

## WP14 – Final Demonstration-Report

Date: February 5<sup>th</sup>-9<sup>th</sup> 2024

Location: Merinos Atatürk Congress and Culture Center, Bursa, Turkey

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### Day 1 – Monday, February 5<sup>th</sup> 2024

The first day of the Demonstration event started with welcome speeches and introductions. An outline for the coming days and planned activities were presented.



The rest of the day was filled with end user trainings for the different work packages in the form of presentations. Work package by work package, the technical partners presented the components of TeamAware and explained to the attending end users their functionality and application. This included the TeamAware system (work packages 9, 10 and 11), the citizen involvement and city integration system (WP8), the infrastructure monitoring system (WP4) and the visual scene analysis system (WP3) consisting of two components, one for the helmet and one as a UAV payload. Also, the team monitoring system (WP7), consisting of two subsystems (COILS and AMS) and the chemical detection system (WP5) were presented.

End users from the fields of medical first responders and fire fighters were present from Turkey, Greece, Portugal and Austria. All explanations were given in both English and Turkish and end users were able to ask questions to get a good understanding of the technologies they were using in the demonstration actions.





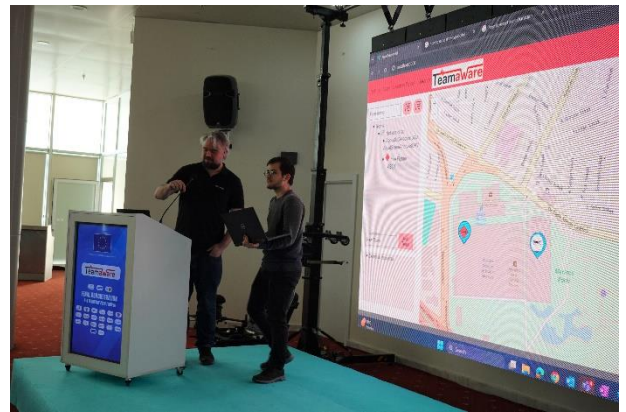
## Day 2 – Tuesday, February 6<sup>th</sup> 2024

The second day of the event fell on the anniversary of the tragic earthquake in Turkey and Syria in 2023, which is why the day began with a memorial ceremony for the victims of the earthquake. This was a reminder of why the TeamAware project is so important in the face of such events. The project partners and numerous representatives of the city of Bursa were present at the memorial service. Afterwards, a group picture was taken outside of the conference centre.





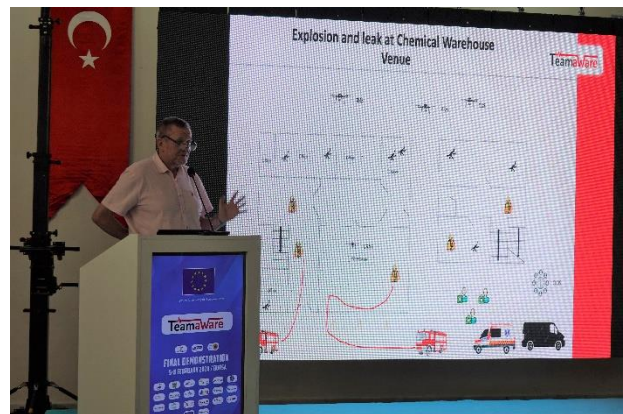
After the memorial event, the end user trainings were continued. As on the first day, the remaining TeamAware technologies were presented and explained to the attending end users in English and Turkish. This included the acoustic monitoring system (WP6). Afterwards, the end users had the possibility to familiarize themselves with all TeamAware technologies and to try them out themselves. During this process, the technical partners gave a short recap of the functionality and application of the components.







In addition, the process for evaluation was explained to the end users. They were asked to register on the CMINE webpage and tried out scanning a QR-code, which was provided later at the demonstration events for them to fill out questionnaires. Also, the planned scenarios were explained to the end users to ensure a smooth course of the final demonstration.



During the breaks, members from the Johanniter research team (JOAFG) introduced the ePLS system (an electronic triage system, which was developed as a side project of TeamAware) to medical first responders and collected feedback.



In the afternoon, there were on site walks to the scenario sites (Hospital and Chemical Warehouse), where the technical partners were able to test and prepare for the demonstration events and the end users were able to familiarize themselves with the site and discuss the procedure of the demonstration events. During these discussions, the end users were also organised into teams for the final demonstration events.



The on-site walk for the metro tunnel scenario took place during the night, because at this time the metro was not operating.





## Day 3 – Wednesday, February 7<sup>th</sup> 2024

The third day started shortly before lunch-time, so all partners were able to rest after the night walk on site. The first point on the agenda was a safety briefing and an explanation of the planned actions during the demonstration.

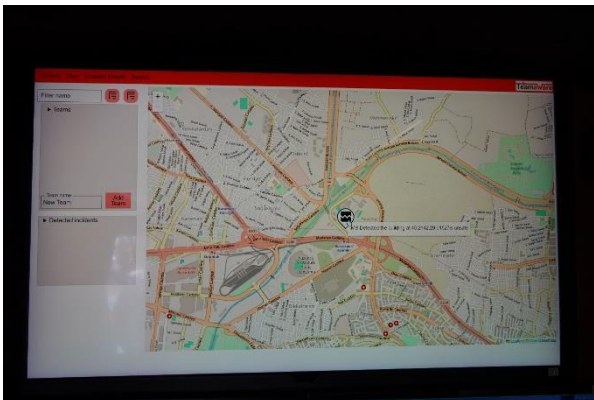


### Scenario #1 - Hospital

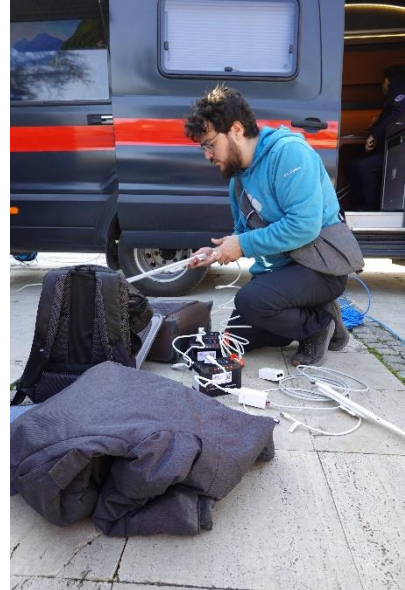
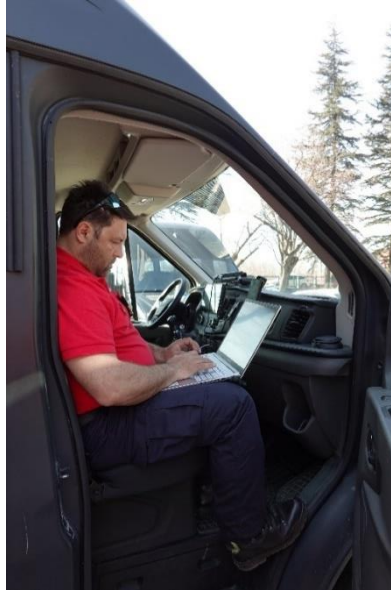
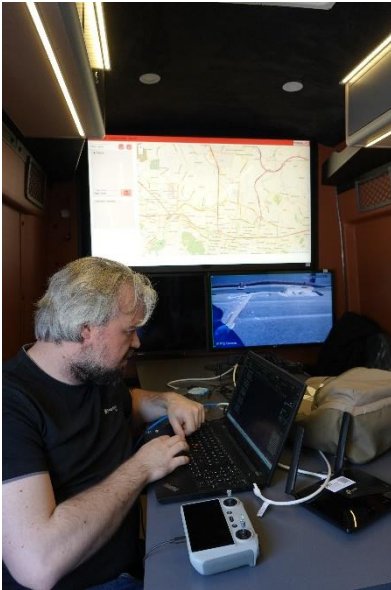
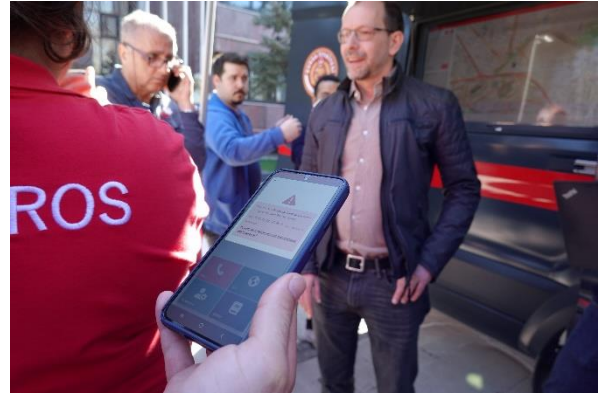
At the first demonstration event at the hospital the drone was operated and took pictures of the hospital facade. The video, which was analysed by the infrastructure monitoring system, was then transferred to the emergency command vehicle and was visible on all screens outside and inside of the vehicle. End users were also asked to try out the citizens involvement and city integration system as well as the TeamAware system on their phone. Directly afterwards, they were asked to fill out evaluation forms online, using the QR-code provided.







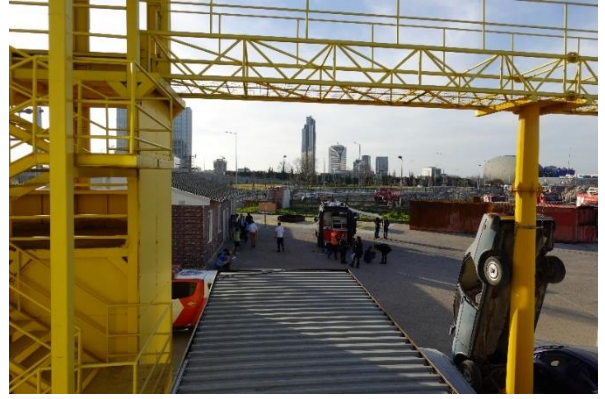




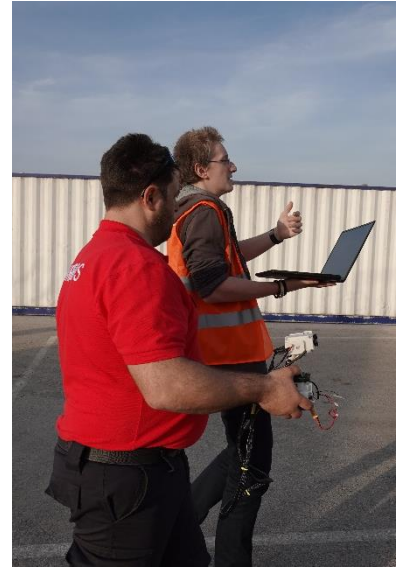
## Scenario #2 – Chemical Warehouse

In the afternoon, the Chemical Warehouse scenario was prepared at a local fire station. The technical partners set up their equipment in a container room. The WIFI network was set up, as well as a weather station and the drone. All end users were equipped with the TeamAware devices and last instructions took place. Safety instructions were given and safety vests were distributed. People representing injured persons were prepared accordingly using make-up and ash. Explosive material, emergency vehicles, substances for the representation of chemical vapours and one fire source were prepared. Before sunset, a group picture was taken, also featuring the drone.





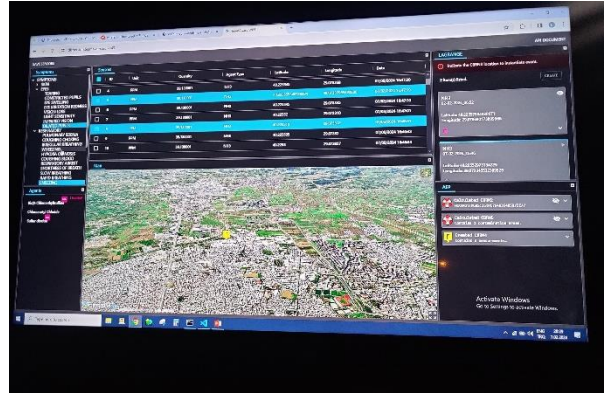






In the evening, the scenario was played out. First, a small explosion took place in an old vehicle on the premises. The explosion was detected by the acoustic monitoring system. Then, the fire fighters dealt with a fire which was set alight inside a container, for which especially the visual scene analysis system was used. Subsequently, the fire fighters had to deal with a warehouse full of “toxic” vapours and had to rescue an injured person, who was later taken over by a paramedic’s team. Here, particularly the chemical detection system was used. After this, the firefighters and medical first responders entered the building and searched for and rescued injured persons. Over all parts of the scenario, but especially during the last part inside the building, the team monitoring system was tested and fellow medical responders had to be rescued as well.

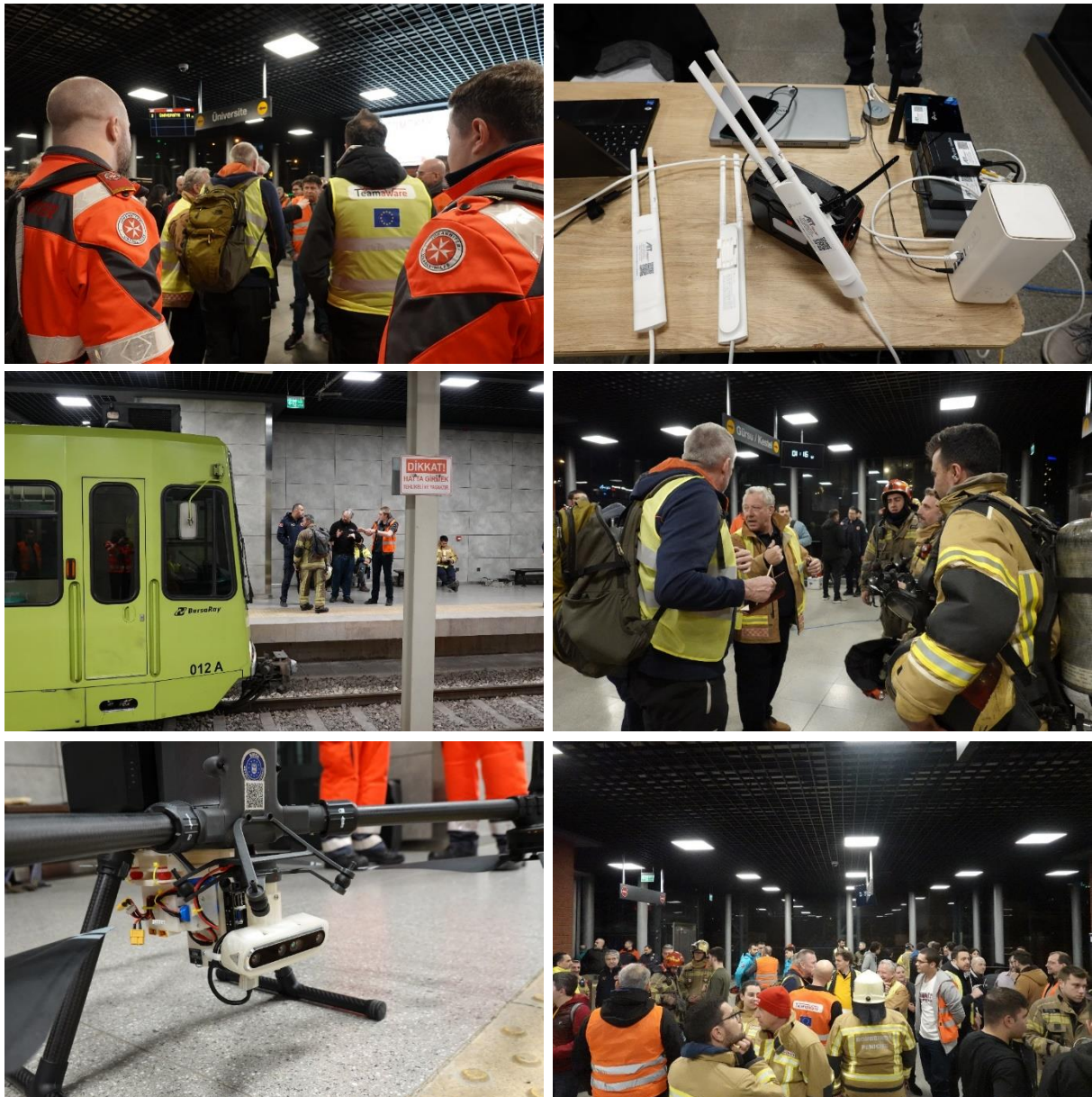


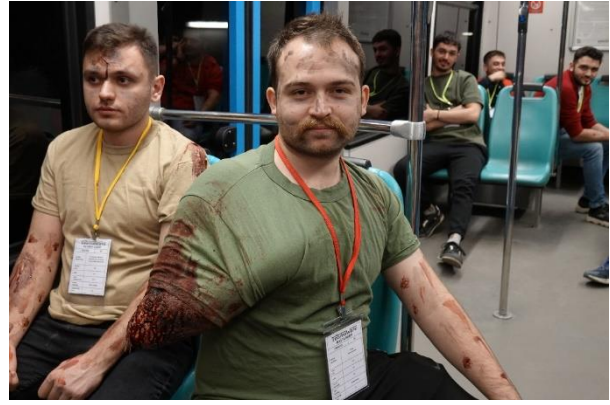
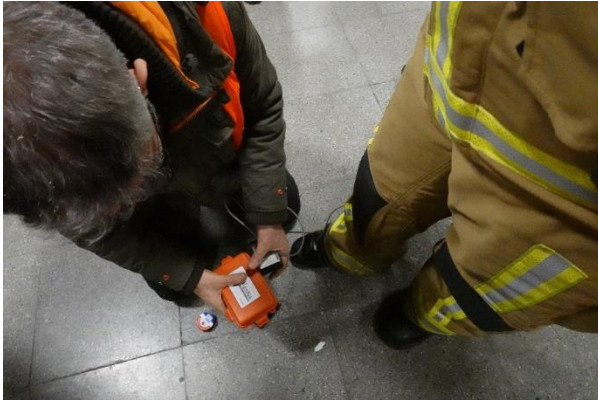




### Scenario #3 – Metro Tunnel

The last scenario was prepared and played out during the night, when there was no regular metro service. In the entrance hall of the metro station, the technical partners set up all technologies and equipped the end users with the TeamAware devices. Again, a network was set up, as well as the emergency command vehicle, which was parked outside. A metro train was set in place and the actors were made up with impressive injuries and placed in the train. In the tunnel, a fire was simulated using spotlights and smoke.





During the scenario, the victims from the train accident screamed and the acoustic detection system was used to locate the sound. The drone was operated inside the tunnel to get a first impression of the incident, using the visual scene analysis system. Then the firefighters and paramedics went inside the tunnel, equipped with helmets, glasses and the team monitoring system, to rescue the victims.









## Day 4 – Thursday, February 8<sup>th</sup> 2024

The last day started in the afternoon, so that all project partners had the opportunity to rest. It mainly consisted of debriefing and feedback sessions for the different work packages. End users had discussions with the technical partners and provided additional feedback. The day as well as the final demonstration event ended with closing speeches.

