



MEDEA project has received funding from the European Union's Horizon 2020 Coordination and Support Action programme under grant agreement No 787111.



FIRE-IN project has received funding from the European Union's Horizon 2020 Coordination and Support Action programme under grant agreement No 740575.

MEDEA & FIRE – IN JOINT EVENT

Institute of Communication and Computer Systems (ICCS)
Dr. Spyros Athanasiadis

18 JAN
2022

RESEARCH
DEVELOPMENT
INDUSTRY


R.D.I. DAYS



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Organisation profile






**Institute of
Communication
& Computer
Systems**

**National Technical
University of Athens**

	Data Fusion
	Human Machine Interaction
	Microwave Engineering and Radar Systems
	Embedded systems
	Virtual and Augmented Reality
	Wireless Networking Architecture
	Service Oriented Architecture
	Electromobility
	Cooperative ITS
	Automated driving
	Computer Vision and Detection

- ▶ 12 research units;
- ▶ 24 research labs;
- ▶ Scientific personnel: more than 800 researchers;
- ▶ Contracts with EC, National Authorities and Agencies, Industry

- ▶ Among the **top European Organisations** in terms of funding from competitive research projects (indicatively, H2020: **82 coordinations, 263 participations**)
- ▶ Within the **three top positions** in Research in **Greece**

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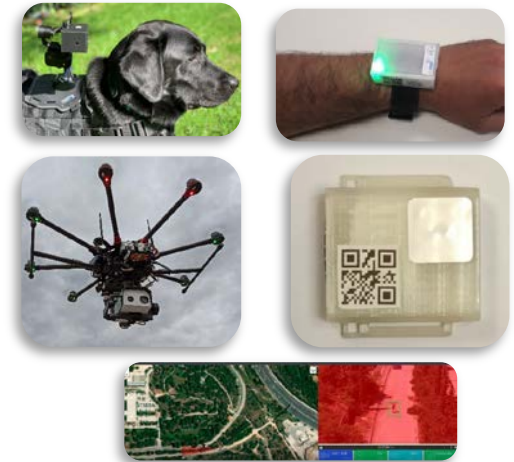


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Expertise/Activities



- ▶ A Research Group with **more than 150 members** (Professors, Researchers, Communication Managers and Administrative Staff)
- ▶ Participated in **more than 170 research projects** and coordinated several of them
- ▶ 3 Research Teams (Intelligent Transportation Systems, Smart Integrated Systems, **Crisis Management and Secure Societies - CMSS**)
- ▶ Technology and Innovation Department (software and hardware development)
- ▶ **Crisis Management and Secure Societies Team**
 - Active in the Civil Protection/Disaster Resilience, Border Management, Critical Infrastructure Protection, Cyber-Security)
 - Participating and Coordinating numerous EC-funded Projects
 - Coordinator of the first Disaster Resilience Innovation Cluster in Greece (funded by GSRT)



Coordinator



Tech. Manager (CMSS)



Participant (CMSS)



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Product/solution portfolio



- The INGENIOUS Triage system consists of three main parts:
 - a **wearable device** that presents in visual way the emergency status of the victim,
 - a **mobile application** that controls the wearable device and can collect information about the victim and
 - a **platform** that can collect the victim's information and distribute it to other components.



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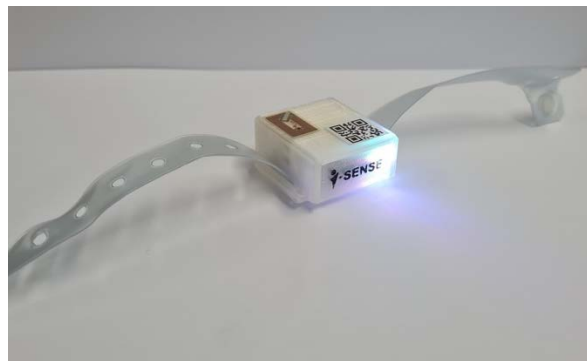
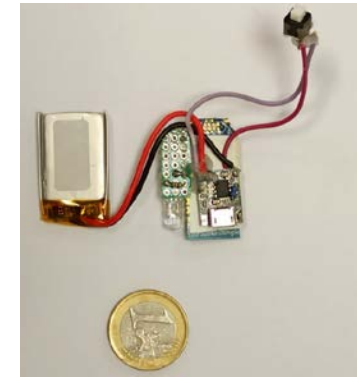
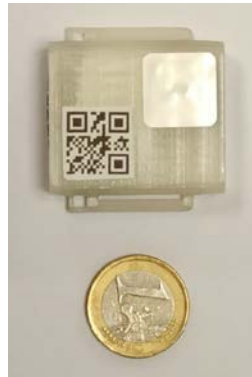


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Description of solutions



- Triage Device:



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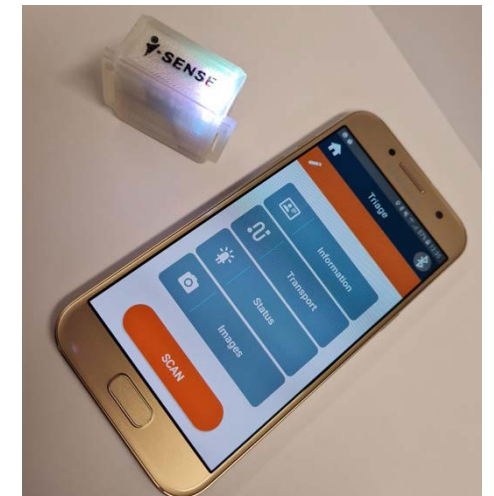
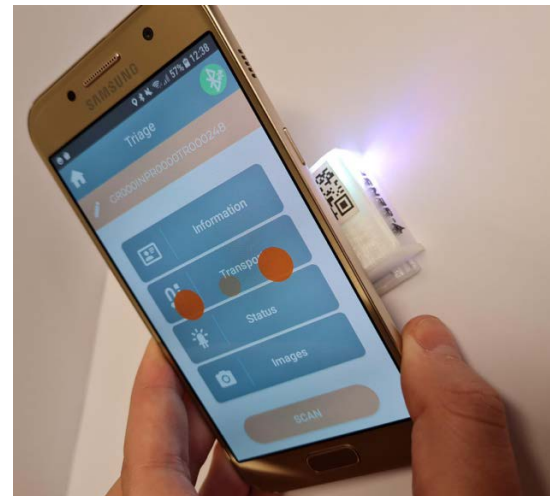
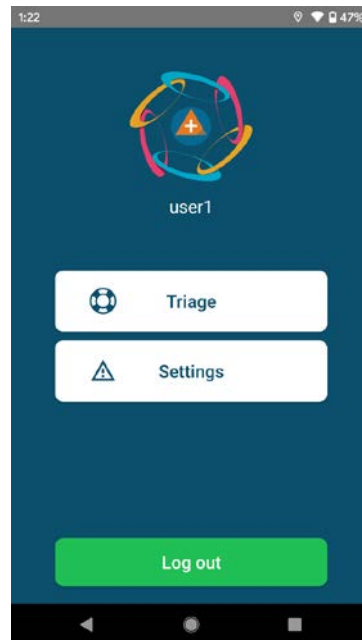
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Description of solutions



- Triage Mobile App:

- Current version available at the Google Play store;
- Can be tested/used without actually having a device;



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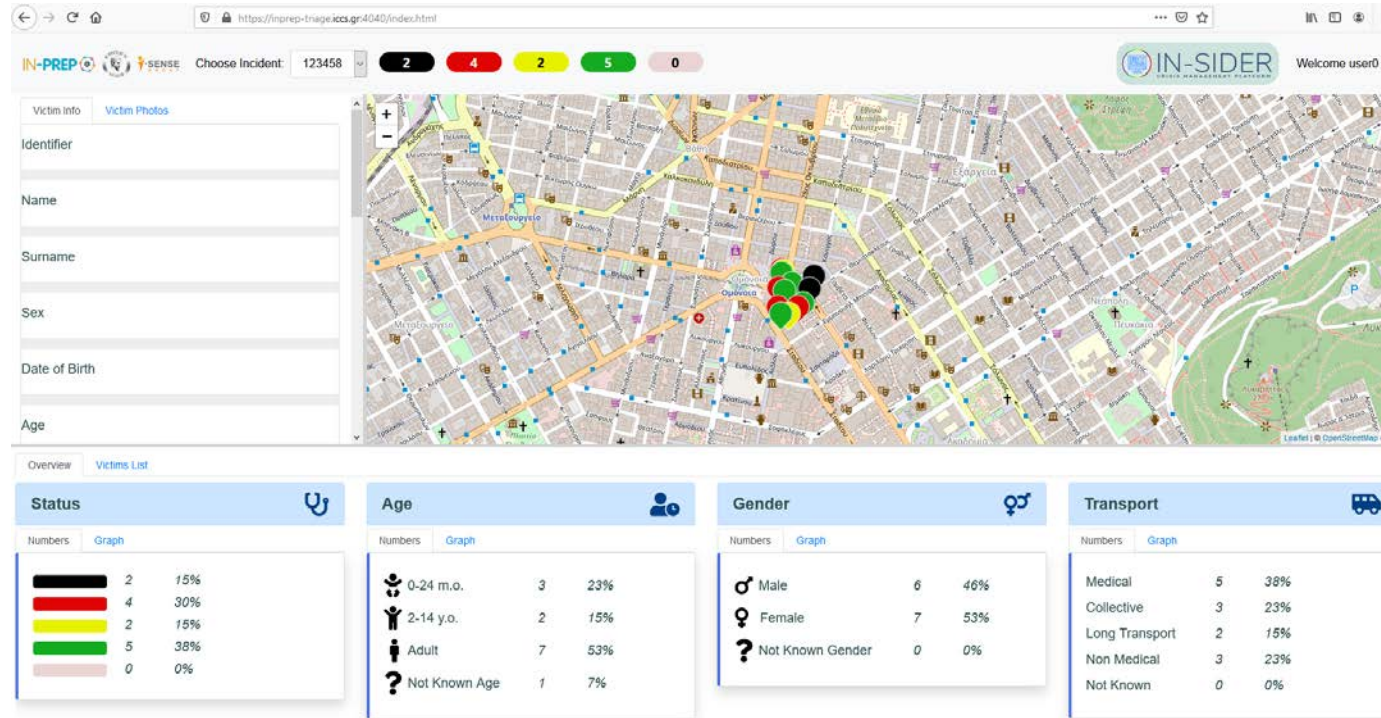


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Description of solutions



• Triage Web Platform



Status	Count	Percentage
Black	2	15%
Red	4	30%
Yellow	2	15%
Green	5	38%
Pink	0	0%

Age	Count	Percentage
0-24 m.o.	3	23%
2-14 y.o.	2	15%
Adult	7	53%
Not Known Age	1	7%

Gender	Count	Percentage
Male	6	46%
Female	7	53%
Not Known Gender	0	0%

Transport	Count	Percentage
Medical	5	38%
Collective	3	23%
Long Transport	2	15%
Non Medical	3	23%
Not Known	0	0%

- Current version available online;
- Can be tested/used without actually having a device or the application;

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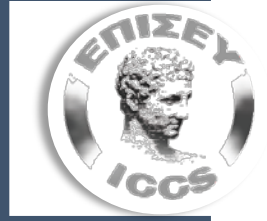


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Solution Roadmap



Roadmap:

- Initial design during [EU project IN-PREP](#)
- Furthered developed during [INGENIOUS EU project](#)
- Planning to integrated with wristband, which received vital signs from victims during the [Nightingale EU project](#)
- Integrated with Augmented reality Glasses and more applications

Gaps:

- Useful, simple, intuitive and easy to use, Open access.
- Easy to transport, deployable on field, light, with high autonomy.
- Robust, resistant, long duration.
- No direct competition, replacing a paper method. Easier, faster, no info loss, less sensitive to the conditions at the field and the indicator unit(triage device) is quite robust.

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Testimonials/end-user feedback:

End-user feedback:

- Used to speed up the triage process & raise alarms for victims that deteriorate fast;
- More easy to use than paper (with triage forms);
- Ensure easy initialization, including LED color setup on startup;
- Ensure that the FR won't spend too much time connecting with the triage device.
- Investigate the addition of a vital signs sensor bracelet;

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Thank you !!!

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