



International Forum to Advance FIRST RESPONDER INNOVATION

Quarterly IFAFRI Newsletter - Spring Edition - April 2021

Managing efficient communication in crisis situations with the help of social media

We are pleased to present to you our second IFAFRI newsletter of 2021.

Our efforts to provide you with the most significant and innovative topics around crisis management and first responder initiatives does not only embrace new technological advancements but also the usage of everyday communication means such as social media. In this edition of the newsletter, we will investigate how communication platforms can support law enforcement and first responders during their day-to-day work.

The power of social media is inevitably strong as the Parler incident at the beginning of this year revealed: the storming of the Capitol in Washington by an enraged mob on 6 January also left its mark on social networks. Parler, the self-declared anti-Twitter network, has probably felt this most clearly. Critics accuse the social network, among other things, of not deleting users' calls for violence and thus being partly to blame for the escalation. As a consequence, Google, Apple, and Amazon discontinued the hosting service for Parler which restricted access to the website. However, ethical hackers were still able to gain access to the service to scrape terabytes of user data, possibly as much as 99% of all the data on the service. The group was working

to preserve Parler's content for researchers, but the data is also expected to prove useful to law enforcement agencies in tracking down and arresting those involved in the storming of the U.S. Capitol.

Social media data can thus be transformational for the first responder community. Not only to forecast, prevent or prosecute potential violent human interactions but also to warn and inform the general public on impactful incidents such as natural or man-made disasters. For this purpose, we are presenting you two projects, namely ATHENA and I-REACT illustrating Capability Gap 5: maintaining interoperable communication with responders in any environmental condition.

Next to evaluating the usage of social media in crisis situations, we further investigate the ability to know the location of responders and their proximity to threats and hazards in real-time (Capability Gap 1). To this end, we also introduce project PROTECT a new, autonomous, infrastructure-free GPS tracking system that enables accurate localisation of responders in real-time and time-critical operations.

Capability Gap 5:

Maintaining interoperable communications with responders in any environmental condition.

In the light of Capability Gap 5, we present two projects that use social media in emergency situations. Not only have social media platforms changed the way we communicate every day, but they also have the ability to provide access to relevant and timely information. This does affect not only the dissemination pathways but also transforms the ways in which emergencies are tracked.

Project ATHENA

In order to work most effectively, emergency responders require continual access to invaluable information streams. Therefore, a need exists for devices and technological services designed to seamlessly send and receive such info, provide tactical updates, and give emergency workers the possibility to request help and receive warnings in order to protect themselves and others.

During horrific events such as terror attacks or other mass casualty events, important information and appeals for help by eyewitnesses and bystanders and victims often go unreported to official sources. And yet, they are frequently shared on social media instead.

While emergency responders would benefit greatly from the possibility of accessing parts of this information posted online, they are often tied to outdated communication tools, such as push-to-talk land mobile radios or standard smartphones. Such instruments cannot process the sheer amount of data available and thus unsuitable for the specific access to communication needed by emergency forces.

The **EU-funded ATHENA project** has managed to harness the value of civilian participation in emergency events. ATHENA has initiated a system to encourage and enable public involvement in crisis situations, including terror attacks and incidents such as floods. The project entailed the development of a mobile app allowing members of the public to share their insights on the situation as well as request help if needed.

Furthermore, ATHENA enabled the monitoring and coordination of the overall crisis response over a 'command and control dashboard' featuring critical information such as warnings and alerts for both citizens and first responders. And lastly, ATHENA was designed with a crisis intelligence analysis system that processes available information on the situation at hand.

More information about ATHENA: <https://cordis.europa.eu/project/id/313220>



SCAAN- METHOD

ATHENA was successfully introduced in several countries and was deemed so suitable that it further inspired the development of the Security Communications and Analysis Network (SCAAN). Just like ATHENA, SCAAN is a digital platform and mobile app enabling more efficient communications and assistance to emergency workers, this time, especially for workers of the International Organization for Migration (IOM).

By providing emergency staff with real-time security alerts and critical updates about the situation they are in, a robust security environment is ensured, especially during emergency or crisis situations. An integrated “panic button” further enables staff to inform security management about threats to their personal safety and thus quickly request emergency assistance. Through geolocation services in the app, management personnel can assess situations and support staff best.

SCAAN has become the embodiment of bridging the gap between research and operational reality, used to enhance the safety and security of front-line workers. Currently, SCAAN said to improve the safety of all 11.000 IOM staff worldwide with its state-of-the-art communication platform.

More information on SCAAN <https://www.iom.int/scaan>.

I- REACT



The **I-REACT project** is the first European-wide platform to incorporate data from a variety of sources, including citizen-provided information through social media and crowdsourcing. With this multi-pronged strategy, important knowledge can be generated more quickly. It enables civil protection agencies and policymakers to use public participation to efficiently avoid and/or redress disasters.

The app integrates big data with information for danger forecast services, crowdsourced information, UAVs and wearables, satellite data, and historical records. Through accurate weather forecasts that are coupled with historical knowledge, satellite and risk maps, crowdsourced reports, and social media information the app provides greater emergency anticipation and enables the prediction of extreme weather events. Furthermore, responders can combine their current systems with functionalities based on the study of vast sets of

European data and services with the help of socio-technical approaches and cyber technologies.

The project also developed a mobile application (available on Google Play) that empowers citizens to report on natural events and hazards and to carry out an initial check of community reports. To engage more people with the system, the I-REACT features several fun quizzes and a rewards programme. The application is also a powerful tool for alerting citizens of possible risks and providing them with emergency information. As a result, this tool provides increased awareness and citizen engagement that is so critical to being able to deal more effectively with crises arising before, during, and after emergency events.

More information on I-REACT: <https://www.i-react.eu/>

Suggestions for further reading

Below, you can find articles about innovation and several other projects related to social media and their use in emergency response:

- [How Social Media is Changing is Emergency Response](#)
- [Emergency responders' social media use and the effects on response practices](#)
- [A review of the use of social media in emergency situations](#)

Capability Gap 1:

The ability to know the location of responders and their proximity to threats and hazards in real-time.

Project PROTECT



By the end of 2021, the global indoor location market is projected to expand at a compound annual growth rate of 37.4 per cent, to a total value of 23.13 billion dollars. While appealing, there is evidence in the market that the offer of a location system in GPS-denied environments for safety, security, and protection for time/risk-critical operations is still unsatisfactory.

To this end, Dune introduces **PROTECT** which is a new, autonomous, infrastructure-free, wearable tracking system for GPS-denied environments. With respect to its competitors, PROTECT possesses a high perceived value for the customers by its unique localisation system ensuring accuracy for both real-time and time-critical operations. While keeping the unitary cost below the expenditures capabilities of the clients, the system maintains its profitability by adopting a modular/layered approach, so to accommodate a large ensemble of requirements, coming from different customers.

The major goals of the PROTECT project are:

- Collect the operational requirements and doctrines coming from the key practitioners, stakeholders and end-users of the system (e.g. firefighters, law enforcement units, inspectors), both for the on-field operations and training;
- Scale-up of the [ARIANNA system](#) to meet the widespread set of requirements and operational modes coming from a large arena of practitioners. [ARIANNA](#) is the offspring of 6 years of research and development of DUNE srl in the field of pedestrian localisation and

- tracking in GPS-denied environments (indoor, underground and tactical scenarios in which GPS is intentionally jammed)
- Carry out on-field demonstrations of the system, in operationally realistic scenarios.

More information on PROTECT: <https://www.h2020-protect.eu/>

The IFAFRI Technology Showcase Event: a recap

On March 25, 2021, the **Stakeholder Engagement Committee** hosted the first of several IFAFRI Tech Showcases to be held this year. IFAFRI Partners and first responders from 8 countries attended the virtual event and heard from Mr Greg Price who is with the Department of Homeland Security (DHS), Science and Technology (S&T) Directorate. Mr Price is the First Responder Portfolio Manager at DHS S&T and the project manager for the Precision Outdoor and Indoor Navigation and Tracking for Emergency Responders (POINTER) project. This is an innovative project that could potentially close IFAFRI Global Capability Gap 1- The ability to know the location of responders and their proximity to threats and hazards in real-time.

POINTER was developed as a low-cost, highly accurate solution to give first responders the ability to track and locate first responders in hazardous environments. The POINTER solution is being commercialized first in the U.S. and expects to expand availability for use by international first responders in the near future. This technology has other applications such as cargo tracking in maritime environment, tunnel detection, and more. For more information on this project, please reach out to POINTER@hq.dhs.gov or website: <https://www.dhs.gov/science-and-technology/pointer>

For companies developing first responder technologies, please visit the IFAFRI website for information about the 10 IFAFRI Global First Responder Capability Gaps, and to enter information about your potential solutions: [Capability Gaps | International Forum to Advance First Responder Innovation \(internationalresponderforum.org\)](https://internationalresponderforum.org)

Upcoming events

COVID-19 has forced many organisers of events to postpone or organise events virtually/ The ongoing uncertainty concerning the development of the pandemic makes the list of forthcoming events below conditional.

27-29 April 2021 | CBRNe Summit Europe

 Brno, Czech Republic

CBRNe Summit Europe is returning to Brno, Czech Republic, for our 7th annual event. Many major cities across Europe have faced critical incidents over the past few years. With terrorism threat levels high across Europe and the increased use of chemical agents being used by terrorist organisations, this is a key event to attend.

During our international event, you will hear perspectives from military and civil officials who deal with CBRNe incidents. Many governments across the region have realised the importance of CBRNe capabilities, and preparedness and budgets have been increased to deal with the new threats faced to civilians.

CBRNe Summit Europe will focus on a number of key topics, such as military and civil agencies' capabilities, first responder techniques, asymmetrical threats, medical countermeasures to chem-bio threats, decontamination developments and techniques, countering IED's, CBRNe threat intelligence, CBRNe forensics, and many more. For registration and more information, click [here](#).

30 April 2021 | CERIS webinar on SMEs

 Brussels, Belgium - online

Under the frame of the Community of European Research and Innovation for Security (CERIS), the European Commission is organising a new set of conferences addressing matters that are cross-cutting to the R&I activity in the different security domains. This set of conferences under the Thematic Group "Strengthened Security Research and Innovation", look with particular interest into the challenges of the uptake of successful security solutions developed by start-ups and innovative SMEs.

The scope of this webinar is to:

- Give visibility to the challenges faced by SMEs when trying to bring outcomes of R&I to the security market, but also to possible ways to address them;
- Explore options to bring the SMEs closer to the public security buyers, and vice-versa;
- Identify opportunities for SMEs to increase the impact of their participation in EU-funded security R&I projects;
- Propose actions and recommendations to boost the uptake of innovation stemming from EU start-ups and innovative SMEs.

Registration is open under [this link](#), and additional information is available [there](#).

17-18 February 2022 (Rescheduled) | First Responders Conference

 Melbourne, Australia

The purpose of this conference is to improve the health outcomes of people who are treated by First responders by preparing First responders for a wide array of situations so they can adequately assess and manage all types of injuries and situations. First responders' opportunity to improve health outcomes through proactive assessment and correct management relies on sound knowledge of the latest evidence. This timely conference provides an opportunity for first responders to gain these evidenced updates. Read more [here](#).

Call for input and feedback newsletters

Thank you for reading the second IFAFRI newsletter of 2021. We are always happy to receive input and feedback for our newsletters. These can be projects and events relevant for the IFAFRI network, but also suggestions for interviews. Feel free to reach out to us, and we can see if we can include it in the upcoming newsletter.

Also, if anybody in your network is interested in receiving these newsletters, please let them sign up by sending an email to HOME-IFAFRI@ec.europa.eu.

Together we spread the word of IFAFRI!

Kind regards,
Project Management Office of IFAFRI

Do not forget to follow IFAFRI on social media!



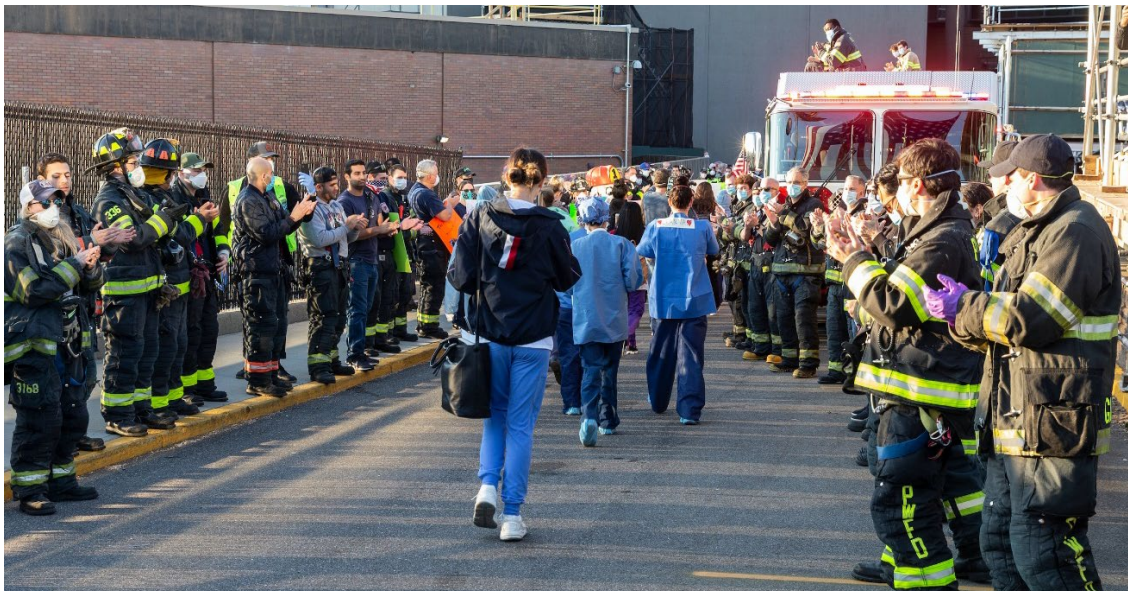
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