DRIVER+

Driving Innovation in Crisis Management for European Resilience

Imagine 2.5 million cubic metres of a highly toxic, red, mud-like sludge, pouring out of the retainer reservoir at an industrial plant and flooding the surrounding area in a matter of minutes. A massive 2-3 metre wave of the toxic liquid inundates the surrounding villages and towns, resulting in 20 fatalities with a further 200 people suffering from severe chemical injuries. The result of a simple maintenance error in the plant, compounded by prolonged heavy rain causing the reservoir's dikes to collapse.

This is the scenario being used in the first DRIVER+ Trial in Warsaw on plant21-25 May 2018. But it happened for real in 2010 at the Ajka Alumina Plant in Hungary with 15 fatalities.

There are more than 12,000 industrial establishments in the European Union, in which dangerous substances are used or stored in large quantities – mainly in the chemical and petrochemical industry, but also in fuel wholesale & storage and other industrial plants. There are of course already many measures in place to prevent, or minimise the impact, of such incidents occurring. But we also have to prepare and plan our response for the worst.

The number and severity of natural or man-made disasters, as well as humanitarian and civilian emergencies, is increasing worldwide, causing fatalities as well as considerable economic losses. As a result, the way that we manage these crises is a constantly evolving challenge. European crisis management (CM) capabilities need to improve continuously in order to face the rising challenges and needs the practitioners meet in their day-to-day operations.

This is where the DRIVER+ initiative comes into play.

DRIVER+ (Driving Innovation in Crisis Management for European Resilience) is a demonstration project funded under the European Union's 7th Framework Programme, which seeks to improve the way capability development and innovation management are addressed. It will achieve this by assessing and delivering innovative solutions that can be used, and combined, to address different types of large-scale crises. To reach this goal, a series of four Trials and a Final Demonstration will be conducted to investigate innovative solutions under simulated crisis conditions, by (1) gradually adapting them to operational constraints, as well as (2) creating acceptance among users through their active involvement and by (3) providing evidence to decision makers that they are cost-effective.

Test-bed and Portfolio of Solutions

Each of the four DRIVER+ Trials will focus on key areas of importance in Crisis Management and will be held in Poland, France, The Netherlands and Austria over the next 18 months. The Main School of Fire Service (SGSP) is hosting Trial 1 later this month at its Warsaw headquarters and also at its Field Training and Rescue Innovation Base in nearby Nowy Dwór Mazowiecki.

The challenging scenario described above will be used to evaluate several solutions in a cross-border context in terms of improved situation assessment, coordination, resource pooling & sharing, as well as cooperation between agencies.

"The Trial, which involves both tabletop and field components, will especially serve as a demonstration of how powerful approach a Common Operational Picture (COP) at the European level can potentially be for the emergency services", emphasised Major Tomasz Zweglinski, Head Internal Security Department, SGSP.

Each Trial will deliver important feedback to the pan-European Test-bed, being developed by the project. The DRIVER+ Test-bed will create a unique opportunity for a transformative change by developing a coherent infrastructure for trialling solutions well into the future. This will open up the pooling and sharing of resources across Europe, allowing experience from trialling in different contexts to cross-fertilise.

The results of the assessment of the solutions will be stored in the Portfolio of Solutions, a database-driven website, which describes the capabilities of all the available DRIVER+ solutions. This Portfolio of Solutions will also be opened up for any external organisation to share data and experiences on their own solutions. This should in turn ease the successful implementation and usage of solutions by other practitioners.

Call for Applications

Before each Trial takes place, a transparent and practitioner-driven review and selection process of the solutions is held. There is a formal call for applications and any external or internal solutions may apply, as long as they meet the requirements of the scenario and the gaps identified for each Trial. In fact for Trial 1, two external solutions and one internal solution will be evaluated. This process has been completed for Trials 1 and 2, however the third Call for Applications will be launched in June. If you would like to share your innovations with the Crisis Management community and are developing and deploying socio-technical solutions for first responders, consult the DRIVER+ website regularly for the latest information (www.driver-project.eu).

The second DRIVER+ Trial will be held in October 2018 in Valabre (France). The Trial objective will be to improve the cooperation and coordination between different agencies within and across different countries, using innovative solutions for large scale and complex (multi-event) crises. The main event will be a significant forest fire, threatening wildland urban interfaces in a Mediterranean environment.

If you are interested in becoming involved in the DRIVER+ activities to offer your solutions to the Trials or to get your hands on innovative technology and share best practices and experiences, please contact us at: cooperation@projectdriver.eu.

Further details of the DRIVER+ project are available from the dedicated website http://www.driver-project.eu.

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CONTACT INFORMATION

Project Coordinator
coordination@projectdriver.eu

Project External Cooperation Management
cooperation@projectdriver.eu

Project Communication and Media Contact
communication@projectdriver.eu

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FURTHER INFORMATION

WHAT IS DRIVER+?

Launched in May 2014, DRIVER+ (Driving Innovation in Crisis Management for European Resilience) is a project funded under the 7th Framework Programme of the European Commission, whose main aim is to cope with current and future challenges due to increasingly severe consequences of natural disasters and terrorist threats, by the development and uptake of innovative solutions that are addressing the operational needs of practitioners dealing with Crisis Management.

WHY DRIVER+?

The project starts from the experience that neither successful R&D, nor strong end-user demand, always lead to innovation in the Crisis Management domain. This is a problem since as societies become more complex, increasing scope and unpredictability of potential crises and faster dynamics of major incidents put increasingly stringent demands on Crisis Management.

DRIVER+ is not about wholesale redesign of CM capabilities. Instead it is about the simultaneous launch of an ability to adapt European Crisis Management to future demands as they emerge. Therefore, DRIVER+ focuses on augmenting rather than replacing existing capabilities.

THE CHALLENGES

The scale and pace of crises pose enormous challenges for the Crisis Management sector, with new threats emerging all the time. An already complex field must also strive to integrate new technologies and methods, cope with a rapidly changing infrastructure, understand evolving risks, be effective across cultural, administrative and national boundaries and engage with populations to enhance their resilience.

Innovation is therefore critical, but will only be successful if it is relevant and accessible to practitioners and operators. Many crises involve interfacing diverse

Crisis Management systems and solutions. Major crises can also frequently involve more than one country or region, which may have differing Crisis Management infrastructures and cultures. It is also highly likely that this will necessitate interfacing different systems and combining different solutions.

Crisis Management innovation must therefore be capable of meeting these multifaceted challenges and delivering solutions that are modular, flexible and adaptable.

These solutions must be tested and validated in realistic environments; they must be evaluated to assess their true benefits and for their overall suitability, before being adopted by end-users. Failure to meet these needs could result in less than perfect solutions being introduced or in the increased costs of Crisis Management capability development, due to the imperfect management of ever more complex crises.

FIRST TRIAL – WARSAW (POLAND)

The first Trial will be organised in Warsaw from 21 to 25 May 2018 at the Main School of Fire Service (SGSP) in Poland, which is a state services' national technical university, supervised by the Minister of Interior and Administration. This Trial has been set up to demonstrate the potential interest of a more integrated high-level Crisis Management (CM) system in the European Union (EU), partly in a cross-border context in terms of improved situation assessment, coordination, resource pooling & sharing, as well as cooperation.

The Trial, which involves both tabletop and field components, will especially serve as a demonstration of a Common Operational Picture (COP) approach potential at the European level. To achieve this, solutions that are designed to enhance joint COP production and to improve interoperability between agencies will be assessed by practitioners coming from all over Europe. But Trial 1's ambitions are not limited to this. The Trial will also deliver important feedback to the pan-European Test-bed,

developed by the project. With the Test-bed, DRIVER+ will create a unique opportunity for a transformative change, developing a coherent infrastructure for trialling solutions into the future. This will open up the pooling and sharing of resources across Europe, allowing experience from trialling in different contexts to cross-fertilise.

It will provide an arena of virtually connected facilities and crisis labs. Not only will it deliver a pragmatic step-by-step guidance to practitioner organisations wishing to conduct trials, but also a reference implementation, general guidance and technical infrastructure to support these Trials. It will also offer (1) a demonstration infrastructure, where Crisis Management stakeholders can collaborate in trialling and evaluating new tools, processes or organisational solutions.

It will provide the technological infrastructure, the necessary supporting methodology, adequate support tools and not least, strong communities needed for effective and successful trial-driven development. Finally, the results of the assessment of the solutions will be stored in the DRIVER+ Portfolio of Solutions, a database-driven website describing the capabilities of all the available DRIVER+ solutions. This Portfolio of Solutions will be opened up for any external organisation to share data and experiences on their own solutions. This should in turn ease the successful implementation and usage of solutions by other practitioners.