



# Open Market Consultation

## International

24 March 2022 11:30 – 14:15 CET



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[pcp.iprocursecurity.eu](http://pcp.iprocursecurity.eu)



[@procuresecurity](https://twitter.com/procuresecurity)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022061.

# HOUSEKEEPING RULES



**This session will be entirely recorded** and published on the iProcureSecurity PCP website.



All participants except speakers and moderators will be **muted by default.**



Feel free to post your questions in the **chat.**



**If you would like to speak, raise your hand** and wait for the moderator to give you the floor.



# Objectives

- 1** Introduce the iProcureSecurity PCP project and the Call for Tenders
- 2** Explain the Pre-Commercial Procurement (PCP) mechanism
- 3** Consult with potential suppliers the draft specifications
- 4** Facilitate the establishment of partnerships

# Agenda

**1. WELCOME & INTRODUCTION**

**11:30 – 11:40**

**2. MAIN CHALLENGES & SCOPE**

**11:40 – 12:10**

**3. IPROCURESECURITY PCP PHASES & TENDER PROCESS**

**12:10 – 12:40**

**4. NEXT STEPS**

**12:40 – 12:50**

**5. QUESTIONS**

**12:50 – 13:15**

**6. SUPPLIER PITCHING SESSION**

**13:15 – 14:15**



# Presenters



**Lucas Deimel**

Research Consultant  
empirica  
Communication and  
Technology Research



**Bernhard Jäger**

Research Manager &  
Department Lead  
SYNYO GmbH



**Eleni Lianou**

Attorney-at-law  
Specialist in innovation  
procurement  
Center for Security  
Studies (KEMEA)

# WELCOME & INTRODUCTION



Lucas Deimel

Research Consultant

empirica Communication and  
Technology Research

# Current issues with triage management



## Planning and decision making

- Lack of clarity for the head of operations on the ground and for command and control structures and dispatch centres
- Missing information on environmental conditions (traffic conditions and weather conditions)
- No data for decision support to improve resource allocation and casualty transport



## Resource allocation

- Resource allocation is sometimes inefficient due to missing interoperability of used systems
- An exhaustive analysis of the data generated in the incident is required, both in real time and afterwards
- Automated monitoring of already assessed casualties can free up human resources to care for other casualties.

# Current issues with triage management



## Triage practice

- Current triage is **not very flexible**
- Improvement of re-triage, i.e. monitoring of the condition and vital signs of already triaged casualties



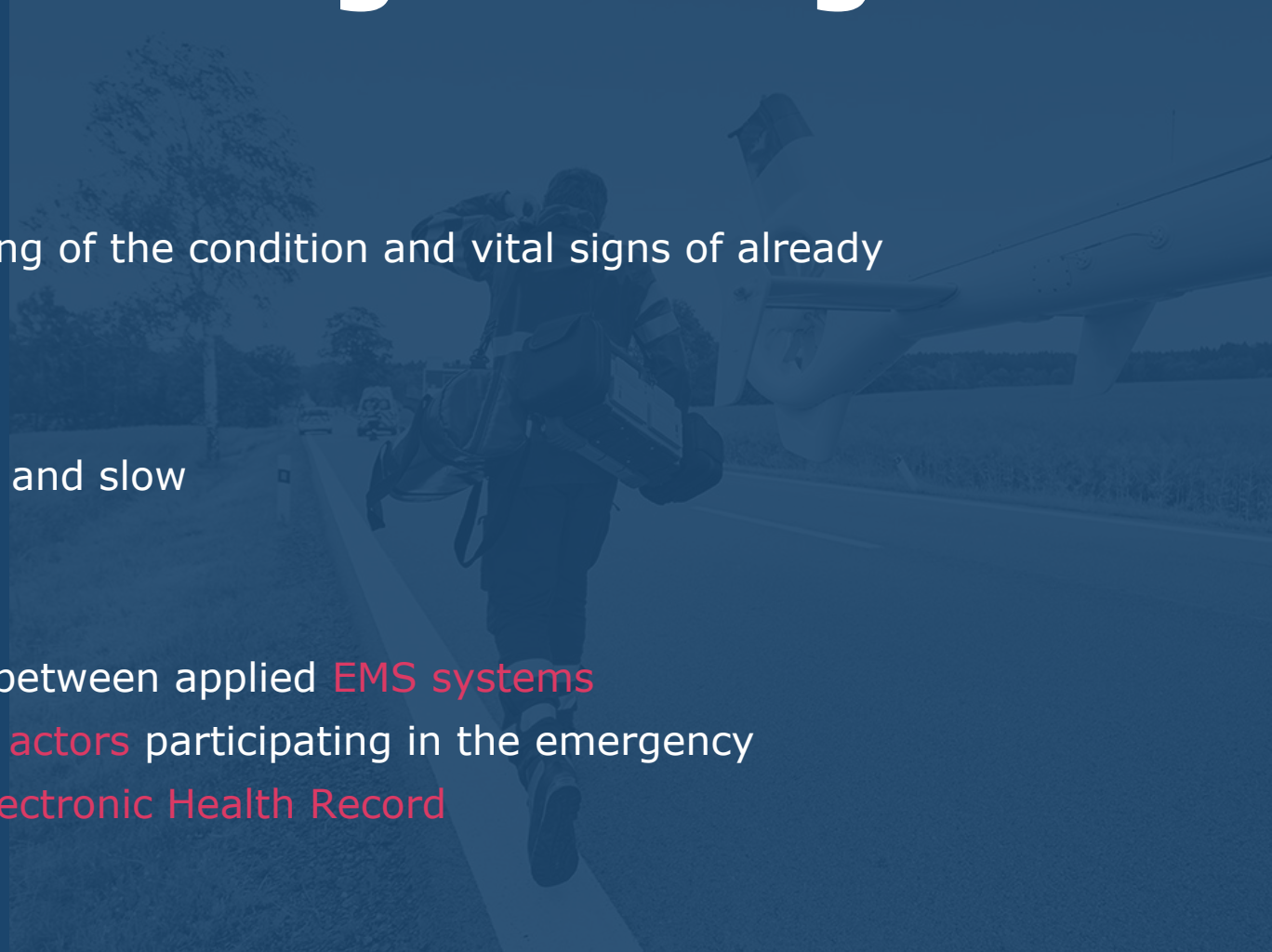
## Data transmission

- Radio messages are prone to **confusion** and slow



## Interoperability

- **Missing interoperability** (missing APIs) between applied **EMS systems**
- **Missing interoperability** between all the **actors** participating in the emergency
- **Missing interoperability** with national **Electronic Health Record**





# Importance of triage management



## What

- Sorting of casualties into **priority groups** according to their needs and the available resources.
- Ensure the **efficient use** of available resources (e.g. personnel, supplies, equipment, transportation, medical facilities).

## Why

- Low probability but high impact of **large-scale events**
- Affects the extent and **quality of care** delivered by the EMS system.
- Reduced **mortality** and increases **quality of life** of casualties.

## Trend

- Number of natural and man-made **disasters increase**
- Risk drivers: climate change, urbanisation, changing security landscape, technological developments

“

**The main goal of iProcureSecurity PCP is to improve triage scenarios through a flexible triage management system. 6.7 million Euros are made available for R&D services in this domain.**

”

9 procurers

from

5 countries

Responsible for the pre-hospital care of over

40 million people

\* Lead Procurer



## Procuring organisations



KENTRO MELETON ASFALIAS (KEMEA) – GREECE \*



EMPRESA PUBLICA DE EMERGENCIAS SANITARIAS (EPES) - SPAIN



SERVICIO MADRILENO DE SALUD (SERMAS) - SPAIN



OSTERREICHISCHES ROTES KREUZ (ARC) - AUSTRIA



AGENZIA REGIONALE EMERGENZA URGENZA (AREU) - ITALY



AZIENDA SANITARIA LOCALE BENEVENTO (ASLBN) - ITALY



ELLINIKOS ERYTHROS STAVROS (HRC) - GREECE



ETHINKO KENTRO AMESIS VOITHEIAS (EKAB) - GREECE



IZMIR BUYUKSEHIR BELEDIYESI (IBB) - TURKEY



**12** partners

from

**6** countries

**10**

advisors

**160+** EMS

network  
members

\* Project coordinator

Supporting organisations



SYNYO GmbH – AUSTRIA \*



ACIL AFET AMBULANS HEKIMLERI DERNEGI (AAHD) - TURKEY



EMPIRICA TECHNOLOGY RESEARCH (EMPIRICA) - GERMANY

- Complemented by an Advisory Board of international EMS experts and the wider iProcureSecurity [EMS Network](#)

# About SYNYO

SYNYO GmbH is a highly dynamic company focusing on research, innovation and technology located in Vienna, Austria.



## Objectives

- SYNYO seeks to **foster, develop** and **establish innovation**, through analysis, research and development activities and has worked since 2010 with **500+partners in national and international projects**.



## Project Expertise

- Our projects' expertise covers (a) Setup & Management; (b) Research & Analysis; (c) Design & Implementation; (d) Dissemination & Exploitation.



## Areas & Projects

- Gathering experience from **60+ Research and Innovation Projects**, covering a wide range of topics
  - Smart Health and AAL
  - Mobility and Transport
  - Safety and Security
  - Information Technology
  - Societal Science & Society
  - Smart Cities
  - Sustainability and Energy
  - Education

# About KEMEA



The **Center for Security Studies** (Kentro Meleton Asfaleias – KEMEA) of the Hellenic Ministry of Citizen Protection (MCP) [Law 3387/2005, Article 4, N.3938/2011], operates as a think tank of innovation and technology in the area of national security policies (cyber and physical) and civil protection.



## **Objectives:**

- Scientific and technical support for the technological transformation of the MCP services and consultation.
- Research and Development on modern operational security solutions.
- Training of the operational services of the MCP and of other public or private bodies related to security and civil protection.



## **Sectors of Activity:**

- Border Security (BES)
- Critical Infrastructure Protection (DRS-INFRA)
- National Strategy Studies
- Fight against crime & Terrorism (FCT-ISF)
- Cybersecurity - Cybercrime (CYBER-DS)
- International Synergies



## **PCP projects (Lead procurer):**

- iProcureSecurity PCP
- PREVENT PCP
- SHUTTLE
- EWICA

# About empirica

- Since 1988, internationally active **Research and Consultancy Bureau** from Bonn, Germany
  - Specialised on **innovation processes** and **management of EU projects**
  - eHealth, Smart Energy/Rural, Active & Healthy Aging, eCare, eSkills, Research & Innovation, Inclusive Society
- 200+ research & innovation projects, support actions and studies
  - Impact of **digital transformation of the health and care sector** and **eHealth solutions**
  - Political, strategic, clinical and socio-economic expertise
- Previous experience from similar projects:
  - **PCPs** in general (on diabetes, hypertension and stroke)
  - Use of digital solutions in **civil protection**
  - Participation in **European coordination exercises** for EMTs and USAR (Modular Exercises - MODEX)

# Process

- **Pre-Commercial Procurement of R&D services**
- **Phased approach, moving from design, through prototyping and testing**
- **Competitive process – several contractors active in any given phase**
- **Avoids lock-in – at least two solutions fully tested in the last phase**

# MAIN CHALLENGES & SCOPE



Bernhard Jäger

Research Manager &  
Department Lead

SYNYO GbmH

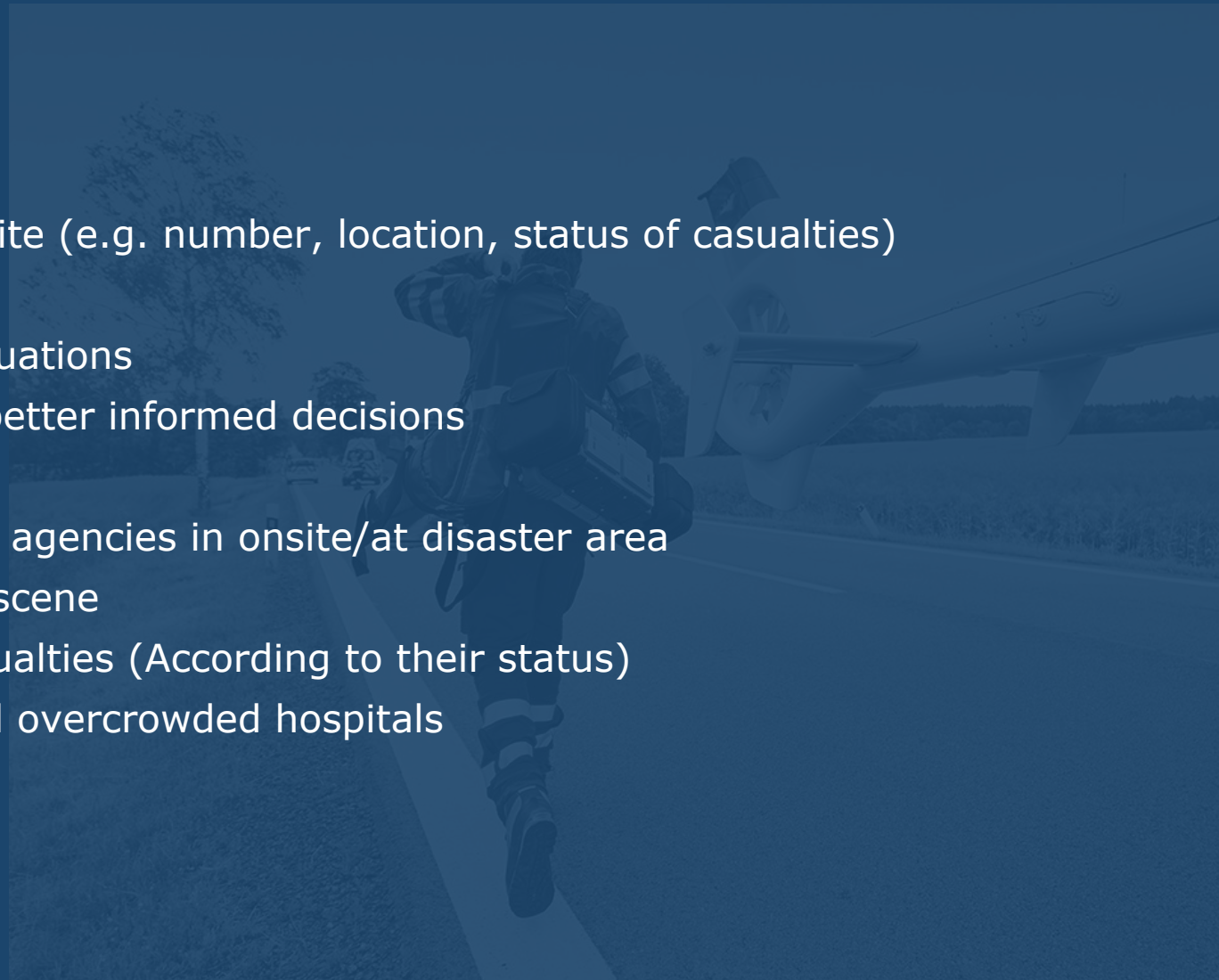


# Motivation



## Common needs

- Quick assessment of the situation on site (e.g. number, location, status of casualties)
- Better and quicker planning onsite
- Reducing reaction time to changing situations
- Availability of data that help to make better informed decisions
- More reliable tagging of casualties
- Better interoperability with all relevant agencies in onsite/at disaster area
- Better distribution of resources at the scene
- Increase in rapid transportation of casualties (According to their status)
- Right distribution of casualties to avoid overcrowded hospitals



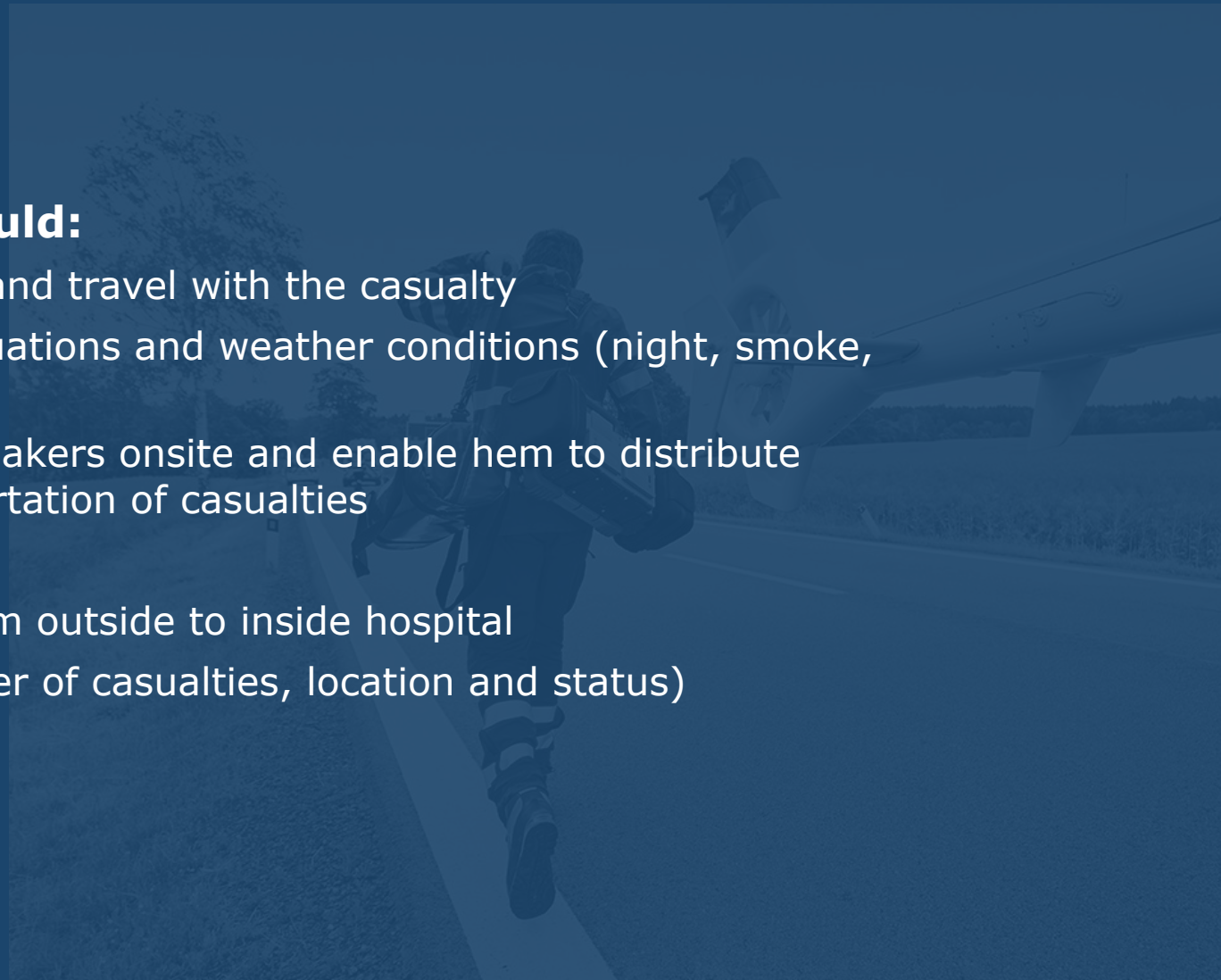


# Motivation



## Innovative EMS approaches should:

- make the EMS system interoperable and travel with the casualty
- make the status very visible in all situations and weather conditions (night, smoke, etc.)
- allow data transfer to EMS decision makers onsite and enable them to distribute resources and organise rapid transportation of casualties
- save data for analysis
- help during the handover process from outside to inside hospital
- allow overseeing the situation (number of casualties, location and status)

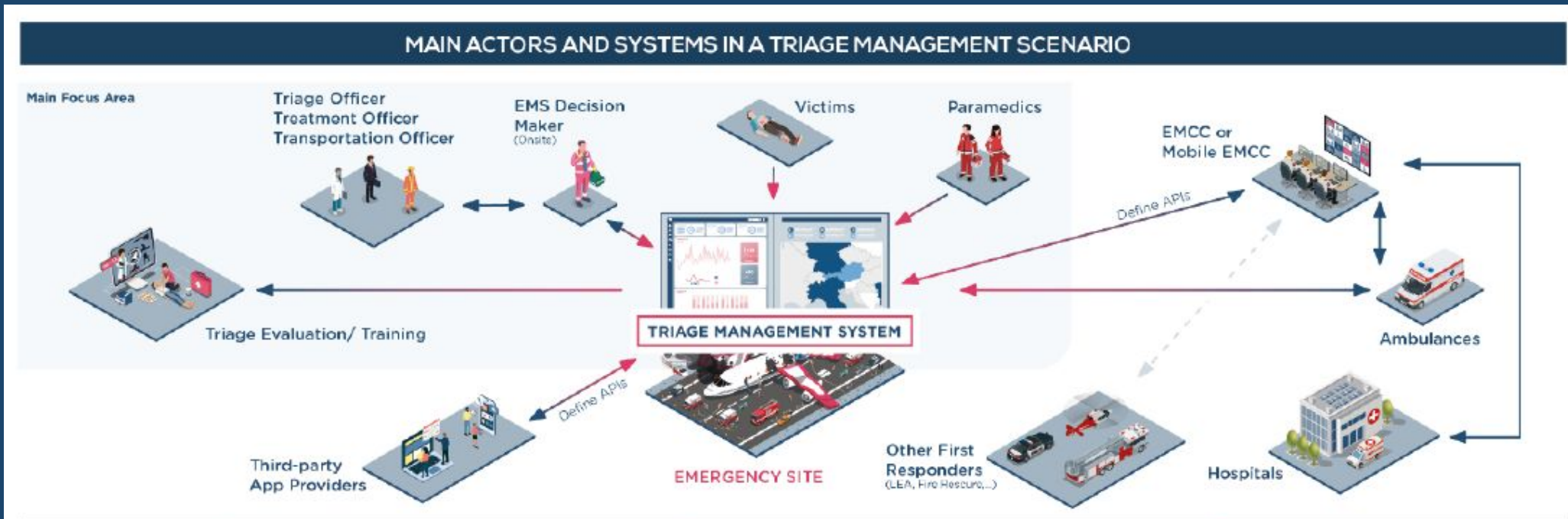


## Focus on complete on-site management

... with links to further communication (e.g. EMCC) and health and care interfaces (e.g. data from triage passed on to the treatment centre / hospital)

## ICT-enabled support

Solutions are expected to provide the necessary devices that work together to manage the triage process (e.g. triage tags, mobile devices)



# Requirements - examples



## Quick and accurate overview of casualties and their status

- Distinguish **different roles** in the system, such as casualties, different types of EMS practitioners
- **Display casualties at a glance** as they are being registered, their status and triage steps they are in, geolocation, etc.
- Allow for **identifying the casualties**, e.g. by scanning their ID cards, adding a photo taken by the EMS practitioner, possibly access to the casualty's medical record/EHR
- Provide an **innovative device (tag)** that can be attached to the casualty easily in different conditions and **displaying information** such as status, ID, as well as **collecting information** (e.g. vital signs, status changes) which can be viewed via appropriate interfaces by the EMS team. Further innovative elements are desirable, such as voice recognition. Some information should be visible directly on the device (e.g. circulation, breathing, disability, child/adult, stabilisation actions, exposure, bleeding/fractures/injuries, CBRN, airway, injury location, pregnancy), other information may be visible only through a connection to another interface such as a tablet.

- **Decision support for better allocation of available resources and quicker support for casualties**
  - Allowing to quickly **add new users** to the system when dealing with a specific MCI, **assigning roles** to them and allowing them to **set preferences** in the system (e.g. language)
  - A comprehensive way of **displaying the whole picture**, including mapping of the MCI area and ability to add / chart elements, resources (e.g. triage stations, vehicles area, etc.) on a shared map, displaying an overview of the casualties as they are being registered in the system by on-the-ground staff, overview of checklists of important actions to take into account for the EMS onsite staff
  - Provide **complementary information** such as weather conditions, traffic conditions, surroundings

- **Decision support for better allocation of available resources and quicker support for casualties**
  - Provide **decision support** based on the available data entered into the system, which supports decisions such as which hospital to select for different casualties based on available infrastructure (e.g. ICU beds) and specialisation (e.g. burns) of the hospitals nearby, required types of transportation (land/air) and number of transport vehicles, number and type of personnel, required logistic resources (supplies), etc.
  - Support **staff management**, such as staff location and types, check-in and check-out, staff progress (e.g. view of main completed tasks or checklists completed), easily communicate to the staff through the system, e.g. by sending a reminder to staff for a specific action regarding a specific casualty

# Requirements - examples

- **Improved coordination and communication among the different EMS actors**
  - Keep track of all actions – a unique record of a **casualty's journey**
  - **Share live information** about red / danger zones
  - **Store** and **exchange images** (e.g. with EMCC)
  - Ensure **messages are stored** in case of blocked communication and are labelled clearly if they are outdated (e.g. due to missing network connection)
  
- **Reduced handover times between ambulance transport and hospitals**
  - Display **available infrastructure** of hospitals nearby, their specialisation and capacity
  - **Alert hospitals** of upcoming casualties in need of treatment
  - Enable **sending of relevant information** (incl. clinical data) to those hospitals

# Requirements - examples



## Insights for quality assurance and training measures

- Providing information necessary to **evaluate the event ex-post** (e.g. number of casualties and their status, number of vehicles and other resources used, number of EMS staff involved, used equipment, reaction times between reported actions logged in the system, collaboration with local hospitals, internal and external communication, etc.)
- Offering **real data** from past MCI events **for simulation purposes** and augmented reality enabled training



## Interoperability with existing systems

- Use of a **harmonised terminology**
- **Connection with existing APIs and systems** of the procurers (detailed in the tender documents)
- Enable **sharing of data with other first respondents** like police and rescue (to be defined in the tender documents)
- **Sharing of clinical data** collected onsite hospitals (EHRs)



# Requirements - examples



## Operational – during the PCP

- Provide the solution in **all languages** of the procurers – English, Spanish, German, Italian, Greek, Turkish
- **Develop prototypes** in two iterations (phase II) and test them with end users (n = 10 per pilot)
- Fully develop the systems and test them extensively with end users (e.g. as part of national or international simulation events to be agreed with the procurers in phase III)
- Ensure all equipment necessary for the solution to work (e.g. mobile devices, tags) is made available during the simulation events (plan for at least 10 end users per pilot)
- Collect data in collaboration with the procurers to evaluate the solution's effectiveness



## Other – related to privacy, security, connectivity, usability, performance

# Use cases

Identification of Use Cases, based on procurers' inputs.

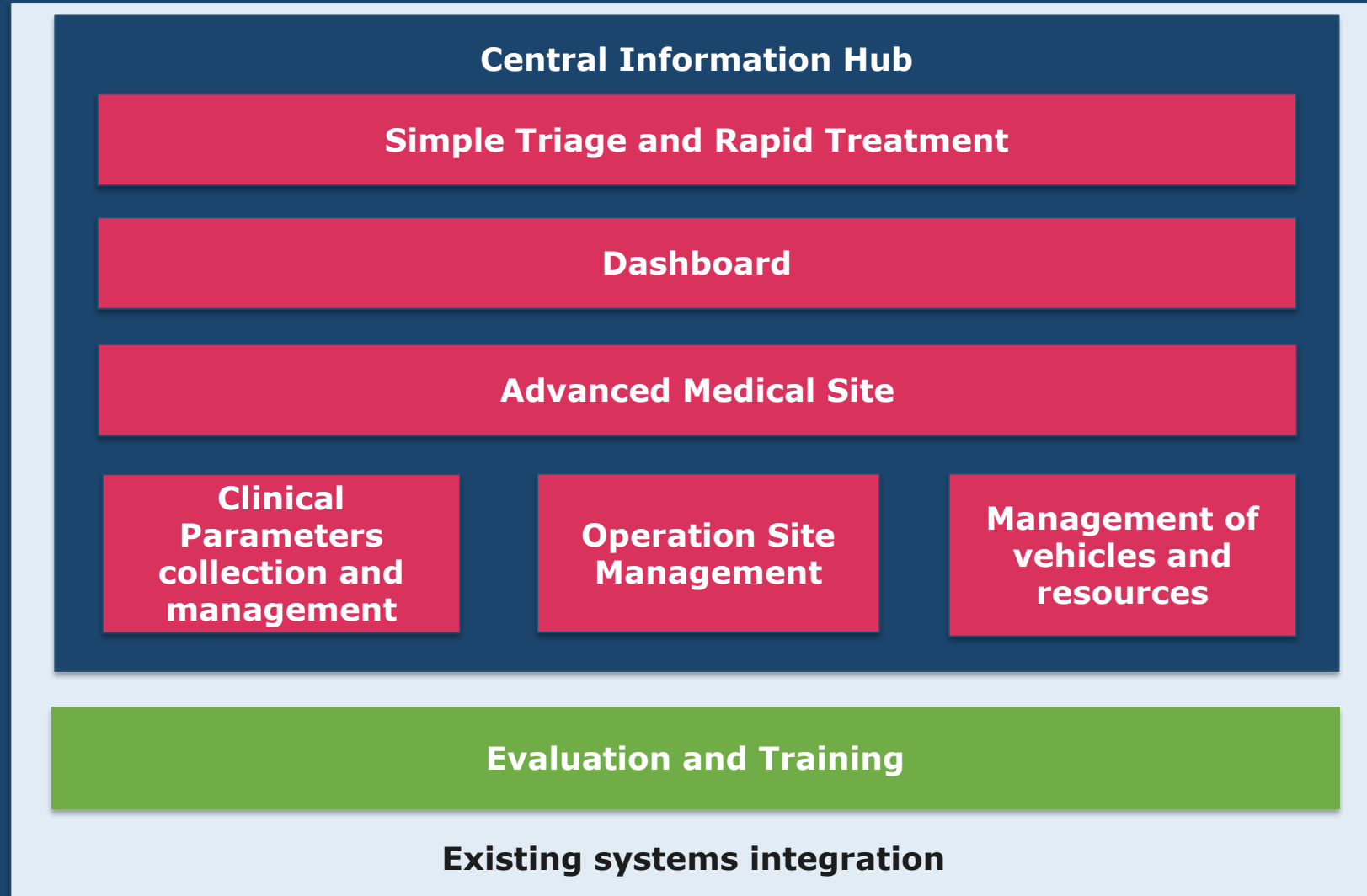


Use Cases as basis for the creation of Process Models.



Call for Tender will include:

- Requirements
- Use Cases
- Process & Visualisation Model



# I PROCURESECURITY PCP PHASES & TENDER PROCESS



Eleni Lianou

Attorney-at-law

Centre for Security Studies  
(KEMEA)

# WHAT AND WHY?

- **Pre-Commercial Procurement** (PCP) is the procurement of R&D services to develop pioneering innovative solutions, before they are commercially available
- **Public Procurement of Innovative solutions** (PPI) happens when the public sector uses its purchasing power to act as early adopter of innovative solutions which are not yet available on large scale commercial basis
- Society faces important **challenges**: Health care, Climate Change, Energy Efficiency, Transport, Security...

# A Win-Win for everyone!

## Benefits for taxpayers

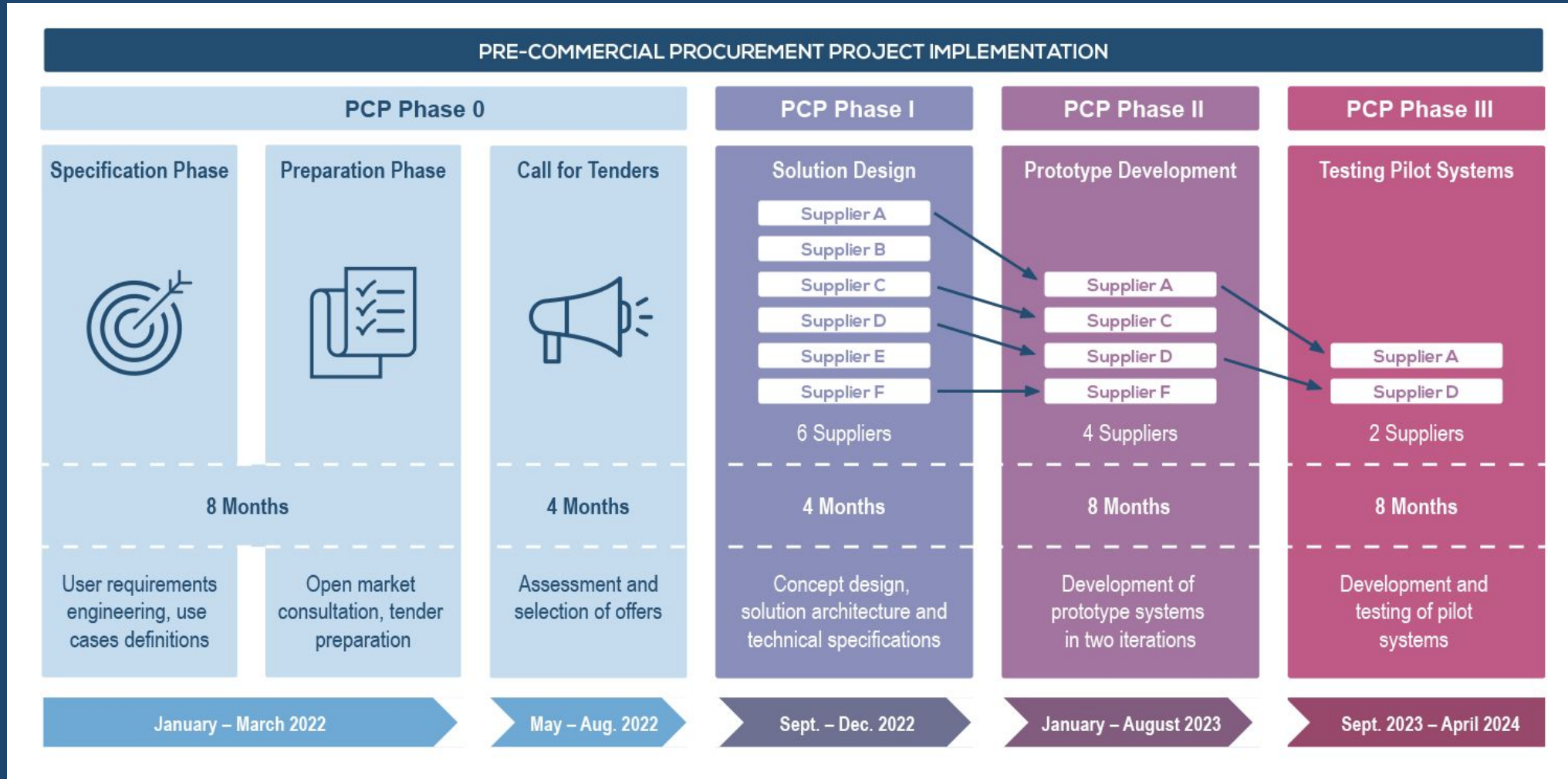
- Access to **better public services**;
- More innovative and globally **competitive society**;
- Attractive for **foreign investment**;
- Increased **employment demand**.

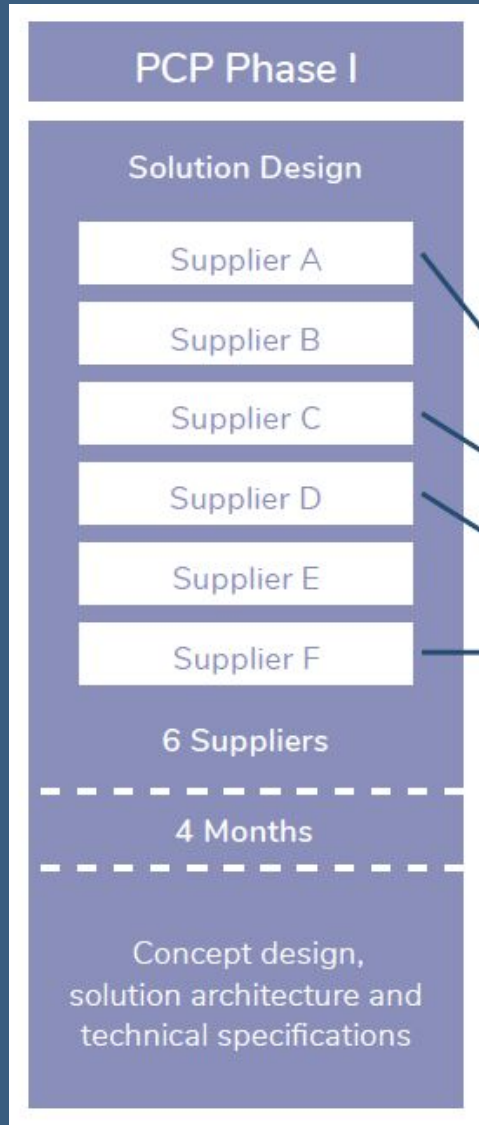
## Benefits for procurers

- **Solutions steered to public sector needs**;
- **Increase quality of services**;
- Knowledge about **pros/cons of alternative solutions**;
- Procurers get to **select the best option**.

## Benefits for suppliers

- Opportunities to **gain leadership in a sector or to enter new markets**;
- **Retention of IPR ownership**;
- Testing under **real world conditions**;
- **Shortening time-to-market** for innovative products/services.



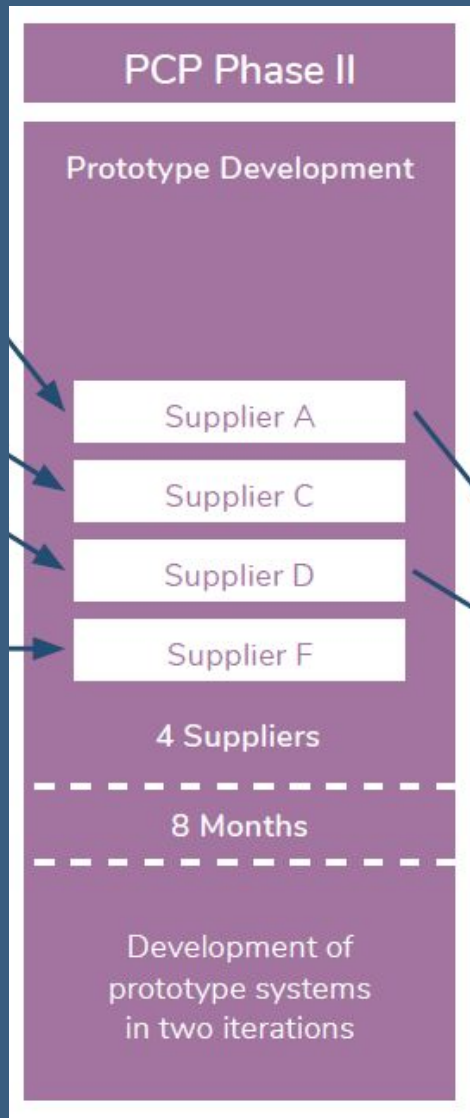


# PHASE I

Concept design, solution architecture and technical specifications based on procurers' requirements, use cases and process models

- **6** suppliers expected to be awarded
- **Expected output:**
  - Detailed report describing the solution and a detailed plan for the prototyping and testing activities in Phases II & III.
- **4 months**
- Maximum phase total budget: **€677,419** (max. €112,903 per contractor)
  - The offers are ranked according to **quality – price ratio**
  - Contracts are awarded **until the remaining budget for that phase is insufficient** to contract the next best tender

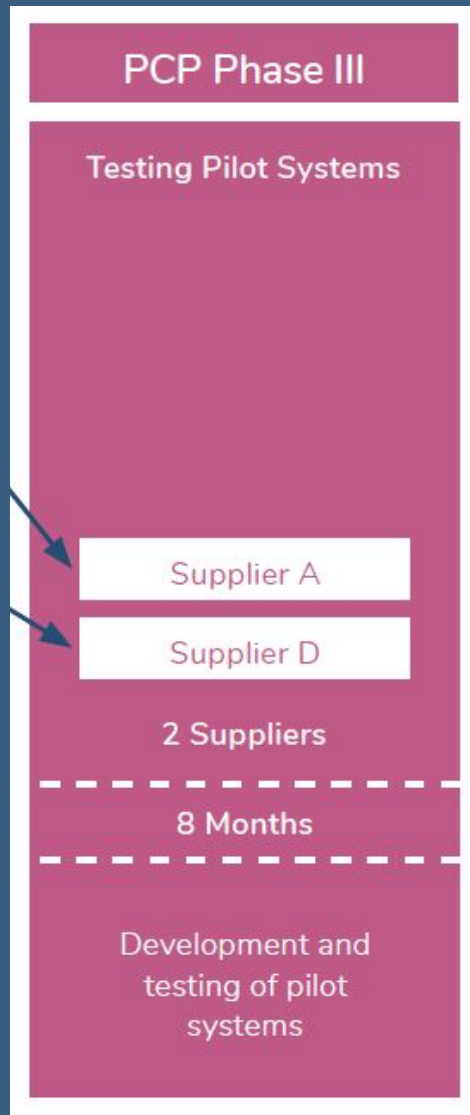




## PHASE II

Development of prototype systems in two iterations

- **4** suppliers expected to be awarded
- **Expected output:**
  - Prototype specification (v1)
  - Prototype demonstration (v2)
  - Plan for development of a limited volume of solutions for field-testing
  - Updated cost/benefits forecast including a preliminary business plan
- **8 months**
- Maximum phase total budget: **€2,370,967** (max. €592,742 per contractor)
  - The offers are ranked according to **quality – price ratio**
  - Contracts are awarded **until the remaining budget for that phase is insufficient** to contract the next best tender



## PHASE III

Final development and testing of a limited volume of services in real world conditions

- **2** suppliers expected to be awarded
- **Expected output:**
  - Implementation in 5 testing sites
  - Overall assessment and success verification
  - Updated cost/benefits forecast, including a preliminary business plan
- **8 months**
- Maximum phase total budget: **€3,725,806** (max. €1,862,903 per contractor)
  - The offers are ranked according to **quality – price ratio**
  - Contracts are awarded **until the remaining budget for that phase is insufficient** to contract the next best tender

# SUBMISSION OF TENDRES



## ELECTRONIC SUBMISSION

(VIA DEDICATED  
PORTAL)

## DIFFERENT SECTIONS

(ADMINISTRATIVE,  
TECHNICAL  
FINANCIAL)

## 5 MONTHS

TO SUBMIT OFFERS  
(TBC)

## ENGLISH

AS THE OFFICIAL  
LANGUAGE

# ELIGIBILITY & EVALUATION CRITERIA



**Open to all types of operators**  
(companies or other type of legal entities)  
regardless of their size or governance structure



**Single and joint tenders**



**OMC participation voluntary**  
It is not a prerequisite for  
participating in the Call for Tenders.



**Exclusion, selection and  
compliance criteria**

The criteria are still being developed. Internal  
evaluation (procurer + coordinator).



**Focus on quality**

The price-quality ration will favour the  
quality criteria.

# Quality / price ratio example

A weight of 80/20 is given to quality and price, respectively

$$\begin{array}{l} \text{Score} \\ \text{for} \\ \text{tender} \end{array} = \begin{array}{l} \text{Cheapest} \\ \text{Price/Price} \\ \text{of tender X} \end{array} \times 100 \times \begin{array}{l} \text{Price} \\ \text{weighting} \\ \text{(20\%)} \end{array} + \begin{array}{l} \text{Total quality} \\ \text{score (out of} \\ \text{100) for all} \\ \text{award} \\ \text{criteria of} \\ \text{tender x} \end{array} \times \begin{array}{l} \text{Quality} \\ \text{criteria} \\ \text{weighting} \\ \text{(80 \%)} \end{array}$$

Ranked tenders are funded until the phase budget is insufficient to fund the next best tender.

# Contract, monitoring and payments

## CONTRACTING

Framework agreement with specific contracts in each phase.

## MONITORING

During each phase, contract implementation will be **monitored periodically and reviewed against the expected outcomes** (milestones, deliverables and output or results) for the phases.

## COMPLETION CRITERIA

**Satisfactory completion** of milestones and deliverables: Requirement for payment

**Successful completion:** Prerequisite for passing from one phase to the next.



# INTELLECTUAL PROPERTY RIGHTS

## SUPPLIERS KEEP OWNERSHIP OF THE INTELLECTUAL PROPERTY RIGHTS

attached to the results generated during the PCP implementation.

## A FINANCIAL COMPENSATION

is to be calculated in the financial section of the tender. The **actual price** is the price quoted by the supplier. The **market price** is the price that the supplier would have quoted.

# VAT

The procurement budget is **centralised** with the Lead Procurer (KEMEA) with headquarters in Greece. KEMEA is entitled to a deduction for input VAT. For suppliers from Greece (in the case of joint consortia, the consortium coordinator's headquarters are of relevance) national VAT procedures apply.

**Suppliers from EU member states:** Invoicing without VAT using the reverse charge procedure. KEMEA's full data and VAT number must be included. Suppliers VAT number must appear.

**Suppliers from third countries:** VAT is calculated and reported by KEMEA. If the supplier upon import is obliged to report VAT according to the rules of the home country and the invoice contains VAT, that VAT is non-deductible in Greece. Instead, VAT amount is to be considered as a cost of the service.

Tenderers to calculate if their net amount + VAT is still under or equal to the ceiling amount, and not higher. Example: Budget procured 124k, suppliers VAT 24 %, max. value of the service without VAT is 100k.

# NEXT STEPS



Lucas Deimel

Research Consultant

empirica Communication and  
Technology Research

# WHY AN OPEN MARKET CONSULTATION?

The OMC aims to bring the market perspective to a procurement process



It helps the procurers to prepare an effective pro-innovation tendering approach



It enables the suppliers to work in advance and prepare competitive offers.



# OMC activities



## Local Events

Six local OMCs organised by each procurer in local language



## International Event



## OMC Questionnaire

See next slides for details.



## Matchmaking

See next slides for details.



## Call for Tenders

Launch expected in May.

# We are aiming to improve the requirements with your feedback prior to the call launch

Complete the OMC questionnaire and let us know your thoughts!

QUESTIONNAIRE

SCOPE DOCUMENT  
(included in the questionnaire)

<https://ec.europa.eu/eusurvey/runner/OMCiProcureSecurityPCP>



Obtain market feedback

Key for the success of the procurement



# Creation of a competitive consortium

We encourage suppliers which cannot cover the whole iProcureSecurity PCP scope to team up with other organisations.



## MATCHMAKING TOOL

Fill in the Market Consultation questionnaire to get support for your partner search

<https://pcp.iprocuresecurity.eu/procurementplatform/>

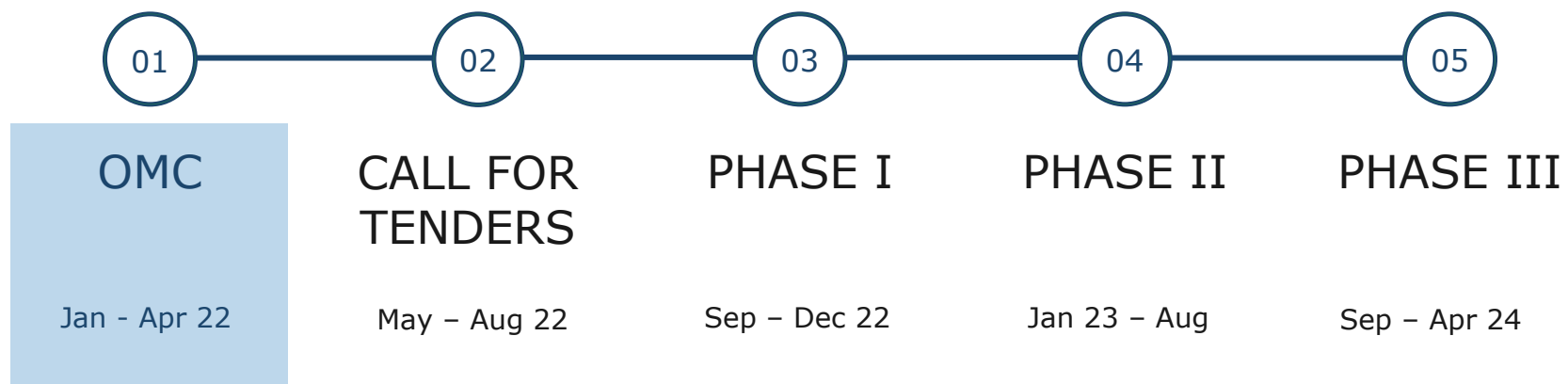


## PITCHING AT THE INTERNATIONAL WEBINAR

All presented pitching slides and the recording will be published online.

# Our Roadmap

Tentative timeline



# Q&A

# SUPPLIER PITCHING SESSION



Lucas Deimel

Research Consultant

empirica Communication and  
Technology Research

# Aim of the Session



Facilitate networking  
among potential partners

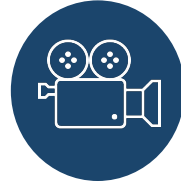


Ease consortium-building  
for joint tenders



Lower the barriers  
for participation in the Call for Tenders

# HOUSEKEEPING RULES



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All participants **must be muted** when not presenting to avoid noises.



Be ready for your **turn!**



Stick to your **3 minutes** slot.





# Pitching order

1. Black Space Technology Ltd
2. Bahia Software
3. Smart Health
4. Austrian Institute for Technology
5. AIT – Public Safety Hub
6. Zulu Medica S.r.l.
7. HighWind
8. APUS Software GmbH
9. AT-BIOTECH Traceability  
Information Systems
10. Digito Medica
11. Vomatec Innovations GmbH

# Black Space Technology Ltd

## United Kingdom

Medically accredited military and civilian telehealth and telemedicine software company with full language localisation with experience with multinational deployments in land, sea and air.



## Value my organisation can add to a joint Tender

- 12 years experience of triage solutions for mass casualty incidents – civilian and military
- Experience at design, development, integration, training and support internationally
- Multi language interoperability linking scene to responding hospitals
- Ability to integrate 3rd party vital sign monitoring and hospital systems
- Matches hospital capacity to demand and delivers multi agency data visibility

## Areas of cooperation sought

- Communication bearer
- Hardware supply
- Local integration partners

## The Rapid Triage System is aligned with iProcureSecurity requirements:

- **Quick and accurate overview of casualties and their status**
- **Decision support for better allocation of available resources and quicker support for casualties**
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**

**Dr David Morgan**

**David.morgan@blackspacetechology.com**

**<https://www.blackspacetechology.com>**

## Type of partnership

**Seeking a partner**

Open to discuss

**Rapid Triage**

**EUROPEAN MTFA EXERCISE**

- 1 Declare METHANE**  
Rapid Triage Sieve
- 2 Triage Victims**  
Interagency Data Visibility
- 3 Allocate Hospital**  
Allocate Hospital

Real Time Situational Awareness

Track & Trace Casualties

Real Time Triage Sort

Match Hospital Capacity to Demand

Live Video Streaming

**COMMAND CENTRE**

**TECHNOLOGY**

- Declared METHANE visible to all agencies
- Each Triage Medic equipped with an Android device with Rapid Triage and Colour Barcode Wristbands
- Silver Control has rugged tablet connected to Webservice to plan evacuation route
- Gold Control can access webservice on any device remotely to allocate resources
- Each victim is triaged in the hot zone and colour coded wristband applied
- Each victim is scanned as they arrive at the various evacuation stages resulting in real time tracking of victims evacuation
- The Transport Officer selects the appropriate Hospital for the victim prior to ambulance dispatch
- On arrival the patient is scanned in and the hospital capacity updated in real time

**END USER FEEDBACK**

- This technology is a game changer for combat medics!
- The Triage barcode scanner is simple to use!
- The Triage tool was excellent at monitoring casualty numbers!
- The system speeds up situational awareness and casualty evacuation plans
- Video streaming very effective when using front facing camera!
- Interface very easy to use. One screen with all the information made it very simple to use!
- The ability to monitor the number of CATs used is very useful as an indicator of the severity of injuries and hospital facilities required!

**Site**  
Disney World Paris – Multiple Terrorist Firearm Attack Exercise staged at night

**Unit**  
Rapid Triage deployed with National Police Medical Intervention RAID Unit along with 200 responder units including military, fire and ambulance services



- RAID - France
- MTFA – Disney Land
  - 200 Responders
  - 20 Hostages
  - 15 Terrorists
- Triage
  - Colour Coded Bands
  - ID Terrorists
- CCP
  - Re-triage
  - Hospital Capacity allocation
- Handover
  - Discharge at Scene
  - Track and Trace to Hospital
- Language Localisation
- Kit
  - 6 phones, 2 tablets, 1 printer, 200 colour coded tags



# BAHIA SOFTWARE

## Spain

SME with more than 20 years in the health sector and proven experience in the development of software platforms and PCP and European R&D projects.

BAHIA SOFTWARE have also experience in triage and non-health emergencies.

## Value my organisation can add to a joint Tender

- Success in developing PCP projects (leading) and H2020 projects (partner)
- Experts in interoperability in healthcare systems
- Previous experience in non-health emergency projects
- Aiming to apply satellite and drones imaging to emergencies

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- Decision support for better allocation of available resources and quicker support for casualties
- Improved interoperability internally and with other first responders and relevant actors
- Reduced handover times between ambulance transport and hospitals
- **Insights for quality assurance and training measures**

iProcureSecurity  PCP



**Cristóbal Bernardo Castiñeira**

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**[www.bahiasoftware.es](http://www.bahiasoftware.es)**

## Type of partnership

**Seeking a partner**

Open to discuss



### STARS PCP (leader)

- 5 European hospitals as procurers
- 5 partners
- Resilient support tool for pre-surgery patients to reduce stress during the entire care path
- Accomplished Phase 1 and 2

### HUTER HORIZON2020 (partner)

- Research and Innovation action from H2020 programme
- 6 international partners
- Creation of the human uterus cell atlas map through single cell technologies
- Developed an ICT platform to storage, process, analyze and exploit single cell data

### EHDEN (certified SME)

- Innovative Medicines Initiative 2 Joint Undertaking programme
- Creation of a pan-European federated network using OMOP
- BAHIA SOFTWARE is a certified SME in the use of OMOP and its tools
- Transformation of 4 hospitals data bases into OMOP (Spain and Portugal)

### ANTISUPERBUGS PCP (leader)

- 4 procuring authorities
- 3 partners
- Advanced ICT solution to detect superbugs in hospitals
- Accomplished Phase 1 and 2, and invited to Phase 3

### CHAIMELEON HORIZON2020 (partner)

- Research and Innovation action from H2020 programme
- 9 European hospitals and 18 international partners
- Integration of databases of different EU hospitals into one central repository with health images and related clinical data
- Clinical data extraction into the central repository and development of analytical tools for data exploitation

# Smart Health Global Solutions

## SPAIN

Smart Health is a startup that provides solutions in the field of digital health specifically focused on the extra-hospital sector with the aim of guaranteeing the sustainability of the socio-health system worldwide, discovering multiple benefits for all the actors involved.

### Value my organisation can add to a joint Tender

- Interoperable medical record
- Digitized medical record in 90 seconds
- Cyber Security and data privacy
- Cost reduction
- Software currently running

### Areas of cooperation sought

- Public Health Administration
- Investors

### iProcureSecurity topics we are seeking cooperation

- Quick and accurate overview of casualties and their status
- **Decision support for better allocation of available resources and quicker support for casualties**
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**
- **Insights for quality assurance and training measures**

**SMART HEALTH**

**Gabriel Rivas**

**grivaas1@gmail.com**

**<https://smarthealth.digital>**

**Type of partnership**

**Seeking a partner**

Open to discuss



# AIT - Austrian Institute of Technology GmbH

## Austria

AIT is Austria's largest applied research organisation with >1300 employees.

At the Center for Digital Safety & Security we are developing state-of-the-art information and communication technologies to ensure that IT systems are highly secure and reliable in the context of comprehensive digitization and global networking.



## Value my organisation can add to a joint Tender

- Mixed Reality Trainings for training triage scenarios in an efficient and immersive way
- Exercise Instructor interface for controlling and supervising the training
- Offering a system to localize paramedics and victims via a tablet. Paramedics can type in injuries and victims get automatically localized via their location. □ data is exchanged within the system and the commander has an overview where victims are and what injuries they have

## Areas of cooperation sought

- Co-operating with emergency coordination to localize victims
- Expertise in Mixed Reality and computer vision
- Coordinating developments

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- **Decision support for better allocation of available resources and quicker support for casualties**
- Improved interoperability internally and with other first responders and relevant actors
- Reduced handover times between ambulance transport and hospitals

**Elisabeth Broneder**

**Elisabeth.broneder@ait.ac.at**

**<https://www.ait.ac.at/>**

## Type of partnership

Seeking a coordinator

Seeking a partner

**Open to discuss**

# AIT - Austrian Institute of Technology GmbH

## Austria

AIT is Austria's largest applied research organisation with >1300 employees.

At the Center for Digital Safety & Security we are developing state-of-the-art information and communication technologies to ensure that IT systems are highly secure and reliable in the context of comprehensive digitization and global networking.



## Value my organization can add to a joint Tender

- Strong expertise in IT for crisis & disaster management
- AIT's Public Safety Hub (PSH) is a resilient, flexible and secure interoperability solution (TRL 8)
- PSH can in be used to create a common-operational-picture across organizations (backend-hub) and to exchange information from different services on-site (edge-hub)
- Existing solutions can easily be connected to the PSH as it is open for a broad range of interoperability solutions (TAP, EMSI, DCI, etc.)

## Areas of cooperation sought

- AIT is willing to coordinate specific areas (interoperability, requirement analysis, process design)
- AIT has expertise in public procurement and can support the application process
- AIT can support also in other areas (on-site measurements, training programs, etc.)

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- Decision support for better allocation of available resources and quicker support for casualties
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**
- Insights for quality assurance and training measures

**Mario Drobics**

**Mario.Drobics@ait.ac.at**

<https://www.ait.ac.at>



## Type of partnership

Seeking a coordinator

Seeking a partner

**Open to discuss**

# Zulu Medical S.r.l.

## Italy

Zulu Medical Srl is an innovative SME founded in 2014 and based in Treviso, near Venice.

The company has developed innovative solutions to improve communication in out-of-hospital emergency and home patient management.

iProcureSecurity  PCP



**Elettra Ricci**

**sales@zulumedical.net**

**www.zulumedical.net**

## Value my organisation can add to a joint Tender

- Hardware and software platform for field information collection (triage) and sharing to advanced medical stations, hospitals, operations centers, prefecture
- Continuous, updated, encrypted and unalterable data flow
- Training of personnel for the use of the platform in relation to the various intervention scenarios and related methods
- Keep in memory everything you need such as procedures, intervention protocols, sanitary, decontamination, tables chemical compound

## Areas of cooperation sought

- Local system communication in case of no signal
- Management systems that manage the data received from the rescue site

## iProcureSecurity topics we are seeking cooperation

- Quick and accurate overview of casualties and their status
- **Decision support for better allocation of available resources and quicker support for casualties**
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**

## Type of partnership

Seeking a coordinator

Seeking a partner

**Open to discuss**

# HIGHWIND

## France

Start-up specialized in pre-diagnosis of emergency situations through Artificial Intelligence. Embedded within population smartphone for emergency calls or the first-responders smart devices. The AI technology allows to instantly assess patients critical level (Traumatology), elect the right emergency service, and assist triage & decisions-making during major crisis.

### Value my organisation can add to a joint Tender

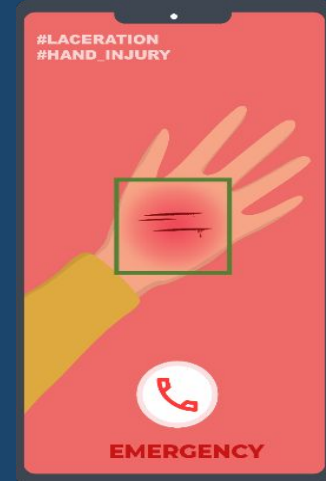
- Deploy an end-to-end emergency call solution, for the population & first responders to the emergency call center
- Leverage on AI to pre-diagnose patients for 1. Traumatology ; 2. Situation ; 3. Emotions & pain
- Significant time reduction and efficiency in patients assessment and triage (90ms) based on pictures
- Highlight most critical patients during major crisis
- AI pre-diagnostics module can be integrated within a partner's end-to-end communication solution

### Areas of cooperation sought

- Simplify communication between key stakeholders (first responders, operators, crisis cell)
- Project coordinator to ensure full project scope coverage
- Emergency communication providers looking to boost triage capabilities through AI
- Local medical emergency ecosystem knowledge

### iProcureSecurity topics we are seeking cooperation

- Training for medical emergency regulators to implement new tools
- Quick and accurate overview of casualties and their status
- Decision support for better allocation of available resources and quicker support for casualties
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**
- **Insights for quality assurance and training measures**



**Adrien RICCI**

**adrien.ricci@highwind-ems.com**

**www.highwind-ems.com**

**Type of partnership :**

**Seeking a coordinator**

**Seeking a partner**

**Open to discuss**

# Enhanced Emergency Calls

For the public & first-responders on their smart devices

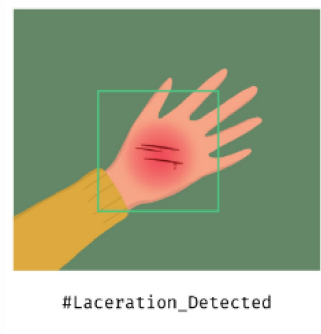
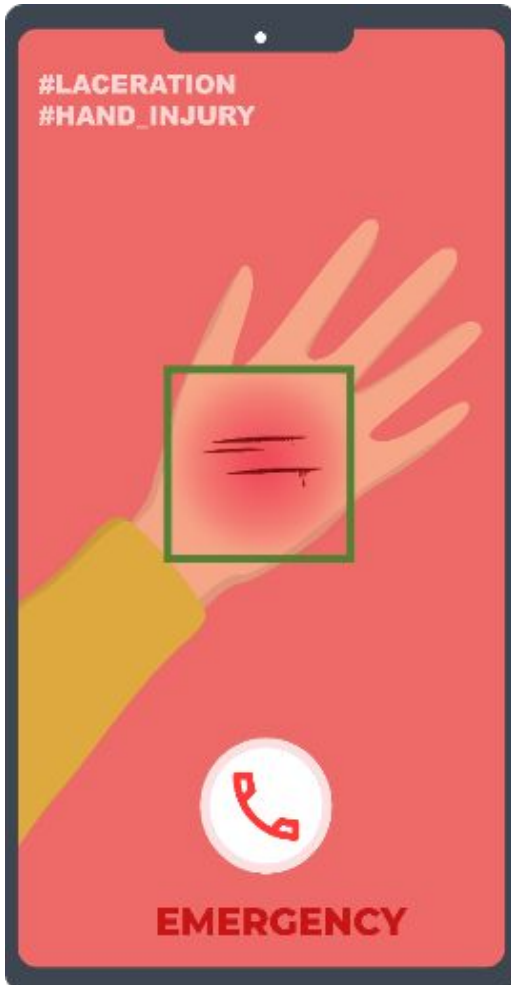
Reduce duration of medical emergency call **from 12min to 2min**

Increase by **+50% chances of survival** of the patient during the Golden Hour

## SMARTPHONE EMERGENCY CALL SOLUTION

- Installed app or web browser emulated via text-message (SaaS)
- Triggers usual emergency call (112; 911 ; 15 ; etc), everywhere in the world
- Sends : GPS/AML, photos, videos, pre-registered information
- **(Advanced)** Pre-diagnose the situation through AI analysis in < 90ms
- **(Advanced)** Automatically selects the right type of emergency service center through AI

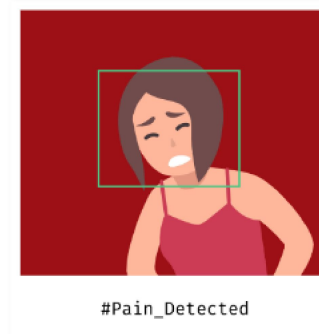
## DEEP-LEARNING PRE-DIAGNOSTICS MODULES



TRAUMATOLOGY



SITUATION



EMOTIONS



# Emergency Calls & Command Center

HQ Interface dedicated to emergency call centers & crisis management teams, displayed by web browser  
Emergency operators can **visualize requests by emergency assessed** level thanks to our AI modules

**HIGHWIND** | Enhanced Emergency Calls

SAMU 06 - NICE

[15:10] - (FR) +33 673 351 791 ID

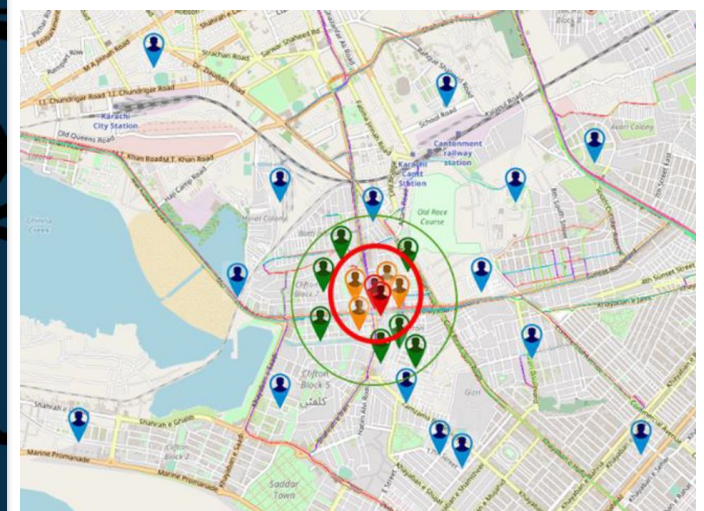
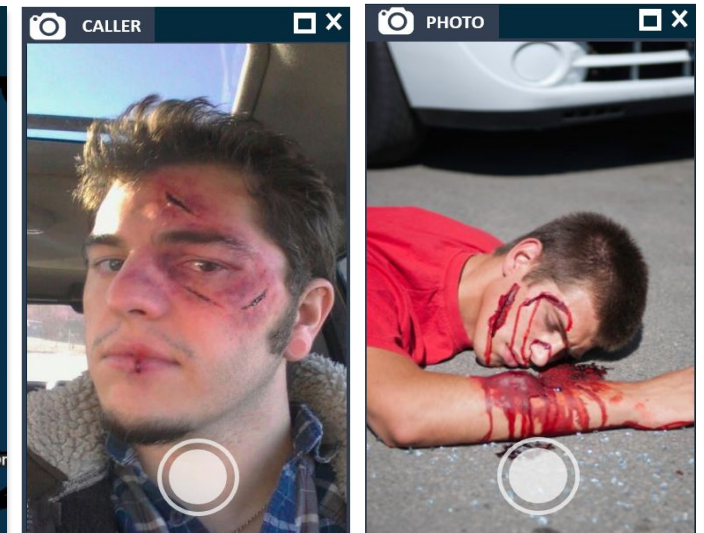
14:53

11 Rue Alexandre Mari  
06000, Nice, FRANCE

#MassiveBleedings  
#Exterior #Wounded #LayingDown  
#Women #NoHostiles #Helpers

43°41'47.1"N 7°16'21.6"E

**CRITICAL LEVEL**





# Automated Triage : Priority & Service iProcureSecurity PCP

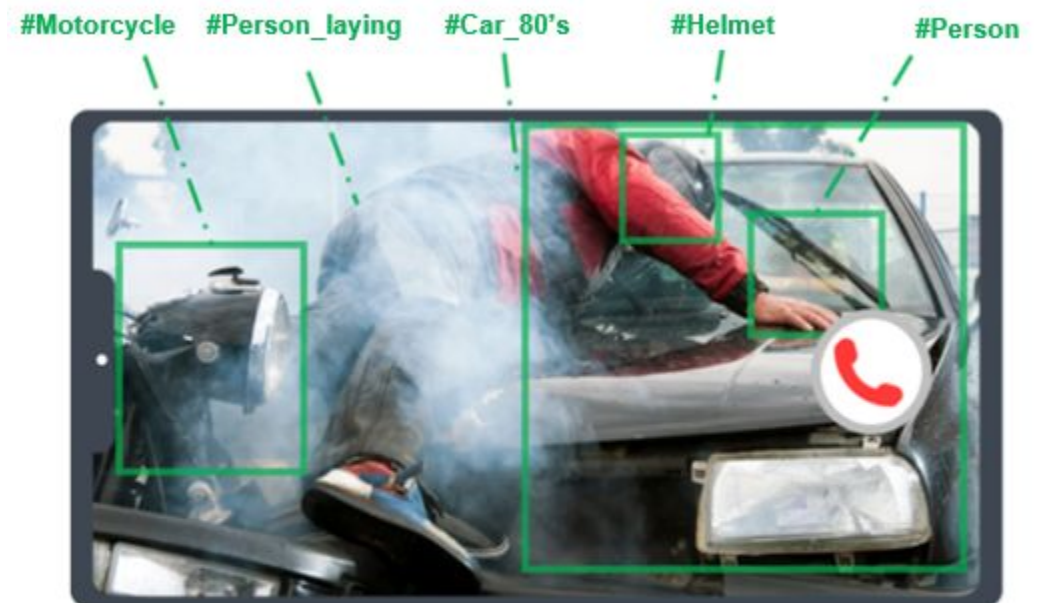
AI module 2 decides on the **best suited emergency service**, depending on each country's practices and emergency situation context. Equipped **hospitals can be automatically pre-alerted**, even before call triage, to ready themselves



**AI DETECTION** : #Intense\_flames ; #Persons ; #Ladders ; #Car ; #Motorcycle

**AI INTERPRETATION** : building on fire with persons trapped in heights

**DECISION ADVISED** : Priority 1 – **Firefighters**, Equipement : ladders, water canons, circulation kit, oxygen bottles, circulation kit.



**AI DETECTION** : #Persons ; #Helmet ; #Car ; #Motorcycle

**AI INTERPRETATION** : Motorcycle accident with persons in danger. Anticipating fractures, internal bleedings, facial injuries. Road speed limit (GPS) = 70km/hr

**DECISION ADVISED** : Priority 1 – **Medical Emergencies**, Support – **Police**. Equipement : cervical support, blood bags, reanimation kit. Extrication kit. Circulation kit.

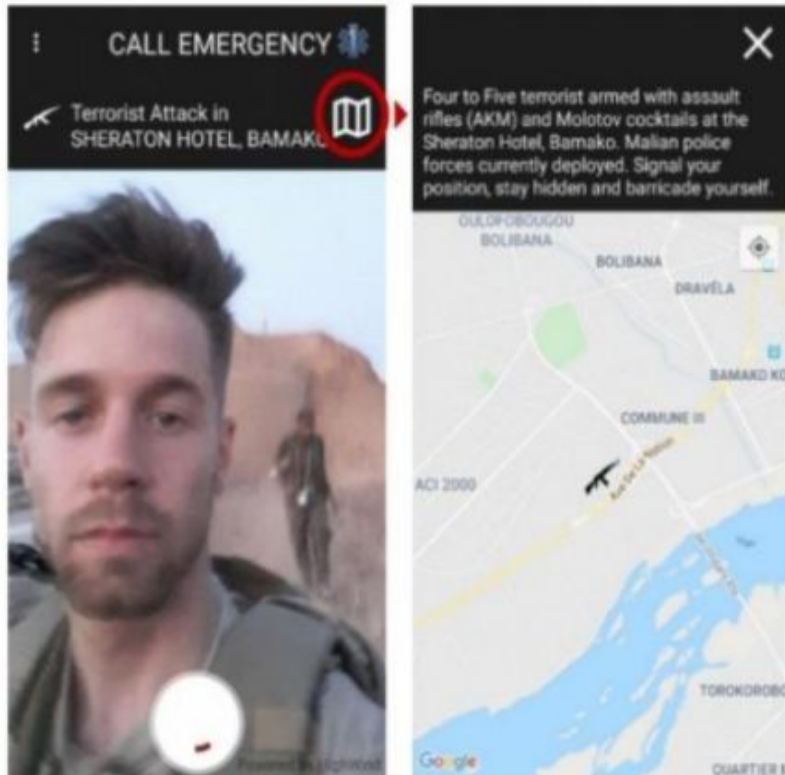


# Disaster Mode

Designed with the support of disasters' survivors and emergency responders having faced terrorist or large scale crisis situations.



*Emergency notification for all persons within a given crisis' area*



- Remotely activated by an emergency command center for all persons within a given area
- Inform all persons of the safety measures
- Enables safety check feature
- Swap phone and emergency call app to “dark mode”, prevents giving away position in case of terrorist attack
- Focus on battery saving and communication with reduced network

# APUS Software GmbH

## Austria

Better software, better people --- better people, better software.

The IT experts for cross-platform development and complex, fail-safe systems.

iProcureSecurity  PCP



## Value my organisation can add to a joint Tender

- Well-grounded experience concerning the needs and requirements of emergency and healthcare services (e.g. Red Cross, fire brigade, hospitals), national and international
- Workforce management, management of the organizational structure as an all-in-one solution
- Complete planning of all human and non-human resources for the needs-based disposition of fire services
- Integrated management of all educational measures and training courses
- Everything contained in a central planning tool

## Areas of cooperation sought

- Mobile devices and applications for reliable and effective mission dispatching
- Hospital and other healthcare provider groups
- International emergency services
- Cooperations with other stakeholders, preferably with touch points to our products and services in order to establish an encompassing triage management tool

**Željko Lukić**

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**www.apus.at**

**Type of partnership**

**Open to discuss**

# AT-Biotech Traceability Information Systems

## SPAIN

We develop RFID traceability solutions for healthcare.

### Value my organisation can add to a joint Tender

- Expertise to the triage operations field: casualty identification, triage guiding, info send & receive
- Full-engineering solution: from RFID casualty bracelets to PDA devices for medical use (software, hardware, sensors)
- Robust solution working offline – all weather conditions
- Systems (software & Hardware) integration

### Areas of cooperation sought

- Full-system coordination, leadership, administration support
- GSM connectivity, other-parties interoperability, GIS (Spatial) system capabilities
- Hardware for medical vital-signs monitoring
- Legal & Regulatory requirements

### iProcureSecurity topics we are seeking cooperation

- Reduced handover times between ambulance transport and hospitals (Partial)
- Insights for quality assurance and training measures (Partial)
- **Non-functional requirements: interoperability, connectivity, usability & language**
- **Legal & regulatory**
- **Organisational, Staff & Business Requirements**

AT-Biotech  
Tracing Life



**AIDA AGEA MERINO**

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**www.at-biotech.com**

**Type of partnership:**

**Seeking a coordinator**

Open to discuss

# AT-Biotech Traceability Information Systems

SPAIN

We develop RFID traceability solutions for healthcare.

iProcureSecurity  PCP

**AT-Biotech**  
Tracing Life



**AIDA AGEA MERINO**  
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[www.at-biotech.com](http://www.at-biotech.com)

**Type of partnership:**

**Seeking a coordinator**

Open to discuss

## MAIN ACTORS AND SYSTEMS IN A TRIAGE MANAGEMENT SCENARIO



## Value my organisation can add to a joint Tender

- ✓ Casualties identification, classification, location, digital record creation & update status
- ✓ Tools for medical assistance & training: process steps, onfield guiding, triage algorithms, photos attachment, multi-purpose communications device
- ✓ Casualty complete digital traceability record
- ✓ Providing data for emergency reporting, casualty-related alerts, errors prevention

# Digito Medica

## Spain

Multibrand and remote patient-monitoring connectivity and integration.

Synchronic and asynchronous communication for collaboration among Clinicians and Patients.

Remote visualization of vital markers and waves.



## Value my organisation can add to a joint Tender

- Providing connectivity to monitorization devices to be used both on field and during transportation
- Providing full-disclosure remote monitorization through different visualization tools
- Providing access through mobile technology to patient Electronic Health Records.

## Areas of cooperation sought

- Telecommunications providers
- Analytic, AI-Based and smart triages
- Process Engineering and Process Improvement
- Logistics

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- **Decision support for better allocation of available resources and quicker support for casualties**
- Improved interoperability internally and with other first responders and relevant actors
- **Reduced handover times between ambulance transport and hospitals**

**Juan Manuel Jauregui Becker**  
[jmjauregui@digitomedica.com](mailto:jmjauregui@digitomedica.com)

## Type of partnership

**Seeking a partner**  
Open to discuss

# RescueWave by VOMATEC Innovations GmbH

iProcureSecurity  PCP

## Germany

Specialized SME from Germany.

Software and Solutions Provider for 20+ years for emergency services, fire brigades, corporate security.



## Value my organisation can add to a joint Tender

- World-First in Digital MCI Management
- On-Scene Overview with Digital Triage Tags (Patented)
- MCI Management Software (multi platform), from Triage to Transport
- Off-line capability

## Areas of cooperation sought

- Decision Support towards hospital capacities/infrastructure
- Privacy and GDPR
- EMCC and Hospital Information Systems

## iProcureSecurity topics we are seeking cooperation

- Quick and accurate overview of casualties and their status
- Decision support for better allocation of available resources and quicker support for casualties
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**
- **Insights for quality assurance and training measures**



**Dr. Stephan Heuer**  
**Stephan.Heuer@vomatec.de**  
[www.rescuwave.de](http://www.rescuwave.de)

## Type of partnership

Seeking a coordinator  
Seeking a partner  
**Open to discuss**

Specialize in creating metaverses (multiplayer virtual reality) for all use cases in a multiplayer collaboration on the cloud. Virtual Reality (VR) and PC , cross-platform support. Digital transformation from on-location processes to virtual reality environment in a cost-effective way. Data analysis for better performance.



## Value my organisation can add to a joint Tender

- Save training costs (human resources and space costs, AI actors) through VR
- Save traveling costs through VR
- More efficient learning processes through VR
- Recreate environment in VR that can't exist in the real world in

## Areas of cooperation sought

- Simulation of real world situations
- Innovative learning and training methods
- Improve acquiring knowledge processes
- Improving performance by Data

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- **Decision support for better allocation of available resources and quicker support for casualties**
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**

**Zvi Tubul-Lavy**

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**<https://1sync-xr.com/>**

## Type of partnership

**Seeking a coordinator**

**Seeking a partner**

**Open to discuss**



# Institute of Communication and Computer Systems (ICCS) – I-SENSE Group

Greece

Research arm of the School of Electrical and Computer Engineering (ECE) of the National Technical University of Athens (NTUA) **I-SENSE**: Research Group of ICCS (~150 Members) active in Intelligent Transportation Systems, Virtual Environments, Smart Integrated Systems – Sensors, Communication, Platforms and Crisis Management and Secure Societies.

iProcureSecurity  PCP



**Spyros Athanasiadis**  
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[eleftherios.ouzounoglou@iccs.gr](mailto:eleftherios.ouzounoglou@iccs.gr)

<https://i-sense.iccs.gr/>



**Type of partnership**

**Open to discuss**

## Value my organisation can add to a joint Tender

- Already developing, prototyping and testing (in collaboration with Medical Emergency and Civil Protection Agencies in France, Italy, Germany and UK) a Digital solution for Victim Tracking including **3D printed digital tag** (NFC and Bluetooth enabled, Triage Status - LED), **Mobile Application** (configuration of tag, victim information/photos, victim tracking – GPS), **Database and Data Distribution System** (REST-API and **EDXL-TEP**) and **Map-enabled Web Application/Dashboard**
- Experienced in **Embedded and Wearable Device** Design and Development (incl. integration of vital sign sensors), **integration of legacy systems, mobile/web applications, interoperable communications and AR applications (mobile and glasses)**.
- Active in related **standardization** (Chairing CEN Workshop Agreement on "Requirements for acquiring digital information from victims during Search and Rescue operations" – H2020 STRATEGY)
- **Coordinating the relevant BIA H2020 INGENIOUS and H2020 INGENIOUS**
- **Areas of cooperation sought (ICCS offerings)**
- Digital Triage Devices for Tracking victims and their status (digital tag, communications, sensors/diagnostic device integration, GNSS)
- Mobile Application/Backend Service/Web Application/Interoperability Framework for collection and secured sharing of –Victim Information and Status –Victim Tracking and Transport Monitoring –Triage Algorithm –Interventions and Medication Given Recording

## **iProcureSecurity topics we are seeking cooperation**

- Quick and accurate overview of casualties and their status
- **Decision support for better allocation of available resources and quicker support for casualties**
- **Improved interoperability internally and with other first responders and relevant actors**
- Reduced handover times between ambulance transport and hospitals

# RED Management & Consultancy

## The Netherlands

- (Project) management in incident, emergency, crisis and disaster management.
- Tailor made trainings, courses, workshops and exercises.
- Emergency Management App & Platform. (<https://youtu.be/-vljTESTROM>)

## Value my organisation can add to a joint Tender

- 20+ yrs experience in healthcare and medical emergency, crisis and disaster management.
- National and international network and experience.
- Operational, tactical and strategical experience.
- A flexible working prototype app and platform.

## Areas of cooperation sought

- Offices of Emergency Management & Emergency Medical Services.
- Corporate and Public Emergency Response providers.
- Crisis, Event & Business Continuity Managers.
- Emergency Response and Crisis Management Training institutions.

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- **Decision support for better allocation of available resources and quicker support for casualties**
- **Improved interoperability internally and with other first responders and relevant actors**
- **Reduced handover times between ambulance transport and hospitals**



**Raman Madan**

[info@red-mc.org](mailto:info@red-mc.org)

<https://red-mc.org>

## Type of partnership

**Seeking a partner**

Open to discuss

# Tiga Information Technologies

## Turkey

TIGA is a technology provider focusing on dedicated Healthcare IT solutions. We provide comprehensive health ecosystems in national scale that connects all the healthcare stakeholders. We are also working closely with academia, and we give importance to industry-academia partnerships.

iProcureSecurity  PCP



## Value my organisation can add to a joint Tender

- Healthcare Interoperability Solutions
- 125 M+ Patients, 6.6 B+ Health Records, 55 M+ Active Users, 120 K+ Healthcare Facilities in 3 different countries
- Cloud-based Systems, Health Analytics, Main e-Health Infrastructure
- EU and R&D Project Experiences

## Areas of cooperation sought

- Emergency Medical Services
- IoT Tech Companies
- EMR Software Companies

## iProcureSecurity topics we are seeking cooperation

- **Quick and accurate overview of casualties and their status**
- Decision support for better allocation of available resources and quicker support for casualties
- Improved interoperability internally and with other first responders and relevant actors
- **Reduced handover times between ambulance transport and hospitals**
- **Insights for quality assurance and training measures**

Eda ÖZCEYHAN

Corporate Sales Executive

[eda.ozceyhan@tigahealth.com](mailto:eda.ozceyhan@tigahealth.com)

[tigahealth.com](http://tigahealth.com)

Type of partnership

Seeking a partner

# Inetum España, S.A.

## Spain

Inetum is an agile IT services company that provides digital services and solutions, and a global group that helps companies and institutions to get the most out of digital flow with a complete product portfolio for healthcare.



## Value my organisation can add to a joint Tender

- Solutions and Services related to critical medicine environments: Emergencies, Operating Rooms and Intensive Care Units; including follow-up of patients at discharge: continuity of care, chronicity management, outpatient care and other outpatient services

## Areas of cooperation sought

- Public Emergency Services
- Public Health Services
- Emergency Medical Transportation Companies
- Private Health Companies

## iProcureSecurity topics we are seeking cooperation

- Quick and accurate overview of casualties and their status
- Decision support for better allocation of available resources and quicker support for casualties
- Improved interoperability internally and with other first responders and relevant actors
- Reduced handover times between ambulance transport and hospitals
- **Insights for quality assurance and training measures**

**Santiago Aso Lete**

**santiago.aso@inetum.com**

**<https://www.inetum.com/>**

## Type of partnership

**Seeking a partner**

Open to discuss