Innovation for
Crisis Management

I4CM - EDITION #3
EVENT REPORT

SEPTEMBER 3-4 2018, WARSAW, POLAND

This event was organised by DRIVER+.

This event was kindly hosted by DIN, ITTI and PSCE.

This event was kindly supported by The Polish Platform for Homeland Security and CEN/TC 391 - Societal and Citizen Security of the European Committee for Standardisation (CEN).

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NÚRIA PRAT GUITART,
PAU COSTA FOUNDATION
& HEIMDALL PROJECT

OVERVIEW

DRIVER+ AND THE I4CM EVENTS

This document reports on the activities performed during the Innovation for Crisis Management (I4CM) Event in Warsaw, Poland on 3rd-4th September. I4CM events are organised under the umbrella of the DRIVER+ (Driving Innovation for Crisis Management for European Resilience), a project funded under the 7th Framework Programme of the European Commission.

When a disaster strikes and several countries are affected, how can practitioners coordinate and ensure they have the means to assist the affected areas? Disasters are unpredictable and the more connected our societies become, the greater the disruptive potential of events like floods, wildfires, earthquakes, industrial accidents and terrorists attacks. This is why resilience and innovation go hand in hand when it comes to responding to natural and man-made disasters. The DRIVER+ project was set up precisely with the purpose of helping Crisis Management practitioners improve their capability development and innovation management.

I4CM events aim to contribute to building a shared understanding in Crisis Management through the organisation of an annual event focusing on Crisis Management topics, allowing issues of common interest to be addressed, to develop synergies between initiatives and to discuss the research roadmap for Horizon 2020 and beyond. The event allows local practitioners and solution providers to meet and exchange on best practices and lessons learnt, while providing projects and initiatives with an opportunity to increase their visibility and impact and to liaise with any interested stakeholders, including organisations developing similar projects in other regions of the world. It intends to make projects in the field of Crisis Management accessible to a wider range of external stakeholders in a specific region.

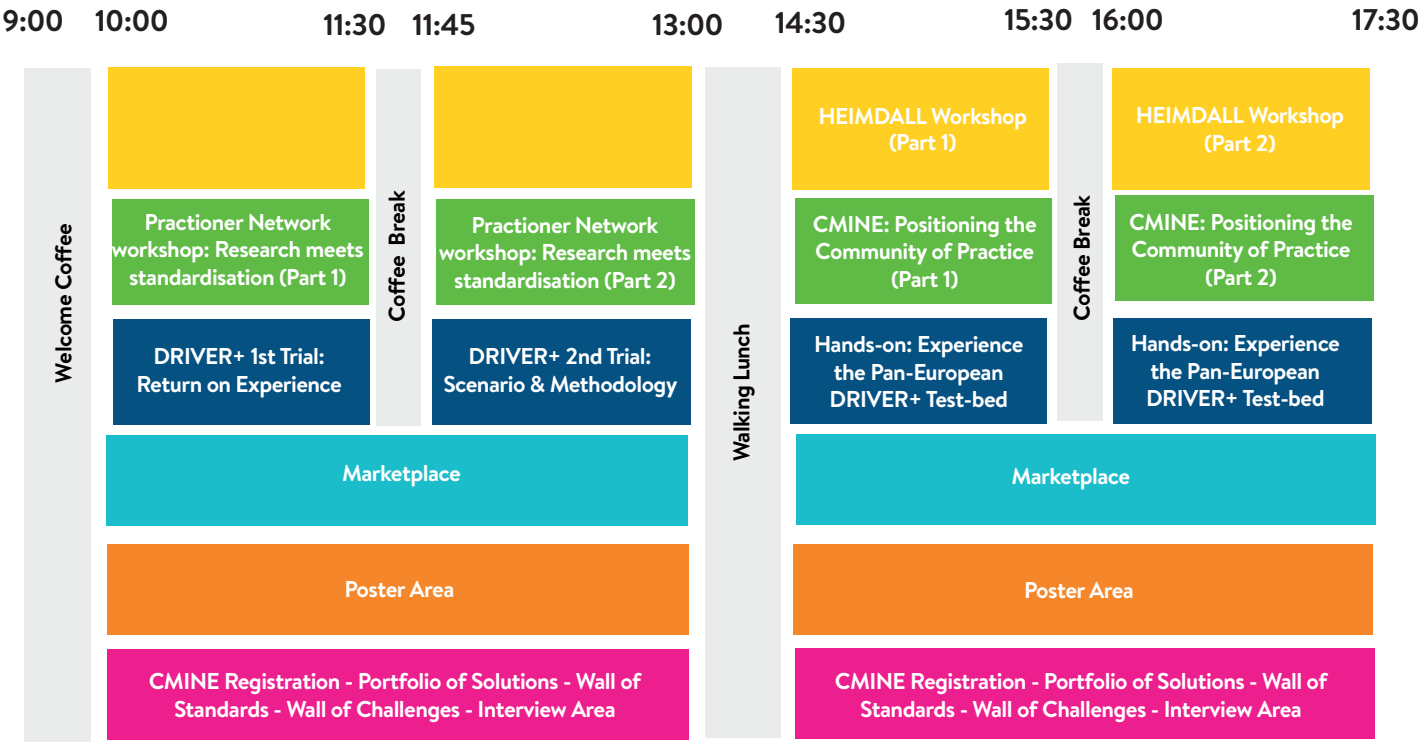
The event in Warsaw was hosted by ITTI, the German Institute of Standardisation (DIN) and Public Safety Communications Europe (PSCE) and was the third edition in a series of I4CM events. Its purpose was to provide a platform for policy-makers, practitioners, experts, researchers and industry to meet, exchange practices and establish synergies. This edition of I4CM was dedicated to the topics of inter-agency and cross-border cooperation processes and instruments, challenges and obstacles in sharing and coordinating information during multi-agency disaster and on the importance of standards in Crisis Management. The event consisted of a number of panel discussions and interactive workshop sessions.

Overall, the two day event recorded 172 attendees. The audience consisted of Crisis Management practitioners and experts, policy markers, researchers, solution providers, representatives of standardisation bodies, related projects and media.

I4CM CONFERENCE

SEPTEMBER 3

The main intention of the I4CM CONFERENCE programme was to link the Crisis Management stakeholders so that they could interact on current challenges faced in the field of Crisis Management. The conference was composed of interactive panels (delivering a bottom-up and top-down approach) giving the floor to different types of stakeholders (such as practitioners, solution providers, researchers, etc.) that are not often provided with a forum to interact. The opening speech was provided by Philippe Quevauviller, Policy Officer at DG HOME (European Commission). The panel sessions comprised an audience of high-level experts in their respective fields. The first day was closed by a networking aperitivo, providing more opportunities for networking and interaction.



I4CM OFF
SEPTEMBER 4

To provide a dynamic environment that is ripe for interactivity, the OFF programme alternated parallel workshops and hands-on sessions. This part of the programme allowed 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.

WAY FORWARD

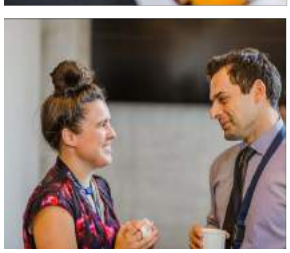
Thanks to the high number of participants and the level of interactivity of this third edition of I4CM, the DRIVER+ project will take a significant step in its mission to strengthen Crisis Management capability development. DRIVER+ will continue extensively the dialogue with stakeholders in the domain, through its various activities such as the Trials, the Crisis Management Innovation Network Europe (CMINE) and the next edition of I4CM, to be held in Denmark in 2019.

DOCUMENTATION

All documentation of the event is stored online in open access on the DRIVER+ website. The reader can find all the presentations delivered **here.** Moreover, the photos of the event can be accessed **here.**

THE VENUE

The event was organised at the Copernicus Science Centre in Warsaw, the largest science Centre in Poland.



OPENING ADDRESS & KEYNOTE SPEECH

The Opening address was delivered by Philippe Quevauviller, Policy Officer at DG HOME (European Commission) and initiator of the Community of Users on Secure, Safe and Resilient Societies initiative.

It was followed by a keynote speech to introduce the DRIVER+ project and the I4CM event by Marcel van Berlo, Technical Coordinator of the DRIVER+ project (TNO). Both presentations can be found **here.**

PANEL #1
INTER-AGENCY & CROSS-BORDER COOPERATION

Challenges and opportunities in complex Crisis Management situations: Inter-agency and cross border cooperation, processes and instruments. Lessons from national experience on 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 partnership with the private sector, may be necessary to curb such events. Furthermore, the spectrum of potential risks that may include a crisis has increased through the integration of several dimensions and natural and man-made disasters may lead to crises with cascading effects across national or even international systems.

Against this context, there is a strong need for the exchange of experiences and good practices. This was the objective of this session: bringing Crisis Management experts together to discuss processes and instruments in order to share good practices that support inter-agency cooperation in complex Crisis Management situations.

PANELISTS

The panel was chaired by **Jakub Ryzenko**, Head of the Crisis Information Centre of the Space Research Centre – Polish Academy of Sciences and was composed of:

Tomasz Zweglinski, Fire officer and specialist in civil protection and crises management at SGSP, the Main School of Fire Service in Poland.

Dusan Zupka, Senior Expert, United Nations Disaster/Crisis Risk Management.

Jan Kuipers, a Senior fire officer in the Safety Region Haaglanden in the Netherlands.

Krzysztof Samp, Vice president of ITTI.

OUTCOMES

Tomasz Zweglinski started the debate presenting the first Trial of the DRIVER+ project. The aim of this Trial was to assess the potential interest of a more integrated high-level crisis management system in the European Union in terms of improved situation assessment and awareness, coordination, resource pooling and sharing as well as cross border cooperation. The main intention was to test if the introduction of innovative solutions could result in clear benefits for Crisis Management efficiency.

According to Dusan Zupka, the major challenges faced by the practitioners during a crisis, such as competing priorities and cascading impacts, highlight the usefulness of technical and innovative solutions in managing a crisis. Jan Kuipers also pointed to the benefits of improving cooperation between different institutions through the introduction of new solutions. He particularly mentioned that in the Netherlands, they have their own information sharing system (LCMS), which is customised to users according to their responsibilities. It facilitates commanders having a Common Operational Picture, which is very useful.

It seems self-evident that improving inter-agency and cross-border cooperation is useful. However, the panel identified some challenges:

- **Bridging the gap between the research and the Crisis Management community is difficult**
- **Solution needs to be user friendly: encourages people to use it regularly**
- **One system cannot simply be implemented in another country: there are so many differences in law and specific procedures for practitioners which makes it impossible to create one single platform that fits all conditions.**
- **Standardisation of the Crisis Management jargon is missing but essential**
- **Problem with information exchange and the ownership of the information: the importance of the willingness to share information at all is key.**

'It is not just the system that matters, it's the culture, when partners are willing to share information'

Jan Kuipers

PANEL #2
SHARING & COORDINATING INFORMATION

Challenges and obstacles in sharing and coordinating information during multi-agency disaster response.

After the event of September 11, 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 at the scene of an emergency or disaster, whether of natural or man-made 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.

Interoperability is multi-dimensional; it can be legal, organisational, procedural, 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 affected by the huge amounts of available and shared information that can have adverse effects in terms of efficiency.

PANELISTS

The panel was chaired by **Manfred Blaha**, Chair of the User Committee and President of PSCE and was composed of:

Adam Widera, Managing Director of the Compentence Center for Crisis Management at the European Research Center for Information System of the University of Münster.

Sonja Holen, Policy advisor at the Croatian Ministry of Interior, and Coordinator of the H2020 Broadway project

Daniele A. Galliano, Project Officer at the Joint Research Center (JRC).

Stefan Tangen, Chair of Capability Gap committee within the International Forum to Advance First Responder Innovation (IFAFRI).

OUTCOMES

Sanja Holen started with an example to illustrate the problem: in the context of a plane crash that happened in a mountain area in Croatia, several rescue teams from different organizations were involved and they did not share information. Even though responders were sharing the same Tetra system, they do not share information amongst themselves. Resources were irrationally spent, time was wasted and this diminished the chances of rescuing people.

Daniele Galliano presented an example of a solution to deal with that kind of issue, commonly used by the JRC and that was adopted by the Italian firefighters – they started using it to exchange information between central and local commands. They developed a common information space that can share the information. On interoperability with other entities they needed a reinforcement – so they lobbied the parliament to adopt a protocol. Italy is the first member state with a law to mandate the use of this kind of protocol to exchange information. This does not mean it is mandated to do it but every solution implemented must use that protocol. As an example the city of Nice adopted a similar protocol. The region of Sicily created an integrated system of all the rescue corps.

For Adam Widera, the challenges are not just technical. Setting up connectivity is difficult but there are other dimensions to consider of what to share. According to him, interagency information sharing is a voluntary task. Actually, an impressive situation on how information exchange exists on a voluntary basis, relying on personal contacts and not on standard operational procedures but on their absence. The information is shared when there is personal incentive to share information. The problem is: how can this be done when there are multiple organisations involved? According to Manfred Blaha, this willingness to share information and collaborate with neighbours is growing from the bottom-up. Police officers in Austria, Slovenia and Italy are working together in police stations across the three countries. Public safety organisations are conservative and usually do not change behaviour unless they have pressure on them – this is changing, as the younger generations arrive and have a more sharing culture.

Stefan Tangen highlighted another problem, taking the example of the difference between the defence and civil security market. When the military wants something, they go to the industry and ask for it. First responders do not have the large budgets for this, the market is fragmented, it is much more difficult. The solution may be to harmonize the Crisis Management gaps between various countries, creating a bigger market for industry which in return could drive innovation forwards.

The panel highlighted the fact that technology is a crucial requirement but procedures and human behaviour should also be considered. Indeed, one of the most important conclusions is that while the technology is important, it is the culture of Crisis Management that poses the greatest challenge. In this regard, generational change is relevant as well, as new generations of practitioners face the challenges involving Crisis Management in a different way and are more willing to share information.

'Technology will give us interoperability but we need more – standard operating procedures, how practitioners will work together, which info will be shared, etc. If we are talking about border countries, there have to be political agreements.
It is easier at national level if all use the same system but willingness is the zero phase'.
Sanja Holen

PANEL #3
THE IMPORTANCE OF STANDARDS DEVELOPMENT

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

'Standards are not apples. They are not growing on trees.' – Patricia Compard, chair of the panel, said and referred to the work, which is needed in standardisation, with all involved people from researcher to practitioner to policy maker.

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. In the field of Crisis Management, standards are developed by Technical Committees (TCs) at both global and European level. 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 the involvement of those that will use them, benefit from them, and might be best equipped to describe and prioritise future standardisation needs, which is of critical importance. The third panel of the I4CM focused on the importance of standardisation development, integration of standards in the everyday work of practitioners, and the challenges of this process relating to Crisis Management.

PANELISTS

The panel was chaired by **Patricia Compard**, a senior police commissioner for the French Home office as well as the Chair of the CEN/TC 391 Social and Citizen Security, and was composed of:

Philippe Quevauviller, Policy officer at DG HOME of the European Commission.

David Adamson, a Lead Programme Manager at the British Standards Institution (BSI).

LorenzaJachia, Trade and Development Economist in the United Nations Economic Commission for Europe (UNECE).

Rainer Koch, Professor at Paderborn University.

Pawel Rybicki, President of the European Forensic Initiatives Centre.

OUTCOMES

Philippe Quevauviller provided a brief keynote speech. He focused on the expectations of standardisation and the challenges involving it: he suggested listing the gaps of the needs in standardisation in the field of crisis management. He claimed that practitioners have to be more involved in the development of standards. They prefer examples of application compared to standards. Philippe Quevauviller emphazised that there is a need for a better process to bring together scientists and end users.

Lorenza Jachia was asked about the cooperation between the UN and Standardisation. 'They are sitting on the standardisation table' was her fast respond and she explained it further: because of the the Sendai framework, which guides the activities of the UN in crisis management and resilience, the UN is also responsible to implement a more secure environment, which they do by means of standards. She stressed that policy makers should be involved in the standardisation process from the beginning.

How standards help in cross border situations and how they secure evidence was explained by Pawel Rybicki. He provided examples of his experiences in his daily work and highlighted how standards can ensure that the quality remains consistent and improve interoperability when it comes to managing large disasters.

The panel raised awareness for standards, for their role as an innovation tool and the possibilities to join the process. It provided possibilities for the audience to ask questions. The DRIVER+ project built a strong relationship with CEN/TC 391. This will hopefully strengthen the support in future cooperation, in particular with regards to the standardisation potential within DRIVER+.

Knowing the gaps and the needs involving standardisation is very valuable to the project. DRIVER+ will closely involve end users in its standardisation activities, in particular when it comes to the standardisation potential of the project's results.

'Standards are some of the most powerful tools we can have. They can achieve the use of a common language, harmonised processes, trust and compatibility'.
Patricia Compard

FORUM OF IDEAS
A SPACE FOR INITIATIVES IN CRISIS MANAGEMENT

The Forum of ideas provided a space to deliver short presentations. The following Crisis Management projects and initiatives delivered 10 minutes presentations to inform the audience about their respective activities, solutions and results. The complete presentations can be found on the DRIVER+ website.

The BROADWAY project: Procuring Innovation activity to enable a pan-European broadband mobile system for PPDR
Sanja Holen - Chair of the Technical Validation Committee

BroadWay aims to improve collaboration between responders from different agencies and different countries and to enable mobility of responders between different countries.

The DAREnet project: Developing a practitioner network to strengthen flood resilience in the Danube Region
Dr. rer. nat. Christian J. Illing - Project coordinator

The DAREnet project is a Practitioner network to strengthen flood resilience in the Danube region. DAREnet will build a dynamic multi-disciplinary community of practitioners including industrial innovators and practitioners active in the the field of security research, flood response and medical and emergency services.

The BRIGAID project: Bridging the gap Innovation in Disaster Resilience
Justyna Waysocka-Golec and Paweł Wiktor - Project partners

BRIGAID is a 4-year project (2016-2020 under Horizon2020 aimed to effectively bridge the gap between innovators and end-users in resilience to floods, droughts and extreme weather. BRIGAID clears the path to deliver innovations to the market through the assessment and improvement of Technical, Social and Market readiness.

The IFAFRI initiative: International Forum to Advance First Responder Innovation
Stefan Tangen - Chair of the Capability Gap committee

The International Forum to Advance First Responder Innovation (IFAFRI) is a global collaboration of government leaders focused on enhancing and expanding the development of affordable technology and innovative solutions to improve first responder safety, efficiency and effectiveness. IFAFRI aims to give first responders a greater voice.

The CEN: The European Committee for Standardisation
Patricia Compard - Chair of CEN/TC 391 Societal and citizen security

The Objective of CEN/TC 391 is to elaborate a family of European standards (e.g. EN standards, TS, TR) to support societal and citizen security stakeholders to help ensure preparedness, cooperation, and a culture of societal security.

The SAYSO project: Standardisation of situational awareness systems to strengthen operations in civil protection
Christoph Lamers - Project partner

SAYSO's mission is to define the reference architecture and specicfications for future innovative European cost - effective and user - friendly situational awareness tools that fulfill end-user requirements and can be used across different organisations, hierarchical levels and national borders.

HEIMDALL WORKSHOP
DECISION MAKING PRINCIPLES & SUPPORT TOOLS

This HEIMDALL workshop was organised by:

Monika Friedmann, coordinating the research and development work performed by DLR-DFD with the HEIMDALL project.

Jordi Vendrell I Flotats, founder of the Pau Costa Foundation.

Nuria Prat-Guitard, coordinating the research area of Pau Costa Foundation.

Marc Castellnou, President of the Directors Board of the Pau Costa Foundation and a Senior Expert at the European Forest Institute.

INTERACTION & FORMAT

Participants of the workshop had a range of different profiles, creating an interesting diversity that allowed having a transversal discussion during the workshop. Approximately 50% of the participants represented public bodies and the other half private organisations. Geographically, expertise from the different parts of Europe were represented, including Northern countries, Central and Eastern European countries and Mediterranean countries. Participants represented SMEs, international agencies, non-profit organisations, research institutions, and end users (Fire Services and Medical Services). The different profiles that attended the workshop created an interesting but challenging platform for interaction.

SESSION 1: the HEIMDALL project and the strategic decision making applied by some Fire and Rescue Services across Europe.

The project name HEIMDALL stands for: Multi-Hazard Cooperative Management Tool for Data Exchange, Response Planning and Scenario Building. The EC-H2020-funded project aims at improving immediate and long-term collaborative strategic planning on a regional scale among the many affected actors concerned with disaster risk management and response.

The Strategic Decision-Making polygon method was presented. Some wildfires become a large and complex problem when suppression capacity is overwhelmed by the flames. These situations are often linked to extreme fire behaviour that lead to unsafe operations, and often sending more resources is not the solution to solve the complex emergency. The end users need to get solutions and operational tools that help deal with these scenarios. Many Fire and Rescue Service organisations have come to the conclusion that a defensive model should be avoided, as it is often unsafe. All in all, this is creating a new culture of decision making: try to build the scenario (resolution scenario of an emergency), instead of only defending assets. To do that the Strategic Decision-Making polygon method was created in order to help define fire potentials and identifying values at risk. The success of this methodology is that the decision makers (all levels) can give a value of the cost of opportunity, while this methodology can also be used in the prevention and preparedness phases.

SESSION 2: Hands-on experience about decision making using a wildfire scenario

A Polish scenario was chosen, specific conditions (weather, geographic and envirionmental) were provided as a starting location for a wildfire. The area of interest of the fire included a range of natural and social features that implied a complex decision making process. The chosen scenario had the following objectives:

- To provide an overview of the complexity of the decision-making process that first responders face during an emergency
- To engage participants on how Decision Support System and pre-defined decision-making methodologies can help in the decision-making process

Step by step, participants took the role of decision makers (e.g. emergency services) on how to take decisions during a very dynamic scenario such as a wildfire. They had to decide on topics such as:

- Values at risk for the fire evolution on changing environmental conditions
- Resource allocation (when resources are limited)
- Resolution scenario (evacuations, total area burnt, natural values to protect)
- Discussion and final remarks

PRACTITIONER NETWORK WORKSHOP

RESEARCH MEETS STANDARDISATION

The aim of the workshop was to explain the basics of standardisation at National and European level, present new developed standards in crisis management, explain how crisis management standards can be developed at European level and in a research project and to share standardisation experiences. Therefore, the practitioner network workshop was addressed at any kind of organization interested in crisis management. For researchers the workshop provided an insight in standardisation activities within research projects to show the direct linkage between research/innovation and standardisation. Practitioners and solution providers were able to get further information on ongoing standardisation and research activities by following the presentations of the attending projects and the organisers.

The workshop was hosted by DIN in the person of **René Lindner**, senior project manager at DIN with support of **Patricia Compard**, Chair of CEN/TC 391 Societal and Citizen Security and **David Adamson**, Lead Programme Manager at BSI. To enable an exchange of standardisation experiences, representatives from the projects i-LEAD, NO-FEAR, PEN-CP, ARCSAR, DARENET, e-NOTICE, FIRE-IN, ILEAnet and DRIVER+ were attending the workshop.

In addition, persons from the following organisations attended: AIT (Austrian Institute of Technology); DLR (The German Aerospace Center); Fraunhofer INT (The Fraunhofer Institute for Technological Trend Analysis); JRC (Joint Research Centre); MSB (Swedish Civil Contingencies Agency); National Chang Kung university; Nowacert Sostel; Paderborn University; Polish Platform for Homeland Security; Safety Region Haaglanden; TIEMS (The International Emergency Management Society) and the Research Executive Agency.

ARE YOU FAMILIAR WITH STANDARDS?

The first agenda item 'Are you familiar with standards?' focused on the general expertise and knowledge of the audience. In order to get feedback from the audience, green and red cards were handed out to each participant. Interactive yes/no questions had to be answered by everyone. The green card meant a 'yes' and the red one a 'no'. This interactive question game was a good introduction for the hosts to get an idea of the level of knowledge of the audience.

FROM AN IDEA TO A STANDARD

David Adamson gave a presentation about 'General information on the standardisation system including a short introducing of the CEN/TC 391 Societal and citizen security'. He pointed out that standardisation always needs experts but that can be a challenge if people are afraid of withdrawing and replacing their national good practices. By publishing a standard as a technical Specification (TS) there is no need to withdraw the already existing national standards. He also gave insights on how a standard can be developed. To do so he pointed to the draft standard CEN/TS 17091:2018 'Crisis management – Guidance for developing a strategic capability' as an example. It is a good example of publishing a standard as a technical specification to evaluate the standard, get feedback and to make everyone familiar with the content. David Adamson also mentioned that standards defining terminology is very important to support the communication among relevant stakeholders.

NETWORK THE NETWORKS - EXCHANGE OF EXPERIENCE

The hosts invited members of various crisis management research projects to exchange on their experiences with standardisation and sustainability of standards. The research projects and the standardisation institutions gave short presentations, explaining their work. René Lindner opened the exchange by giving a presentation informing the audience about the project SMR (Smart Mature Resilience, focusing on the enhancement of city resilience, and ranked as a 'success story' by the European Commission. SMR is a good example for a research project in which standardisation was included successfully throughout the whole project, i.e. sharing knowledge on existing standards at the beginning of the project, assessing the (envisaged) project solutions and thinking of their potentials for transferring into standards with project externals, as well as developing a series of CEN Workshop Agreements on City Resilience Development based on the SMR project results.

Next presentations of the projects ILEAnet, ARCSAR, DAREnet, I-LEAD, ENCIRCLE, FIRE-IN, e-NOTICE and NO-FEAR were given. The representatives of the projects exchanged on their experiences with standardisation and explained why (or why not) they included standardisation bodies in their projects. Last but not least Marcel Van Berlo, the Technical Coordinator, presented the DRIVER+ project. He also gave an insight on the standard potentials within DRIVER+ and mentioned that standards would be essential to make the project results sustainable after project end. The workshop was closed with a short summary of the project presentations and the workshop in general.

Standards need to be written by experts to ensure their usability for the practitioner. Hence, attracting new experts in crisis management is definitely beneficial for the standardisation bodies at National or European levels. The workshop helped DRIVER+ to strengthen and expand its network of experts and practitioners, and also to create a network within the ongoing research projects in crisis management.

Futhermore the workshop led to a deeper connection between DIN and the research projects involved in CEN/TC 391. This connection will be very helpful concerning DRIVER+ future activities and its liaison with CEN/TC 391.

CMINE WORKSHOP
POSITIONING THE COMMUNITY OF PRACTICE

The CMINE workshop was organised by Ecorys, represented by **Laura Birkman**, Senior Consultant and **Alexandra Schmid**, Consultant.

CMINE, Crisis Management Innovation Network Europe, is the new Community of Practice in Crisis Management launched by the DRIVER+ project.

In preparation for the workshop, the Ecorys team identified a number of projects and networks that would be relevant contributors and/or participants to the CMINE workshop. Given the objective of the workshop, the Ecorys team predominantly identified practitioner networks and projects. Some of these projects focus on Crisis Management topics (such as floods and wildfires), others have a different thematic scope, but with much experience in community building and practitioner engagement. Nevertheless, the workshop was open to any other interested attendees of the I4CM. The active participants of the CMINE workshop consisted of a number of different project representatives:

The main objective of the CMINE workshop was to gather insights, experiences and reflections from the project representatives on building Communities of Practice (in Crisis Management and the concept of the CMINE in particular. The project team aimed to collect reflections on the CMINE's concept and structure as it stands right now in order to incorporate the issues flagged and discussed during the workshop while refining the CMINE in the run-up to its launch in December 2018.

INTRODUCING CMINE

During the first part of the workshop, the Ecorys team and ARTTIC provided an introduction to the concept and the structure of the CMINE. Both the rationale and the objectives of the CMINE were presented as well as the Community Management Tool (CMT) that forms the backbone of the online component of the CMINE. Furthermore, the first part of the workshop included a discussion on the current state of the Disaster Risk Management landscape in Europe and, thereby, provided a bridge to the more interactive second part of the CMINE workshop.

CMINE Lab

During this second part of the workshop, the 'CMINE Lab', the participants and the audience were invited to actively contribute and participate in the discussions and debates on specific issue areas of the CMINE.

Knowledge management & knowledge transfer

One of the challenges that many of the practitioner networks face is that knowledge is being shared and generated between the different members but that this cumulated knowledge is not being stored effectively and, thereby, the added-value of a community or network is at risk. Therefore, the CMINE team is advised to critically reflect on the strategies it currently proposes in the light of knowledge management and to, subsequently, think creatively about ways how knowledge could be managed and stored more effectively. An obstacle that many of the representatives of other projects have experienced is the privacy issue (now even more challenging after the GDPR has been introduced). In order to include this latter group, it would be beneficial to provide these members with the option to stay (partially) anonymous. The choice between transparency and accessibility needs to be carefully considered by the CMINE team. Another issue that was raised as part of the discussion on knowledge management was the leading language, in which discussions take place and deliverables are produced. Practitioners involved in networks are not always able to communicate in English and this poses a challenge.

Practitioner involvement

Practitioner involvement is an aspect that poses significant challenges to Communities of Practice as practitioners are often difficult to reach and it is hard to encourage them to become truly involved in a project. The crux lies in the fact that practitioners are requested to contribute to such communities in their free time. Therefore, the CMINE is advised to consider whether it wants to directly target practitioners or rather create a network of networks.

Engagement of volunteers

Engaging individuals to invest time in a project on a voluntary basis without reimbursement is a challenge experienced by all representatives. Therefore, significant attention should be provided to the dissemination of the work and the project activities as this is a way to incentivise volunteers to share their work as well as it can be used to attract new volunteers.

OUTCOMES

The main benefit of the CMINE workshop was the open discussion with the representatives of the various projects. As the CMINE aims to avoid duplication, such open dialogue is essential in the development of the network. Secondly, the CMINE project team benefited from the workshop as it was able to gather relevant insights, ideas and comments from experienced projects. This helps the team to build upon existing knowledge rather than to reinvent the wheel.
The final concept of the CMINE will be formally launched during the 12th Community of Users Meeting in December 2018.

DRIVER+ 1ST TRIAL

RETURN ON EXPERIENCE

The first DRIVER+ Trial was held from 21 to 25 May 2018 in Warsaw (Poland). This Trial was set up 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 and sharing and cross border cooperation. The Trial, which involved both table top and field components, served as a demonstration of a Common Operational Picture (COP) approach potential at European level. The session aimed to present how the DRIVER+ Trial Guidance Methodology was carried out in Trial 1 and was divided into two parts. First, the Trial owner presented for the first time key elements on the Trial design, execution, evaluation and initial results. Then one of the solution providers selected for the Trial, presented its experience in participating from a solution provider perspective, while practitioners who played an active role during the Trial gave feedback about their experience and impressions.

The session was organised by **Tomasz Zweglinski**, Head of Internal Security Department at the Main School of Fire Service of Poland (SGSP) and the panel of speakers was composed of:

Ciska Overbeek, Consultant at Nelen & Schuurmans, whose solution 3Di was assessed during the Trial.

Dusan Zupka, Senior Expert, United Nations Disaster/Crisis Risk Management, who participated in the Trial as a practitioner.

Tarmo Kull, Lecturer at the Estonian Academy of Security Science, who participated in the Trial as a practitioner.

The workshop was addressed at any kind of organisation interested in crisis management and keen on receiving information on the DRIVER+ project first Trial. Among the audience were: Polish practitioners, the REA, solution providers and DRIVER+ project partners interested in knowing more about the results of their own project.

INTERACTION, FORMAT & OUTCOMES

The workshop lasted an hour and a half and consisted of a presentation of Trial 1 (preparation, execution and first results) by the Trial owner SGSP. Then, one of the solution providers of the Trial was invited to provide feedback on their participation: the benefits for its company to participate in such an event, what they learned from the Trial, what they thought about its organisation. Two practitioners provided their points of view on the usefulness of the Trial and on what they thought about the solution assessed. At the end of the workshop, the Trial 1 owner organised an online survey with the audience to get feedback on the workshop, mainly on Trial 1 (how the Trial is perceived by the participants, what is the most useful information for them, what seems to be the most difficult thing in organising a Trial, the most important thing to know).

Explaining Trial 1 for the first time to a wider audience including the public is a good way to promote the DRIVER+ project, its tools and to show how they can be used. It was enriching to get feedback from the audience and the feedback received was positive.

Participants expressed that the session was not long enough as the content was so interesting. It was also positive to gain an insight of the perspective of an external solution provider and practitioners expressing what they thought about Trial 1. It demonstrated on the one hand that Trial 1 is important for the DRIVER+ project but that it is also considered as useful to externals. The solution providers expressed that it was useful to gain the feedback from end-users and presented how they are going to improve their tools taking into consideration the remarks they received during the Trial and that they have received for another Call for Application for a DRIVER+ Trial. More information on the DRIVER+ Trial 1 is available on the project's website, **here.**

The Trial 2 session presented the overall preparation of the Trial following the DRIVER+ approach. The different speakers shared their experiences as Trial 2 was in its last preparation phase. First, the Trial owner gave a short introductory speech presenting the Trial objectives and rationale. Then, each of the panelists provided their own perspective on the Trial and explained its contribution in terms of deployment of the DRIVER+ Test-bed, selection and technical integration of the solutions, support in implementing the DRIVER+ methodology.

Alice Clémenceau, Trial 2 owner and Project Manager at Valabre chaired the session and the panel was composed of:

Nicola Rupp, Researcher at the University of Münster (Germany). She is responsible for guiding Trial 2 and implementing the DRIVER+ Methodology.

Steven van Campen, a Senior Designer at XVR Simulation (The Netherlands). He is leading the development of DRIVER+ Test-bed for Trial 2.

Laurent Dubost, a Project Manager at Thales (France), coordinating the solution dimension in the Trial.

Ruud van den Beukel, the Founder and Managing Director of Merlin Software. His solution has been selected for Trial 2 and integrated into DRIVER+ Test-bed. He is not part of the DRIVER + consortium.

Rob Munro, a Consultant at ARTTIC. He is implementing the dissemination and communication strategy in Trial 2.

The workshop was addressed at any kind of organisation interested in crisis management and keen on receiving information on the DRIVER+ project's second Trial. Among the audience were: Polish practitioners, REA, solution providers and DRIVER+ project partners interested in knowing more about the results of their own project.

INTERACTION, FORMAT & OUTCOMES

Alice Clémenceau gave a short presentation of the Trial, providing an end user perspective. Then, she asked each of the panelists to describe their activities and experiences in preparing Trial 2.

Nicola Rupp explained how DRIVER+ has developed a Trial Guidance Methodology to support the design and preparation of a Trial in a robust and scientific way. This methodology was explained in greater detail during various sessions of this I4CM conference. This approach is based on 6 main steps in preparing a Trial: the identification of the Trial objectives, the formulation of research questions, the formulation of the data collection plan, the definition of the evaluation approach and metrics, the elaboration of the scenario and the solutions selection. The methodology also gives guidance on how to conduct a Trial and evaluate it.

Steven Van Campen then explained a key tooling, developed by DRIVER+ and that can be used during a Trial: the DRIVER+ Test-bed infrastructure. It is the software tools, hardware and middleware to systematically conduct Trials and evaluate solutions within an appropriate environment.

An “appropriate environment” is a testing environment (real life and/or virtual) where the trialling of solutions is carried out using a structured, all-encompassing and mutual learning approach. The Test-bed infrastructure can enable existing facilities to connect and exchange data, providing a pan-European arena of virtually connected facilities and crisis labs where users, providers, researchers, policy makers and citizens jointly and iteratively can progress on new approaches or solutions to emerging needs.

Laurent Dubost explained the solution dimension of the Trial, which begins with the selection of the solutions to be assessed during a Trial: they have to be relevant with regards to the identified gaps of the Trial. Then, the challenge is to integrate all the selected solutions in one Trial and make them communicate in a specific scenario.

Ruud van den Beukel shared his experience as an external solution provider. He explained his interest in participating in such an event, to be close to end-users and to have the opportunity to test his innovative solution (CrisisSuite) in an appropriate environment. Participating in Trial 2 has been a challenge, as he had to get up to speed fairly quickly with the Trial team, and is looking forward to the actual execution of the Trial.

Rob Munro finally explained how all the knowledge created during Trial 2 is shared with the external world via an comprehensive Dissemination and Communication strategy, online (website, social media) and offline with mass media relations.

The aim of the workshop was to explain and show the complementarity between different roles involved in setting up a Trial, referred to a 'co-creation approach'. Trial 2 is 'only' the second one in the four subsequent DRIVER+ Trials, so the session organisers consider themselves as playing an important role in testing, implementing and developing the projects’ methodology and supporting tools.

DRIVER+ INSTALLATION

EXPERIENCE THE PAN-EUROPEAN TEST-BED

DRIVER+ installation allowed 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 benefit from the outcomes of the project, were presented in a museum-like setting that encouraged a holistic experience. Visitors were able to engage in a variety of activities according to their interests and curiosity through hands-on sessions, which offered the opportunity to explore freely.

MARKETPLACE

INNOVATIVE CRISIS MANAGEMENT SOLUTIONS

A Marketplace was central to the event and allowed practitioners to discover innovative CM solutions, including the ones that were assessed during the DRIVER+ Trial 1 and selected for Trial 2. Overall sixteen solution providers were represented with demonstrations.

vieWTerra Mobile
vieWTerra Evolution
INACHUS
BRIGAID
Crowd Tasker
HEXAGON SAFETY & INFRASTRUCTURE
3Di waterbeheer
THALES
gmv
mvm-el
PREP SURVEY
Merlin SOFTWARE FOR CRISIS
PROCeed Laboratory
iREACT
IN-PREP
HEIMDALL
EMT Emergency Maps Tool

POSTER AREA
RESEARCH METHODS AND OUTCOMES

12 Crisis Management projects and initiatives presented a poster during the event.

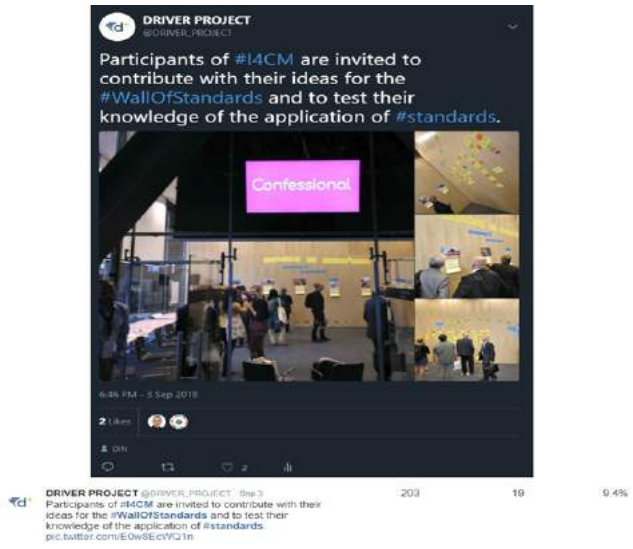
#I4CM ON TWITTER

A total of 108 tweets were posted under the hashtag #I4CM – these do not include tweets from before the event that announced it or promoted it.

Of those 108 tweets, 13 were retweets from accounts of related projects and organisations that took part in I4CM and which tagged the DRIVER+ account. According to Twitter Analytics, during the period of 2 to 7 September 2018, tweets by the DRIVER+ account had 21 400 impressions.

The tweet that had the highest number of impressions concerned the upcoming Trial 2 (see below). This tweet had a total of 764 impressions, with 26 engagements, 5 likes and 2 retweets.

The tweet with the highest engagement rate concerned the Wall of Standards (see below). This tweet had an engagement rate of 9.4% for 203 impressions and 19 engagements

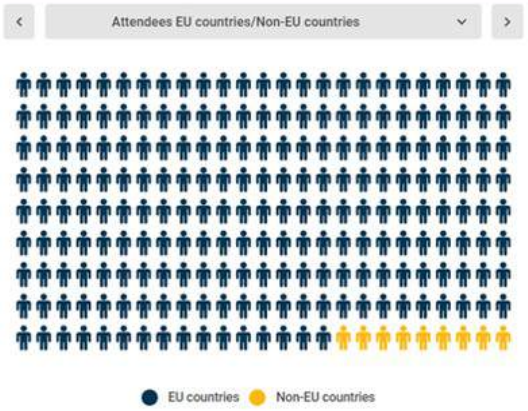


I4CM AUDIENCE

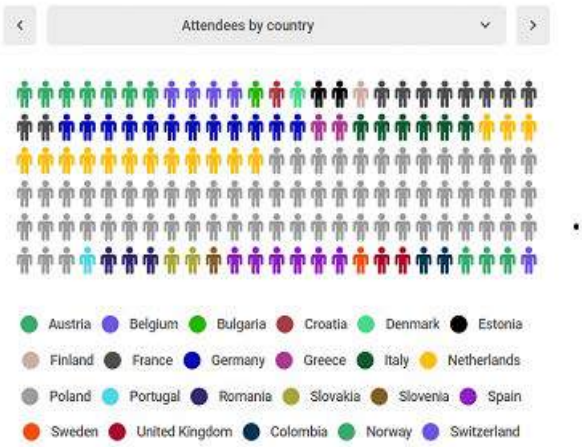
172

NUMBER OF ATTENDEES

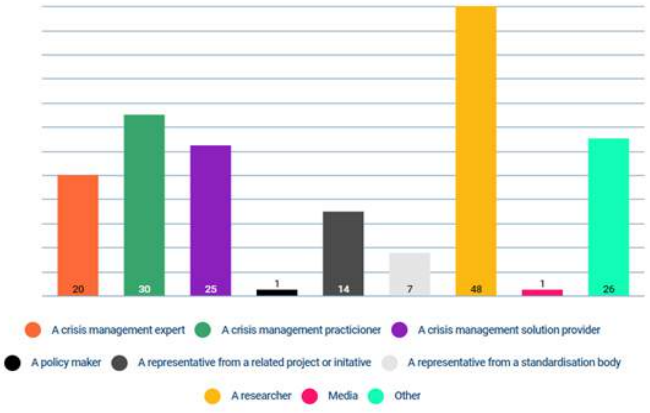
NUMBER OF REGISTRATIONS & GEOGRAPHICAL COVERAGE



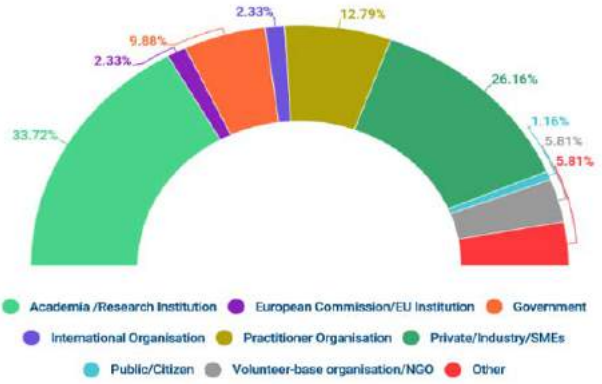
NUMBER OF REGISTRATIONS & GEOGRAPHICAL COVERAGE



TYPE OF PRACTITIONERS



TYPE OF ORGANISATIONS



Own Data displayed with Infogram











PSCEurope Public Safety Communication Europe

DIN

iTTi

cen

POLSKA PLATFORMA BEZPIECZEŃSTWA WEWNĘTRZNEGO

driver+

Driving Innovation in Crisis Management for European Resilience

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