policy implications.

In this regard, and in order to start planning for the organisation of the first Policy-Research Dialogue Roundtable (PRDR), contact had been initiated with DG HOME and DG ECHO in December 2017 in order to enquire about the possibility to organise it in colocation with the Civil Protection Forum in Brussels on 05-06/03/2018. However, after further discussion and given the complementary of the themes to be addressed, it was agreed to rather try to organise the event in conjunction with the Community of Users (CoU) meeting to be held on 04-07/06/2018. As the first Trial was planned in May 2018 in Poland, it would have allowed the consortium to present the initial results.

In this regard, and in order to reinforce the synergies with DG HOME, an initial list of suggestions on how DRIVER+ could contribute to the 11th CoU meeting (including mention to the organisation of the first PRDR under theme 7) has been developed and proposed to DG HOME (see Annex 5) on 10/04/2018. Further to this initial proposal, the list has been updated to take into account all comments received and a face-to-face meeting involving DG HOME, TNO (Technical Coordinator) and ARTTIC (SP95 and WP953 leader) was organised on the 23/04/2018 to further discuss it.

While the main themes for the 11th CoU meeting were originally very close to the ones addressed within DRIVER+, the specific focuses for each of the planned sessions evolved over time, following specific priorities of the workshop conveners, resulting in partly reducing the possibility to create strong and logical linkages with DRIVER+. Therefore, it had been decided in agreement with DG HOME to not organize the PRDR on the occasion of the 11th CoU, but to consider having it organised at a later stage, and possibly during (or close to) the next edition of the meeting in December 2018.

Following the above, the DRIVER+ Technical Coordinator met the Project Officer to discuss the original concept of the PRDR as included in the DoW and it has been agreed to reconsider it in order to widen its scope beyond the Trials organised by the project.

A revised concept paper has been prepared and can be found in its draft version hereafter, together with a list of potential participants to be invited. It will be shared and discussed with the Project Officer for refinements and approval. Related to the above, the elaboration of a joint publication (T953.2) has been as well reconsidered and links with the PRDR will be created: The joint publication should provide a follow-up link to the policy research dialogue roundtables and widen its scope beyond the DRIVER+ itself. Thus, following the first edition of the Roundtable, the participants will then be invited to produce a joint publication whose intention will be to act as an entry-point to the topic. The report will strive analysing the

state of the art and identifying best practices as well as highlighting success stories derived from research and innovation activities in Europe (but also beyond), suggesting future research activities, deriving policy and regulatory recommendations. The joint publication will be elaborated following a book sprint⁴ (a collaborative writing session) methodology and involving all Policy-Research Dialogue Roundtable participants.

5.2 Why the Sendai framework? The Policy-Research Dialogue Roundtable revised concept

The Sendai Framework is the basis for a disaster risk-informed approach to policy-making, offering a coherent agenda across different EU policies to strengthen resilience to risks and shocks and supporting the EU priorities of investment, competitiveness, research and innovation. The implementation of the Sendai Framework is an opportunity for the EU to take forward its disaster risk management agenda and to reinforce its efforts to increase resilience to shocks and stresses. Investing in disaster risk management enhances resilience and can act as a driver of innovation, growth and job creation. This is true both inside and outside the EU, where low and middle-income countries are disproportionately affected by disasters. Through building the resilience of people, ecosystems, infrastructure, policies and planning processes, and taking into account climate-related risks and the need for adaptation, the Sendai Framework implementation also forms part of the EU's contribution to the 2030 Agenda for Sustainable Development.⁵

In order to achieve the priorities of the Sendai framework, key policies and practices must be pooled and synergies must be reinforced, which should in return contribute to its implementation.

In this regard, a range of research projects has been funded by the EU within the 7th Framework Programme and Horizon 2020, which have a direct impact on the Sendai recommendation on the science-policy interaction. Moreover, the European Commission coordinated in 2014 the development of a Community of Users for Crisis Management and Disaster Risk Management to enhance networks and information sharing around security research.

In the three years since the Sendai Framework was agreed by Member States, much progress has been made in reducing disaster risk. Numerous countries have aligned their national strategies with the Sendai Framework, disaster risk management legislation has been enacted and public education and training has intensified. However, efforts remain to be made in order to closing the policy-science gap with research that can be put into action to support the implementation of the Framework.

In order to further strengthen the Policy-Research Dialogue on research and demonstration activities in the field of Disaster Risk Reduction and Crisis Management, the DRIVER+ project will organize two Policy-Research Dialogue Roundtables (instead of the 3 initially planned as there were initially linked to the Trials and Final demonstration, and as their scope was more narrowed). These events will especially aim at fostering dialogue on how Research & Innovation can support the implementation of the Sendai framework at Member State level and the role of the EC in this respect.

In this attempt, these events will aim at bringing together EC DGs (in particular DG HOME, DG ECHO/ERCC, DG RTD and DG CLIMA), selected Research & Innovation projects and initiatives, international organisations

⁴ https://www.booksprints.net/.

⁵ Action Plan on the Sendai Framework for Disaster Risk Reduction 2015-2030, European Commission.

(in particular UNISDR) and representatives of the DRIVER+ project. Potentially few national civil protection authorities' representatives and national platforms for DRR, (ideally from EU countries not represented in the consortium) may be invited although the total number of participants should enable everyone to contribute actively to the discussion.

The outcomes of the discussions will then be used as inputs to the Security Research Event (SRE) event to take place in Brussels in December 2018, back-to-back with the 12th CoU meeting.

Furthermore early 2019, following the first edition of the Roundtable and the SRE event, the participants will then be invited to produce a joint-publication whose intention will be to act as an entry-point to the topic. The report will strive analysing the state of the art and identifying best practices as well as highlighting success stories from research and innovation activities in Europe, but also beyond, suggesting research results with high potential and pathways to ensure their uptake for an improved EU resilience. The joint-publication will be elaborated following a book sprint (a collaborative writing session) methodology and involving all Policy-Research Dialogue Roundtable participants.

5.3 Date and place

The first PRDR is foreseen to take place in November 2018 and will last a full day. In order to ease the travel of the participants and secure a maximum of EC representatives, it is to be expected that the PRDR will be organised in Brussels at DG ECHO or DG HOME premises.

5.4 Expected participants

The roundtables aim to bring together the full diversity of the research and innovation community, policy makers, practitioners and researchers from Europe and beyond.

The DRIVER+ partners, together with REA, are currently working on identifying other relevant representatives from DG ECHO, DG HOME and other DGs to be invited.

6. Conclusion and way forward

The overarching objective of the DRIVER+ project is to improve the way capability development and innovation management are tackled, by testing and validating (in realistic environments) solutions that are addressing the operational needs of practitioners dealing with Crisis Management. The success of this project will greatly depend on an adequate, proactive and fruitful engagement approach with stakeholders. The potential benefits are multiple: increasing the project impact and relevance; facilitating the sustainability or exploitation of the outcomes by the stakeholders; obtaining endorsement, to name a few. Stakeholder engagement must be considered from the onset of the project and throughout. Therefore, the new phase of the project has been designed to take stakeholders' perspectives on board in order to make its outcomes as useful and fit-for-purpose as possible, hence, contributing to their sustainability.

But more importantly, the project ambition with regards to stakeholder engagement is a long-term one: the building of an active Community of Practice in the field of Crisis Management that will be sustainable in the future will be supported through the Crisis Management Innovation Network Europe (CMINE). The engagement of policy makers, researchers, practitioners, industry representatives, and citizens in crisis management innovation is a key to reducing fragmentation, creating a shared understanding, and finding better solutions smarter and faster. Therefore, the CMINE will constitute a crucial element of the DRIVER+ project by acting as an overarching body that will link and connect stakeholders dealing with Crisis Management and allow them to exchange on challenges at all levels of the crisis management cycle (preparedness, response, recovery, resilience). This will facilitate the implementation of policies and the uptake of research and innovation by practitioners and other end-users.

The grand framework of the CMINE has been established and can be found in **D953.11** *Enhancing a shared understanding of CM – progress report 1*. In the second period of the project and taking into consideration comments received following the first technical review meeting, its scope has been revised together with DG HOME, its governance structure redesigned, and its positioning will be further discussed by bringing on board the perspective of multiple stakeholders and similar initiatives on the occasion of the third I4CM event in September and through the collection and analysis of data resulting from the conduct of interviews and completion of surveys. This refinement of the CMINE will be pursued until December 2018 when the initiative will be officially launched, the Call for Chairs opened, and when the members will start registering to the CMT.

While already upgraded, the CMT and related thematic groups will be further developed and adapted to match the final needs of the CMINE, based on the content of the present document and taking into consideration the results of the interviews and validation workshop during the I4CM. Additional information will be provided on the outcomes of the 3rd edition of the I4CM, and on the organisation of the first Policy-Research Dialogue Roundtable and on the preparation of the related joint publication to be released in 2019.

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Annexes

Annex 1 – DRIVER+ Terminology

In order to have a common understanding within the DRIVER+ project and beyond and to ensure the use of a common language in all project deliverables and communications, a terminology is developed by making reference to main sources, such as ISO standards and UNISDR. This terminology is presented online as part of the Portfolio of Solutions and it will be continuously reviewed and updated⁶. The terminology is applied throughout the documents produced by DRIVER+. Each deliverable includes an annex as provided hereunder, which holds an extract from the comprehensive terminology containing the relevant DRIVER+ terms for this respective document.

Table A1: DRIVER+ Terminology

Terminology	Definition	Source
Best practice	This encompasses the preferred actions in a specific type of situation to efficiently and effectively achieve a certain objective. Best Practice may be formalised in internal policy documents such as handbooks and standard operation procedures and could be based on one or several Lesson Identified/Lessons Learned approved by decision-makers.	Initial DRIVER definition.
Community building	Practices directed toward the creation or enhancement of community among individuals within a regional area (such as a neighbourhood) or with a common interest.	D934.16 Community engagement tool.
Community of Practice	An (online) platform that facilitates and fosters cooperation and synergies among Crisis Management professionals. A broad variety of stakeholders including practitioners, researchers, industry representatives and policy makers can exchange knowledge and best practices and initiate cooperation on Crisis Management topics.	Initial DRIVER definition.
Crisis Management	Holistic management process that identifies potential impacts that threaten an organization and provides a framework for building resilience, with the capability for an effective response that safeguards the interests of the organization's key interested parties, reputation, brand and value creating activities, as well as effectively restoring operational capabilities. Note 1 to entry: Crisis	ISO 22300.

⁶ Until the Portfolio of Solutions is operational, the terminology is presented in the DRIVER+ Project Handbook and access can be requested by third parties by contacting <u>coordination@projectdriver.eu</u>.

Terminology	Definition	Source
	management also involves the management of preparedness, mitigation response, and continuity or recovery in the event of an incident, as well as management of the overall programme through training, rehearsals and reviews to ensure the preparedness, response and continuity y plans stay current and up-to-date.	
Data, Personal	Information relating to an identified or identifiable individual that is recorded in any form, including electronically or on paper.	ISO/IEC TR 24714-1:2008(en) Information technology — Biometrics — Jurisdictional and societal considerations for commercial applications — Part 1: General guidance, 2.9.
Disaster Risk Reduction	Procedure of applying to the national or local Data Protection Authority to report about the collection, storage and/or analysis of personal data for a specific task. Whether reporting the activity is enough or actual approval is granted depends on the respective data protection authority. The task leader is generally the legal owner of this procedure.	Initial DRIVER definition.
End-user (practitioner)	Individual person who ultimately benefits from the outcomes of the system.	ISO/IEC 25010:2011(en) Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — System and software quality models, 4.4.3.
Innovation	Implementation of a new or significantly improved product (good or service), or process, new marketing method, or new organizational method in business practices, workplace organization or external relations.	ISO 37500:2014(en) Guidance on outsourcing, 3.6 new or changed object (3.6.1) realizing or redistributing value.
Lessons learned	[lessons learning: process of distributing the problem information to the whole project and organization as well as other related projects and organizations, warning if similar failure modes or mechanism issues exist and taking preventive actions].	[ISO 18238:2015(en) Space systems — Closed loop problem solving management, 3.3].

Annex 2 - Draft Email Launch CMINE

Dear Madam/Sir,

We are happy to announce that the Crisis Management Innovation Network Europe, CMINE, has officially been launched!

During the 12th CoU Meeting that took place early December, has enjoyed the honour of officially kicking off the Community of Practice for Crisis Management professionals.

The DRIVER+ team is beyond excited for this next step in the project's lifecycle.

The CMINE is an overarching Community of Practice (CoP) for scientists, policymakers, practitioners, civil society and industry representatives working in the field of Disaster Risk Reduction (DRR) in relation to natural hazards. As a representative network for the Community of Users initiative run by DG HOME, the CMINE aims to reduce the fragmentation in the broader DRR/natural hazards community, foster synergies between existing projects and initiatives, facilitate knowledge exchange at regional, national and EU level, and to increase the market uptake of solutions.

While the CMINE is 'on air' now, your chances to shape the content of the CMINE have not faded. Please visit the <u>website</u> to propose or vote for the themes that should be featured on the CMINE. Furthermore, a call for Chairs has been launched. If you are interested in playing a bigger role in the CMINE make sure to register!

We are looking forward to meeting you online or in-person during one of the CMINE-related events.

Best regards,
The CMINE project team
On behalf of the DRIVER+ consortium

Annex 3 – CMINE Survey (draft version)

Entry point:

Are you already a member of a Community of Practice in Crisis Management?

If the answer to the above question is 'yes', please answer the following questions (if the answer is 'no', please jump directly to the next section):

- 1. What is the name of this initiative?
- 2. What were the reasons that motivated you to become a member of this initiative?
- 3. Which features of this initiative do you value the most? Why?
- 4. Is there any aspect that you feel is missing and to which you would like to have access (e.g., meeting with peers; interacting via an online platform, sharing of relevant documentation, etc.)
- 5. Would you refrain from engaging in a new Community of Practice? If yes, why?

Community of Practice in CM (General) (only if the answer to the first question was 'no')

- 1. What would make you decide to join a Community of Practice in Crisis Management?
- 2. Why would you refrain from engaging in a Community of Practice in Crisis Management?
- 3. Which features should a successful Community of Practice in Crisis Management include?

The Community Management Tool

- 1. What is your overall feeling about the online tool? Do you see it as an added value for the Community of Practice? If not, what are the reasons?
- 2. In your opinion, which features are currently missing from the CMT and what would you like to see added?
- 3. Which, if any, features would you like to see added to the CMT regarding online interaction with other members?
- 4. Which, if any, features would you like to see added to the CMT regarding sharing of documents, links, websites, etc.
- 5. Which, if any, features would you like to see added to the CMT regarding the discussion fora?
- 6. Which, if any, features would you like to see added to the CMT regarding news updates from the project and its members?
- 7. Which, if any, features would you like to see added to the CMT regarding events?
- 8. Which, if any, features would you like to see added to the CMT regarding the personalization of the platform?

Themes

1. Which themes would you like to see discussed in the CMT?

Added value

- 1. How can the CMINE be of added value to the currently existing landscape of CM?
- 2. With what kind of stakeholders would you like to be able to interact with/received information from?

Governance

- 1. Would you be interested in taking up more responsibility in the CMINE (i.e. as a Thematic Chair, Head of the Chairs?) If yes:
 - a. Which type of role would you like to have?
 - b. How much time would you be willing to spend on fulfilling this role?

Suggestions

1. Do you have any other suggestions for the CMINE?

Annex 4 - I4CM logistics package



INNOVATION FOR CRISIS MANAGEMENT (I4CM) EVENT 3RD EDITION

3-4 September 2018 Warsaw, Poland Copernicus Science Centre

LOGISTICS PACKAGE



This project has received funding from the European Union's 7th Framework Programme for Research, Technological Development and Demonstration under Grant Agreement (GA) N° #607798 DRIVER+ project = 3rd Innovation for Crisis Management (I4CM) event = Logistics package

Date and Location

September 3 to 4, 2018 Warsaw (Poland)

The venue

Copernicus Science Centre

Wybrzeże Kościuszkowskie 20 00-390 Warszawa Google Map

Transportation

By metro

M2 metro line - "Centrum Nauki Kopernik" station

By bus

118, 127, 105 - "Biblioteka Uniwersytecka" bus stop

185 - "Metro Centrum Nauki Kopernik" bus stop (in tunnel)

102, 162 - "Metro Centrum Nauki Kopernik"

From Warsaw Chopin Airport

Bus 175 to "Swietokrzyska" station. Then, change for M2 metro line to "Centrum Nauki Kopernik" station

From the Central Railway Station (Warsaw Central station)

Bus line 127

Price

A single standard fare ticket costs 4,40 zł, 2,20 zł for reduced fare ticket.

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DRIVER+ project = 3rd Innovation for Crisis Management (I4CM) event = Logistics package

Hotel recommendations

The Copernicus Science Centre is very well communicated with the centre of Warsaw, where there are numerous hotels.

Below are some recommended hotels, located a few metro stations away from the venue and nearby the M2 metro line:

From 50 to 100€ per night

Radisson Blu Centrum Hotel

Mercure Warszawa Centrum

Holiday Inn - Warsaw City Centre

From 100 to 150€ per night

ibis Styles Warszawa City

Hotel SixtySix

The Westin Warsaw

Discover more options by clicking here

Contact details

Should you have any question are query with regards to the event, please contact:

I4CM@ProjectDriver.eu

A member of the organisation team will get back to you shortly.

This event is organised by



Project website

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Annex 5 – Suggested DRIVER+ contributions to the 11th CoU meeting

From: Stephanie Albiero, Marcel van Berlo (DRIVER+)

To: Philippe Quevauviller (DG HOME)

Topic: suggested panellists to upcoming CoU

Date: 10 April 2018 - updated version 17 April 2018

Day/ Theme	Format	Proposed description	DRIVER+ contribution	Chair	Suggested panellists			Targeted
					Name	Affiliation	Country	participants
Theme 7 "Mainstrea m Disaster Risk Reduction"	Policy-research Dialogue Roundtable (3)	Thread of discussion #1: Discussion with DG /MS representatives, UNISDR, research projects and practitioners on how can research projects support the implementation of SENDAI framework at Member State level?	In addition to the participation in the panel, support the convener of the meeting in the organisation and the facilitation of the session. If proposal is approved, liaise with relevant stakeholders before the meeting to generate interest.	DG ECHO/ ERCC/UNISDR	Tanja Stahle	MSB – Swedish Civil Contingencies Agency	Sweden	DG/MS representatives Research projects and initiatives Practitioners
Theme 7 "Mainstrea m Disaster Risk Reduction"	Policy-research Dialogue Roundtable (3)	Thread of discussion #2: Discussion lead by DG ECHO and the ERCC to investigate how research projects can support and provide inputs to policy recommendations in the field of DRR.		DG ECHO/ ERCC	Antoine Lemasson Loïc Allemand Zeller Przemyslaw Florczyk	DG ECHO/ ERCC	EC EC	Other DG representatives Research projects Practitioners

Day / Thomas	Format	Proposed description	DRIVER+ contribution	Chair	Suggested panellists			Targeted
Day/ Theme					Name	Affiliation	Country	participants
	"Policy to research & innovation" panel (3)	Panel discussion on challenges to effective crisis	DRIVER+ could contribute to the panel by presenting the communication interoperability gaps, issues and challenges addressed during Trial 1, together with a presentation about its main outcomes. Still in the context of Trial 1, how the DRIVER+ Test-bed (common	DG HOME	Jakub Ryzenko	Space Research Centre – Polish Academy of Sciences	Poland	DG representatives Standardisation bodies Industry/SMEs Research projects and initiatives Practitioners
					Tomasz Zwęgliński	SGSP – Main School of Fire Service	Poland	
		management: solutions, best practices and lessons learnt to overcome	simulation space) allows to overcome technological interoperability between different tools by providing one visual		Erik Vullings	TNO	The Netherlands	
Theme 8 "Communication / Interoperability"		learnt to overcome lack of interoperability among communication technologies during disaster response for better coordination and cross border cooperation.	representation of the collected data could be introduced. (i.e. Trial 1 to be organised in Warsaw (Poland) in May 2018 intends to demonstrate the potential interest of a more integrated highlevel CM system in UE, partly in cross-border contexts in term of improved situation assessment, coordination, resource pooling & sharing, and cross border cooperation. The Trial itself will also serve as a demonstration of potential of a Common Operational Picture approach on a European level.)		Chiara Fonio	JRC	EC, Italy	
					Paul-Henri Richard	Chaire gestion de crise	France	
					Rob Peters	INowIT/ Province of Utrecht	The Netherlands	
Theme 8 "Communication/ Interoperability"	Plenary session	Building a Community of Practice in the field of Crisis Management to facilitate communication, knowledge sharing and increase collaboration among professionals, existing projects and existing tools/portals.	(1) Official launch of the Crisis Management Innovation Network Europe (CMINE). Introduction of the CMINE as the Community of Practice in Crisis Management. The session will give the opportunity to describe/demonstrate the concept of the CMINE and its supporting tools, presents it within the context of a broader CoU and finally, invite the audience to sign up.	n/a	Laura Birkman Alexandra Schmid	Ecorys	The Netherlands	DG representatives Research projects and initiatives Practitioners Industry/SMEs

Day/ Theme	Format	Proposed description	DRIVER+ contribution	Chair S	Chair	Suggested panellists			Targeted participants
					Name	Affiliation	Country		
Theme 9 'Weather Extremes"	Roundtable on best practices with policy	Coordination needs and exchanges of information at	DRIVER+ could contribute to the session by presenting Trial 2 (to be held in October 2018 in France) on forest fires, the solutions to be	DG RTD	Alice Clémenceau	Entente pour la Forêt Méditerranéenne – Valabre	France	DG representatives	
	makers, research projects and practitioners (3) horizontal level between agencies and countries, as well as vertical level along the command chain in case of forest fires, flooding, horizontal level between agencies and countries, as well as vertical level along the command chain in case of forest fires, flooding, ltested, how the data will be collected (i.e. data collection plan) and what are the ethical and societal impact concerns to be taken into consideration In addition to the participation in the		Vitor Reis	Escola Nacional de Bombeiros	Portugal	Standardisation bodies Industry/SMEs			
		of forest fires, flooding, geological disaster, etc.: identifying and analysing key information/data to get better prepared and In addition to the participation in the roundtable, DRIVER+ could support the convenor of the meeting in the organisation and the facilitation of the session. If the proposal is approved, DRIVER+ could liaise with targeted participants to prepare the	roundtable, DRIVER+ could support the convenor of the meeting in the organisation and the facilitation of the session. If the		Anastasios Karakostas	beAware project	n/a	Research projects and initiatives	
				convenor of the meeting in the organisation and the facilitation of the session. If the proposal is approved, DRIVER+ could liaise with targeted participants to prepare the session before the meeting and discuss the		Daniel Sempere-Torres	Anywhere project	n/a	Practitioners
Theme 10 "Geological Disasters"			provide better session before the meeting and discuss the DG RTD		DG RTD	Vangelis Sdongos	ICCS/ INACHUS project	Greece	DG representatives
Disasters				Camilo Palacio	Austrian Red Cross	Austria	Research projects and initiatives		
					a representative from Civile Protectione	ТВD	Italy	Practitioners	

Day/ Theme			n DRIVER+ contribution	Chair	Suggested panellists	Targeted		
	Format	Proposed description			Name	Affiliation	Country	participants
					Olga Vybornova	UCL	Belgium	
	n/a		By participating in the session, DRIVER+, through the CMINE, could get a better understanding on how to best to shape the CMINE engagement strategy by linking the ones of these practitioner networks. Furthermore, it would allow to have a better understanding of the respective research roadmaps. Finally, and linked to the latter, options on how DRIVER+ can (1) support trialling solutions and (2) integrate identified gaps by those practitioner.	DG HOME	Thierry Hartmann	French Ministry of Interior	France	SEC GM21 practitioner networks initiatives
		through the CMINE, could get a better understanding on how to best to shape the CMINE engagement strategy by linking the ones of these practitioner networks. Furthermore, it would allow to have a better understanding of the respective research roadmaps. Finally, and linked to the latter, options on how DRIVER+ can (1)			Christian Illing	THW	Germany	
Ad-hoc					Patrick Padding	Netherlands Police	The Netherlands	
discussion "Practitioner's networking					Jean-Michel Dumaz	Safe Cluster	France	
					Marcel van Berlo	TNO	The Netherlands	
				Laura Birkan/Alexandra Schmid	Ecorys	The Netherlands		
					* Once they have signed the GA, might be actually very interestin		p this year, which	