



iProcure Security  PCP

# Handbook



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 101022061.

## WHY THIS HANDBOOK?

This handbook is your essential guide to the iProcureSecurity PCP project's pilot activities. It's crafted to equip you with a clear, concise understanding of the Pre-Commercial Procurement process and the specific strides made within this initiative. Here, you'll find information on the setup and execution of the five diverse pilot operations across Europe and the criteria for their evaluation. Our aim is to provide you with the knowledge and context needed to engage effectively in this innovative project, ensuring readiness and a cohesive approach to advancing triage management systems.



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- i-TRIER
- ENSURE

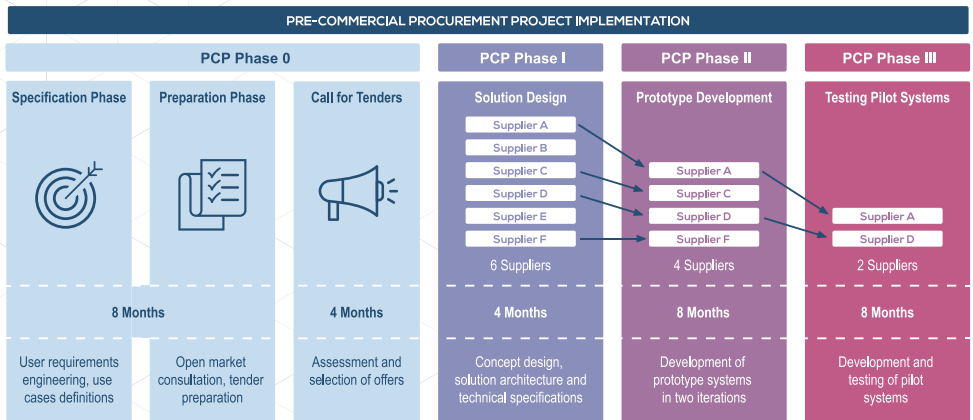


# FIRST THINGS FIRST!

## What is PCP?

In Pre-Commercial Procurement (PCP) projects procurers provide funds to suppliers to procure R&D services and develop tailored solutions that are not yet available on the market. The PCP is co-funded by the European Commission and is divided into competitive phases, in which suppliers develop their solutions to address the procurement challenge. For technology and solution providers, especially SMEs, a PCP creates the unique opportunity to partner with a launching customer which expands their market competitiveness and brand visibility, but also supports their long-term business planning.

## How is it structured?



# WHAT IS iPROCURESECURITY PCP?

iProcureSecurity PCP is a visionary European Union-funded initiative that began in September 2021 and is set to conclude in October 2024. With a budget of 12 million euros, this project harnesses the collective expertise of 12 partners of which 8 are EMS procurers from 5 different countries, guided by KEMEA as lead procurer.



The goal is to innovate and improve the work of Emergency Medical Services (EMS) when dealing with Mass Causality Incidents, by proving:



Quick and accurate overview of casualties and their status.



Decision support for better allocation of available resources & quicker support for casualties



Improved interoperability with other first responders and relevant actors.



Reduced handover times between ambulance transport and hospitals



Insights for quality assurance and training measures.



# WHO IS iPROCURESECURITY PCP?

## SYNYO GmbH



Located in Vienna, Austria, SYNYO GmbH boasts a multidisciplinary team excelling in fields from Social Sciences to Smart Health. As a leader in innovation, SYNYO has coordinated 25 major European projects, showcasing their strength in managing complex research initiatives from conception through to dissemination. Within the iProcureSecurity PCP project, SYNYO serves as the coordinator, facilitating critical communication between EMS procurers and ensuring that project objectives align with stakeholder needs.

## KENTRO MELETON ASFALIAS



KEMEA, based in Athens, Greece, is a premier security studies organisation that provides strategic-level research and consultancy under the auspices of the Ministry of Citizen Protection. KEMEA brings together a diverse team of experts who advise on a variety of security-related policies and issues. In the iProcureSecurity PCP project, KEMEA's role is pivotal, handling legal aspects and orchestrating communications with suppliers to align with the project's operational framework.

## EMPIRICA



With its headquarters in Bonn, Germany, empirica specialises in innovation process management and consulting, with a particular emphasis on healthcare system change and eHealth tools. Empirica is recognised for bridging the gap between technological developments and user-centric applications, informed by their extensive experience in project management, policy development, and strategic planning. In the iProcureSecurity PCP project, empirica contributes to the management team, leveraging their expertise to support the project's execution and ensuring the delivery of user-focused technology solutions.

## OUR EMS ORGANISATIONS



### Centro de Emergencias Sanitarias 061

A cornerstone of Andalusia's health system since 1994, CES-061 leads in out-of-hospital emergency care, renowned for its innovative and cooperative approach.



### Servicio Madrileño de Salud

SERMAS, the backbone of Madrid's healthcare, excels in management and emergency response, notably through its SUMMA 112 emergency arm.



### Österreichisches Rotes Kreuz

ARC, Austria's largest EMS provider, leverages its extensive volunteer network to offer leading emergency and humanitarian services.



### Agenzia Regionale Emergenza Urgenza

Established in 2008, AREU is vital for Lombardy's emergency medical services, aiming for seamless healthcare integration and efficient regional operations.



### Azienda Sanitaria Locale Benevento

ASL BN serves the Campania region with dedication, ensuring comprehensive healthcare services as a key regional health entity.



### Ellinikos Erythros Stavros

Greece's prime humanitarian body since 1877, the Hellenic Red Cross is globally recognised for its emergency response and health education efforts.



### Ethniko Kentro Amesias Voitheias

EKAB stands as Greece's exclusive emergency prehospital service provider since 1985, with a special focus on disaster medicine and crisis management.



### İzmir Büyükşehir Belediyesi:

İzmir's Metropolitan Municipality is pivotal in emergency management across Türkiye's third-largest city, with a broad scope covering technical rescues to natural disasters.

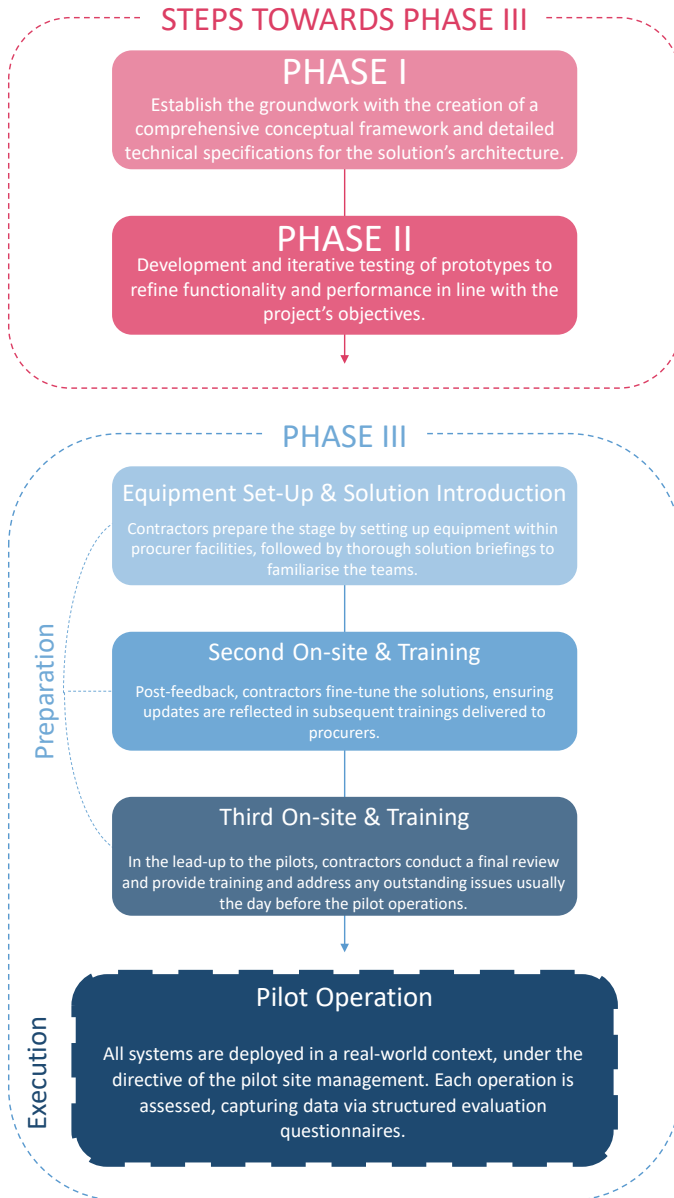


### Acil Afet Ambulans Hekimleri Derneği

Since 2004, AAHD has been at the forefront of Türkiye's emergency medical services and disaster response, driven by a rich history and a scientific approach to healthcare.



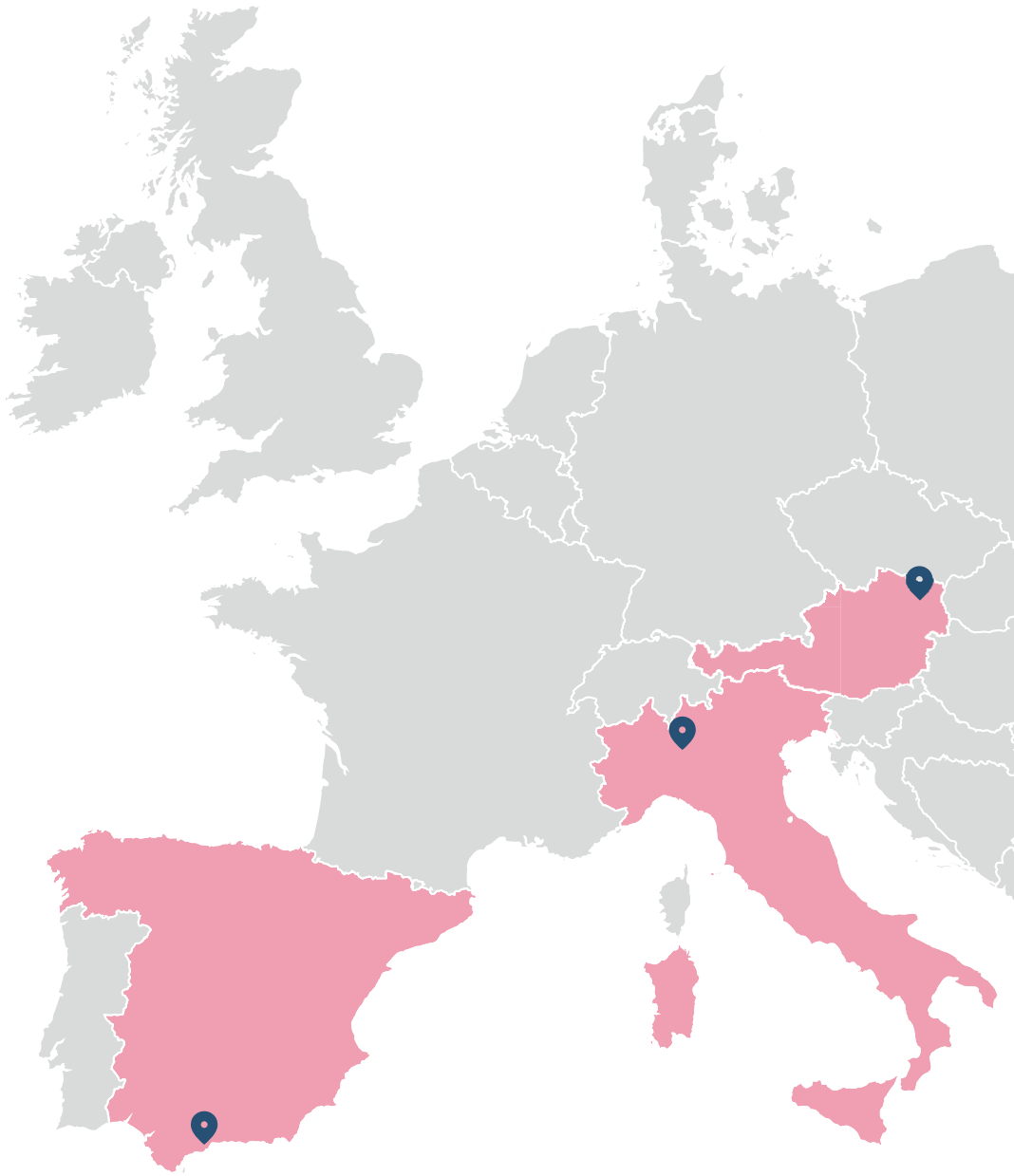
# WHAT HAPPENED BEFORE THE PILOTS?

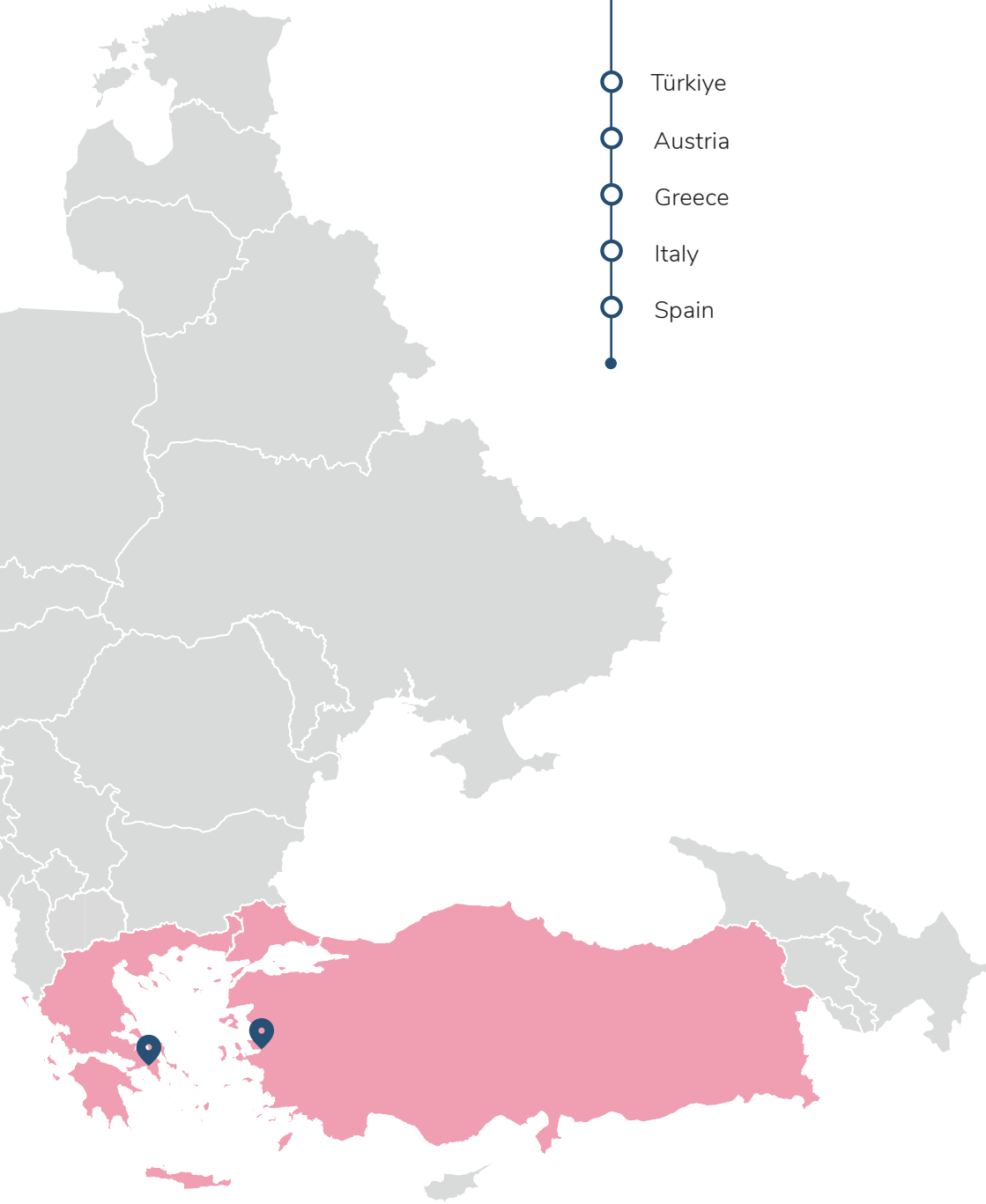






# PILOTS





- Türkiye
- Austria
- Greece
- Italy
- Spain



# TÜRKİYE



## İzmir Büyükşehir Belediyesi


İzmir Metropolitan Municipality, Türkiye's third-largest city, plays a crucial role in emergency response through its Directorate of Search and Rescue and Disaster Affairs. This entity, part of the İzmir Fire Department, boasts a comprehensive fleet, including ambulances and rescue vehicles, prepared for a wide array of emergencies across İzmir's vast area. Their experience spans technical rescues, natural disasters, and more, showcasing their vital capacity for emergency management.



## Acil Afet Ambulans Hekimleri Derneği

Established in 2004, AAHD is a pioneering NGO in Türkiye, deeply involved in emergency medical services and disaster response. With a history of significant contributions to Türkiye's EMS, especially following major earthquakes and disasters, AAHD's expertise encompasses a wide range of emergency responses. Their profound experience and scientific approach to EMS operations and disaster medicine mark them as a key stakeholder in emergency healthcare advancement.

 Izmir

 7–10 May

### Scenario

In Türkiye, a challenging simulation unfolds as an explosion rocks a grain warehouse, testing emergency protocols in varying conditions including dark and cold environments, and firefighting scenarios. Rescuers will confront a complex range of casualties, including a diverse array of simulated injuries. The response team, comprising skilled physicians, paramedics, and essential emergency vehicles, will be tasked with operational command and triage efficiency.

# AUSTRIA



ÖSTERREICHISCHES  
ROTES KREUZ

Österreichisches  
Rotes Kreuz

The Austrian Red Cross (ARC) leads in emergency services and humanitarian activities across Austria, supported by 75,000 volunteers and 10,200 employees. As Austria's biggest EMS provider, ARC oversees over 3 million operations yearly, including 500,000 rescue operations. Involved in European civil protection and research projects, ARC integrates innovation and research into emergency management, underscoring its pivotal role in national and international humanitarian efforts.

 Vienna

 23–25 May

## Scenario

On the Austrian border, a minibus carrying smugglers and hidden passengers overturns, posing a dual challenge of criminal activity and medical emergency. Language barriers and the smugglers' evasion add layers of complexity to the rescue efforts. The Austrian team, consisting of a range of emergency personnel and law enforcement, will demonstrate strategic management and adaptability in the face of unpredictability and diverse needs.





# GREECE



## Ellinikos Erythros Stavros

The Hellenic Red Cross stands as Greece's foremost humanitarian organisation, deeply rooted in providing emergency response and health education since 1877. Renowned for leading certified First Aid training globally, its efforts are bolstered by a vast volunteer network, dedicated to alleviating human suffering in all societal segments. The HRC's commitment spans war and peace, supporting those in need with unwavering alertness, solidarity, and altruism.



## Ethniko Kentro Amesiias Voitheias

Established in 1985, the National Centre for Emergency Care (EKAB) is Greece's sole provider of emergency prehospital services. Operating under the Ministry of Health, EKAB ensures nationwide coverage through its extensive network, aiming for prompt response to health emergencies 24/7. EKAB's Special Unit for Disaster Medicine (ETIK) exemplifies its readiness for both national and international disaster responses, highlighting its key role in Greece's emergency care and crisis management framework.

 Athens

 28–30 May

### Scenario

A serene morning in urban Greece is disrupted by a bus collision leading to a consequential fire. The incident calls for the swift rescue of passengers, their safe transfer to triage, and thorough preparation for the hospital transport of those critically injured. Greek emergency units, along with dedicated medical professionals, will bring their expertise to manage the situation, supported by vital resources including ambulances and a triage tent.

ITALY



## Agenzia Regionale Emergenza Urgenza


AREU, established by Regione Lombardia in 2008, is pivotal in managing extrahospital medical emergencies and enhancing intra- and extrahospital healthcare integration in Lombardy. It coordinates emergency medical services (EMS), organ and tissue transport, and blood transfusion activities, serving over 10 million citizens. AREU's mission includes implementing the 112 EEN model and developing non-urgent patient transport services, aiming for a unified and efficient regional EMS operation.



## Azienda Sanitaria Locale Benevento

ASL BN, a Local Health Agency in Campania, Italy, operates with autonomy to address regional health issues. As a part of Italy's national health system, it provides healthcare services to the province of Benevento. Established to manage health at a regional level, ASL BN embodies a crucial role in public health management, ensuring accessible and quality healthcare services within its jurisdiction.

 Milan

 3–4 June

### Scenario

In Italy, history and present collide as a WWII-era device's detonation during excavation causes a severe construction site accident. Rescuers will face the aftermath of a machinery fire, tending to workers with a spectrum of injuries from blasts, burns, to traumas. A skilled team of doctors, nurses, and rescuers, backed by ambulances, will navigate the crisis, showcasing their historical knowledge and trauma-handling prowess.





### Centro de Emergencias Sanitarias 061


CES-061, integral to Andalusia's health system since 1994, provides expert out-of-hospital emergency care. With specialised teams and advanced coordination centres, it excels in handling diverse emergencies and enhances healthcare through research, training, and eHealth initiatives. CES-061 is a beacon of innovation and international cooperation in emergency healthcare.



### Servicio Madrileño de Salud

SERMAS integrates Madrid's public health services, showcasing leadership in healthcare management and emergency response. Through collaborations like with FIBAP, it bolsters research and efficient project execution. SUMMA 112, its emergency arm, offers exemplary non-hospital care and coordination, underscoring SERMAS's commitment to healthcare excellence and innovation.

 Málaga

 12–14 June

#### Scenario

Amidst the Spanish summer, a bus veers off the A-92 road due to the driver's sudden illness, resulting in numerous casualties. The incident demands a prompt and coordinated response from emergency teams to manage the varied severity of injuries. Spanish healthcare experts, along with a contingent of firefighters, will mobilise to deliver critical care, demonstrating their preparedness and versatility.





# PILOT EVALUATION

The focus of our evaluation methodology is on three key facets: effectiveness, efficiency, and user satisfaction, ensuring that the solutions not only meet technical specifications but also address the practical needs of EMS in Mass Casualty Incidents (MCIs). This will be done in 3 separate steps:

## 1 Pre-Pilot Assessment

Before the action begins, a detailed review of technical capabilities and challenge specifications sets the stage. This crucial phase ensures we understand current organisational proficiencies and the technological leap offered by the solutions.

## 2 Active Pilot Engagement

During the pilot, evaluators actively observe, documenting performance and user interaction with the systems in real-time scenarios. The evaluators' insights are essential, providing a grounded perspective on the solution's adaptability and operational impact.

## 3 Post-Pilot Reflection

Post-operation, evaluators and experts engage in focus groups to dissect the performance thoroughly. Here, the objective is to consolidate observations into a comprehensive assessment, providing feedback on the solutions' integration into existing systems, their enhancement of triage procedures, and the overall user experience.

Each solution's evaluation extends beyond operational effectiveness to include interoperability with existing national and organisational systems, usability in varied environments, and compliance with safety and privacy standards. The data gathered will not only inform the final analysis but will also feed into continuous improvement cycles, shaping the future of triage management systems.



# OUR INNOVATIVE TRIAGE SOLUTIONS



i-TRIER is an adaptable system that that accommodates immediate digital triage of victims with custom algorithms, facilitating continuous evaluation of their status. Also, it identifies victims and retrieves crucial clinical data directly from their smartphones, enhancing the efficiency of the process. i-TRIER provides detailed and global views of mission-critical information for MCI decision-makers. This includes map views, victims' and staff locations and status, as well as coordination of teams, thus tasks and resources management. i-TRIER also optimizes Ambulances & Vehicles Management & Dispatching. It ensures the efficient and prioritized dispatch of victims, based on appropriate algorithms, to ambulances and to the nearest hospitals. i-TRIER supports training and evaluation through the replay of incident courses for staff training in real conditions. Additionally, it provides event schedules and reports, along with aggregated statistics. i-TRIER consortium now follows the Phase 3 objective towards further testing of the solution to a state where it can be piloted under real-life conditions.

## Supplier



Gnomon Informatics S.A



Institute of  
Communication and  
Computer Systems



CS Group



BETA 80 GROUP

Beta 80 SpA Software  
e Sistemi



ERC Grup Mühendislik  
Danismanlik ve ARGE  
Hiz. A.S.



Unviersità del  
Piemonte Orientale A.  
Avogadro



# ENSURE

The ENSURE system is designed enhance emergency medical services and response capabilities for mass casualty events, merging medical expertise with innovative technology. Drawing from Satways' emergency management expertise, Traqbeat's medical wearables, and Incisio's emergency medicine acumen, ENSURE creates a novel digital triage system attuned to disaster complexities. It offers streamlined triage prioritization via a groundbreaking attachable wearable patch and software applications for real-time monitoring of vital signs, ensuring life-saving care from scene to hospital. Furthermore, it improves communication and interoperability between disaster response, hospitals, and agencies by providing resilient data exchange deployable infrastructure and upholding EU health service standards.

ENSURE excels in creating a real-time medical operational picture, facilitating efficient information flow and strategic coordination throughout an MCI's lifecycle.

## Supplier



Satways Ltd.



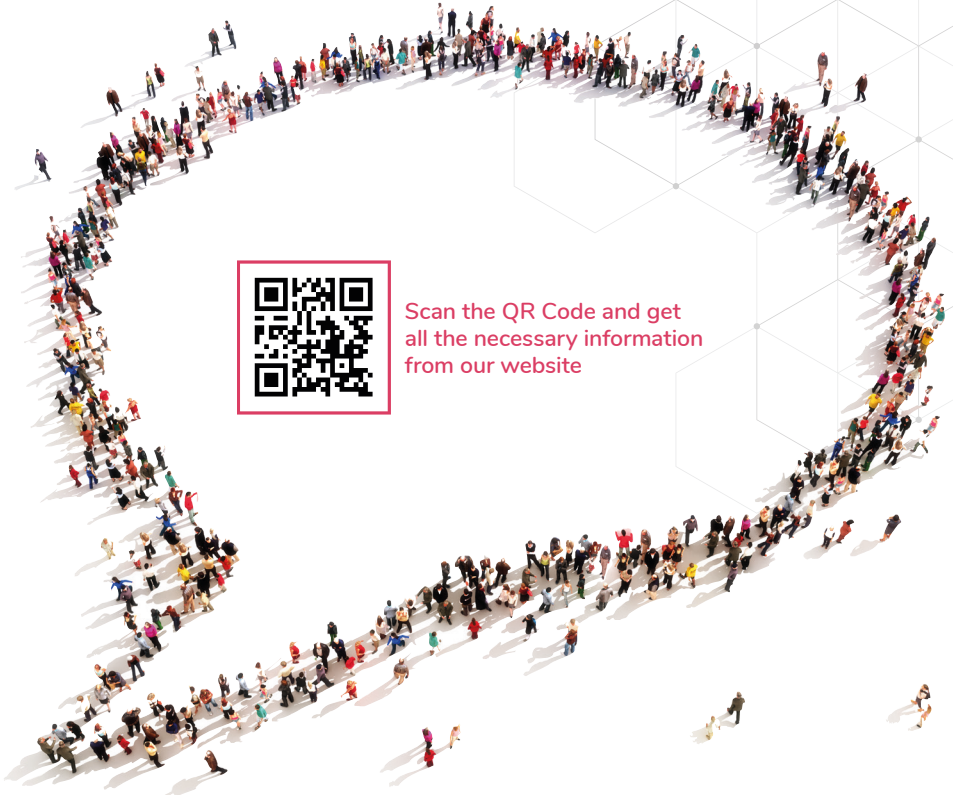
Traqbeat Technologies PC



INCISIO AB



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