At 10:00 on 05/02/2024, a magnitude 6.2 earthquake occurred with its epicentre near the town of Karacabey in the Marmara Region of Turkey. This has resulted in wide-spread shaking and reports of damage across the region, notably within Bursa, where there are early reports that damage has been caused to public and industrial buildings within the city.

Final Demonstration Approaching…

TeamAware is a project funded through the European Commission, dedicated to developing an integrated and cost-efficient **situational awareness system for first responders** interoperable sensor units including drone mounted, wearable, and external sensor systems.

Welcome to this latest briefing which updates on the discussions and developments made since the interim demonstrations were held last year. Two sets of demonstrations were planned over the duration of the project, the first being the "**Interim Demonstrations**" which were held last November in Ankara and the second being the "**final demonstrations**" that are now fast approaching.

The final demonstration event is fixed to run **in Bursa over 4 (long) days and nights starting on Monday 5th February 2024**. For those attending, we hope that this will present a welcome opportunity to get away from the office and to focus solely on what TeamAware has been all about.

The purpose of this briefing is to update on current arrangements and ongoing work.

Background

The underpinning methodology for the demonstrations was delivered through a document (Deliverable 2.4) entitled: Scenarios for System Validation which helpfully agreed most of the **scenarios**, **research questions** and **evaluation criteria**. The scenarios for the final demonstrations are a combination of the broader ones agreed and encompass an Earthquake & Explosion in Bursa.

How the demonstrations will be organised

The demonstrations will run over 4 days incorporating an over-night component during the night of 08/09 Feb.

The format of the demonstrations are **reality-based** – in other words, they'll take place in the field in realistic venues around the Municipality. Each solution which is part of the TeamAware package has been mapped to each scenario and, as each demonstration takes place, will have its own allotted role. The constant will be the **TeamAware integrated system** which will feature in every aspect. Each solution provider has been provided with their own infrastructure requirements so that they can provide the equipment they need to undertake the demonstration.

This will be a great opportunity for end users (responders) that will be deploying the technologies, to meet face-to-face with technical partners who will be demonstrating how they have fulfilled the objectives of the programme. For their part, all End Users will be trained to deploy the technical products in a realistic environment which will enable detailed feedback through a structured process of evaluation.

Over the 4 days, the demonstrations will incorporate:

➢ End User awareness training on each of the solutions
➢ Review of the training manual which has been produced (Training and User Handbook v2)
➢ Demonstrations of the final products resulting (from work packages 3 to 8)
➢ Demonstrations of the developments of the TeamAware Platform created across work packages 9 to 11
➢ And user evaluation and feedback of all components

All aspects of the TeamAware will be demonstrated across the 4 days and nights incorporating a series of training and evaluation sessions to make sure that users, tech developers and integration partners all have the opportunity to speak with each other to enable physical operation of the systems. The Friday is currently planned as a contingency in the event of poor weather.

The draft programme is attached below and we would encourage you to consider it in terms of your own interest in the project and to make sure that you best use the opportunity of the whole project being together to really demonstrate its achievements.

What will you be doing?

The identified lead from each partner organisation is making a decision as to who will attend from their teams. This is every organisation's opportunity to show its work in the best possible light so it is for them to decide. W**e anticipate EVERY PARTNER being represented in-person** for the duration of the Demonstrations.

Training for End Users.

Technical partners will provide the introduction & training for all End Users on how to operate and evaluate the technology and applications that will be used during the demonstrations. Where appropriate this will include installation of smartphone applications and software as required. Each partner will be allocated sufficient time for this within the constraints of the programme.

On Monday and Tuesday a brief introduction and initial training on the use of applications and equipment being demonstrated will be offered and a walk-through of the demonstrations at each venue will allow familiarity for all participants.

Reference will be made to the final training manual to facilitate the training. It's important that this document is used to ensure that it can also be used for evaluation purposes.

Demonstrations

Live demonstrations will be conducted in three locations around the Municipality to simulate each of the scenarios:

➢ The Burski Hospital

➢ A Chemical Warehouse

➢ The BursaRay Metro Tunnel
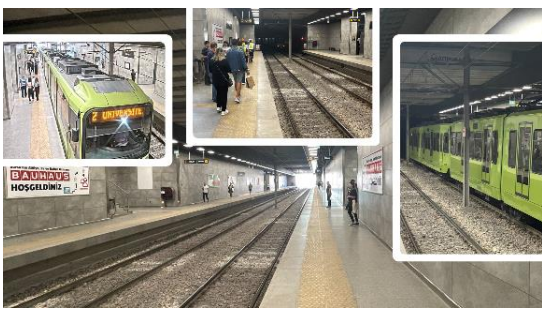
Scenario 1: Damage to the Burski Hospital

- This demonstration will be staged at the Burski Building which will be used to represent the Uludag University Hospital.
- The demonstration will involve a real time aerial survey of the building and real time evaluation of the results of the survey by a remote engineer
- Results of assessment will be transmitted to the TA Platform

Scenario 2: Explosion and leak at a chemical Warehouse

- The demonstration will be staged at Bursa Fire Brigade Headquarters Training Centre.
- Demonstration will involve a simulated explosion and fire at the Eczakop Medical Warehouse.
- Main station to represent warehouse

Scenario 3: Train derailed in the BursaRay Metro Tunnel

An alert is received to the BursaRay Metro System indicating fire & smoke within the tunnel system. A metro train is reported stopped in the tunnel and an unknown number of people are on the train. An alert is transmitted to 112 and to Emergency Services. Bursa Fire Department are mobilised to the reported incident, subsequently a firefighter is reported to have collapsed in the tunnel at the location of the train and a Breathing Apparatus Emergency is declared.

Desirability, Acceptability & Prioritisation SWOT Analysis

There will be a parallel activity (resourced by project partner ETICAS) to update their previous work on the **acceptability and desirability** of each solution. This will further examine the technical and functional solutions confirming the SWOT Analysis of the project

Evaluation and feedback of technical solutions

The Technical Evaluation has been designed to add detail and credibility to user feedback. An **Evaluation Team** will be made-up of experts from each of the relevant work packages along with volunteers from the End Users. This Team will examine solutions using a common approach and methodology thus contributing to the final evaluation report. Needless to say, Evaluation Team Members won't be invited to contribute to assessments of their own solutions.

Associated Deliverables

Because TeamAware is an EU-funded project, we have to create a number of formal documents (known as Deliverables) resulting from the demonstrations. In addition to output relating to each of the technical work packages, a further five deliverables will result from the final demonstrations. It may help for you to be aware of these and who is leading on each one:

- D13.6 TeamAware Demonstration Plan Report v2 – **Dave Ramscar** of RAN is producing this now and it will be publish at the beginning of January 2024.
- D13.7 Training & User Handbook v2 – **Emma Toto** of RAN has already produced a fairly well advanced draft of this and will issue the final version ahead of the Demonstrations for submission as a Deliverable in March 2024.
- D13.8 Acceptability & Desirability Assessment v2 – **Marta Burgos** of the ETICAS Foundation continues to lead this with **Gordon MacMillan** of RAN supporting with User perspectives. It will publish in March 2024.
- D13.9 is the Final Demonstration in February 2024.
- D13.10 is the final evaluation report of the TeamAware solution which will be created by the Evaluation Team with direction from **Gordon MacMillan** and will publish in April 2024.

Practical Arrangements

- As of now, **you are free to book travel (flights) to Bursa** if you know that you will be attending. Ideally these will allow you to be on-site from Monday 5th to the afternoon of Friday 9th February.
- The event web page is currently in-build and **we will shortly launch online registration for it**. You needn't wait for this to go ahead to make your travel or accommodation arrangements if you already know that you will be attending.
- The web page includes a travel pack explaining transfer from IST airport an **making some general suggestions for nearby and accessible accommodation**. Bursa is well-provided for with taxi's so if you choose to book accommodation now on the basis that you will be able to organise travel to-and-from the venues then please feel free to do so.
- Because of the nature of the risks we will be using, some activities have to take place overnight (see draft agenda below). We anticipate an **organised evening social event** for you to join should you wish. Costs will be for you to bear but are unlikely to be any higher than you would have to spend catering anyway. Bursa is a great place to relax in so we hope that you'll take advantage of the opportunity to get to know it.

Remembering the 2023 Earthquake Memorial

Tuesday 6th February will mark the first anniversary since the tragic earthquakes in the Republic of Türkiye and North-west Syria last year. We will be taking time during the day to remember all those affected.

Register

The full facilities of CMINE are being used for the final demonstration, its documentation, events and surveys so, if you haven't already, **please do take a moment to register here** https://www.cmine.eu/signup. Once registered, simply request membership of the TeamAware Group and you'll be able to see everything as it develops.

Contact Us

The Demonstrations Team are working hard to meet and surpass expectations for the project so your engagement is really important to us! For direct contact or queries, please just email jon.hall@resilienceadvisors.eu or any one of the RAN team.

TeamAware — Draft Demonstration Programme

Monday 5th February 2024

09:30 – 10:30	Welcome & Introductions. – Co-ordinators & RAN

Introduction to the week – Explanation/overview of demonstrations, Transport/Logistics Plan, Safety Issues etc

10:30 – 11:00	Refreshment Break

11:00 – 13:00	Familiarisation Training/Introductions for End users - Bursa Fire, AAHD, AHBV Peniche, Johanniter, HSEPC.

This will be role specific, Fire Fighter End users will receive familiarisation on the use of Bursa Fire Brigade Breathing Apparatus and procedures to be used during demonstrations, Medical end users will confirm & familiarise themselves with the processes to be used during casualty triage.

13:00 – 14:00	Lunch Break

14:00 – 15:00	End user Training - Visual Scene Analysis System Demonstration – THALES & TREE

WP3 will present the characteristics and operating principles of their two subsystems (helmet and UAV payload), how to use the subsystems and instruction on how to assemble and use the subsystems.

14:45 – 15:00	Refreshment Break

15:00 – 16:00	Training on Team Monitoring System (TMS) – DUNE & HAVELSAN

WP7 will introduce, present the characteristics and operating principles of their two subsystems (COILS and AMS) with instruction on how to assemble and use the subsystems.

16:00 – 17:00	Training on Chemical Detection System (CDS) – AITEX & HAVELSAN

WP5 will present the characteristics and operating principles of their system followed by instruction on how to assemble and use the system.

Tuesday 6th February 2024

09:00 – 10:30	Memorial event to remember the 2023 earthquake.

10:30 – 11:00	Refreshment Break

11:00 – 12:30	'Hands on', further familiarisation with systems for end users

Opportunity for participants to receive further insights and familiarisation with the TA systems they will be using during the demonstrations.

12:30 – 13:30	Lunch Break

14:00 – 15:00	End user Training - Visual Scene Analysis System Demonstration – THALES & TREE

Presentation from RAN & ERI on the evaluation tools, this will include demonstration & completion of consent forms by participants.
Evaluation team will receive training on the evaluation methodology & documentation.

15:00 – 15:15	Refreshment Break

15:15 – 16:00	Demonstration Part B (Burski Hospital) on site walk through.

On site walk though for all participants (End Users, technical Partners & Demonstration Participants) of the demonstration at the Burski Hospital Site.

1600 – 17:30	Demonstration Part C Chemical Warehouse on site walk through.

On site walk though for all participants (End Users, technical Partners & Demonstration Participants) of the demonstration at the Burski Hospital Site.

| 18:00 | Feedback/issues raised from site visits. |

Opportunity for feedback and discussions arising from site visits.

Wednesday 7th February 2024

| 00:30 – 02:30 | Demonstration Part A Odenluk Tunnel on site walk through. |

On site walk though for all participants (End Users, technical Partners & Demonstration Participants) of the demonstration at the Odenluk Tunnel Site.

| 11:30 – 12:00 | Demonstration Safety Brief & Demonstration Introduction |

Safety Brief for All Demonstration Participants, end users and technical partners.

| 12:00 – 12:30 | Lunch Break |

| 12:30 – 14:30 | Demonstration – Burski Hospital |

      12:30 Command Unit in place & Network Set Up Complete

      12:45 Demonstration begins, Pilot & drone notified & deploy to site.

      14:00 Demonstration complete

| 17:30 – 21:30 | Demonstration – Chemical Warehouse |

On site walk though for all participants (End Users, technical Partners & Demonstration Participants) of the demonstration at the Burski Hospital Site.

| 1600 – 17:30 | Demonstration Part C Chemical Warehouse on site walk through. |

⇒ 17:30 Command Unit in place & Network Set Up Complete

⇒ 17:30 Site specific safety briefing for participants.

⇒ 18:30 Demonstration begins.

⇒ 21:00 Demonstration complete

⇒ 21:00 Hot debrief for end user participants. (WP9, 10, 11 evaluation)

Thursday 8th February 2024

| 00:00 – 04:00 | Demonstration – Tunnel & Train Derailment |

⇒ 00:30 Command Unit in place & Network Set Up Complete.

⇒ 00:30 Site specific safety briefing for participants.

⇒ 01:00 Metro System stops operations.

⇒ 01:30 All participants in start locations.

⇒ 02:00 Demonstration begins. Casualties and train in place

⇒ 03:30 Demonstration complete

⇒ 04:30 Hot debrief for end user participants. (WP9, 10, 11 evaluation)

| 13:30 – 15:30 | Evaluation & Feedback |

• Formal feedback & evaluation for end users & technical partners.

• Opportunity for further debrief for end user participants. (WP9, 10, 11 evaluation)

| 15:30 – 17:00 | Closing Event - Co-ordinators & RAN |

TBC