









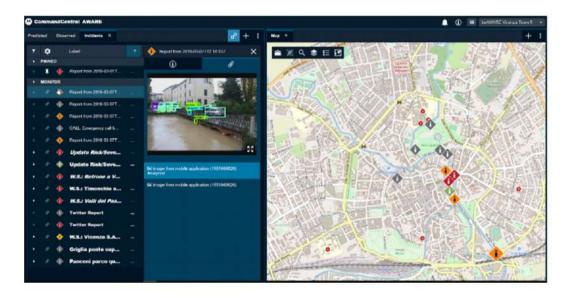
Dear beAWARE project follower, we would like to inform you about all the exciting news for the beAWARE project of the last six months, along with the previous 6th newsletter.

After the Flood pilot organized by the Horizon 2020 beAWARE project last March (7/3/2019), in Vicenza, Italy, we have further elaborated beAWARE platform, we have offered two online presentations about this pilot, one in English and one in Italian, we keep participating to various events (seminars, conferences etc.) and preparing articles for scientific journals in order to disseminate project results and platform functionalities.

As we are approaching project lifetime end, we are preparing the last test, the 3rd Pilot based on the scenario of forest fire. This Pilot will take place in Valencia at 10-12 of November 2019. We will publish a specific newsletter presenting in details all essential information about this. Stay tuned !!!

1) beaware project implementation activities

1a) 2nd online presentation for the beAWARE platform



Just like after our first pilot, an online presentation to the public took place.

More specifically, benefiting from the experienced gained on 2nd Pilot which was based on a flood scenario that took place in Vicenza, Italy, we prepared two online presentations to present the 2nd version of the beAWARE Platform, one in Italian (20/9/2019) and one in English (8/10/2019). Those presentations were attended by many interested parties, which at the end, set questions asking for more information about the use of beAWARE platform solutions, the role of end users and the benefits while applying such innovations. beAWARE social media followers have been informed with relevant posts in English, Italian and Greek, early enough to be engaged. Online presentations were consisted by two parts; on the first the Lead partner, CERTH, presented the beAWARE Platform (CLICK here to see the presentation), while on the second part the Italian partner, AAWA, presented the Vicenza pilot, including a video (HERE you can see the video).

































Attendees on both presentations, have been informed that a new round of online presentations, both in English and the hosting partner's native language (Spanish), will be organised in order to present the Valencia forest fire pilot, that will take place during mid-November. Stay tuned! In case you are interested for more beAWARE project videos, you can access them, HERE.

1b) beAWARE platform evolution: Upgrade and testing

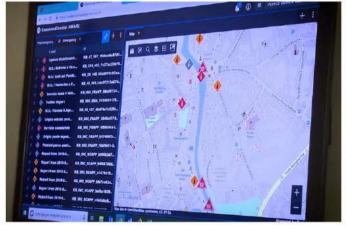
During the last six months, beAWARE platform and its components/solutions (PSAP, drone solution, image, text, sound processing solution etc.), have been repeatedly tested and upgraded, in order to succeed planned levels of quality and operability. Partners are working to deliver the final version of beAWARE platform, including upgrades and new capabilities on every component.

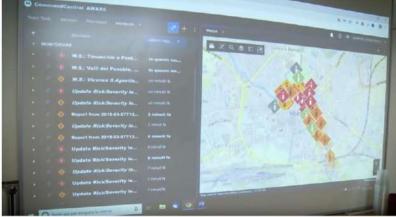
The final version of the platform integrates the results of the evaluation procedure that was carried out after the 2nd pilot testing in Vicenza. Moreover, it encapsulates all the underlying integration complexities and provides an intelligent and user-friendly framework for crisis management.

The final version of the platform represents the most important milestone of the project. It will allow demonstrating the full range of beAWARE capabilities that encompass high-end technologies and machine learning capabilities. Namely, beAWARE will provide advanced automated processes for obtaining information from text messages, social media and voice calls; classification mechanism to generate early warnings and real-time alerts to improve situational awareness; computer vision and deep learning techniques to detect crisis events in visual contents; automatic drone routing and piloting for receiving valuable information from aerial imagery; case-based reasoning and decision support algorithms for crisis management; and automatic generation of multilingual reports to transform all the above into linguistic information to the authorities.

Together with the analysis components, the main interface of beAWARE, the Public Safety Answering Point (PSAP) will be released. The PSAP is intended to oversee the entire emergency management effort and to support the work of the Emergency Operations Center. It involves visualisation and interaction techniques for enhanced situational awareness, including several modules such as the City Dashboard, the Incident Manager, the Operations Manager, and the GIS Map.

Photos from beAWARE platform, operating during 2nd Pilot occurring floods (Vicenza, Italy)



































beaware







1c) beAWARE project plenary meeting in Barcelona

The plenary meeting of beAWARE took place in Universitat Pompeu Fabra – Barcelona, on 11th June 2019!

Ongoing discussions on the status of the project and the preparations for our forest fire pilot were part of the meeting's menu. As we are approaching to the last semester of the project, we are more excited to test the functionalities of the platform in a final pilot in Valencia this November!

A big thank you to all the participants and especially Pompeu Fabra for the hospitality and the usual excellent organisation of the meeting!



2) beaware project extroversion

Partners' dissemination activities

During last six months beAWARE project partners, have been actively involved on dissemination activities taking part on various important events.

2a) beAWARE in ISCRAM 2019

On 21st May 2019, the 2nd International Workshop on Intelligent Crisis Management Technologies for climate events -ICMT was held in ISCRAM 2019 in Valencia. In the workshop, 3 major Disaster Management projects (beAWARE H2020 Project, IReact & IN-PREP) presented their outcomes together with a live demonstration of their solutions.

































Moreover, two presentations concerned innovative solutions regarding the visualization and the architecture of the decision support systems. Finally, the Frederiksborg Brand & Redning — Døgnrapporter, the Fire & Rescue Service from Copenhagen, presented their current infrastructure and solutions. See you next year!





































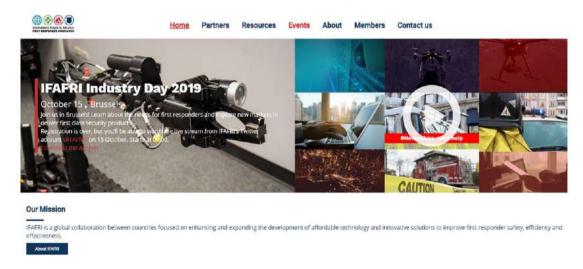


On Wednesday 29th May 2019, project lead partner (CERTH), participated in a session on EU Disaster Risk Reduction policies in the area of weather and climate extreme events during the ECCA 2019 - 4th European Climate Change Adaptation conference "Working together to prepare for change", in Lisbon, Portugal. The biennial European Climate Change Adaptation conference is convened by projects that have received funding from the European Union's Horizon 2020 Research and Innovation Framework Programme.

For more information, please access here:

https://www.ecca2019.eu/science-in-support-of-eu-disaster-risk-reduction-policies-in-the-area-of-weather-and-climate-extreme-events/?fbclid=IwAR1gzT1g89tiBN5qf5CWrgEIHDn8LIK5_-SxXgNMRwaSWIkT8fexBSjNSiw

2c) IFAFRI (International Forum to Advance First Responder Innovation) Industry day





































On Tuesday 15th October 2019, beAWARE members participated at IFAFRI (International Forum to Advance First Responder Innovation) Industry day in Brussels, Belgium. beAWARE project was presented under "Gap9: The ability to create actionable intelligence based on data and information from multiple sources."

To see the full agenda, please visit the webpage HERE.



of Forum to Advance IFAFRI Industry Day 2019 - 15 October 2019

deployments in a very simple way and without losing the chain of command, achieving a safer and more efficient decision-making.

SURVEIRON also works as a comprehensive counter-drone system. Several anti-drone devices can be integrated into SURVEIRON architecture. The artificial intelligence-based framework analyses all the information in order to maximise the threat detection probability and propose the most effective action response, based on the behaviour rules and security protocols established by the competent authority.

SURVEIRON is completely scalable: more drones and counter-drone devices can be added by simply expanding the data centre.

SURVEIRON is an example of successful open innovation in Europe carried out through the collaboration of the Spanish Ministry of the Interior, the ENLETS network and the Spin Off of the University of Malaga AEORUM.

Gap 9: The ability try to create actionable intelligence based on data and information from multiple sources

beAWARE - https://beaware-project.eu/



beAWARE is a software platform with several different and interconnected services to support authorities before, during and after a disaster.

beAWARE is installed in the project's servers.

beAWARE is an integrated solution that supports forecasting, provides early warnings, transmits efficiently the emergency data, aggregates and analyses multimodal data and manages the coordination between the first responders in the field and the relevant disaster management authorities.

beAWARE relies on platforms, theories and methodologies that are already used for disaster forecasting and management and add the elements that are necessary to make them work more efficiently and in harm under the same objective.

2d) CAP (Common Alerting Protocol) Workshop 2019

On 16th to 18th of October 2019, our partner PLV, <u>participated in the Common Alerting Protocol</u> Workshop 2019, that took place in Mexico City, Mexico, hosted by the Mexico City Secretariat of Integral Risk Management and Civil Protection.

You can access the Programme of Workshop HERE.















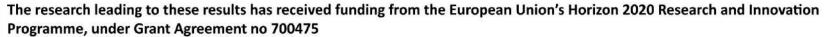




















Mexico City, Mexico 16 - 18 OCTOBER 2019

Hosted by the Mexico City Secretariat of Integral Risk Management and Civil Protection Co-sponsored by IAEM, IFRC, ITU, OASIS and WMO













WMO Letter to Member States

ation Note for Participants

Participants

Agenda of CAP Training on 16 October

Programme of Workshop

Speakers

Workshop Report





2e) Researcher's night 2019

"Researcher's Night" is a European Union initiative aimed at familiarizing the public with the world of research. Every year, on the last Friday of September, "Researcher's Night" events are organized throughout Europe. Greece is consistent in its appointments, continuously organizing events since the institution's inception in 2005. This year in Thessaloniki on 27th September 2019, "Researcher's Night" was hosted in Thessaloniki Concert Hall (M2). CERTH participated as co-organiser and beAWARE project was demonstrated in a dedicated desk. For more information, please access HERE (in Greek).

RTNERS

































3) PROJECT PLANNED ACTIVITIES

3a) Implementation planned activities

- Pilot about forest fires: The next beAWARE project Pilot will be focused on forest fires and it will be organized in Valencia, Spain, on 12-14 November 2019. Together with Bomberos Ayuntamiento València, and Beredskab Øst, beAWARE H2020 project is planning the simulation of forest fire in La Devesa de El Saler, as part of the pilot that will be held in November to test the final version of our platform!
- Plenary meeting: The next Plenary meeting of beAWARE will take place in Tel Aviv, Israel, on 10-12 December 2019.

3b) Dissemination planned activities

However, the aforementioned activities are not the last ones. As we are approaching the end, our team will keep spreading the news, participating in more events.

• CERTH is planning to join <u>Mediterranean Security Event 2019</u>, taking place in Fodele, Crete, Greece, from 29th to 31st of October 2019. For the event program please follow the link: https://mse2019.kemea-research.gr/about/program/. Dr. Anastasios Karakostas', presentation has the title "beAWARE: The Crisis Classification component to strengthen the early warning, risk assessment and decision support in extreme climate events"

PARTNERS





























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• PLV is planning to join MILIPOL event in Paris, France, from 19th to 22th November 2019. MILIPOL is the biggest international event on internal security. It's celebrated annually, alternating its headquarters between Paris and Asia, and this year it will be celebrated from November 19th to 22th. In the 2017 edition (Paris), more than 1,000 exhibiting entities participated and almost 30,000 people attended. For the event program please follow the link: https://en.milipol.com/Events/2019-Conference-Programme

3c) beAWARE project related issues

Overview of an extremely hot and severe summer 2019 for Europe: Heatwaves, thunderstorms, wildfires and floods, reaches new records.



At mid-summer (July 22th), Accuweather service issued an <u>announcement</u> forecasting unusually prolonged heatwaves, under great risk of extensive forest fires that would prevail in Western and Central Europe. On the contrary, strong storms would sweep the Balkan Peninsula throughout the summer season.

What has happened, was far beyond any expectation. Below you can find Monitors Impacts of wildfires in Italy, Greece, Spain and Portugal, as also floods in Spain prepared by Copernicus Emergency Management Service, documenting negative impacts throughout European continent.

• Copernicus EMS Monitors Impact of Forest Fires in Loutraki Area and Zakynthos Island, Greece — 2019-10-03.

Two important forest fires occurred in Greece on Sunday, September 15. They were respectively located in the proximity of Loutraki (65 km west of Athens) and near Lithakia on Zakynthos Island (250 km west of Athens).

• Copernicus EMS Monitors Impact of Flood in the southeast of Spain — 2019-09-27. On Thursday 11th of September and on the following days, the southeast of Spain was heavily affected by torrential rain and flood batters, resulting from an average rainfall of 100 l/m² per day, between the 11th and 14th of September — with peaks at 300l/m² per day — as reported by the Spanish Ministry of Environment.

PARTNERS





























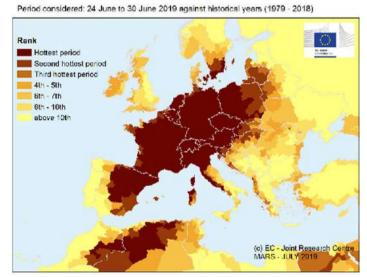




- Copernicus EMS Monitors Impact of Wildfire in Aveiro District, Portugal 2019-09-10. On the 5th of September, it was reported that multiple fires broke out in the Aveiro district, Albergaria-a-Velha, Portugal.
- Copernicus EMS monitored the impact of forest fires in Gran Canaria, Spain 2019-09-05. Gran Canaria, one of Spain's Canary Islands, was struck by forest fires in two locations recently in Artenara on the 10th of August, Cazadores on 12 August and Valleseco on 17 August (in the same area as the Artenara fire).
- Copernicus EMS Monitors Impact of Wildfires in Portugal 2019-07-23. On July 20 2019, several simultaneous forest fires broke out near Castelo Branco, in the central-east part of Portugal, 200 kilometres northeast of Lisbon.
- Copernicus EMS Monitors Impact of Wildfires in Spain 2019-07-22. Spain experienced one of its worst series of wildfires in 20 years following a heatwave with temperatures exceeding 40°C in many parts of the country. The wildfires have torn through several different parts of the country, with the south, the east and the centre being particularly hard hit.
- Copernicus EMS Monitors Impact of Wildfire in Greece 2019-07-22. In the afternoon of 4th July, a wildfire broke out on Evia Island, 70 km Northeast from Athens. A further two fires started just before midnight, triggering evacuations from the nearby villages of Makrichori, Neochori, Dafni, Gavalas and Lofiskos. A fourth fire started in the same area on 5th July
- Copernicus EMS Monitors Impact of Wildfire in Italy 2019-07-22. On July 13 2019, a forest fire broke out in the central-eastern part of the island of Sardinia, near the city of Tortolì, in the Ogliastra area.
- Copernicus EMS Monitors Impact of Wildfire in Spain 2019-07-02.
 On Wednesday the 26th of June, a wildfire broke out in Torre de l'Espanyol, a rural region in the Catalan province of Tarragona.

Last summer was also characterised by **extreme heatwaves**. Tens of millions of Europeans suffered so much for so long. Extensive press coverage has attracted authorities and people's attention.

Comparison of daily maximum temperatures





































- EU SCIENCE HUB: Heatwaves test the limits of energy and water systems in Europe,
- EU SCIENCE HUB: MARS Bulletin: Special Update on June heatwaves in Europe
- · Copernicus: Record-breaking temperatures for June
- Wikipedia: July 2019 European heat wave,
- severe-weather: The upcoming extreme heatwave *UPDATE* low 30s across England 38-42 °C across France expected by mid-next week, July 22-26th,
- SUN: EURO INFERNO Europe heatwave 2019: Which countries have been affected and how many people have died

Finally, it is worth mentioning that, according to <u>Berkeley Earth</u>, an independent non-profit research organisation, the summer of 2018, was likely the fourth warmest year on Earth since 1850. Global mean temperature in 2018 was colder than 2015, 2016, and 2017, but warmer than every previously observed year prior to 2015. Consequently, 2016 remains the warmest year in the period of historical observations. The slight decline in 2018 is likely to reflect short-term natural variability, but the overall pattern remains consistent with a long-term trend towards global warming. **Read more** ...

DO NOT FORGET!!!

The next beAWARE project Pilot will be based on the scenario of forest fire and it will be organized in Valencia, Spain, on 12-14 November 2019. Together with Bomberos Ayuntamiento València, and Beredskab Øst, beAWARE H2020 project is planning the simulation of a forest fire in La Devesa de El Saler, as part of the pilot that will be held in November to test the final version of our platform!

For more information please follow our website and social media accounts:

Facebook: https://www.facebook.com/BeAWARE.H2020/

Twitter: https://twitter.com/beAWARE_H2020

YouTube: https://www.youtube.com/channel/UCoogTOO-dmd4JSS47gC1nGw

Linkedin: https://www.linkedin.com/groups/13515863/



































Partners of the Consortium

The partners that formulate the consortium of the project are:

Centre for Research and Technology Hellas (CERTH) - Coordinator

Motorola Solutions Israel Ltd (MSIL)

upf. Universitat Pompeu Fabra (UPF)

Fraunhofer Institute of Optronics, System Technologies

and Image Exploitation (IOSB)

Valencia Local Police (PLV)

Hellenic Rescue Team (HRT)

Finnish Meteorological Institute (FMI)

Alto Adriatico Water Authority (AAWA)

IBM Israel - Science And Technology Ltd (IBM)

Frederiksborg Fire & Rescue Service (FBBR)