

iProcure Security PCP

Pre-Commercial Procurement of Innovative Triage Management Systems Strengthening Resilience and Interoperability of Emergency Medical Services



D3.1 Report on the Open Market Consultation



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

Project

Acronym	iProcureSecurity PCP		
Title	Pre-Commercial Procurement of Innovative Triage Management Systems Strengthening Resilience and Interoperability of Emergency Medical Services		
Coordinator	SYNYO GmbH		
Reference	101022061		
Туре	Pre-commercial procurement (PCP)		
Programme	HORIZON 2020		
Торіс	H2020-SU-SEC-2020		
Start	01.09.2021		
Duration	36 months		
Website	https://pcp.iprocuresecurity.eu/		
Consortium	SYNYO GMBH (SYNYO), Austria		
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Acknowledgement: This project has received funding	Disclaimer: The content of this publication is the sole
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and Innovation Programme under Grant Agreement	represents the view of the European Commission or
No 101022061.	its services.

Deliverable

Number	D3.1
Title	Report on the Open Market Consultation
Lead beneficiary	EMPIRICA
Work package	WP3
Dissemination level	Public
Nature	Report
Due date	30.03.2022
Submission date	08.04.2022
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Document history

Version	Date	Comments
0.1	22.03.2022	Initial document structure (EMPIRICA)
0.2	25.03.2022	Draft section 1 and 2 (EMPIRICA)
0.3	28.03.2022	Draft section 3 and Annexes (EMPIRICA)
0.4	30.03.2022	Input on KPI figures and comments (SYNYO)
0.5	04.04.2022	Draft section 3.3 and 4 (EMPIRICA)
0.6	05.04.2022	Finalisation (EMPIRICA)
0.7	06.04.2022	Peer review (EPES)
0.8	07.04.2022	Implementation of review feedback (EMPIRICA)
1.0	08.04.2022	Finalisation and submission to EC (SYNYO)

Executive Summary

Emergency Medical Services (EMS) in Europe are characterised by a heterogeneous landscape with diverse organisational setups, technology standards, coordination mechanisms and actors. This is the result of different historical and institutional contexts. However, these EMS are united by the common aim of providing timely care to victims of sudden and life-threatening emergencies or disasters in cross-border settings and international humanitarian missions. Fostering the response capacities and increasing the cooperation of the Emergency Medical Services Systems (EMSS) is of decisive importance for strengthening the resilience of European societies.

The eight procurers, coming from five countries, and guided by Kentro Meleton Asfaleias (Greece) as lead procurer, share the sense of urgency to radically improve triage management for EMS actors. They are ready to adopt an innovative integrated solution that is able to overcome fundamental shortcomings of currently used systems and which will allow to digitise key processes and thereby strongly contribute to an improved quality of the service for all involved stakeholders. iProcureSecurity PCP will jointly procure R&D services to shape an ICT-enabled triage management solution that provides a) quick and accurate overview of victims and their status; b) decision support for better allocation of available resources and quicker support for patients; c) improved interoperability with other first responders and relevant actors; d) reduced handover times between ambulance transport and hospitals; and e) insights for quality assurance and training measures.

The iProcureSecurity PCP consortium, in preparation of the pre-commercial procurement, have conducted an Open Market Consultation to include the market perspective and to assess the capacity, capability, and willingness of the supply chain to deliver a solution based on the information provided. This document reports the approach followed and the results achieved. It is structured as follows:

- Section 1 Introduction
- Section 2 Preparation of the Open Market Consultation (OMC) that corresponds with T3.1 and explains the work conducted prior to the OMC launch
- Section 3 Open Market Consultation that corresponds with T3.3 and details the activities conducted and the results achieved
- Section 4 Learnings and improvements after the OMC, reporting the impact that the OMC had in the tender preparation process
- Section 5 Conclusion
- The annexes contain the materials prepared during the OMC (Annex I and II), the Prior Information Notice (Annex III), the suppliers that have participated in the OMC (Annex IV), the questions answered during the OMC period (Annex V), and materials prepared to disseminate the OMC on social media and project channels (Annex VI).

In total, iProcureSecurity PCP has organised 7 OMC events that have attracted over 350 local suppliers (plus 62 during the international OMC event) from 18 countries across Europe and beyond. In addition, the consortium collected questions from suppliers during the OMC events. The questions have been internally discussed, agreed on and made available on a dedicated FAQs section of the project website. At the time of writing, 31 questions have been received. The questions have been internally discussed, agreed upon by the consortium and made available on the dedicated session. This is a continuous process, as further questions may be submitted as part of the PCP preparatory phase and also during the defined time period in the call for tenders. Furthermore, 28 responses have been gathered through an OMC questionnaire, an online questionnaire provided to market players to provide feedback on the

planned scope of the PCP project. The questionnaire is publicly available on the project website's section for each of the local OMC events and accompanied by a Scope Document to support suppliers in providing the necessary feedback highlighting the objectives and requirements of the project. The OMC questionnaire has been used to collect feedback on the current market situation regarding triage management solutions and gather insights on shortcomings or gaps of the preliminary requirements. Thus, the results of the online questionnaire fed into D2.2 and supported the drafting of the Call for Tender documentations. Finally, as part of the work carried out within WP2 in regard to the OMC, the Innovation Procurement Platform has been developed and launched. The platform serves, facilitates and eases consortia building for suppliers, allows them to showcase their products, services and related documents, and to monitor, check and submit Tenders. 31 suppliers have signed up to the Innovation Procurement Platform made available by iProcureSecurity PCP project, so far.

This continuous interaction with the market has confirmed the interest from the market in the forthcoming pre-commercial procurement. Findings also show that joint tenders are very likely as no single supplier seems to be able to cover all requirements in full. The OMCs have also led to the identification of key learnings and subsequent improvements in the tender documents, which will be discussed with all partners during the consortium meeting in April – after submission of this deliverable. In summary, based on the information gathered from the OMCs, partners will improve details regarding the requested inputs and outputs for the call for tender documentations, highlighting to the potential suppliers what they are expected to deliver. The outputs will be reflected also in the PCP phases and timelines, and they are integrated with a list of technical interoperability systems and legal requirements. Such a list will be made available to suppliers during the pilot phases to ease integration of the PCP solution with procurer's existing systems.

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1 Introduction

Fostering the response capacities and increasing the cooperation between the European Emergency Medical Services Systems (EMSS) is of decisive importance for strengthening the resilience of European societies in the light of multiple hazards. Recent events such as the COVID-19 pandemic proved that the vulnerability of Emergency Medical Services (EMS) across Europe during a health crisis is a factor which affects not only people's lives but also destabilises countries' health care systems and even threatens the global economy. Against this background, the eight procurers, coming from five countries, and guided by Kentro Meleton Asfaleias (Greece) as lead procurer, have joined forces with the goal to procure innovative triage management systems that will enable them to increase the effectiveness and efficiency of their EMS services.

As the project is pre-commercial procurement (PCP), PCP-specific requirements were followed, including the i) preparation and ii) conduction of a wide Open Market Consultation (OMC) as a series of events. This corresponds to Tasks 3.1 (preparation led by SYNYO) and 3.2 (conduction led by EMPIRICA) of the iProcureSecurity PCP workplan.

The rationale behind an OMC is that, while being in the process of identifying their needs and formulating their requirements, the procurers as representatives of the demand side need to also consult the supply side in order to see how their needs and requirements match to what the market can achieve within the timeline of the planned procurement, and to explore whether there are already available solutions able to satisfy those needs. A market engagement phase should enable procurers to check if suppliers are able to deliver the required outcomes, if the requirements are formulated appropriately, and if there is appetite from the market in the planned procurement. Therefore, the feedback from the market should enable the procurers to assess the capacity, capability, and willingness of the supply side to develop solutions based on the information provided. Based on the market situation, procurers may adjust their requirements and undertake measures to soften or eliminate barriers identified¹.

To achieve this aim, which is critical to ensure the project's success, the iProcureSecurity PCP partners have conducted the following Open Market Consultation activities:

- The publication of a Prior Information Notice (PIN) and a specific dissemination and communication campaign to engage with the market.
- Six OMC events in the procurers' local languages to present the iProcureSecurity PCP and interact with potential participants.
- One international OMC event in English to present the iProcureSecurity PCP to an international audience.
- An OMC online questionnaire to collect market feedback on the planned procurement.
- A matchmaking platform for potential suppliers in need of support in the building of consortia capable of addressing the needs of the procurers in full.
- A mechanism to reply to questions posed by potential tenderers in an agile format (FAQs).

In the following sections of the deliverable, the approach to the OMC is described, the results of the activities are detailed and, finally, a list of improvements and changes based on the insights obtained is presented.

¹ Whyles, Gaynor & Meerveld, Hendrik & Nauta, Joram. (2015). Forward Commitment Procurement: a practical methodology that helps to manage risk in procuring innovative goods and services. Innovation: The European Journal of Social Science Research. 28. 1-19. 10.1080/13511610.2015.1024638.

2 Preparation of the Open Market Consultation

The preparation of the OMC was carried out as part of T3.1 led by SYNYO. It took place in the period October-December 2021 and consisted of the launch of a Prior Information Notice to give advance notice of the forthcoming procurement and OMC phase, a communication campaign to raise awareness on the planned procurement and related consultation activities, and the preparation of materials needed for the consultation.



Figure 1: Steps in the preparation of the OMC

2.1 Prior Information Notice

For successful market engagement, timely and exact communication is essential. In public procurement processes it is important that suppliers are given early signals regarding future public demands².

Therefore, to enable potential tenderers to participate, regardless of their geographic location, on 16 November 2021 the iProcureSecurity PCP Lead Procurer KEMEA published a Prior Information Notice (PIN) on the Tenders Electronic Daily (TED) platform on behalf of the Buyers Group. Relevant requirements were followed, including sending a draft of the PIN to the European Commission, and publishing the PIN at least 60 days before the first OMC event was carried out.

The PIN³ serves to announce the Buyers Group's intention to launch a procurement in summer 2022, the expected scope of the procurement, details such as available budget, and details about the opportunity to participate in the OMC process. All of the available CPV codes were analysed according to the different aspects and dimensions envisaged in the project, and a large pool of 30 CPV codes was selected to ensure that as many potential operators are informed about the PCP.



Figure 2: Snapshot of the iProcureSecurity PCP Prior Information Notice

² Edler, Jakob, and Luke Georghiou. 2007. "Public Procurement and Innovation—Resurrecting the Demand Side." Research Policy 36: 949–963. doi:10.1016/j.respol.2007.03.003.

³ https://ted.europa.eu/udl?uri=TED:NOTICE:584993-2021:TEXT:EN:HTML&src=0

2.2 Communication of the OMC

In coordination with *WP9 Communication, Dissemination, Tender Promotion, and Networking*, the publication of the PIN and forthcoming OMC activities was widely disseminated through the iProcureSecurity PCP project channels and partners' own networks (website, social media, newsletters, etc.).

For the national OMC events, the procurers had a main role of identifying stakeholders in their regions or countries and inviting them to participate (e.g., through relevant industry associations in their countries, or through their own internal databases of suppliers) as well as publishing the information on their official websites and portals. Non-procuring partners SYNYO, EMPIRICA and AAHD engaged additional channels and multipliers to complement the dissemination and communication strategy around the OMC phase.

The communication took into account the recommended channels suggested by the EC and included outreach through H2020 Health National Contact Points, the EU Innovation Procurement Newsletter, the Futurium Platform by the European Innovation Partnership on Active and Healthy Ageing, relevant organisations of the health innovation ecosystem (e.g. ECHAlliance, APRE, META, etc.), EU industry associations (Eurochambres, BusinessEurope) and related projects and initiatives (<u>iProcureSecurity EMS Network</u>, HSMonitor PCP, etc.) and others (e.g. the LinkedIn group "Making happen public procurement of innovation!"). To this end, messages and graphic materials were prepared and shared with the relevant organisations.



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Finally, partners also attended sector events to disseminate the OMC and the project:

Table 1: Dissemination and communication events

Event	Location	Date	Link	Outreach
R&D Innovation Industry and Technology Fair	Turkey	13/14.10.2021	https://esasexpo.org/fuarkun yesi/	+2000
3th International Medical Congress (IMCIDU 2021)	Turkey	10/12.12.2021	http://imcidu.idu.edu.tr/?lang =en	1000
Foro Transfiere	Spain	16.02.2022	https://transfiere.fycma.com/ ?lang=en	
Smart University Workshop	Turkey	11/12.11.2021	https://bakircay.edu.tr/Etkinli kler/457/akilli-universite- calistayi	500
Freiwilligensymposium / Volunteer Symposium	Austria	15.10.2021	https://eventmaker.at/oester reichisches_rotes_kreuz/freiw illigensymposium_2021/progr amm.html	25
EENA 2021 Conference	Latvia	6/8.10.2021	https://eenaconference.org/	500
Disaster Research Days	Virtual	10/21.10.2021	https://www.dcna.at/index.p hp/en/disaster-research-days- 2022.html	500
XXVIII Jornadas Nacionales de Innovación y Salud en Andalucía	Spain	21/22.10.2021	https://seis.es/xxviii-jornadas- andalucia/	100
XXI National Congress of Clinical Engineers (AIIC)	Italy	11/13.11.2021	https://www.convegnonazion aleaiic.it/informazioni- generali/	2000
Digital Health World Congress 2021	Hybrid – UK	25/26.11.2021	https://digitalhealthcareworld congress.com/	500
4º Congreso Nacional del Consejo Español de RCP	Spain	5/6.11.2021	https://congreso2021.cercp.o rg/	100

2.3 OMC Materials

A comprehensive set of materials and tools was prepared in order to ensure the project partners are enabled to conduct an effective, clear and transparent Open Market Consultation.

2.3.1 OMC Agenda and Registration

A standardised agenda for all national OMC events was created to ensure that the key information was delivered during the events, and that there were no major differences across events, as they were going to be held in local languages. The agenda included six main blocks and suggested duration, for a recommended 1.5 hours of national OMC events:

- 1. Welcome and introduction (5min)
- 2. Main challenges and scope (20 min)
- 3. PCP as a tool for innovation procurement (10 min)
- 4. PCP phases and tender process (15 min)
- 5. Next steps (10 min)
- 6. Questions and answers (30 min)

In addition, an agenda for the international event was developed, following the same structure, but including a pitching session, to which all participants from the national OMC events had been invited. Online registration forms were used for each event in order to keep track of participants and their profiles.

2.3.2 OMC Slide Deck

A slide deck to be used during the events was developed. The aim was to have a standardised presentation in English, which could be translated into local language for the national OMC events. This is important in order to safeguard the transparency of information provided on equal terms to all interested entities across all events. The layout chosen aimed to ensure an attractive presentation of all key elements of the OMC.



Figure 4: Snapshot of the master slide deck used for all OMC events

2.3.3 OMC Promotional Materials

Materials to support the promotion of the events were provided to procurers, to easily adapt and publish the key messages to bring market players onboard. Different promotional waves were defined – one around the publication of the PIN and several around the organisation of the OMC events. For each wave, the project partners were provided with visuals and adaptable messages to be used for promotion via the partners' own channels – own website/portal, direct emails to local list of suppliers, social media, newsletters, etc. For social media, interactive banners were created to ensure users' attention is captured.

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Figure 5: Examples of promotional materials used in the Austrian/German OMC (left), Turkish OMC (top right) and Greek OMC (bottom right)

Partners were encouraged to use the prepared suggestions for social media messages and schedule them to be published over a period covering the time before and after the event (e.g., early messages focused on promoting the upcoming event, while messages after the OMC focused on promoting the event recording in case of online events). In line with recommendations by the EC, some twitter messages were also copied to relevant EC accounts who can re-tweet them and amplify the messages, such as @EU_H2020. Two examples of social media messages are provided in the table below, and further materials are documented in Annex V.

Table 2: Example of social media messages provided to project partners to adapt for the OMC dissemination

Help us innovate #triage management systems in Europe! 6.7 mil € available – learn more at the @procuresecurity [*Country*] OMC
✓ When: [*Date and time*] ✓ What: Online OMC event ✓ Register for the OMC [*Link*] @eHealth_EU
@EU_H2020 #EMS
+ attachment - visual

△ 5 days left to our @procuresecurity [*Country*] OMC. Register to learn how to tap into 6.7 mil € for innovation of #triage management systems of #EMS. [*Link*]

In addition, the project's official channels on Twitter (@procuresecurity) and LinkedIn (iProcureSecurity PCP Project) with a combined outreach of 800 followers disseminated the different OMC events. Two newsletters, one in February and another in March 2022, were send to the over 900 subscribers of the iProcureSecurity PCP Newsletter. The Newsletter promoted the advantages of participating in the OMC events as well as the pitching session at the international OMC event and highlighted the opportunities of the matchmaking process and the platform.



Figure 6: Example of promotional activities on the project's LinkedIn channels for the international and Greek OMC events.

2.3.4 OMC Guide for the Procurers

As several procurers in the project are involved in a pre-commercial procurement for the first time, a comprehensive guide document was set up, guiding them stet-by-step through the processes and providing all the links to the various materials in a central way. In addition, EMPIRICA conducted individual meetings with the procurers whenever needed, e.g., to rehearse the OMC event or to discuss the most suitable materials for the different partners. OMC progress and activities were presented and discussed during weekly online calls with all partners.

The guide was also used during the regular consortium meetings to keep track of and document the progress.



Figure 7: Snapshot of the OMC guide document developed in the project and used by the procurers © 2022 iProcureSecurity PCP | H2020-SU-SEC-2020 | 101022061

3 Open Market Consultation

The OMC was carried out as part of T3.2 led by EMPIRICA. The OMC phase took place in the period January-March 2022 and consisted of a series of physical events and webinars⁴ to present the planned procurement and interact with market players, an agile mechanism to gather and answer questions posed by OMC participants, an online questionnaire to collect market feedback and a matchmaking tool to facilitate partners scouting for those suppliers interested in a joint bid.



Figure 8: Activities of the Open Market Consultation

3.10MC Events

Six OMCs were carried out in the project, with EMPIRICA and SYNYO guiding the process, led locally by the corresponding project partners involved at national level:

- Spanish OMC (EPES, SERMAS)
- Greek OMC (KEMEA, HRC, EKAB)
- Austrian and German OMC (ARC, EMPIRICA)
- Italian OMC (ASLBN, AREU)
- Turkish OMC (IBB, AAHD)
- International OMC (SYNYO, EMPIRICA, KEMEA, all partners)

In the case of the Spanish OMC, due to local opportunities in conjunction with events at which partner SERMAS was participating, two separate events were held in Malaga and Madrid between the two partners within several days of each other, the results of which are presented in this document as a summary under one Spanish OMC.

For the Austrian OMC, the project explored opportunities to attract German-speaking participants and for this established collaboration with Zenit GmbH, a forum for enterprises in the German state of North Rhine-Westphalia, and NRW.Europa Enterprise Europe Network (EEN)⁵. This was seen as a very positive development, since Germany is the largest market holder for EMS in the EU, with 2,259 million Euro. Both organisations promoted the event widely through their networks, and a Zenit expert was

⁴ Due to the COVID-19 pandemic, the procurers followed regional and national guidelines for conducting events. In the case of Spain and Italy, physical events could be carried out. In Turkey, a hybrid event with limited physical participants was organised. All other OMC events were organised as webinars.

⁵ https://een.ec.europa.eu/

invited in the OMC as a guest speaker, presenting good example from the region on how PCP projects have helped enterprises in their international development and access to new markets.

The main goals of the OMC events were to:

- inform potential suppliers (industry) about the iProcureSecurity PCP pre-commercial procurement opportunities
- explain in detail the pre-commercial procurement process
- open a dialogue with market stakeholders about the scope of procurement envisaged in the project, including technical specifications
- facilitate matchmaking among potential suppliers in need of support in the building of consortia capable of addressing the needs of the iProcureSecurity PCP procurers in full

All OMC events, including the physical ones, were recorded and are available on the project website for those interested parties who were not able to attend them live.

3.1.1 Local OMC Events

The aim of organising local events was to raise awareness in the procuring regions/countries and engage with local contacts with which the procurers have existing contacts through previous procurements or mechanisms used to engage with the supply side. Each procurer organised its own event to show strong leadership and commitment on the initiative and invited relevant speakers to the event including top management, local EMS experts that could explain the planned progress to be made by the iProcureSecurity PCP, and innovation personnel that could explain the advantages of the PCP instrument. The format of the different events was very similar, and the materials were standardised, as explained in section 2. This ensured transparency in the content being communicated on equal terms across the different events. Most national OMC events followed the recommended duration of around 1.5 hours per event and devoted sufficient time to answer any questions. As part of the guidance provided to the procurers, all questions in the events were collected, as well as the provided answers. In case any questions could not be answered by the local team during the event, participants were made aware of the project's plan of providing an FAQ document containing all questions and their answers from the different events.

Main facts about each OMC event are summarised in the tables below (the number of registrations and participants account for unique entries and exclude project partners).

Hosted by	SERMAS and EPES
Date	17 and 22 February 2022
Type of event	Physical – in Malaga and Madrid, Spain
Link to recordings and materials	Link Malaga, Link Madrid
Presenters	Andrés Castillo (SERMAS), Carmen Porras (EPES), Sandra Leal (SAS) and Adrián Balfagón (SILO)
Number of registrations	50
Number of participants	55
Attendance rate	110%

Table 3: Spanish OMC – overview

Table 4: Greek OMC – overview

Hosted by	KEMEA, EKAB and HRC
Date	24 February 2022
Type of event	Online webinar
Link to recordings and materials	Link
Presenters	Panagiota Benekou (KEMEA), Eleni Lianou (KEMEA), Ioannis Karafyllis (HRC), Anastasia Zygoura (EKAB)
Number of registrations	24
Number of participants	28
Attendance rate	117%

Table 5: Austrian/German OMC – overview

Hosted by	ARC, EMPIRICA, Zenit GmbH / NRW.Europa
Date	4 March 2022
Type of event	Online webinar
Link to recordings and materials	Link
Presenters	Monika Stickler (ARC), Klaus Piesche (EMPIRICA), Lucas Deimel (EMPIRICA), Juan Carmona-Schneider (Zenit GmbH / NRW.Europa)
Number of registrations	14
Number of participants	14
Attendance rate	100%

Table 6: Italian OMC – overview

Hosted by	AREU and ASLBN
Date	10 March 2022
Type of event	Physical – in Milan, Italy
Link to recordings and materials	Link
Presenters	Andrea Comelli (AREU), Andrea Pagliosa (AREU), Alberto Lombardi (ASLBN), Nadia Sgro (ASLBN), Vincenzo De Luca (UNINA), Piero Maria Brambilla (AREU)
Number of registrations	25
Number of participants	31
Attendance rate	124%

Table 7: Turkish OMC – overview

Hosted by	IBB and AAHD
Date	17 March 2022
Type of event	Hybrid – online and in Izmir, Turkey
Link to recordings and materials	Link
Presenters	İsmail Derse (IBB), Turhan Sofuoğlu (AAHD), Zeynep Sofuoğlu (AAHD), İsmail Ümit Bal (AAHD), Şenol Derekö (IBB)
Number of registrations	12
Number of participants	228
Attendance rate	1900% ⁶

3.1.2 International OMC Event

To conclude the series of OMC events, an international event was organised as an online webinar in English language. Participants from the previous national OMC events as well as market players from other countries were invited to attend.

As a unique element in the international OMC was a pitching session aimed at facilitating networking and matchmaking of market players. When registering for each OMC event, registrants could indicate their interest in attending the pitching session within the international OMC event. In order to stimulate market feedback, a slot in the pitching session was granted to those suppliers who filled in the OMC questionnaire and who registered with the matchmaking platform, which is discussed later. All interested organisations were approached before the event in order to prepare this session. Using a standardised slide structure, each pitching organisation had three minutes to introduce themselves and pitch to the others their needs (e.g., whether they are seeking to join a consortium or plan to lead a consortium and are looking for partners with specific expertise).



Figure 9: Examples of the pitching slides used in the international OMC event

In total, 16 different suppliers from 10 counties (i.e., Austria, Germany, Greece, France, Israel, Italy, Netherlands, Spain, Turkey, United Kingdom) pitched in the session. The session's aim is to encourage the building of partnerships, especially among SMEs, which are seen as crucial for addressing the

⁶ This is due to the fact that the event was in hybrid form and only the online attendees used the event registration form. All other attendees were participants of the wider event in Izmir under which the OMC was organised.

iProcureSecurity PCP challenge in full and be able to provide solutions in the later PCP phases which are tested simultaneously in all the procurers' countries.

Table 8	8: Inter	national –	overview
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Hosted by	SYNYO, EMPIRICA, KEMEA
Date	24 March 2022
Type of event	Online webinar
Link to recordings and materials	Link
Presenters	Eleni Lianou (KEMEA), Bernhard Jäger (SYNYO), Lucas Deimel (EMPIRICA)
Number of registrations	67
Number of participants	62
Attendance rate	93%

In summary, the OMC events engaged with a big audience representing 192 registered participants. A good balance of different types of suppliers was present, as seen in the figure below.



Figure 10: Breakdown of OMC registrations

An interesting observation is that large companies accounted for 29 % of registrations, a high share and an element to consider for the matchmaking service in the project, as large companies tend to not seek partners or at least not in a very public way, as is offered by the iProcureSecurity PCP matchmaking platform.

Table 9:	Overview	of OMC	KPIs and	related	progress
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Key Performance Indicator (KPI)	Target value	Current value	KPI met (%)
Number of suppliers reached in mass invitation to OMC	> 1200	1450	120%

Number of multiplier organisations involved in mass mailings for invitation to OMC	> 30	115	383%
Number of suppliers taking part in the local OMC events			
- Spain	> 15	55	366%
- Greece	> 15	28	186%
- Austria/Germany	> 15	14	93%
- Italy	> 15	31	206%
- Turkey	> 15	228	1900% ⁷
Number of suppliers taking part in the international OMC event	> 50	62	124%

Given that the project identified around 200 providers of EMS services with around 80 solutions for Triage Management in D2.1, the 192 OMC registrations are the result of an intensive and successful dissemination towards what constitutes a majority of the European EMS sector. Due to the fact that the Turkish OMC was hosted during a larger conference, the project was able to double its outreach disseminating the PCP to over 350 participants across all local events.

In total, the OMC events attracted suppliers from 18 different countries. Unsurprisingly, a significant number of those originate from the procurers' countries. More details of the participation per country is provided below



Figure 11: Country of origin of OMC registrations

3.2 Frequently Asked Questions

During the OMC events, the questions received were collected, translated into English if necessary, and published together with a response from the Buyers Group on the project website to ensure that the same information was made available to all market participants. Procurers discussed the answers to ensure that they contained the views form all the buyers.

In addition to the questions received during the webinars, a contact form was made available to any interested organisation for submitting questions relating to the iProcureSecurity PCP, which were also published on the project website.

⁷ This is due to the fact that the event was in hybrid form and only the online attendees used the event registration form. All other attendees were participants of the wider event in Izmir under which the OMC was organised.

In total, 19 questions have been submitted as of the time of writing, answers to which are available on the website. The <u>FAQ webpage</u> is continuously being updated, and new questions are expected to be received once the call for tenders is launched.

3.3Open Market Consultation Questionnaire

3.3.1 Aim of the Questionnaire

In order to formally capture OMC feedback (in addition to the feedback provided during the OMC events), an <u>OMC questionnaire</u> was prepared, implemented as an online survey via the EUSurvey tool. Market players are asked to provide feedback on a number of topics by completing the questionnaire on behalf of their organisation.

The questionnaire, presented in Annex I of this document, contained a mix of quantitative and qualitative questions on the main aspects of the procurement scope. It was divided into the following sections:

- About you: to analyse the profile of the organisations answering the questionnaire.
- The iProcureSecurity PCP scope: to validate with market players the draft requirements and use cases prior to launching the procurement.
- Assessment of existing technologies: to complement the state-of-the-art analysis conducted during the proposal phase, this section aimed at identifying existing projects and solutions relevant to iProcureSecurity PCP scope.
- Pre-Commercial Procurement (PCP): to assess respondents' awareness of the PCP instruments and agreement with the scheme proposed for iProcureSecurity PCP in terms of budget and phases.
- Partner search and matchmaking: for suppliers looking for support in terms of consortia building, the section pointed to the matchmaking platform made available through the project.

Before responding, respondents were advised to carefully read the scope document (Annex II) that provided detailed information on the project, including draft requirements, use cases and the framework of competitive development in phases.

The targeted respondents are potential participants in the envisaged procurement. Project partners promoted the questionnaire as a powerful tool to provide feedback during the OMC events, in the project channels (i.e., website and social media) and through direct mailing to OMC participants.

The survey will be running until the end of April and the following section's preliminary analyses report on those responses submitted as of 8th April. Submissions of additional responses is expected, and the partners will update the analysis at a later stage.

After the final OMC event, EMPIRICA analysed the collected results and presented the insights to the consortium during a consortium meeting in April, discussing and reflecting on necessary updates to the iProcureSecurity PCP requirements and use cases developed in a draft form earlier in the project.

3.3.2 Overview of Results

Until submission of this deliverable, the questionnaire was completed 28 times. An increase in responses is expected as the Call for Tenders approaches.

Respondents' profile

Most respondents (69%) represent health companies – start-ups (19%), small (41%), and large (9%) companies. Responses from organisations with primary academic and research activities represent 19% of all responses. In terms of size, the majority of respondents (48%) come from micro-

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organisations (<10 employees and $\leq \notin 2$ m turnover), and there are 6 large organisations (> 250 employees and > \notin 50 m turnover).

75% of the respondents came from the procurers' countries. Additional countries were represented: France (1), Germany (1), Israel (1), Netherlands (1), UK (3).



Figure 12: OMC questionnaire: respondents' organisation type







Figure 14: OMC questionnaire: respondents' country of origin

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Target Stakeholders

The main target audience of the iProcureSecurity PCP are the Emergency Medical Services and organisations performing triage in Mass Casualty Incidents. All respondents agreed that it is feasible to target those stakeholders with the proposed solutions and scope. Through open comments, the respondents explained their reasoning, which was related to digitising processes that are still heavily reliant on paper and therefore not optimal, enabling greater control and management of Mass Casualty Incidents (MCIs), enabling quicker actions to shorten the so-called "golden hour" during casualty assessment

In addition, nine respondents stated that they missed some stakeholders in the description provided by iProcureSecurity PCP (cf. Annex II description of target stakeholders included in the scope document). Those mentioned most frequently were other organisations (e.g., fire brigades, police, military, civil protection) and public bodies (e.g., regional/national government, surrounding community councils). However, it should be pointed out that the scope document does list the group "first respondents", which includes actors such as fire brigades and police, so it might not have been clear to the respondents that this group is indeed addressed in the project.

Challenges

The iProcureSecurity PCP challenges and requirements

23 respondents stated that the iProcureSecurity PCP challenges and requirements as presented to them in draft form are clear and feasible within the frame of the project. Feedback obtained by respondents who disagreed involved i) a desire for more detailed description of the expected inputs and outputs, ii) a reflection on the tight timeline in phases II and III of the PCP for activities related to deployment and preparation for market, such as certification, and iii) the challenge of having so many procurers and countries with own regulations and classifications of resources, which requires future suppliers to come up with a comprehensive plan that unifies them under one solution and ensures interoperability with their existing systems. Regarding i), the procurers are working on providing more details, e.g., through detailed use cases and process models describing key functionalities and scenarios that the solutions should enable (see D2.2). The challenges related to dealing with multiple procurers at the same time and ensuring the solution works across all of them are well known in PCPs, which often bring together several procurers from different countries. Especially integration with existing systems can be very time consuming, which is why in the preparatory stage of the PCP the procurers have been organising local focus groups with experts and technical staff to capture, among others, details about their existing systems that need to be connected, in order to provide such information (e.g. description of available systems and software, interoperability standards used, etc.) to the suppliers already from the outset of the PCP, with the start of phase I. An update to the collection of such requirements is ongoing and they will be part of the final list of requirements in the Call for Tenders.

Respondents' analysis of the iProcureSecurity PCP challenges

Respondents were asked to rate the iProcureSecurity PCP challenges from basic to advanced. It showed that the most challenging areas seen by the suppliers are related to the decision support function and the interoperability aspect of the procurement.





Figure 15: OMC questionnaire: respondents' analysis of the iProcureSecurity PCP challenges

Further challenges related to the procurement identified by the respondents

In addition to the iProcureSecurity PCP challenges, respondents were asked to list the biggest challenges according to them. The answers can be grouped into the following main challenges:

- Integration and interoperability with relevant systems, structures and stakeholders and provision of near real time exchange of information (9);
- Accurate analysis of the status of casualties (vital sign monitoring and validation of related algorithms that produce recommendations for triage status change) (3);
- Good decision support and resource management approaches (3);
- Providing better quality assurance and training measures supported through software (2);
- Being able to capture the dynamic nature of MCIs supported through real time or near time data (2);
- Harmonising the main processes related to triage management that can be applied to all participating countries;
- Enabling intuitive on-site use of technology during the complex MCIs;
- Ensuring the solution works securely;
- Ensuring scalability of the solution.

The challenge of enabling the exchange of information with the systems of the procurers during the pilot phase is seen by the iProcureSecurity PCP project partners as crucial, which is why respondents were asked specifically how in their view the procurers can best support this activity. The table below summarises the main suggestions and how the project plans to address them.

Table 10 Overview of market input and the consortium's implementation approach

Suppliers' suggestions	Procurers' approach
Providing information on the software (systems) currently applied in potential users' systems would be crucial to be able to define the best software solution. (6)	As part of the challenge brief, the procurers will provide a consolidated overview of information collected during the PCP's preparation phase through interviews and focus groups with relevant procurer experts, capturing the existing systems in place, standards used, availability of APIs and other technical information, as well as relevant legal requirements.
During the analysis and design phases, defining concepts in a way that is understandable by all parties as much as possible will be critical to make things easier and possible.	The suggestion seems appropriate, and the procurers will plan to have a common dictionary / glossary with key terms and definitions to allow smooth operation, especially in the later stages of the PCP where more interaction between different experts of the procures and suppliers are expected.
Allowing companies to rely on the legal teams of each country and before the solution begins to be designed, they give the go-ahead for the solution of each of the projects, considering the local regulations of each buyer.	When formulating the technical specifications, the procurers have made use of available legal experts from their organisations and have documented legal requirements which serve as the framework for the tenders. However, depending on the innovative ideas put forth in the tender as part of the R&D phase, further legal analysis might be required both from the procurers and the suppliers.
By creating mock system that emulates with synthetic data how their system behaves and use these mock systems during the development the pilots. (2)	In the preparation phase the procurers have worked on producing use cases and process models in order to address this point, by providing descriptions of the desired functionality and processes. The use cases and process models will be included in the final tender documents (challenge brief).
The procurers and suppliers should be in close contact and provide all the relevant information requested.	The procurers are aware of this need and appropriate mechanisms will be defined in the call documents, such as setting up regular monitoring meetings between individual suppliers and the procurers, as well as defining a number of minimum meetings, especially in phases II and III of the PCP.
Have scenario descriptions of different types of situations based on real-life past emergencies.	The use cases and process models are narrative descriptions of desired functionality based on real past situations.
Have fictitious data sets of patients with different degrees of casualties.	This is an interesting suggestion and will be explored in phase I as it requires more concrete requirements for the dataset and needs to be explored by the procurers in terms of ensuring any such dataset adheres to national laws for the use of anonymised health data.

Respondents were also asked to reflect on any additional limitations they see in deploying the envisaged solutions on the market. The main reflections are cited below.

"End user decision making/approval may slow the project. Previous experience has shown this can be avoided by good documentation and project management."

Approval of the main ideas as defined in the tenders that the procurers will receive will be evaluated by a dedicated team comprising experts from each procurer. When it comes to day-to-day updates and the possibility of adding new functions or adjustment of initial plans that may arise during the interactive development processes leading to the piloting, the procurers will aim to provide timely responses and decisions.

"The resistance to the new is always a barrier in front of innovations and it is a great challenge to try changing triage because it has never experienced a radical change or progress for a long time."

The project recognises that change management is an integral part of trying new and innovative solutions, which is why a co-development strategy is applied from the project start, with different users from the EMS environment being involved in formulating requirements and submitting ideas which are used to define the technical specifications in the project (requirements, use cases and process models). The procurers will aim to involve those users again in the later stages of the iProcureSecurity PCP - piloting of the solutions - where they will be able to recognise and see in practice some of their initial ideas and will also be given the chance to provide feedback and influence the further refinement of the solutions. This user-centred approach is expected to positively influence the acceptance and use of the new solutions among the users. In addition, suppliers are required to provide comprehensive training and supporting materials, as well as personalised support during the testing, to ensure users understand the full scope and capabilities of the solution and are able to use it as intended.

"The protection of patient data, and the unification of the information and systems used by each of the actors in the triage will be one of the most important challenges and barriers to achieve it."

Protection of patient data is indeed central to the procurers, which is why 30 requirements have been defined relating to privacy and security alone. Appropriate measures will be applied on both the procurers' and suppliers' sides, e.g., having Data Protection Officers (see D1.2) for the procurers and preparing data protection deliverables for the suppliers (to be specified in the call documents).

Assessment of existing technologies

The questionnaire further included a section for suppliers to provide information about their existing technologies related to the iProcureSecurity PCP challenge. 19 out of 27 respondents indicated they have a market ready solution that covers the iProcureSecurity PCP requirements in full (3) or partially (16), however of the three solutions claiming full coverage seem to ignore requirements related to integration with the procurers' systems.

The overview complements the state-of-the-art analysis performed at the proposal stage and the solutions have different technology readiness levels (TLR):

- 16 are TLR 7-9 and
- 3 are TLR 4-6.

The solutions are related to some of the iProcureSecurity PCP challenges. 6 of them cover all the challenges, however, most of these do not fully address each of the requirements as per the solution descriptions provided in table 3.

There is an equally high number of solutions dealing with the first four challenges and significantly less solutions address "Insights for quality assurance and training measures". Although many suppliers indicate their solutions already address large bits of the iProcureSecurity PCP challenges, localisation and integration aspects will have to be explored as well as fine-tuning yet unmet requirements.

Table 11: Number of solutions that cover each challenge

iProcureSecurity PCP challenges	
Quick and accurate overview of casualties and their status	15
Decision support for better allocation of available resources and quicker support for casualties	16
Improved interoperability internally and with other first responders and relevant actors	17
Reduced handover times between ambulance transport and hospitals	14
Insights for quality assurance and training measures	8

The solutions are described below:

Table 12: Technologies gathered	I through the OMC questionnaire
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amPHI	
Description	amPHI is a prehospital patient record system. In its basic form it is used as an ordinary electronic prehospital record where all assessments, treatments etc. are registered electronical in the ambulance. All information is transferred in real time to a central server and the information also available in real-time in for example the emergency department through our web portal.
	Beside the basic functionality, being an ePCR, the system also contains a module for handling mass casualty events. Entering this mode, the system is designed to give an overview of many patients and all the resources attending the event.
Website	https://amphisystems.com/amphi/
TRL	7-9
Challenge	 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
MicroDestek DSS	

Description	MicroDestek model-based and artificial intelligence expert system supported decision support system.
	Its flexible structure, decision models can be designed by users. The rule and inference mechanism, the information coming from multi-layered data architectures is processed by the artificial intelligence expert system. Integration with geographic information systems, defining geographic information systems to decision processes. web-based and mobile device supported architecture and visualization options. API and web service integration with external platforms.
Website	https://microdestek.com.tr/
TRL	7-9
Challenge	 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
Help-Doctor	
Description	Multifunctional telemedicine system: In response to the market demand, the Help-Doctor service was created, which brings together patients and doctors of various specialties: - Help-Doctor is capable to serve not only doctors, but also nurses, physiotherapists, care-givers of elderly people - in one word: any specialty of medical personnel - Help-Doctor is able to offer all medical services in one mobile application: - Home and remote visit appointment (ad-hoc and regular), - direct contact via the application, - monitoring of: healing / treatment progress, history of completed visits etc., - e-prescription - Help-Doctor offers unique functionalities, e.g.: geolocation of available medical personnel / patient, family accounts, scoring - Help-Doctor can be flexibly implemented - either in cloud or on premise, next to or in conjunction with existing medical system.
Website	http://www.help-doctor.de
TRL	7-9
Challenge	 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
Vodafone Busines	ss Analytics - Ambulanza Connessa
Description	Vodafone Business deals with integrating a solution and therefore offering an end to end where hardware, connectivity, application component, website, app etc. are provided. Partners in the catalogue are different and through the integration of various skills and solutions it is possible to create a customized solution according to the customer's needs.

Website	-
TRL	7-9
Challenge	 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
Rapid Triage	
Description	Rapid Triage – Med SA Incident Ground Control System with real time situational awareness platform that can deal with any Incidents including CBRNE/Multiple Firearms Terrorist Attacks and was developed with input from UK and European Special Forces. The Android based platform allows real time incident control and allocation of resources to improve scene management and interagency data visibility. It allows the rapid triage of multiple casualties and allows geo location of casualties to avoid 'left behind' scenarios with the ability to monitor multiple casualties. It matches real time availability of hospital resources with casualty demand to avoid surges and inappropriate transfers. Currently in trials with the Medical Intervention Team of a European Police Anti-Terrorist Unit as well as a UK Infantry Battalion using a digital Zap Patch to enhance MIST and 9-Line messaging.
Website	https://www.blackspacetechnology.com
TRL	7-9
Challenge	 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
EQUILIN 061 PCP	
Description	Our organization has been selected by the Centro de Emergencias Sanitarias de la Junta de Andalucía (Spain) to develop an innovative system for emergency professionals to assess without contact the 5 basic vital signals (HR, BR, Sp02, Temp, BP). The solution, based on an artificial vision tool, will have a TRL7 by the beginning of 2023.
Website	https://www.equilinproject.com/
TRL	7-9
Challenge	 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
Emergency Mana	gement App & Platform
Description	An intuitive App and Command Centre Module that will help improve the operational response to emergencies, crises & disasters. This software is dedicated to support first

	responders, incident commanders, emergency responders and business continuity managers coordinate, communicate & report more accurately and efficiently.
Website	https://red-mc.org
TRL	4-6
Challenge	 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
ICCS Triage Devic	e and Application
Description	The ICCS Triage Device and Application is composed of three main components. The triage devices: a 3d printed/embedded device which identifies victims, stores their information and indicates their status. Two versions of the device exist, one acting only as digital tag and one offering also vital sign monitoring capabilities (currently PPG based). The triage mobile app: a mobile application that allows users to view and record patient information (personal data, triage status, transportation details, photos), store this information to the device and forward it to the backend service. The triage backend and front-end service receives the scanned victims' information, stores it and presents it in a Web-based dashboard with GIS-based capabilities.
Website	https://www.youtube.com/watch?v=dj9VCqtQ
TRL	7-9
Challenge	 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 G	SLOBAL
Description	SMART HEALTH DIGITAL APP is a software that is currently fully developed. It is interoperable, responsive, without the need for an internet connection and allows the digitization of a transfer medical record in 90 seconds. At the same time, it is possible to interconnect with any intra-hospital software and is designed to work together with SMART HEALTH FOR HOSPITALS, an integrated and interoperable medical history (currently being developed in the process of adaptation) that will be the tool to reach the hospital with all the necessary information in real time.
Website	https://smarthealth.digital/
TRL	7-9
Challenge	 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
Regional Public E	mergency Service in Spain
Description	Onboard medical record system that allows access to patient information, and the coordination of the provision of their health care in transport
Website	Not available
TRL	7-9
Challenge	 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
ENGAGE IMS/CAI	
Description	The ENGAGE application suite constitutes a Call-Centre solution for public & private safety organizations providing all the tools for call management, incident creation end editing, operational resource management and disparate crucial information data integration. Combining advanced searching; filtering in current and historical data and geo-correlation of data operations are enhanced with situational awareness, decision support and electronic logging of incident information and related actions of the involved organizations. The system is Web-based and thus accesses in an Intranet or Internet environment through secure access providing remote interaction with current or historical data regarding incidents, resources, measures and actions in every user of an organization's hierarchy.
Website	https://www.satways.net/products-sw/
TRL	7-9
Challenge	 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
ΙΟΝΙΟ	
Description	APUS not only offers an established solution for sub-areas of the requirement (IONIO(R): resource and workforce management), but also distinctive project and domain know-how in medical/fire brigade rescue services.
Website	https://ionio.at/en/index.html
TRL	7-9
Challenge	 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
Rhesus	
Description	"Rhesus uses RFID bracelets, RFID cards and a RFID-QR-PDA with Wi-Fi / 4G connectivity with a server.
	RFID bracelets allow identify patients, medical record number, status and other data in the available memory. Patients can be remotely identified and located even if they are unconscious. Memory data can be updated as the situation changes. It works in offline conditions.
	RFID cards allow identify medical staff and permits.
	PDAS actually provide connectivity with the server, guidance following the protocols for medical staff, patient data, safety cross checks to avoid errors, and more. As the hardware have smartphone capacity and >5" screen most of functionality required can be implemented. PDAs send information to the server and receive it as well. "
Website	http://www.at-biotech.com
TRL	7-9
Challenge	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
	\Box Reduced handover times between ambulance transport and hospitals
	Insights for quality assurance and training measures
SmartSecurity Clo	pud
Description	It's a partial Solution. We have developed a Smart Security Cloud, where is connected Local Police, emergencies and Civil Protection for their daily routines.
	We connect in the cloud several devices like police vehicles, capacity control cameras, event information, service report and staff location.
	All information is available from command centre to every part involved in a high-risk event.
	What we need to develop is an emergency wristband, which send casualty status and vital signals to the Smart Security Cloud."
Website	Not available
TRL	4-6
Challenge	□ 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
Public Safety Hub	(PSH)
Description	The Public Safety Hub (PSH) platform enables the seamless exchange of information between federated systems of different organizations. The PSH improves the
	cooperation of emergency services, volunteer organizations and citizens for the
	effective management of events. This is even more important because when coping
	with larger mass casualty incidents, when processes between the operating task forces must be harmonized and synchronized. PSH is available as a backend solution,

	linking different backend applications (HIS, EMS, etc.), as well as an edge-based solution, enabling the integration of services on-site in a resilient way in flexible wireless network environments.
Website	https://cooperative-digital.solutions/psh/
TRL	7-9
Challenge	 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
ZULU. E	
Description	ZULU. E is the innovative solution for out-of-hospital emergency communication. ZULU.E is a professional solution designed for use as a support platform for rescue for rescue personnel. It allows real-time communication with the destination hospital to transmit information on the patient's condition. ZULU.E comes in a kit consisting of rugged hardware, medical software and a 4G SIM card for data. The system is under certification process as a class IIB medical device and is designed to communicate with the devices on board the rescue vehicle, in order to make data collection automatic. The data collected is sent to the web platform, allowing the healthcare professional to consult it in real time. This allows the information of the
	intervention to be shared directly with the department of the target hospital or with the central
	or with the emergency doctor. The system can also be integrated with the central management system, allowing the exchange of both incoming and outgoing data and it enables the collection of biomedical data from medical devices on board the vehicle.
Website	https://www.zulumedical.net/wp/home/zulu-e/
TRL	7-9
Challenge	 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
HighWind	
Description	HighWind is an emergency call solution, leveraging on smartphones and artificial intelligence, to instantly pre-diagnosed the nature and criticality of a patient's situation. Developed for the sake of Emergency Medical Services & Call Centres, the solution allows to support their diagnostics, decision-making and triage of patients during day-to-day emergencies and major crisis. The core technology is implemented toward every actor on the Emergency: POPULATION: an emergency call smartphone app, that can either be installed or emulated on the web-browser by clicking on a text-message link. It allows to call emergencies as usual, but also send pictures, GPS, pre-recorded information with a
	single-click button. EMERGENCY CALL CENTER: a web-browser interface that helps visualizing on a map emergency call sorted through a colour code following the AI-assessed level of

	criticality. Displays all key information coming from both patients, first responders and AI-diagnostics.
	EMERGENCY FIRST RESPONDERS: emergency call app' on their professional smart devices (e.g.: tactile agent) to communicate more efficiently with both Emergency Call Centres and Hospitals.
	At the core of the solution: an HighWind patented technology using Deep- Learning/Computer Vision capable to pre-diagnose pictures sent by patients & first responders. It focusses on three modules:
	1. TRAUMATOLOGY: to recognize the nature and assess the level of external traumas,
	e.g.: lacerations, ulcers, burns, bullet wounds, hypothermia, etc.
	building fire; landslide; etc.) that gives indication on internal traumas and mainly determine automatically the most suited emergency service depending on the country.
	3. EMOTIONS: to assess the level of pain and stress of the patient.
	Combining the outputs of those three pillars through our decision algorithm allows to give a colour code to each emergency call in order to prioritize the most critical requests and support.
	During a large-scale crisis, the number of emergency calls increase from 1.5 calls per minutes to over 100 calls per minutes (e.g.: terrorists attacks in Paris and Nice, landslides in Roya valley, building in fires etc.) and it is impossible for human operators to distinguish among those calls which ones are related to patients and which ones just report a situation from a distance.
	HighWind gives a tremendous edge during those times of disasters by facilitating triage, assessment and decision-making that can only be achieved through the support of artificial intelligence.
	Our AI pre-diagnostics technology can be deployed toward all actors of the emergency chain (population, call canters and first responders) either through our own end-users' solutions as described, or by encompassing our technology within other existing solutions (e.g.: software's already in place within emergency call canters). First trials have demonstrated the ability to pre-diagnose an emergency situations' image in below 90ms with 85% of certainty.
	HighWind has successfully tested its technology on theatre of operations in Mali, using the worst possible environment, and is ready to provide the full-scale its solution or plug its AI module within procurers' existing solutions. TRL level 6."
Website	www.highwind-ems.com
TRL	4-6
Challenge	☑ 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 \Box Reduced handover times between ambulance transport and bospitals
	□ Insights for quality assurance and training measures
Virtual reality tra	ining and simulation- more than 50 projects are or the market
Description	Virtual reality training for any use - Multi player scenarios and more than 100 features
Website	1sync-xr.com
TRL	7-9
Challenge	 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
Orchestra eHealt	h Suite
Description	The Orchestra eHealth Suite offers powerful, coordinated modules on which customized eHealth solutions can be built to meet the requirements of a central exchange platform. Our Health Service Bus is an effective integration platform that forms a basis for open and future-proof system architecture. In addition to the modules for unique patient and service provider identification, Orchestra eHealth Suite provides a complete electronic patient record for aggregation of documents, images and structured medical data.
Website	https://x-tention.com/en/overview/orchestra-ehealth-suite
TRL	7-9
Challenge	 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

Pre-Commercial Procurement

Respondents were asked about several aspects regarding pre-commercial procurement as a tool for research and innovation. 22 out of 28 respondents are already familiar with PCPs. In our view, this suggests that the increasing number of PCP funded projects and the capacity-building efforts done by those projects and the EC are working. Market players are now more aware of the instrument than some years ago.

Regarding the duration, 23 out of 28 respondents agreed with the timeframe proposed in iProcureSecurity PCP for each of the phases. The 5 respondents that disagree ask mainly for an increase in the duration of phase II and III who believe they should be approximately 2 months longer. The reasons given by respondents are:

- Too many challenges to be achieved during the development stage and a risk plan is suggested in order to proceed in case there is no way to solve some of them satisfactorily.
- Real-world tests pose certain risks for delays which should be planned for in terms of phase duration.

3.4 Matchmaking Platform

iProcureSecurity PCP has encouraged suppliers that cannot cover all the requirements of the main challenges to join forces with other market players to be able to participate in the Call for Tenders. To this end, iProcureSecurity PCP has made available an online matchmaking tool to ease consortia building: <u>https://pcp.iprocuresecurity.eu/procurementplatform/</u>

The Innovation Procurement Platform is a matchmaking solution which allows its users to display their products and services, to match with other suppliers and to submit joint tender proposals. The

requirements to set up the matchmaking platform for suppliers interested in a joint offer were gathered and the platform was made available on the project website. Interested operators can register on the platform to access a variety of services: matchmaking, showcasing their products and services, tender monitoring, tender information and post offers and requests. In addition to that and following the specifications and need of the Call for Tender, the Platform included a section for the tender submission and evaluation system. The latter has the advantage of being a transparent, intuitive and easy-to-use evaluation system and thus, promoting unbiased selection of offers. This tool will remain open beyond the Open Market Consultation Phase and until the closure of the Call for Tenders and beyond the iProcureSecurity PCP project lifecycle. In fact, the Innovation Procurement Platform has the ambition to serve as unique online eco-system that facilitates the engagement and the information gathering for the suppliers. Once registered, suppliers are able to access the presented services for other Calls for Tenders featured at the platform.

<image/>	
Description This PIN announces an open market consultation and provides information about a planned pre-commercial procurement (PCP) carried out by the iProcureSecurity PCP project, addressing the need for more effective emergency medical services in Europe. iProcureSecurity PCP is looking to procure R&D services in the form of a solution that will provide Triage Management Systems which will strengthen the resultince and interpoperability of EUropean Emergency Medical Services (MS). The procurement should address the procures unmet needs relating to different EMS-selated aspect, such as planning and decision making, resource allocation, improved triage practices, date transmission and interoperability, usability of EMS solutions, evaluation and asstalinability, data security and protection. This PCP procurement is a joint procurement by different procures across Europe that are all fanig the same common challenge and are thus looking for similar solutions (ac-called buyers group).	Tender Summary TENDER STATUS FORTHCOMING CONTRACT TYPE Services CPV CODE 73100000

Requirements

The IProcureSecurity PCP tender will be opened soon for submissions Submissions will be accepted in English only. Cooperation and consortia creation among suppliers is encouraged.

contact: onice@procuresecurity.eu

€ 6,774,194

BUDGET

LANGUAGE

Figure 16: iProcureSecurity PCP Call for Tenders displayed on the Innovation Procurement Platform website
Expertise Offers (3) Suppliers can publish in this section what they can offer offer the specific tender opportunity. The offer will be used by other suppliers as basis for the establishment of cooperation and consortia.				
Public Safety Hub (PSH)	Mar 4, 2022			
The Public Safety Hub (PSH) platform enables the seamless exchange of information between federated systems of different organizations. The PSH improves the cooperation of emergency servi of events. This is even more important bec	ces, volunteer organizations and citizens for the effective management			
AIT Austrian Institute of Technology GmbH	Quick and accurate overview of casualties and their status			
Austria Austria	Improved interoperability with internal/external actors			
Leeve a message	Reduced handover time for transportation and hospitalization			
AT-BIOTECH TRACEABILITY INFORMATION SYSTEMS	Mar 24, 2022			
AT-Biotech is a Spanish Company based in Madrid, born in 2013. It develops traceability solutions for healthcare, with a deep inside in the Biood sector. Our products are used in Biood Establishmen in Spain. Our Rhesus solut	ts, hospitals and Biobanks. We monitor about 17% of all the blood bags			
AT-BIOTECH TRACEABILITY INFORMATION SYSTEMS	Quick and accurate overview of casualties and their status			
Al-Blotech Perfective Spain	Decision support for resource allocation/casualty assistance			
Leave a message	Improved interoperability with internal/external actors			

Figure 17: Example of organisations offering their expertise for specific main challenges

As of the submission of this deliverable, 31 suppliers have registered on the platform. However, this number is expected to increase with the launch of the Call for Tenders. Registered suppliers can form competitive consortia through requesting expertise on specific iProcureSecurity PCP main challenges not available in-house or by displaying which areas of expertise they can offer to other operators looking for partners.

In terms of KPIs, over 250 suppliers were contacted and invited to the matchmaking platform. OMC registrants (192) automatically received invitations to register on the platform via email. Of those invited, 14% are currently using the platform.

Table 13: Overview of matchmaking KPIs and related progress

Key Performance Indicator (KPI)	Target value ⁸	Current value	KPI met (%)
Number of suppliers invited for participation in matchmaking platform	> 250	442	176%
Share of suppliers using the matchmaking platform	> 60%	31	14%

4 Learnings and improvements after the OMC

The results from the different activities have been analysed (events, FAQs, online questionnaire, and matchmaking) by the iProcureSecurity PCP project partners and are summarised in this section. They are reflected in the call for tender preparation and for the future implementation of the iProcure Security PCP phases.

4.1 Industry Capacity and Appetite for Procurement

Supply side is ready and willing to take the challenge. After the wide industry participation in the different activities and their implication in the dialogue, iProcureSecurity PCP estimates that the supply side is ready and willing to take the challenge. 356 different suppliers from 18 countries have participated in the OMC events and more than 30 have already started to prepare a consortium through the project channels (i.e., matchmaking session at the international event and matchmaking tool available on the website). Participation in this preliminary dialogue has met the partners' expectations. Continuous communication with the industry until the tender launch will be maintained

⁸ The target refers to the entire project duration.

to ensure engagement and avoid losing 'the momentum' that the OMC has created. The FAQ mechanism will remain open and functioning to continue the dialogue with potential suppliers.

Joint tenders are very likely. It seems that most OMC participants would need to partner with other suppliers to cover all iProcureSecurity PCP challenges and use cases and to be able to test the solution in the five different procurers' countries. There are suppliers able to cover several challenges, however, it is unlikely that a single provider can meet all the requirements in full. This seems to be especially true for quality assurance and training, which is one of the least often addressed challenge through existing solutions according to the OMC questionnaire. In addition, most of the interested suppliers are micro-organisations and SMEs (48% and 31% of OMC questionnaire respondents, respectively) which sometimes lack the means to cover all the scope. iProcureSecurity PCP will continue facilitating the matchmaking: the tool will be available until the end of the call for tenders.

4.2 Challenge Clarity, Feasibility, and Innovativeness

Challenge was deemed relevant, clear and feasible. OMC participants agreed that partial solutions exist but that they need to be seamlessly connected and piloted to achieve a holistic and modular solution to effectively bring different EMS actors and connected stakeholders together. Most participants agreed that the challenge is manageable and that the scope proposed in iProcureSecurity PCP is challenging but addressable. Remarked issues have been considered by the consortium partners for the successful development of the project:

- <u>Detailed description of the expected inputs and outputs.</u> The procurers are working on providing more details, e.g., through detailed use cases and process models describing key functionalities and scenarios that the solutions should enable (see D2.2).
- <u>Reflection on the tight timeline in phases II and III of the PCP for supplier activities.</u> The proposed timeline for addressing the challenge seems adequate for most OMC participants. However, some respondents explained that more time could be devoted to phases II and III (currently 8 months) as they deal with the development and real-world prototyping of the solutions. The procurers will be discussing this more thoroughly, also in connection with the time reserved in the project for the call phase, and the possibility of using any available buffers from it to increase the duration of the last PCP phases.
- Interoperability and integration with procurers' systems. Interoperability is seen as a necessary but challenging part. To properly achieve it, OMC participants have made several suggestions, such as providing clarity on the current data landscape and data exchange mechanisms that procurers support, which the procurers are addressing. The challenges related to dealing with multiple procurers at the same time and ensuring the solution works across all of them are well known in PCPs, which often bring together several procurers from different countries. Especially integration with existing systems can be very time consuming, which is why in the preparatory stage of the PCP the procurers have been working with local focus groups of experts and technical staff to capture, among others, details about their existing systems that need to be connected, in order to provide such information (e.g. description of available systems and software, interoperability standards used, etc.) to the suppliers already from the outset of the PCP, with the start of phase I. In addition, it has been explained through the FAQ section that integration will take place in Phase III and that prototypes are planned for Phase II before integration, so fully fledged data integration from the start is not the aim. Procurers will involve their IT teams to support as much as possible with the integration.

5 Conclusion

In the views of the iProcureSecurity PCP consortium, the Open Market Consultation was conducted successfully, as it attracted wide industry interest and received relevant comments to consider before tender publication. Especially positive was the rich involvement of SMEs, representing almost 80% of all OMC questionnaire respondents, as PCPs are intended to facilitate the access of new innovative players to the public procurement market⁹. For the reasons provided in this report, iProcureSecurity PCP partners assume that there is capacity, capability, and willingness of the supply side to participate in the tender. It seems that the supply side, which is to a great extent composed by micro-enterprises and SMEs, can deliver a solution based on the information provided if they manage to build partnerships able to cover the entire scope of the iProcureSecurity PCP, which stresses the need for continuously promoting the use of the matchmaking platform in the months leading to the call deadline. Based on the feedback collected during the OMC events, through the OMC questionnaire and through interactions with suppliers, the PCP challenge was deemed innovative, beyond the state of the art, making progress in existing triage management.

In addition, the OMC was also very useful for the buyers' group to identify barriers that should be lowered for suppliers to be able to meet the procurement scope and to identify room for improvement in the tender specifications and project implementation in later phases.

⁹ https://digital-strategy.ec.europa.eu/en/policies/pre-commercial-procurement © 2022 iProcureSecurity PCP | H2020-SU-SEC-2020 | 101022061

6 Annex I – OMC Questionnaire

About you

- Organisation/company
- Organisation type
 - Health/ICT SME
 - Health/ICT Large Company
 - Public authority/ Public entity/ Public equivalent body
 - Academia/ Research institute
 - Private research institute
 - Not-for-profit organisation
 - Start-up/ Spin-off
 - Other (please specify)
- Organisation size
 - Micro (<10 employees and \leq € 2 m turnover)
 - Small (< 50 employees and ≤ € 10 m turnover)
 - Medium (< 250 employees and \leq € 50 m turnover)
 - Large (> 250 employees and > € 50 m turnover)
- (If organisation type = SME, large company or start-up) Presence in the market:
 - o Local
 - $\circ \quad \text{Regional}$
 - \circ National
 - o European
 - o International
- Headquarters country
- Website
- Name of the contact person
- Job title
- email

iProcureSecurity PCP scope

The iProcureSecurity PCP solutions will improve triage scenarios through a flexible management system that provides:

- ➤ a quick and accurate overview of casualties & their status
- > decision support for better allocation of available resources & quicker support for casualties
- > improved interoperability with other first responders & relevant actors
- ➤ reduced handover times between ambulance transport & hospitals, as well as
- ➤ insights for quality assurance & training measures.

The aim of this section of the questionnaire is to validate with market players the draft requirements and use cases prior to their publication in the Call for Tenders.

To complete this section of the questionnaire, please have a look at the 'Scope document for the Open Market Consultation'.

Target stakeholders

Emergency Medical Services and organisations performing triage in Mass Casualty Incidents are the main target stakeholders of iProcureSecurity PCP.

- Do you think it is feasible to target these organisations with the solution developed in iProcureSecurity PCP?
 - o Yes
 - **No**
- Explain your choice Open Question

Other target stakeholders of the solution are Affected Citizens in Mass Casualty Incidents/Casualties [Improved quality of service], External Emergency Communication Centres [Improved flow of information], Hospitals [Improved flow of information], First responders involved in MCIs [Improved flow of information], and third-party developers [Ability to connect their applications with the solutions].

- Dou you miss any stakeholder?
 - o Yes
 - o **No**
- If yes, which one? Open Question

Challenges

- Are the iProcureSecurity PCP challenges and requirements clear and feasible within the frame of iProcureSecurity PCP?
 - o Yes
 - o No
- Please explain your choice Open question
- Could you indicate the complexity of the challenges by ordering them as basic (1), intermediate (2), or advanced (3)?

Challenge	1	2	3
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			

- Which would be the biggest challenges to address in your view?
- Do you have any other suggestions or recommendations on the challenges? Open Question

Non-functional, organisational and legal/regulatory requirements

In parallel to the functional requirements, organisational, and legal/regulatory requirements will be identified in a systematic manner. Further to this, any sectoral and/or occupational codes of practice that may exist in the participating regions and/or service provider organisations will be identified. Results of the requirements analysis build the basis for the development of a comprehensive and systematic requirements catalogue for inclusion in the Call for Tenders.

- The iProcureSecurity PCP solution should be able to exchange information with the systems of the procurers during the pilot phase. As this is a challenging task, how can procurers support potential suppliers to accomplish this objective? Open Question
- Do you think there are any specific limitations or barriers to the deployment of the envisaged solution on the market?
 - o Yes
 - **No**
- If yes, which ones? Open question

Assessment of existing technologies

A prior analysis is being conducted to confirm whether the identified need(s) are indeed "unmet" needs. If the prior art analysis reveals that there are already solutions available on the market that can meet the need or will already become available before it is possible to complete the planned procurement, then there is no more need for an innovation procurement.

To complete this section of the questionnaire, please have a look at the 'Scope document for the Open Market Consultation'.

- Do you have a solution covering ALL iProcureSecurity PCP requirements (see scope document) in FULL that is already available in the market?
 - o Yes
 - 0 **No**
 - o Partially
- Solution Name
- Website
- Briefly describe your solution Open Question
- If so, in which stage is your solution? Following H2020 Technology Readiness Levels
 - o **TRL 1-3**
 - o TRL 4-6
 - o TRL 7-9
- Which of the challenges are covered by your solution?
 - \circ $\;$ 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

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- \circ $\;$ Reduced handover times between ambulance transport and hospitals
- o Insights for quality assurance and training measures

Pre-Commercial Procurement

The process will begin with the publication of an open European-wide tender, which is expected to take place in the last quarter of 2022. Providers will then be invited to submit proposals. The proposals will then be reviewed and ranked. A minimum of six teams will be invited to participate in a competitive process divided into three phases. During the PCP, vendors must design the solution (PCP Phase 1), build a prototype (PCP Phase 2), which is tested at the client's premises (PCP Phase 3). After each phase, intermediate evaluations are carried out to select the best of the competing solutions. The contractors with the best value for money are offered a specific contract for the next phase.

- Are you familiar with the concept of Pre-commercial Procurement of Innovation?
 - o Yes
 - o No
- Is the duration of each phase in this PCP adequate in your view?
 - o Yes
 - o No
- If no, please explain Open Question

Partner search

Many PCP tenderers choose to apply together with international partners in a joint tender (consortium) to be able to fulfil all of the future tender requirements. So, if you are looking for *potential partners* to form a consortium or want to *showcase your company* so that other interested parties might contact you, have a look at https://pcp.iprocuresecurity.eu/procurementplatform/, register your organisation and start networking!

7 Annex II – Scope Document

1. Introduction

Emergency Medical Services (EMS) in Europe are characterised by a heterogeneous landscape with diverse organisational setups, technology standards, coordination mechanisms and actors. This is the result of different historical and institutional contexts. However, these EMS are united by the common aim of providing timely care to victims of sudden and life-threatening emergencies or disasters in cross-border settings and international humanitarian missions. Fostering the response capacities and increasing the cooperation of the Emergency Medical Services Systems (EMSS) is of decisive importance for strengthening the resilience of European societies.

During the prior iProcureSecurity (CSA) project, a large number of EMS were involved to identify, evaluate and prioritise future challenges and needs. The creation of an interoperable, flexible triage management system supported by modern technologies was among the most requested solutions in the context of security-related scenarios.

This iProcureSecurity PCP action is a result of those intense participatory processes. The action will lead to an innovative triage management system that provides a) quick and accurate overview of victims and their status; b) decision support for better allocation of available resources and quicker support for patients; c) improved interoperability with other first responders and relevant actors; d) reduced handover times between ambulance transport and hospitals; and e) insights for quality assurance and training measures.

Following the EC Guidelines on Pre-Commercial Procurement (PCP), through a competitive series of design, prototype and pilot steps, the iProcureSecurity PCP will contract suppliers to deliver the creation and deployment of the envisaged triage management system.

As part of the Open Market Consultation (OMC), this document describes the scope and initial requirements of the iProcureSecurity PCP project. The OMC represents a specific phase during the overall PCP methodology, aiming to actively approach the market when the identified needs by the procurers must be communicated openly and clearly to all potentially interested bidders. Market players get the unique opportunity to give feedback on the requirements of the foreseen precommercial tender.

In this document you will find the following sections:

- Vision
- Requirements
- Procurement Process
- Call for Tenders

2. Vision

The vision of iProcureSecurity PCP builds the foundation for the development of novel triage management systems that are able to overcome fundamental shortcomings of currently used systems and which will allow to digitalize key processes and thereby strongly contribute to an improved quality of the service for all involved stakeholders.

This section elaborates on the shortcomings of the current state of the art and thus elucidates why existing solutions do not meet the needs of the EMS organisations in the field and a PCP process is

needed to acquire new R&D services. Starting from the findings collected and analysed during the iProcureSecurity CSA project and in-depth assessments during the first months of the iProcureSecurity PCP project it can be stated that an innovative system must be developed in a way to enable **planning** and **decision-making**, taking into account all the existing variables faced by the EMS practitioners at the site of the incidence.

Likewise, the **allocation of resources** must be as efficient as possible to reduce the cost of each intervention while always ensuring casualty safety. In general, all emergency professionals the project consortium engaged with, claimed that the current **practices in the area of triage management** need to be improved and the development that is carried out by the industry has to go beyond the current state of the art.

A system that truly has an impact on the work of the emergency teams should connect the EMS practitioners with the other stakeholders in the EMS ecosystem enabling continuous and reliable communication with the EMCC and the hospital where the casualty is going to be transferred to as well as a quick access to the casualty's medical history. The aforementioned necessity implies that the triage system must exchange data directly with the other information systems of the EMS organizations involved. This **interoperability** has to be implemented in a way that **data transmission** is possible and **sustainable** to allow seamless updates and improvements in the future.

A system for triage management that meets the challenges faced by the EMS practitioners across Europe should be digital and able to provide data that facilitates the **evaluation** of interventions between different teams on national or European levels. However, to achieve this the solution needs to demonstrate the capability of **reproducing** interventions and decisions. Finally, as the health data of casualties that is transferred and updated between the different actors is concerned, **data protection** must be guaranteed at all times supported by putting in place all the necessary **cybersecurity** measures.

The image below gives a basic overview of involved actors, connections and interfaces of an envisaged flexible and highly modular triage management system that can be applied and adapted to different approaches and connected to existing systems in every of the procurers' country or region.





To reach the desired quality and efficiency improvements suppliers will have to take into account several aspects and make use of and combine innovative aspects and concepts in several domains. A critical success factor is to establish a balanced understanding for the technology components, the involved data domains, and the organisational processes and structures which build on the former. The focus areas of the technology perspective include means to continuously capture and update triage information, which is consolidated to streamline the triage management, including the handover

of casualties to healthcare organisations. The aspect of "site intelligence" seeks to utilise the capabilities of modern sensor technologies, to aid in casualty tracking and treatment, but also identification of potential threats, as well as providing a data foundation for further decision support. The cross-cutting aspects for technologies are the functional capabilities of technology components, their usability and practicality for a field deployment, as well as interoperability from a technical standpoint.

The concept of operations examines the roles and structures established for an incident response, the concrete initial and re-triage processes, relevant process interfaces to other EMS organisations, EMCC and hospitals, as well as the collaboration under different constellations, especially in large scale incidents with heterogenous EMS from different nationalities involved. This also covers the aspects of a consistent incident documentation, the feedback of lessons learned into training concepts, but also the (potentially diverging) terminology and taxonomy used by involved organisations.

The data perspective covers the aspect of incident information, to understand the scope and impact of the situation, which is necessary to plan a suitable incident resolution and identify additional resource needs on site. Particular emphasis is also on any data regarding the casualties, which ranges from their triage history, the treatment they received, but also the potential of retrieving a casualty record or capacity data from healthcare organisations to further improve the routines on site. Due to the sensitive nature of the involved information, the aspect of data protection is an important crosscutting aspect. Of similar importance is the semantic interoperability of data, which ties in with the syntactic interoperability for technical components, and the terminology and taxonomy established in the concept of operations.

The triage management system can be considered as one of the core components for digitalisation, as it has the vital role of receiving data from the involved endpoints (sensors, services, applications), complements it with contextual data and distributes it to downstream systems, while providing information to decision makers on- and off-site to support the management of the incident situation. Multiple challenges were identified, which have to be addressed by the triage management system:

- The tracking of the triage situation involves information on the number of casualties, their classification, their treatment and their status. Carried out manually, it is a challenging task to collect the information for an initial overview, and to maintain it as the situation involves, as it requires multiple roles on-site to continuously update this information. Outdated information or mistakes influence and delay decision making on an operational, tactical and strategic level, which can lead to a misallocation of resources, a delayed delivery of supplies or equipment, or subsequent mistakes in the management and treatment of casualties. By maintaining a digital record of each triaged casualty, beginning with the initial primary triage, up to the handover to the hospital, a permanently updated data baseline is available for decision makers to produce an overview which satisfies a demand for an overall situational awareness, but also is rich in detail to be suitable for specific use cases (such as the treatment or transportation) or to be further processed by downstream systems.
- Data interoperability between different organisations on-site, especially if multiple nationalities are involved, is a challenging aspect. Triage information is relevant for other organisations to aggregate a holistic overview of the incident situation, to keep track of the resolution of the incident, to react to unexpected changes of the situation, or to flexibly change priorities in resource allocation if bottlenecks are identified. A digitalisation of the triage procedure provides a reliable data basis for other organisations to work with and does not

bind personnel on-site (such as liaison or communication officers) to convey this information. On a broader scale, this structured information is also an important factor to plan out the transportation logistics towards hospital facilities, or identify additional supplies, vehicles or specialised equipment required at the incident location.

- The handover procedure of a casualty for transportation also includes information on their triage classification and treatment history. This is of relevance for the paramedic in the transportation vehicle to ensure a correct, continuous treatment of the casualty during transportation, and remains equally important in the handover from the transportation to the hospital facility for a hospital triage and further treatment. The objective for the information handover is to be as accurate as possible, while also consuming as little time as possible for the personnel involved, which can be a challenging triage information to any authorised data consumer is efficient, consistent and reliable and does not bind human resources of the involved organisations. It also has the inherent advantage of providing a larger amount of information than what is strictly necessary for the supported process step, which would be well beyond the scope of an efficient manual handover. This way, information can be purposefully narrowed down or retrieved depending on the usage scenario, providing an appropriate flexibility to adjust to an evolving MCI situation.
- In a large-scale incident, the situation can evolve rapidly, involving multiple organisations, carrying out a large subset of routines involving multiple decision points. A manual documentation of these activities is challenging, as it binds valuable resources and is often carried out under stress, impacting the accuracy, thoroughness and correctness of captured information. A digitalisation provides a consistent, chronological, documentation on the triage classification, the treatment received on site, and the handover for transportation. By using consistent reference objects and adhering to standardised data formats, a comprehensive data basis is created throughout an incident, which supports the analysis on how the incident situation evolved on site and derive insights on how to continuously improve the triage procedure from a long-term perspective. These insights can also feed back into the training of EMS personnel or provide profound information which future research activities can build on.

Based on these aspects the iProcureSecurity PCP consortium summarized the main challenge to be tackled as follows:

Improve triage scenarios through a flexible triage management system that provides:

a) quick and accurate overview of casualties and their status,

b) decision support for better allocation of available resources and quicker support for casualties,

- c) improved interoperability with other first responders and relevant actors,
- d) reduced handover time between ambulance transport and hospitals, and

e) insights for quality assurance and training measures.

3. Requirements

The following sections present an overview of initial requirements that were identified by the consortium. Each requirement was given a priority between 0 - 10. "0" represents not applicable and "10" represents the highest priority (must have). Essential requirements do not indicate a priority.

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Tenderers shall aim to address all requirements in the Tender. However, the prioritisation indicates the most important requirements to be addressed. Lower ranked requirements may be addressed in more detail in Phase II and III.

Each requirement consists of an ID, name, a clear description and the defined priority for the Buyers Group. Most requirements are common, but there are also some procurer-specific requirements included in the list (e.g., language requirements). The functional requirements were structured according to the main challenges of the project. Non-functional requirements were allocated to one of the following categories: interoperability, connectivity, usability, performance, scalability, language. Furthermore, an initial set of parameters and measures that have to be taken into account were outlined. The section legal and regulatory requirements include aspects such as privacy, security and international regulations to be considered. The section organisational, staff and business requirements focus on topics such as installation of prototypes, procurement reporting and pilot feedback.

During the creation of the requirements the consortium partners agreed to use the term "casualty" in order to align the different partners' terminology. The latter is, in fact, different from country to country and this would have caused confusion and misunderstanding throughout the implementation of the activities.

The presented requirements in the following section are subject to adjustment as work relating to use cases and process models progresses.

3.1 Functional Requirements

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 1.1.1	Role Management	differentiate between casualties and EMS practitioners, and between different roles of EMS practitioners.	10.0
R 1.1.2	Number of Casualties	display the number of casualties live, as they are being registered in the system.	10.0
R 1.1.3	Casualties Status	give an overview on casualty status (e.g., white, green, yellow, red, black).	10.0
R 1.1.4	Casualties Process Steps	give an overview on casualty process step (e.g., field, triage tent, waiting for transport, in transport, hospital)	9.6
R 1.1.5	Location of casualties- Geolocation	show the actual geolocation of each registered casualty (e.g., on a map).	9.6
R 1.1.6	Casualty Identification - Scan ID Card	provide the possibility to scan ID Cards of casualties (e.g., after initial triage, before transport).	7.3

3.1.1 Quick and accurate overview of casualties and their status

R 1.1.7	Casualty Identification - Save ID Photo	allow to include a photo of the casualty.	6.3
R 1.1.8	Casualty Identification - EHR Access	access casualties' medical history/EHR (electronic health record).	6.1
R 1.1.9	Triage Tags - Basics - Device	include a device that can be attached easily to the casualty in any condition.	10.0
R 1.1.10	Triage Tags - Basics - Triage Conducted	show if the casualty was already triaged.	10.0
R 1.1.11	Triage Tags - Basics - Triage Status	show the current status/colour of the casualty.	10.0
R 1.1.12	Triage Tags - Basics - Allocate Unique ID	automatically provide a unique identifier for each casualty (one casualty one ID).	9.9
R 1.1.13	Triage Tags - Basics - Visible Dark	be visible in dark environments.	8.3
R 1.1.14	Triage Tags - Basics - Visible Afar	be visible from afar.	7.0
R 1.1.15	Triage Tags - Basics - Voice Commands	recognize voice commands.	6.6
R 1.1.16	Treatment - Central Information Hub	allow that the collected data on the casualty is sent to a central information hub (to be further visualised and processed).	10.0
R 1.1.17	Treatment - Triage Guidance	guide the user (e.g., paramedic) through the triage algorithm.	9.6
R 1.1.18	Treatment - Dashboard	show the relevant information to EMS staff (primary triage, treatment, transfer).	9.6
R 1.1.19	Treatment - Triage Suggestion	suggest triage algorithm based on vital signs.	8.9
R 1.1.20	Treatment - Triage Status Change	change status/colour based on vital signs.	8.6
R 1.1.21	Treatment - Triage History Offline Mode	have an integrated medical history of the case documenting all triage steps which can also be accessed when there is no network connection.	8.6
R 1.1.22	Treatment - Capture Vital Signs	be able to determine the casualties' vital signs (such as respiratory, circulation and consciousness status).	8.3
R 1.1.23	Treatment - Vital Sign Change Alert	be able to alert EMS staff in case of status or vital signs get worse.	8.3

R 1.1.24	Treatment - EHR Connection	be able to connect to and include information of EHR if available.	7.1
R 1.1.25	Treatment - Store Casualty Injury Photos	be able to store photos of casualties and their injuries.	6.3
R 1.1.26	Treatment - Speech to Text Recording	be able to perform speech to text/ natural language processing (e.g., to support the documentation)	5.9
R 1.1.27	Treatment - Audio Warnings	provide audio warnings (e.g., casualty was already triaged).	5.7
R 1.1.28	Treatment - Blood Loss Alert	be able to indicate if casualty suffers from blood loss/internal bleeding.	5.4
R 1.1.29	Treatment - Augment Photos with Comments	be able to highlight photos of casualty with additional comments.	5.3
R 1.1.30	Triage Tag Essential Information	provide essential information directly visible and readable off of the triage tag.	10.0
R 1.1.31	Triage Tag Extended Information	provide additional information through the interface of device that reads/writes data on the triage tag.	10.0
R 1.1.32	Triage Algorithm - Switch Algorithm	be able to perform different standard algorithms for adults and children (START, JumpSTART etc.).	10.0
R 1.1.33	Triage Algorithm - Adapt Algorithm	allow procurer to easily adapt triage algorithm according to own needs (incl. using own terminology).	10.0
R 1.1.34	Triage Algorithm - Step by Step	be able to perform triage algorithms step by step.	9.3
R 1.1.35	Triage Algorithm - Select Algorithm	allow procurer to select from existing triage algorithms.	8.0

3.1.2 Decision support for better allocation of available resources and quicker support for casualties

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 1.2.1	User Preferences	allow users to set preferences (e.g., language) which are stored with the user account and / or as cookies.	10.0
R 1.2.2	User Enrolment	allow the enrolment of new users when necessary.	10.0
R 1.2.3	Onsite Management - Highlight Areas	automatically highlight areas to go / not to go.	10.0

R 1.2.4	Onsite Management - Central Data Collection/Access	collect all relevant data and allow particular roles to access it.	9.7
R 1.2.5	Onsite Management - Display Casualties Vital Signs	display the vital signs of the casualty (e.g., SpO2, EtcCO2, blood pressure, body temperature, EKD D2 derivation).	9.1
R 1.2.6	Onsite Management - Roles Checklist	include checklists of important actions and things to take into account for EMS staff onsite.	9.1
R 1.2.7	Onsite Management - Aggregated Information	provide a dashboard with main information (e.g., casualties, staff, resources).	9.1
R 1.2.8	Onsite Management - Save/Display Casualty Journey	captures and saves data from beginning of triage until casualties arrive in hospital (hand over process).	8.9
R 1.2.9	Onsite Management - Save/Display Location	show the exact location of the emergency.	8.7
R 1.2.10	Onsite Management - Save/Display Resources/Materials	provide an overview on all resources coming in and go out.	8.6
R 1.2.11	Onsite Management - Map Tool	provide cartographic tools using aerial images for onsite planning (e.g., to mark important areas).	8.3
R 1.2.12	Onsite Management - Save/Display Location of Resources/Materials	geolocate all resources and visualise them on a map.	8.3
R 1.2.13	Onsite Management - Collect/Display Information on Place	provide information on the place (e.g., possible accesses, recommended traffic detours, existence of inhabited, industrial places, waterways).	7.9
R 1.2.14	Onsite Management - Share Information on Place	provide information on the scene (e.g., area designated, boundaries, Advanced Medical Post with tents for each category, etc) also to other actors at the scene.	7.9
R 1.2.15	Onsite Management - Request new Resources/Materials	allow to request new materials and operational resources.	7.4
R 1.2.16	Onsite Management - Map Triage Point	clearly show the triage point.	7.4
R 1.2.17	Onsite Management - Save/Display Radio Channel Allocation	help to determine the operational channels of the Tetra Communications System for Emergencies, Security and Rescue to be used in the emergency.	7.4

R 1.2.18	Onsite Management - Save/Display Scenario Guidelines	highlight specific approaches/guidelines to be considered for different scenarios.	7.3
R 1.2.19	Onsite Management - Save/Display Staff Objectives	indicate objectives and priorities to the different Action Groups.	7.1
R 1.2.20	Onsite Management - Guide PMA Setup	support the setup and maintenance of Advanced Medical Post (small hospital) at the scene.	7.1
R 1.2.21	Onsite Management - Display Casualties Injuries	display photos of casualties and their injuries.	7.0
R 1.2.22	Onsite Management - Share Information on Surroundings	provide a connection to other FRs to inform persons living in the surrounding.	6.7
R 1.2.23	Onsite Management - Display Secondary Transport	provide information for secondary transport.	6.4
R 1.2.24	Onsite Management - Display Weather Conditions	provide information on weather conditions.	6.4
R 1.2.25	Onsite Management - Display Traffic Conditions	provide information on traffic conditions.	6.3
R 1.2.26	Onsite Management - Prepare Messages	trigger messages to inform public during event (e.g., instructions for inhabitants of the area)	5.6
R 1.2.27	Decision Support - Casualties Status	provide decision support on status based on condition of the casualty.	10.0
R 1.2.28	Decision Support - Required Hospitals	provide decision support on required type of hospital infrastructure (e.g., specialists for particular emergency/injuries).	10.0
R 1.2.29	Decision Support - Transportation	provide decision support which means of transportation (land, air) should be used.	9.4
R 1.2.30	Decision Support - Number of Hospitals	provide decision support on required number hospital infrastructure (e.g., ICU beds).	9.4
R 1.2.31	Decision Support - Number of Vehicles	provide decision support on required number of vehicles.	9.0
R 1.2.32	Decision Support - Types of Vehicles	provide decision support on required types of vehicles.	7.7
R 1.2.33	Decision Support - Number of Personnel	provide decision support on required number of personnel.	7.6

R 1.2.34	Decision Support - Type of Personnel	provide decision support on required types of personnel.	7.1
R 1.2.35	Decision Support - Quantity of Resources	provide decision support on required quantity of logistic resources (supplies).	6.9
R 1.2.36	Decision Support - Type of Resources	provide decision support on required type of logistic resources (supplies).	6.9
R 1.2.37	Decision Support - Environmental Conditions	provide decision support based on environmental conditions (e.g., weather).	6.4
R 1.2.38	Decision Support - Surroundings	provide decision support based on surrounding population, buildings and other vulnerable elements.	6.3
R 1.2.39	Decision Support - Perimeter	propose the perimeter of the area to be isolated.	6.3
R 1.2.40	Decision Support - Suggest Zones	support the establishment of the emergency intervention zoning (e.g., distinction between red and green zone).	6.3
R 1.2.41	Decision Support - Display Incident Assessment	automatically make an assessment of the incident based on type of event, location and environmental conditions (e.g., weather, traffic).	6.0
R 1.2.42	Staff Management - Display Staff Location	visualize the position of staff in the area on a map (only onsite during triage management).	8.0
R 1.2.43	Staff Management - Define Staff Types	be able to capture special groups, staff and volunteers.	6.4
R 1.2.44	Staff Management - Check-in/Check-out Staff of Location	provide the possibility to register (check-in/check-out) staff entering or leaving the site.	5.9
R 1.2.45	Staff Guidance - Read/Write Checklist/Guidance Cards	allow to check off completed tasks (interactive checklists with alerts).	9.4
R 1.2.46	Staff Guidance - Display Staff Guidance	give easy to follow "first-aid" guidance for staff.	9.4
R 1.2.47	Staff Guidance - Task Reminder	trigger certain tasks from the checklist and remind staff.	9.3

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R 1.2.48	Staff Guidance - Adapt Checklist/Guidance Cards	provide digital version of guidance cards and checklists for all roles.	9.1
R 1.2.49	Logistics - Updates	help to update the logistics department to provide new supplies.	7.0
R 1.2.50	Logistics - Database Connection	be able to connect to material database and synchronize with incident management system.	7.0
R 1.2.51	Logistics - Display Resource Overview	provide real time information on available materials.	6.9
R 1.2.52	Logistics - Supply Chain Support	help the supply chain.	6.7
R 1.2.53	Logistics - Write Resource Usage	record usage of materials for each casualty.	5.4

3.1.3 Improved interoperability internally and with other first responders and relevant actors

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 1.3.1	Data Sharing with EMS - Record Casualty Journey	record all steps performed with the casualties.	10.0
R 1.3.2	Data Sharing with EMS - Share Information Red Zone	share information about red zones / danger zones.	8.4
R 1.3.3	Data Sharing with EMS - EMCC	be able to store and exchange images (e.g., to share it with EMCC).	7.9
R 1.3.4	Communication - Push to Talk	provide push to talk functionality.	7.4
R 1.3.5	Communication - Fail Safety Store Data	store messages/data when communication is blocked.	10.0
R 1.3.6	Communication - Fail Safety Timestamps	show clear timestamps for all main information.	9.0
R 1.3.7	Communication/Fail Safety Timestamp Alert	highlight if timestamps are outdated (e.g., due to missing network connection).	7.9

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 1.4.1	Data Sharing with EMS - Share Information on Hospitals	show available hospital infrastructure (number, types).	10.0
R 1.4.2	Data Sharing with EMS - Share Information on Hospital Capacity	show current capacity of hospitals (e.g., free ICU beds, operating theatres etc.).	10.0
R 1.4.3	Data Sharing with EMS - Alert Hospitals	alert hospitals which casualties are transported to them.	9.0
R 1.4.4	Data Sharing with EMS - Share Information on Casualties	be able to send clinical information of casualties to hospitals before they arrive.	9.0
R 1.4.5	Data Sharing with EMS - Share Information on Treatment	provide remote medical guidance to healthcare teams in the field.	6.6

3.1.4 Reduced handover times between ambulance transport and hospitals

3.1.5 Insights for quality assurance and training measures

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 1.5.1	Evaluation - Report Number of Casualties	reports on number of casualties and their status.	10.0
R 1.5.2	Evaluation - Store Data	store all data that allows evaluation after incident.	10.0
R 1.5.3	Evaluation - Store Internal Communication	document/report internal communication.	10.0
R 1.5.4	Evaluation - Report Hospital Number and Type	be able to report on the available/used hospitals in the area, their occupancy rate and their focus for certain injuries/treatments.	10.0
R 1.5.5	Evaluation - Report Event Timeline	be able to store and visualize the timeline of event.	9.1

R 1.5.6	Evaluation - Automatic Standardized Reports Internal	provide automatically a standardized report after the end of the event.	8.6
R 1.5.7	Evaluation - Store External Communication	document/report external communication (e.g., with other First Responders).	8.3
R 1.5.8	Evaluation - Automatic Standardized Reports External	create automatic reports that can be shared with externals (e.g., civil protection board).	8.3
R 1.5.9	Evaluation - Map View	be able to show a map of the scene with allocation of different areas (e.g., triage tent, transport etc.).	7.7
R 1.5.10	Evaluation - Report Vehicle Number and Type	be able to report on the number and type of vehicles used in the event.	7.6
R 1.5.11	Evaluation - Operational Structure	report on the operational structure that was applied.	7.6
R 1.5.12	Evaluation - Environmental Factors	report on environmental factors (e.g., areas that are hard to reach, weather, routes/traffic).	6.6
R 1.5.13	Evaluation - Voice Commands	be able to collect data also by voice commands.	6.6
R 1.5.14	Evaluation - Report Equipment	report on the used equipment.	5.9
R 1.5.15	Evaluation - Store/Display Scene Images	show in the report images from the scene.	5.4
R 1.5.16	Evaluation - Store/Display Emergency Calls	be able to save the number of emergency calls for the event.	4.4
R 1.5.17	Evaluation - Operation Efficiency	report on the efficiency of the operation.	3.6
R 1.5.18	Evaluation - Operation Role Performance	report on the performance of particular roles.	3.4
R 1.5.19	Training - Interactive Checklists	use interactive checklists for training.	7.7

R 1.5.20	Training - Simulation of Event	offer data for disaster simulation to be used on the training field.	7.7
R 1.5.21	Training - AR Training Solutions	offer data to be used for artificial vision/augmented reality training solutions.	6.4

3.2 Non-Functional Requirements

3.2.1 Interoperability

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 2.1.1	Interoperability - Harmonized Terminology	use a harmonized terminology.	9.7
R 2.1.2	Interoperability - API Legacy Systems	be able to communicate through APIs with existing/legacy systems.	9.7
R 2.1.3	Interoperability - Central Information Hub API Endpoint	be able to instantly share information with all other EMS stakeholders via a central platform.	9.6
R 2.1.4	Interoperability - Information Flows	improve information flows between the different levels of care (primary care, specialized care and emergencies).	9.6
R 2.1.5	Interoperability - Mobile Application	allow to collect data with a mobile application.	9.4
R 2.1.6	Interoperability - Data Sharing Hospital	ensure a quick and complete handover of data to the hospital.	9.4
R 2.1.7	Interoperability - Real- Time Updates	constantly update the data based on the evolution of the scenario.	9.4
R 2.1.8	Interoperability - Data Sharing EMCC	have real time connection with EMCC.	9.3
R 2.1.9	Interoperability - Data Sharing EMS	have an integrated communication system for emergency management.	9.1
R 2.1.10	Interoperability - Automatised Data Collection	facilitate automatisation of data collection to prepare/manage the site.	9.0
R 2.1.11	Interoperability - Data Sharing EMS Crews	support handover processes between EMS crews.	8.7

R 2.1.12	Interoperability - Data Sharing Other First Responders	collect harmonized data.	8.7
R 2.1.13	Interoperability - Data Sharing Other First Responders	be able to instantly share information with other First Responders (e.g., fire rescue, police, military).	8.0
R 2.1.14	Interoperability - Telemedicine Tools	be able to connect to existing telemedicine and e diagnostic tools.	7.7
R 2.1.15	Interoperability - Telemedicine Support	allow medical support of healthcare teams in the field.	6.6
R 2.1.16	Interoperability - EHR	provide connection with available EHR.	6.3
R 2.1.17	Interoperability - Pilot Servers	be hosted on servers physically located in EU and/or the countries of the pilots according to GDPR and national laws.	10.0
R 2.1.18	Interoperability - Pilot API Legacy Systems	be able to exchange information (read and write data) with the systems of the Austrian/Greek/Italian /Spanish/Turkish procurers.	10.0
R 2.1.19	Interoperability - Pilot API Legacy Systems	be compatible with existing software in the procurers' organizations.	10.0

3.2.2 Connectivity

ID	Requirement Name	The iProcureSecurity PCP solution shall	Priority
R 2.2.1	Connectivity - Mobile Network	use available mobile networks.	10.0
R 2.2.2	Connectivity - Local Network	be able to run without public networks (e.g., can establish local network).	9.7
R 2.2.3	Connectivity - 5G	be compatible with 5G.	9.0

3.2.3 Usability

ID	Requirement	Name	The iProcureSecurity PCP solution shall	Priority
R 2.3.1	Usability -	Device	run on mobile phones and tablets.	10.0
	Support			

R 2.3.2	Usability - Ease of use	be easy to use.	10.0
R 2.3.3	Usability - No Training	be used without the need for special training.	10.0
R 2.3.4	Usability - Flexible Scenarios	be usable in any kind of scenario.	10.0
R 2.3.5	Usability - Triage Tag Robustness	be unaffected by environmental conditions (e.g., dust, liquid, impact).	9.6
R 2.3.6	Usability - Triage Tag Reusability	be reusable after use.	9.4
R 2.3.7	Usability - Triage Tag Hygiene	be easy to clean.	9.4
R 2.3.8	Usability - Triage Tag Non-Allergic	be non-allergic (skin contact).	9.4
R 2.3.9	Usability - Visualizations	offer all data in a visual easy to digest way.	9.4
R 2.3.10	Usability - Quick Decision Making	support quick decision making.	9.4
R 2.3.11	Usability - Flexible Checklists	provide an easily adaptable checklist.	9.4
R 2.3.12	Usability - Central Monitoring	allow central monitoring of all data (e.g., to minimize staff for re-triage).	9.3
R 2.3.13	Usability - Triage Tag Environmental Conditions	be unaffected by environmental conditions (works in dark, can get wet, dusty etc.).	9.1
R 2.3.14	Usability - Triage Tag Undisturbing	not interfere with the treatment.	8.7
R 2.3.15	Usability - Triage Tag Small Size	have a small size/form factor (especially the triage tag).	8.7
R 2.3.16	Usability - Language	provide multi-language support.	8.3
R 2.3.17	Usability - Primary and Secondary Triage	be used for primary and secondary triage.	7.9
R 2.3.18	Usability - Guide Triage	provide advice to the staff performing triage steps.	7.6
R 2.3.19	Usability - Scenario Evaluation	shall support optimization of handling Mass Casualty Incidents (MCIs).	7.6

3.2.4 Performance

ID	Requirement Name	The iProcureSecurity PCP solution shall
R 2.4.1	Performance - Capacity Users	support a sufficient number of simultaneous users accessing the solution.
R 2.4.2	Performance - Capacity Data (any)	support a sufficient number of data entries of any kind without loss of data and without restrictions to any user type.
R 2.4.3	Performance - Latency and Response Time	be usable with delay no greater than 0.5 ms.
R 2.4.4	Performance - Actors	support different roles/actors.
R 2.4.5	Performance - Offline Behaviour	work well when there is no internet connection; e.g., caching of changes.

3.2.5 Scalability

ID	Requirement Name	The iProcureSecurity PCP solution shall
R 2.5.1	Scalability - Extendibility	be able to allow for new functionality (e.g., adding a new parameter) to be included in one or more parts of the solution.
R 2.5.2	Scalability - Instantiating	be able to be reproduced in a similar setting in form of a new instance (e.g., another EMS provider).
R 2.5.3	Scalability - Reproducibility	be easily reproducible/replicable to large amounts of users across different geographic regions.
R 2.5.4	Scalability - Interfaces	provide the necessary interfaces based on the different user roles (as defined in the use cases).

3.2.6 Language

ID	Requirement Name	The iProcureSecurity PCP solution shall
R 2.6.1	Language - English	be available in English.
R 2.6.2	Language - German	be available in German.
R 2.6.3	Language - Greek	be available in Greek.
R 2.6.4	Language - Italian	be available in Italian.

R 2.6.5	Language - Spanish	be available in Spanish.
R 2.6.6	Language - Turkish	be available in Turkish.
R 2.6.7	Language - Flexibility	allow to add additional languages easily.
R 2.6.8	Language - Terminology	allow to change terminology easily.

3.3 Parameter and Measuring Units Requirements

ID	Parameter	Measure
R 3.1.1	Casualty Assessment	Evaluate ABCDE (Airway, Breathing, Circulation, Disability, Exposure)
R 3.1.2	Casualty Respiration	Yes/No
R 3.1.3	Casualty Respiratory Rate	Breaths per minute (bpm)
R 3.1.4	Casualty Airway Condition	Patent /Not Patent
R 3.1.5	Casualty Radial Pulse	Yes/No
R 3.1.6	Casualty Capillary Refill	Less than 2s/ More than 2s
R 3.1.7	Casualty Follow Simple Commands	Yes/No
R 3.1.8	Casualty Walking	Yes/No
R 3.1.9	Casualty Consciousness	Yes/No
R 3.1.10	Casualty Blood Oxygen Saturation	SpO2 (SAT02)
R 3.1.11	Casualty Blood Pressure	mm Hg
R 3.1.12	Casualty Body Temperature	°C
R 3.1.13	Casualty Cardiac Frequency	Beats per minute (bpm)
R 3.1.14	Casualty Pregnancy Status	Yes/No
R 3.1.15	Casualty CBRN Status	Yes/No (chemical, biological, radiological, or nuclear)

3.4 Legal and Regulatory Requirements

3.4.1 Security

ID	Requirement Name	The iProcureSecurity PCP solution shall
R 4.1.1	Security - Authentication	enable authentication using existing or preferred authentication techniques of the eight procurers.
R 4.1.2	Security - Authorization	be able to ensure only the authorized roles have access to data that is relevant for them.
R 4.1.3	Security - Integrity	ensure highest data security and data integrity.
R 4.1.4	Security - Policy	develop a security policy with respect to the processing of personal data.
R 4.1.5	Security - Impact Assessment	undertake an impact assessment of potential security and privacy risks arising as a result of the use of the solution.
R 4.1.6	Security - Strategy	develop a strategy for the case that, despite the security measures, a breach of security occurs (e.g., this can be theft, deliberate attack on the systems, unauthorised use of data by staff members, etc.).
R 4.1.7	Security - Measure Encryption	provide necessary equipment and measures to ensure user and data privacy by encrypting to recent standards all account related information and / or other databases.
R 4.1.8	Security - Measure Firewall	provide necessary equipment and measures to ensure user and data privacy by installing a firewall.
R 4.1.9	Security - Measure HTTPS	provide necessary equipment and measures to ensure user and data privacy by only allowing access to data through a https- encrypted web connection.
R 4.1.10	Security - Measure Intranet	provide necessary equipment and measures to ensure user and data privacy by allowing access to data only within a restricted domain and / or intranet.
R 4.1.11	Security - Measure VPN	provide necessary equipment and measures to ensure user and data privacy by allowing access to data, if applicable inside and / or outside of the restricted domain, via a virtual private network (VPN).
R 4.1.12	Security - Breach Notification	notify the users in case of security breaches by explaining the nature of the breach, contact information about the organisation and how the users can mitigate any possible adverse impact of the breach.
R 4.1.13	Security - Incident	ensure a timely response to incidents reported by the national Computer Emergency Response Team (CERT).
R 4.1.14	Security - Profile	develop a security profile which can be certified according to Common Criteria for Information Technology Security Evaluation (ISO/IEC 15408).

3.4.2 Privacy

ID	Requirement Name	The iProcureSecurity PCP solution shall	
R 4.2.1	GDPR Compliance	ensure full compliance with GDPR.	
R 4.2.2	Privacy - Policy	develop a privacy policy with respect to the processing of personal data, inc. pseudonymised data.	
R 4.2.3	Privacy - Policy Communication	provide the user with complete information on its privacy and security policies during registration and later through navigation in the user interface.	
R 4.2.4	Policy - Enforcement	ensure disciplinary measures will be adopted in cases where any breach of the policy occurs	
R 4.2.5	Privacy - Access Control	govern access to the solution by username and secure password (in compliance with regional/national/European data protection legislation).	
R 4.2.6	Privacy - Access Record	create an audit trail of access, and provide access to such audit trail if requested by the casualty.	
R 4.2.7	Privacy - Casualty Access	have the capacity to provide casualties with access to data concerning them or their care in an understandable and shareable format.	
R 4.2.8	Privacy - Consent Form	provide a consent form in either written and / or in electronic form.	
R 4.2.9	Privacy - Consent Treatment	consent to use of iProcureSecurity PCP tool will be informed, explicit, unambiguous and recorded.	
R 4.2.10	Privacy - Consent Research	consent to re-use data for research purposes will be collected separately from consent to use data for care purposes. Data used for research purposes will be anonymised or pseudonymised format if possible.	
R 4.2.11	Privacy - Consent Withdrawal	allow for withdrawal of the individual's consent either written and / or in electronic form. A policy in deletion or not if already collected information will be adopted.	
R 4.2.12	Privacy - Data Correction	allow for any individual requesting to correct data related to his or her data where an error is found, such correction should be visible.	
R 4.2.13	Privacy - Consent Marketing	require specific consent to provide marketing material in any form prior to inclusion in any marketing action.	
R 4.2.14	Privacy - Cookies	provide the user (prior to a successful registration) with information about the purpose of storage or access to information gathered by cookies and ask for the user's consent to use such type of devices.	

R 4.2.15	Privacy - Disclosure	use disclosure due to its nature of being a project involving
		different partners and the need of evaluation on an international
		level.
R 4.2.16	Privacy - Breaches	report any breaches of the data system.

3.4.3 Regulations

ID	Requirement Name	The iProcureSecurity PCP solution shall
R 4.3.1	Regulations - Organisation MCI Protocols	comply with the existing protocols and regulations for MCIs in each organization.
R 4.3.2	Regulations - European MDR	use sensors to measure and collect certain parameters. In such cases, the devices offered shall be in line with the European Medical Device Regulation (REGULATION (EU) 2017/745 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL)

3.5 Organisational, Staff and Business Requirements

3.5.1 Installation of Prototypes and Systems

ID	Requirement Name	The iProcureSecurity PCP solution developer will
R 5.1.1	Prototype Installation V1	install the necessary prototype system v1 at the premises of each of the eight procurers. Alternatively, the developer will provide access to a lab environment in order to test the prototype by at least 10 users of each of the procurers.
R 5.1.2	Prototype Installation V2	install the necessary prototype system v2 at the premises of each of the eight procurers. Alternatively, the developer will provide access to a lab environment in order to test the prototype by at least 10 users of each of the eight procurers.
R 5.1.3	Pilot System Introduction	introduce the pilot system at the premises of each of the procurers in close collaboration with procurer representatives. System introduction includes installation of the solution and preparation of user devices for rollout. On-site testing will be done to reveal and resolve any issues that prevent the system from working properly at the premise (e.g., during exercises).
R 5.1.4	Pilot Operation Maintenance	maintain the operation of all systems at each site at full quality. A team will be available to the site management to physically and/or remotely resolve any issues and problems that prevent the system from working as desired.

R 5.1.5	Helpdesk and	set-up and operate a help service and maintenance response team
	Maintenance Support	to address problems faced by end-users. This service will be provided at each of the eight sites.

3.5.2 Procurement Reporting

ID	Requirement Name	The iProcureSecurity PCP solution developer will
R 5.2.1	Procurement Reporting - Phase 1 Status Updates	report on the progress of "Phase 1: iProcureSecurity PCP Service Models & Specifications" in monthly status calls.
R 5.2.2	Procurement Reporting - Phase 2 Status Updates	report on the progress of "Phase 2: iProcureSecurity PCP Prototype Systems" in monthly status calls. This applies to both periods - prototype v1 and v2.
R 5.2.3	Procurement Reporting - Phase 3 Status Updates	report on the progress of "Phase 3: iProcureSecurity PCP Implementation & Operational Testing" in monthly status calls.
R 5.2.4	Procurement Reporting - Helpdesk	report on the progress of the work related to running a helpdesk and a response team to address problems faced by end-users in monthly status calls. This service will be provided at each of the eight sites.
R 5.2.5	Procurement Reporting - Quality Management	provide a quality management and certification strategy which may also allow for certifying the solution as medical device if necessary. Standards such as UNI-EN-ISO 9000, UNI-EN-ISO 13485 may apply.

3.5.3 Pilot Feedback

ID	Requirement Name	The iProcureSecurity PCP solution shall
R 5.3.1	Pilot Feedback - Evaluation Section	contain a section which can be easily adapted in order to implement various modes of evaluation and feedback instruments.
R 5.3.2	Pilot Feedback - Evaluation Questionnaires	enable the display and answering of evaluation questionnaires to be filled out by end users.
R 5.3.3	Pilot Feedback - Bug reports	enable a simple, easy to use error/bug reporting and general feedback module that allows end users to almost instantly submit feedback on the solution.
R 5.3.4	Pilot Feedback - FAQ	contain a section with an FAQ.

4 Procurement Process

PRE-COMMERCIAL PROCUREMENT PROJECT IMPLEMENTATION PCP Phase I PCP Phase II PCP Phase III PCP Phase 0 **Specification Phase Call for Tenders** Testing Pilot Systems **Preparation Phase** Supplier A Supplier B Supplier A Supplier C Supplier C Supplier D Supplier D Supplier A Supplier E Supplier F Supplier F Supplier D 8 Months 4 Months 8 Months 8 Months Concept design, solution architecture and technical specifications User requirements Open market Assessment and engineering, use consultation, tender selection of offers prototype system in two iterations cases definitions preparation ONLINE PLATFORMS, NETWORKS AND TENDER TOOLS Y -SA HERE WAR www.iprocuresecurity.eu www.innovationprocurement.net www.innovationprocurement.com SPECIFICATION COMMUNICATION EVALUATION, IMPLEMENTATION, EXPLOITATION DO JAR \mathbf{X} ini EQ. P ? × /!\ User requirements Use cases Awareness Promotion Evaluation Selection Consultation Exploitation Procurement planning This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022061

iProcure Security 🍄 PCP

Figure 2: iProcureSecurity PCP Process

The consortium brings together experienced procurers representing local, regional or national EMS providers from five different countries.

Table 1: iProcureSecurity PCP partners

Acronym	Partner	Country
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KEMEA	KENTRO MELETON ASFALEIAS (Lead Procurer)	Greece
EPES	EMPRESA PUBLICA DE EMERGENCIAS SANITARIAS	Spain
SERMAS	SERVICIO MADRILENO DE SALUD	Spain
ARC	ÖSTERREICHISCHES ROTES KREUZ	Austria
ASLBN	AZIENDA SANITARIA LOCALE BENEVENTO	Italy
AREU	AGENZIA REGIONALE EMERGENZA URGENZA	Italy
HRC	ELLINIKOS ERYTHROS STAVROS	Greece
EKAB	ETHNIKO KENTRO AMESIS VOITHEIAS	Greece
IBB	IZMIR BUYUKSEHIR BELEDIYESI	Turkey

iProcureSecurity PCP follows the stages of the PCP process as set-out by the European Commission, i.e., work will be divided into four subsequent phases:

- Phase 0: Preparation phase (8 months) and Call for Tenders (4 months)¹⁰
- Phase I: Concept design, solution architecture and technical specifications (4 months)
- Phase II: Development of prototype systems in two iterations (8 months)
- Phase III: Development and testing of pilot systems (8 months)

In parallel to these phases, separate work strands for co-design, evaluation & impact assessment, dissemination and project management will support the project objectives. For the three phases of the pre-commercial procurement, the table below shows the envisaged distribution of budget, the number of expected suppliers for each of them as well as the planned share of R&D product costs for Phase III (pilots). The final distribution will be agreed also taking into account the feedback received during the OMC.

Table 2: PCP phase overview.

	PCP Phase I Solution design	PCP Phase II Prototype development	PCP Phase III Testing pilot systems
% total PCP subcontracting budget	10%	35%	55%
Sum subcontracting budget (excl. VAT)	677 419	2 370 967	3 725 806
Minimum No. of suppliers	6	4	2
Maximum Budget per supplier (excl. VAT)	112 903	592 742	1 862 903

¹⁰ The duration of the call is dependent on timely conclusion of the preparation phase and official clearance from the EC to launch the procurement. Depending on these factors, the overall duration of the call may be shorter, but not shorter than 60 days.

4.1 PCP-phase 0 – Open Market Consultations

An OMC aims to:

- inform potential suppliers (industry) about the iProcureSecurity PCP opportunities.
- explain in detail the pre-commercial procurement process
- open a dialogue with market stakeholders about the scope of procurement envisaged in the **project**, including technical specifications
- **facilitate** matchmaking among potential suppliers in need of support in the building of consortia capable of addressing the needs of the iProcureSecurity PCP procurers in full.

The Open Market Consultation is organised in the form of different activities that are available in the iProcureSecurity PCP website: <u>https://pcp.iprocuresecurity.eu/open-market-consultations/</u>

- Local events. Each procurer will hold an OMC event in their local language to engage with country **stakeholders**.
- International webinar. In addition, an international OMC webinar will be organised in English to welcome participants from any location. Besides, an added value of the international webinar will be a pitching session for market players interested in finding partners for a joint tender. In a parallel session, external procurers are invited to provide feedback on the requirements and use cases, in a way that the procured solution represents the interests of a larger number of demand-side organisations.



Figure 3: List of OMCs

- **OMC** online questionnaire. Organisations related to iProcureSecurity PCP are invited to fill in an online questionnaire to let us know about their experience, existing solutions and further feedback on the PCP scope. The questionnaire will be open until the 30th of April.
- Matchmaking platform. Many PCP tenderers choose to apply together with international partners in a joint tender (consortium) to be able to fulfil all the requirements. The matchmaking will be facilitated by the Innovation Procurement Platform. Find more information here: <u>https://pcp.iprocuresecurity.eu/procurementplatform/</u>.
- Management of FAQs. The questions that might rise during the OMC will be published **anonymously** in the iProcureSecurity PCP website with clear answers for any interested party.

4.2 PCP-phase 1 – Solution Design

To develop an overall conceptual architecture and technical specifications for each of the system components and their interfaces based on the requirements, use cases and service process models.

- **Expected output**: detailed report describing the solution and a detailed plan for the prototyping and testing activities in Phases II & III.
- **Duration**: 4 months
- Maximum phase total budget: 677,419 (max. €112,903 per contractor)
- The offers are ranked according to quality price ratio
- For phase 1, 6 contracts are expected to be awarded. Contracts are awarded until the remaining budget for that phase is insufficient to fund the next best tender.

4.3 PCP-phase 2 – Prototype development

To develop and test prototypes in two iterations. Iteration 1aims at developing non- or partly functional prototypes of key systems components. Test outcomes will be collected and analysed for design, to serve as input for the suppliers' development of the second iteration. These are now envisaged to be functional prototypes, demonstrating component behaviour and system-wide interaction.

- **Expected** output:
 - Prototype specification
 - Prototype demonstration
 - o Plan for development of a limited volume of solutions for field-testing
 - Updated cost/benefits forecast including a preliminary business plan
- Duration: 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
- For phase 2, 4 contracts are expected to be awarded. Contracts are awarded until the remaining budget for that phase is insufficient to fund the next best tender.

4.4 PCP-phase 3 – Testing of pilot services

Further development of the selected prototype solutions to a state where they can be piloted under real life conditions, involving patients, EMTs, and health professionals.

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

5 Call for Tenders

- Tentative launch: May 2022
- Submission: Online portal
- Proposal sections:
 - ADMINISTRATIVE
 - o TECHNICAL
 - o FINANCIAL
- Official language is ENGLISH
- Eligibility criteria
 - Open to all types of operators (companies or other type of legal entities) regardless of their size or governance structure.
 - Single entity or joint tender offer (consortia)
 - The organisation or consortia of organisations must be able to cover all the requirements unless stated otherwise.
- Evaluation criteria
 - Exclusion, Selection, Compliance and Award criteria are yet to be developed.
 - Quality-price ratio will put a focus on quality.
- Intellectual Property Rights
 - Suppliers keeps ownership of the IPRs attached to the results generated during the PCP implementation.
 - A financial compensation is calculated in the financial section of the tender, valuing the allocation of ownership of the IPRs by giving an absolute value for the price reduction between the price offered in the tender (actual price) compared to the exclusive development price (market price) to ensure compliance with the EU R&D&I state aid framework. The actual price is the price quoted by the bidder considering that they are retaining the IPR on the outcomes in accordance with the framework agreement to be signed and that they can exploit the developed project knowledge in the market. The market price is the price that the bidder would have quoted if the project IPR on the outcomes were fully retained by the contracting authority and the bidder did not have the possibility of exploiting the intellectual property (knowledge developed within the PCP).

8 Annex III – Prior Information Notice

Greece-Athens: Research and experimental development services

2021/S 222-584993

Prior information notice

This notice is for prior information only

Services

Legal Basis:

Directive 2014/24/EU

Section I: Contracting authority

1.1) Name and addresses

Official name: KENTRO MELETON ASFALEIAS (KEMEA)

Postal address: P. KANELLOPOULOU 4

Town: Athens

NUTS code: EL30 Αττική / Attiki

Postal code: 10177

Country: Greece

Contact person: Panagiota Benekou

E-mail: p.benekou@kemea-research.gr

Telephone: +30 2107710805

Fax: +30 2111004499

Internet address(es):

Main address: <u>http://kemea.gr/en/</u>

1.1) Name and addresses

Official name: OSTERREICHISCHES ROTES KREUZ (ARC)

Postal address: WIEDNER HAUPTSTRASSE 32

Town: Wien

NUTS code: AT13 Wien

Postal code: 1041

Country: Austria

Contact person: Monika Stickler
E-mail: monika.stickler@roteskreuz.at
Telephone: +43 158900134
Fax: +43 5890098319
Internet address(es):
Main address: <u>https://www.roteskreuz.at</u>
1.1) Name and addresses
Official name: AGENZIA REGIONALE EMERGENZA URGENZA (AREU)
Postal address: VIA ALFREDO CAMPANINI 6
Town: Milano
NUTS code: ITC4C Milano
Postal code: 20124
Country: Italy
Contact person: Piero Maria Brambilla
E-mail: p.brambilla@areu.lombardia.it
Telephone: +39 3355465655
Fax: +39 0267129002
Internet address(es):
Main address: <u>https://www.areu.lombardia.it/</u>
1.1) Name and addresses
Official name: AZIENDA SANITARIA LOCALE BENEVENTO (ASLBN)
National registration number: IT01009680628
Postal address: VIA ODERISIO 1
Town: Benevento
NUTS code: ITF32 Benevento
Postal code: 82100
Country: Italy
Contact person: Alberto Lombardi
E-mail: alberto.lombardi@aslbenevento1.it
Telephone: +39 824308560
Fax: +39 82456340
Internet address(co):

Internet address(es):
Main address: http://www.aslbenevento1.it/
I.1) Name and addresses
Official name: ETHNIKO KENTRO AMESIS VOITHEIAS (EKAB)
Postal address: TERMA ODOU YGEIAS
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NUTS code: EL3 Αττική / Attiki
Postal code: 11527
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Internet address(es):
Main address: <u>https://www.ekab.gr/</u>
I.1) Name and addresses
Official name: EMPRESA PUBLICA DE EMERGENCIAS SANITARIAS (EPES)
Postal address: CALLE SEVERO OCHOA 28
Town: Campanillas Malaga
NUTS code: ES617 Málaga
Postal code: 29590
Country: Spain
Contact person: Fernando Ayuso Baptista
E-mail: direccion.epes@juntadeandalucia.es
Telephone: +34 951042200
Internet address(es):
Main address: <u>http://www.epes.es/</u>
I.1) Name and addresses
Official name: SERVICIO MADRILEÑO DE SALUD (SERMAS)
Postal address: Paseo Castellana 280
Town: Madrid

NUTS code: ES300 Madrid Postal code: 28046 **Country: Spain** Contact person: Teresa Chavarría Giménez E-mail: dgidoc@salud.madrid.org Telephone: +34 915867657 Fax: +34 915867658 Internet address(es): Main address: https://www.comunidad.madrid/centros/consejeria-sanidad 1.1) Name and addresses Official name: IZMIR BUYUKSEHIR BELEDIYESI (IBB) Postal address: CUMHURIYET BULVARI 1 KONAK Town: Izmir NUTS code: TR310 İzmir Postal code: 35251 Country: Turkey Contact person: Şenol Dereköy E-mail: senolderekoy@gmail.com Telephone: +90 5368112938 Fax: +90 2322938929 Internet address(es): Main address: <u>https://itfaiye.izmir.bel.tr/</u> 1.1) Name and addresses Official name: ELLINIKOS ERYTHROS STAVROS (HRC), Postal address: LYKAVITTOU 1 Town: Athens NUTS code: EL30 Αττική / Attiki Postal code: 10672 Country: Greece Contact person: Karafyllis Ioannis E-mail: general-director@redcross.gr

Telephone: +30 6974464013

Internet address(es):

Main address: http://www.redcross.gr/

1.2) Information about joint procurement

The contract involves joint procurement

In the case of joint procurement involving different countries, state applicable national procurement law:

Greek

1.3) Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at: https://pcp.iprocuresecurity.eu/

Additional information can be obtained from the abovementioned address

1.4) Type of the contracting authority

Body governed by public law

1.5) Main activity

Other activity: National Agency for Research and Homeland Security

Section II: Object

II.1) Scope of the procurement

II.1.1) Title:

Pre-Commercial Procurement of Innovative Triage Management Systems Strengthening Resilience and Interoperability of Emergency Medical Services

II.1.2) Main CPV code

73100000 Research and experimental development services

II.1.3) Type of contract

Services

II.1.4) Short description:

This PIN announces an open market consultation and provides information about a planned precommercial procurement (PCP) carried out by the iProcureSecurity PCP project, addressing the need for more effective emergency medical services in Europe. iProcureSecurity PCP is looking to procure R&D services in the form of a solution that will provide Triage Management Systems which will strengthen the resilience and interoperability of European Emergency Medical Services (EMS). The procurement should address the procurers' unmet needs relating to different EMS-related aspect, such as: planning and decision making, resource allocation, improved triage practices, data transmission

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and interoperability, usability of EMS solutions, evaluation and sustainability, data security and protection.

This PCP procurement is a joint procurement by different procurers across Europe that are all facing the same common challenge and are thus looking for similar solutions (so-called 'buyers group').

II.1.5) Estimated total value

Value excluding VAT: 6 774 194.00 EUR

II.1.6) Information about lots

This contract is divided into lots: no

II.2) Description

II.2.2) Additional CPV code(s)

32441000 Telemetry equipment

32441100 Telemetry surveillance system

32441300 Telematics system

33000000 Medical equipments, pharmaceuticals and personal care products

33100000 Medical equipments

33190000 Miscellaneous medical devices and products

33195000 Patient-monitoring system

33197000 Medical computer equipment

34221200 Mobile emergency units

35000000 Security, fire-fighting, police and defence equipment

35100000 Emergency and security equipment

35111200 Firefighting materials

48000000 Software package and information systems

48180000 Medical software package

48211000 Platform interconnectivity software package

48814000 Medical information systems

48814200 Patient-administration system

48814400 Clinical information system

72210000 Programming services of packaged software products

72220000 Systems and technical consultancy services

72230000 Custom software development services

72260000 Software-related services

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72300000 Data services

73200000 Research and development consultancy services

73300000 Design and execution of research and development

75122000 Administrative healthcare services

80320000 Medical education services

80420000 E-learning services

80561000 Health training services

85140000 Miscellaneous health services

II.2.3) Place of performance

NUTS code: AT Österreich

NUTS code: EL Ελλάδα / Elláda

NUTS code: ES España

NUTS code: IT Italia

NUTS code: TR Türkiye

Main site or place of performance:

Testing is expected to take place as part of large disaster management exercises in the EU such as MODEX or local exercises in the procurers' countries: Spain, Austria, Italy, Greece and Turkey.

II.2.4) Description of the procurement:

The procurement will take the form of a pre-commercial procurement (PCP) under which R&D service contracts will be awarded to R&D providers in parallel in a phased approach. This will make it possible to compare competing alternative solutions. Each selected operator will be awarded a framework agreement that covers three R&D phases. The three phases are: solution design, prototype development, original development and validation and testing of a limited volume of first products or services. After each phase, intermediate evaluations will be carried out to select the best of the competing solutions. The contractors with the best value- for-money solutions will be offered a specific contract for the next phase.

The selected operators will retain ownership of the intellectual property rights (IPRs) that they generate during the PCP and will be able to use them to exploit the full market potential (estimated at 40 million people in need of pre-hospital care in the five countries in the project) of the developed solutions.

This procurement receives funding from the European Union's Horizon 2020 Research and Innovation Programme, under grant agreement No 101022061 – iProcureSecurity PCP (<u>https://pcp.iprocuresecurity.eu/</u>). The EU has given a grant for this procurement, but is not participating as a contracting authority in the procurement.

II.2.14) Additional information

This PIN invites all interested operators to take part in an open market consultation (OMC) which will take the form of a series of meetings (both online and physical meetings) in the period mid January - April 2022. All meetings will be announced on the website: <u>https://pcp.iprocuresecurity.eu/</u>. At least one OMC will be held in English.

II.3) Estimated date of publication of contract notice:

01/05/2022

Section IV: Procedure

IV.1) Description

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: yes

Section VI: Complementary information

VI.3) Additional information:

The PCP procurement is exempted from the WTO Government Procurement Agreement (GPA), the EU public procurement directives and the national laws that implement them (because it concerns the procurement of R&D services where the benefits do not accrue exclusively to the contracting authority for its use in the conduct of its own affairs). This PIN is published to announce an open market consultation on a future procurement procedure. The PIN is not a commitment to procure.

The contracting authority involved in the iProcureSecurity PCP project is not legally bound in any way by the outcome of the market consultation.

The open market consultation will provide an overview on the procurement objectives, the PCP process and the main clauses of the contract. It is also not part of any pre-qualification or selection process. No advantage or disadvantage will be given to any supplier / group of suppliers to the detriment of others during the market consultation and the sub-sequent competitive procedure for the award of contracts procurement.

Offers will be accepted in English.

All communication will be carried out in English.

All information provided during the open market consultation and other background information will be published online in English

VI.5) Date of dispatch of this notice:

11/11/2021

9 Annex IV – Suppliers Participating in the OMC

Accenture - Ireland Adana City Hospital - Turkey **ADDITESS Ltd - Cyprus** Agencia Andaluza del Conocimiento - Spain AIT Austrian Institute of Technology - Austria Amphi Systems - Denmark Ankara 112 Prehospital Emergency Health Service - Turkey APUS Software GmbH - Austria **ARFF KVA - Greece** Aristotle University of Thessaloniki - Greece AS - United States AT-BIOTECH TRACEABILITY INFORMATION SYSTEMS - Spain **ATOS - France** Ayming - France Bahía Software - Spain Beta 80 - Italy Biodata devices - Spain Black Space Technology - United Kingdom Catalink - Cyprus Catalonia Trade & Investment - Italy Centro de Emergencias Sanitarias 061 - Spain CENTUM research & technology - Spain cloudrabbIT Solutions GmbH - Austria COF - Spain Conantec - Spain Corevas GmbH & Co.KG - Germany **CT CONSULTING - Italy** Dedalus HealthCare GmbH - Germany **Dedalus SpA - Italy DEVERYWARE S.A. SUCURSAL EN ESPAÑA - France Dextera Consulting - Greece** Digito Medica - Spain Disaster Competence Network Austria - Austria Doole Health - Spain Engineering Ingegneria Informatica SpA - Italy eResult srl - Italy Ethical Saving gUG - Germany **EURECAT - Spain**

EYEONIX SA - Greece FACULTAD CIENCIAS DE LA SALUD - Spain Fenin - Spain **GESAN SRL** - Italy GMV - Spain **Gnomon Informatics SA - Greece GRADIANT** - Spain HighWind - France **IBERMATICA - Spain IBM** - United States **ICCS - Greece** iDeal Technologies Inc. - Turkey IDOM - Spain IIC - Spain IMASOFT srl - Italy incode Gaertner & Stockinger OG - Austria **INDIVIDUAL - Greece** Indra / Minsait - Spain Indra Soluciones TI - Spain INETUM ESPAÑA, S.A. - Spain Infomedika Health Informatics Consulting - Turkey Innatolia Ar-Ge Danismanlik Hizmetleri - Turkey Institute of Communication and Computer Systems (ICCS) - Greece Instituto de Biomecánica de Valencia (IBV) - Spain Izertis - Spain Johnson&Johnson SA - Spain JUMA Security & Smartcity - Spain Kaleyra - Italy **KIRANET SRL - Italy KNOWSULTING - Spain** Last Mile Team - Spain Link Technologies S.A - Greece MARVIC Moringa EuropaVerde - Germany MicroDestek - Turkey Molo17 srl - Italy Nextage Srl - Italy NTTDATA - Japan **ONEX TS&BS SA - Greece** Pointing North - Australia **PRIVATE - Greece**

Probel Yazılım Bilişim A.Ş. - Turkey **RED Management & Consultancy - Netherlands** Regola srl - Italy **RIATLAS SRL - Italy RISE - Austria Roche Diagnostics - Switzerland** Roche Diagnostics, S.L.U - Spain **Rubiks Software - Turkey** Satways Ltd - Greece securcube - Italy Seller - Spain Servicio Andaluz de Salud - Spain **SKYLIFE ENGINEERING - Spain** Smart Health - Spain Smarth Health Solution - Spain Spanish Federation Healthcare Technology Companies FENIN - Spain SurgiQ Srl - Italy Swatchloop - Turkey Tech4care srl - Italy Teksino Technical Textile R&D Project Consultancy - Turkey Telefonica - Spain Tiga Information Technologies Inc. - Turkey **Treelogic - Spain** Visual Computing Lab - CERTH/ITI - Greece Vodafone Italia SpA - Italy **VOMATEC Innovations GmbH - Germany** VR2Go LTD - Israel WINGS ICT Solutions - Greece X-tention - Austria Zaguan Neotech - Spain Zulu Medical srl - Italy EEΣ - Greece ΕΘΕΛΟΝΤΙΚΗ ΟΜΑΔΑ ΠΟΛΙΤΙΚΗΣ ΠΡΟΣΤΑΣΙΑΣ ΟΛΥΜΠΙΑΚΟΥ ΧΩΡΙΟ-ΑΧΑΡΝΩΝ-CIVIL PROTECTION VOLONTEER TEAM OF OLYMPIC VILAGE ATHENS-(MUNICIPALITY OF)ACHARNES - Greece ΕΘΝΙΚΟ ΚΕΝΤΡΟ ΑΜΕΣΗΣ ΒΟΗΘΕΙΑΣ / ΕΛΛΗΝΙΚΟΣ ΕΡΥΘΡΟΣ ΣΤΑΥΡΟΣ - Greece

Ελληνική Αστυνομία - Greece

10 Annex V – Frequently Asked Questions (FAQs)

Q: When will the call for Tenders be published?

A: According to the Prior Information Notice, the call is expected to be published in May 2022. This plan remains unchanged at the moment, based on the iProcureSecurity PCP project's progress in preparing the call. To ensure you do receive a notification about the exact date of publication, all interested suppliers should register on the innovation procurement platform: https://innovationprocurement.com/

ID: 1; Reference: Spanish OMC

Q: How about regulations that hinder the deployment of innovation, e.g., drones flying above habited zones?

A: Drones are not a specific requirement in the PCP, but tenderers are free to suggest such elements as part of an innovative solution. It is the tenderer's obligation to discuss the feasibility of the proposed approach and propose a solution that can be implemented (tested in phase III of the PCP) and complies with requirements imposed by national/regional laws and regulations. Please note that the feasibility of the proposed approach is expected to be one of the award criteria for the tender.

ID: 2; Reference: Spanish OMC

Q: Will the pilots' proprietary Health Information System interfaces and database interfaces be accessible for suppliers to enable connection with the iProcureSecurity PCP solution?

A: The call documents will provide further details about the existing systems and standards used by the procurers in the project. Tenderers will have to make proposals in their offers as to how to ensure interoperability of their proposed solutions with those systems. Specifically for Health Information Systems of the procurers, during the PCP process (especially in Phase II), such opportunities will be explored, so that the systems are aligned. However, full HIS integration is not a primary requirement in Phase I of the project.

ID: 3; Reference: Spanish OMC

Q: Shall there be any kind of pre-financing?

A: No pre-financing is envisaged in the PCP mechanism, but more milestones could be defined on order to couple financing to specific outputs.

ID: 4; Reference: Spanish OMC

Q: How will the PCP address interoperability issues?

A: A system that truly has an impact on the work of the emergency teams should connect the EMS practitioners with the other stakeholders in the EMS ecosystem enabling continuous and reliable

communication with the EMCC and the hospital where the casualty is going to be transferred to, as well

as a quick access to the casualty's medical history. The aforementioned necessity implies that the triage system must exchange data directly with the other information systems of the EMS organisations involved. The call for tender will provide further details about the existing systems and standards used by the procurers in the project. Tenderers will have to make proposals in their offers as to how to ensure interoperability of their proposed solutions with those systems.

ID: 5; Reference: Spanish OMC

Q: Can a contractor of a public buyer who is dealing with a patient management project participate in the tender or does something limit the contractor?

A: Generally, in pre-commercial procurements, participation in the tendering procedure is open on equal terms to all types of operators from any country, regardless of their geographic location, size or governance structure. The iProcureSecurity PCP will adhere to these principles.

ID: 6; Reference: Greek OMC

Q: Is the formation of a consortium foreseen in all phases and is it a continuous condition in all phases?

A: In general, in case of joint tenders there can be no change in the composition of a group that tendered at the beginning of the PCP procedure in the later PCP phases. Exceptions may be applied, in which case they will be clearly detailed in the iProcureSecurity PCP call documents.

ID: 7; Reference: Greek OMC

Q: Also, is the creation of a database for possible solutions applications foreseen?

A: During the preparation phase of the PCP and the Open Market Consultation (prior to launching the call for tenders), potential tenderers who have existing solutions at different stages technology readiness, which could be integrated as part of the envisaged iProcureSecurity PCP solutions, and who are looking for partnering with other organisations, are encouraged to share their solutions via the iProcureSecurity PCP Innovation Procurement Platform: https://pcp.iprocuresecurity.eu/procurementplatform/

ID: 8; Reference: Greek OMC

Q: In regard to the submission platform, is there any informational material about submissions?

A: A scope document has been developed which provides information regarding the technical requirements and the tender process. A procurement platform for submitting the Tenders and a matchmaking platform promoting collaborations are created to assist suppliers in the whole procurement process. Please visit the iProcureSecurity PCP Innovation Procurement Platform for more details: https://pcp.iprocuresecurity.eu/procurementplatform/

ID: 9; Reference: Greek OMC

Q: Are there databases in EKAB with patient information?

A: Databases with patient information exist in the city of Thessaloniki for 14 years and in Athens for 9 years, without including photos of the casualties though. GDPR issues need to be discussed in order to explore a legal basis for adding photos of the casualties - not for identifying them, but for recording their injuries.

ID: 10; Reference: Greek OMC

Q: Will there be a system [at EKAB] that categorizes injuries?

A: We would like to have a sensor located on the casualty, which, for example, will record the posture of the casualty and categorize the casualty and his injuries so that the rescuer can decide if, for example, the casualty is dead and how to proceed in this case.

ID: 11; Reference: Greek OMC

Q: Are international consortia permitted?

A: See also Q ID 6. In addition to that, there are some requirements for PCPs related to the place of performance of the R&D services. At least 50% of the total value of activities covered by the framework agreement must be performed in the EU Member States or H2020 associated countries. The principal R&D staff working on the PCP must be located in the EU Member States or H2020 associated countries.

ID: 12; Reference: Greek OMC

Q: Could you please explain the VAT?

A: Suppliers from EU: Invoicing without VAT using the reverse charge procedure. 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.

More details on the VAT will be included in the tender documents.

ID: 13; Reference: Greek OMC

Q: Is this only about software or is a solution with a hardware component also possible?

A: The technical requirements explicitly request that a hardware device (triage tag) be provided as part of the solution (either own development or use of existing devices adapted for the purpose of

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the project) in order to enable monitoring of key vital parameters. Further requirements relating to the tag will be provided in the call documents, e.g., requiring the tag to be of small size and be cost-effective.

ID: 14; Reference: Austrian/German OMC

Q: Is it planned to set up a triage system backend for all countries (multiclient), in which resources can also be exchanged across countries, or one system per country?

A: The minimum requirement is that a standalone solution shall be developed in each country in their official language. The envisaged solution can include a common backend infrastructure but should in this case allow countries who do not wish to participate to opt-out from this common backend.

ID: 15; Reference: Austrian/German OMC

Q: Central (simple) resource management requires that the resources are also maintained in the source systems. In the triage system, suppliers are therefore dependent on the occupancy status or planning being properly maintained in the hospitals. Are these partners planned to be involved in the project?

A: During the PCP process (especially in Phase II), such opportunities will be explored, so that the systems are aligned with, for example, Hospital Information Systems. However, full integration is not a primary requirement in Phase I of the project.

ID: 16; Reference: Austrian/German OMC

Q: Based on which communication standard is data transfer and communication of solution planned? Will there be dedicated frequencies and bandwidths?

A: The requirements specify that the iProcureSecurity PCP solution shall operate on mobile network technology. It shall, however, be designed in a way that it can operate independently from public mobile networks which are prone to failure in case of large-scale disasters. For example, in Germany and Austria state-owned mobile networks are in place or planned (so called "Behördenfunk"). The project will investigate how far the solution can couple with these networks and what certification requirements need to be addressed.

ID: 17; Reference: Austrian/German OMC

Q: By when will Tenderers receive the tender evaluation result?

A: The current plan of the project as explained in the OMC foresees that the call for tenders is launched in May 2022, with the evaluation results expected to be available at the end of September 2022.

ID: 18; Reference: Austrian/German OMC

Q: Besides technology development, is an introduction concept and training concept also required? The "desired system" covers a wide range and thus many roles/participants

A: Yes, the requirements ask for appropriate training material for EMS staff and implementation guidelines for the procuring organisations. The solution shall enable regular staff training and support the use of the solution in exercises in a dedicated "training environment" within it.

ID: 19; Reference: Austrian/German OMC

Q: In order to be able to answer correctly and consistently to the various phases of the process what kind of information about the specific content of the expected solution will be available since phase 0?

A: Since phase 0 a set of Use Cases and a document of Requirements will be available and published in the tender call.

ID: 20; Reference: Italian OMC

Q: What is the deadline to answer the OMC questionnaire?

A: The project consortium highly appreciates swift responses to the OMC questionnaire until mid of April. All inputs will be be internally evaluated in order to be translated into insights for the Call for Tenders, which is, according to the current project timeline, planned to be published in May 2022.

ID: 21; Reference: International OMC

Q: Are there any evaluation criteria that favour European consortia?

A: See question 12. Participation in the tendering procedure will be open on equal terms to all types of operators from any country, regardless of their geographic location, size or governance structure.

ID: 22; Reference: International OMC

Q: Are you looking for one tool to solve all issues or multiple interlinked tools?

A: The iProcureSecurity PCP projects is looking for suppliers to develop a solution that meets as broad a range of requirements as possible. The proposed solution shall encompass both hardware and software components. The evaluation will consider the fact that some requirements may not be fully covered. Thus, the consortium has prioritised the specifications which the proposed solution must cover.

ID: 23; Reference: International OMC

Q: Which will be the dynamics of the matchmaking?

A: A matchmaking process is facilitated via the Innovation Procurement Platform (<u>https://innovationprocurement.com/</u>). Suppliers can register there and offer their solution(s) and expertise or request specific areas of expertise to be covered by a potential partner organisation. This way, suppliers are enabled to build strong consortia covering the wide range of topics necessary to submit a competitive Tender.

ID: 24; Reference: International OMC

Q: Which Technology Readiness Level (TRL) is expected for the final solution at the end of the project?

A: As Phase III is called original development of limited volume of first test products, this corresponds to TRL levels around 7-9. Most PCP projects end with solutions that are tested extensively (in the case of our project due to the nature of the topics this can only be done through exercises) and are close to the market or even already available on the market at the end of the project.

ID: 25; Reference: International OMC

Q: Can non-profit organisations take part in the tender process?

A: Participation in the tendering procedure will be open on equal terms to all types of operators from any country, regardless of their geographic location, size or governance structure.

ID: 26; Reference: International OMC

Q: If a company comes up with a working tool in the meantime, will you still finish the project?

A: We hope to attract the organisations active in the area and working on solutions and give them the opportunity and funding to help us. Besides, even if a company comes up with the ideal solution in parallel, work will still be needed to integrate it into the systems and environment of all procurers. The project will be carried out until its end with the best offers selected.

ID: 27; Reference: International OMC

Q: What will be the evaluation criteria of the PCP applications?

A: The consortium is currently developing the evaluation criteria for Tenders. Information on the type and weighting of criteria will be published along with the Call for Tenders in May (tentative). Note that the evaluation will favour quality and is most likely to be a ratio of quality (80%) over price (20%).

ID: 28; Reference: Turkish OMC

Q: What are the procurers' expectations or limitations for software and hardware components? Is the scope clear as far as software is concerned?

A: See also question 14 and 23. The final requirements, which include criteria for hardware and software, will be published in the Call for Tenders in May.

ID: 29; Reference: Turkish OMC

Q: Will there be pilot testing in phase 3? Will the pilot take place in a real environment or in a field-testing environment?

A: Phase 3 will involve pilot testing in each procurer's country. The solutions shall be tested in concert with the procurer's existing systems as well as additional organisation's systems (e.g., EMCC) in a simulated emergency exercise.

ID: 30; Reference: Turkish OMC

11 Annex VI – Pool of Dissemination Messages used in Promoting the OMC

Promotional wave related to publishing the PIN

Press release

iProcureSecurity PCP announces upcoming 6.7 million Euro procurement of innovative triage management systems

The iProcureSecurity PCP project published on 16 November 2021 a <u>Prior Information Notice</u> to announce its intention of launching a procurement procedure in the first half of 2022, focusing on developing innovative triage management systems that can strengthen the resilience and interoperability of emergency medical services in Europe. The main goal of the project is to improve triage scenarios through a flexible management system that provides:

- a quick and accurate overview of casualties and their status
- decision support for better allocation of available resources and quicker support for casualties
- improved interoperability with other first responders and relevant actors
- reduced handover times between ambulance transport and hospitals, as well as
- insights for quality assurance and training measures.

The iProcureSecurity PCP project brings together 12 partners from six countries. Nine of those partners represent procuring authorities that have a common overall need of providing more efficient and effective triage management.

[Procurer: you may wish to add here some information about why the topic is important to your organisation and anything else you want to add to personalise the news]

iProcureSecurity PCP is a pre-commercial procurement (PCP) project, which is a type of project that involves the procurement of Research and Development (R&D) services from multiple suppliers in competitive phases. R&D is required, because the procurers have analysed the current market and could not find available solutions which fully meet their needs. Close to 6.7 million Euro is reserved for the PCP across the different <u>PCP phases</u>.

The project partners are currently elaborating in detail the specifications of the envisaged solutions. In addition, as part of the PCP process, in January – April 2022 the project will conduct a wide consultation (Open Market Consultation - OMC) with potential suppliers of the envisaged solutions. Interested parties are encouraged to subscribe <u>here</u> to ensure they receive all announcements about upcoming OMC events.



<u>www.iprocuresecurity.eu</u> has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022061.

LinkedIn

[Name of organisation] has joined forces with eight other organisations from six EU countries, who are offering up to 6.7 million Euros for research and development of innovative triage management systems. The financing is offered through the iProcureSecurity PCP project in the form of pre-commercial procurement (PCP). A Prior Information Notice has been published, announcing details about the procurement and the upcoming Open Market Consultation events. Prior Information Notice: <u>https://ted.europa.eu/udl?uri=TED:NOTICE:584993-2021:TEXT:EN:HTML&src=0</u>

+ attach banner

iProcure Security PCP

announces upcoming 6.7 million Euro procurement of innovative Triage management systems





Twitter

The @procuresecurity project has published a Prior Information Notice announcing its upcoming procurement of innovative triage management systems <u>https://ted.europa.eu/udl?uri=TED:NOTICE:584993-2021:TEXT:EN:HTML&src=0</u>

+ attach banner

Promotional waves used for the OMC events

Save the date - press release

Please translate into local language:

Save the date: iProcureSecurity PCP Open Market Consultation [country]

[Full name of your organisation] is one of nine procurers in the iProcureSecurity PCP project. The project aims at developing innovative triage management systems that can strengthen the resilience and interoperability of emergency medical services in Europe. For this, the procurers in the project are providing approx. 6.7 million Euro for operators (future suppliers) interested in performing Research and Development (R&D) addressing that aim. The procurement is implemented as a pre-commercial procurement (PCP) following competitive R&D phases.

As part of the process, the project is organising Open Market Consultation events in order to explain to potential applicants about the funding opportunity, the PCP instrument, and the expected outcomes.

[Full name of your organisation] is organising an OMC event on [**Date**] targeting suppliers from [Country] of the envisaged solutions (an international OMC event is also available). To register for the OMC event, visit [URL].

--- If multiple organisations are involved (e.g. EPES and SERMAS) The event is hosted by [Names of the organisations] and will be held online in [Language].



<u>www.iprocuresecurity.eu</u> has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022061.

Banner options for social media – example content Greece

Procurers were encouraged to select 1-2 designs for their campaigns.



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LinkedIn

[Name of organisation] has joined forces with eight other organisations from six EU countries, who are offering up to 6.7 million Euros for research and development of innovative triage management systems. The financing is offered through the iProcureSecurity PCP project in the form of pre-commercial procurement (PCP). To explain about this opportunity, we are organising an Open Market Consultation to guide interested applicants through the PCP process and explain the scope of the procurement.

✔ When: [Date and time]

- ✔ What: Online OMC event
- ✓ For whom: Organisations interested in innovating triage management practices
- Registration: [Link]



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Twitter

As early as possible – schedule several tweets a few days from each other	 Help us innovate #triage management systems in Europe! 6.7 mil € available – learn more at the @procuresecurity [Country] OMC ✓ When: [Date and time] ✓ What: Online OMC event ✓ Register for the OMC [Link] @eHealth_EU @EU_H2020 #EMS + attachment
	Join us at the @procuresecurity [Country] OMC & learn about how you can support the innovation of #triage management systems of #EMS. Register here: [Link] @eHealth_EU @EU_H2020 #EMS + attachment
	Do you have solutions for #triage management of #EMS? Check out the @procuresecurity [Country] OMC to learn why we are provide 6.7 mil € for R&D in that area. [Link] @eHealth_EU @EU_H2020 #EMS + attachment
10 days before the event	days left to our @procuresecurity [Country] OMC – 6.7 mil € available to innovate #triage management systems in Europe. days left to our @procuresecurity [Country] OMC – 6.7 mil € available to innovate #triage management systems in Europe.
	 When: [Date and time] What: Online OMC event Register for the OMC [Link] #EMS + attachment
5 days before the event	▲ 5 days left to our @procuresecurity [Country] OMC. Register to learn how to tap into 6.7 mil € for innovation of #triage management systems of #EMS. [Link]
1 day before the event	Just 1 day until our @procuresecurity [Country] OMC. Learn what is needed to innovate #triage management of #EMS and how you can get funded for it. [Link]

	+ attachment
1 hour before the event	The @procuresecurity [Country] OMC is starting in an hour. Register quickly and join us to learn about the opportunity of receiving funding to help innovate #triage management of #EMS [Link]
Once recording available and on the iProcureSecurity PCP website	If you missed the @procuresecurity [Country] OMC, check out the recording to learn about the opportunity of receiving funding to help innovate #triage management of #EMS [Link to recording]