What is IOPES?

The IOPES project integrates wearable positioning technologies, LTE/5G portable and easily deployable communications, a seasoned IT-based emergency management system as well as fast mapping products in order to track the positions of the members of emergency teams, no matter whether they are indoors or outdoors, willing to strengthen the preparednes of civil protection and emergency teams involved in several kind of disaster-related operations.

CPET equipped
with indoor outdoor
positioning device

LTE/5G
deployable
comms.

Enhanced EMS
(live tracking +
post - mortem
analysis)

RPAS - based
fast mapping

Information

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Consortium

cTTC

ATHONET

CAT UAV

SCARABOT TECHNOLOGIES

SAReye

PAU COSTA FOUNDATION

FREDERIKSBORG BRAND & REDNING

IOPES

Indoor-Outdoor Positioning for Emergency Staff

Goals

1 POSITIONING
Provide continuous, time-tagged information about the location of Civil Protection Emergency Teams (CPET), either indoors or outdoors.

2 MANAGEMENT
Track the positions of the members of the emergency team as a new feature of an already operational Emergency Management System (EMS).

3 FAST MAPPING
Build detailed maps of the area in short times using Remotely Piloted Aircraft Systems (RPAS) when there is no cartography available or it is too outdated.

4 COMMUNICATIONS
Use an easily deployabe LTE/5G portable, autonomous communication system to avoid the need of existing (possibly damaged / inoperative) infrastructures.

5 DECISION MAKING
Improve the decision-making process of those people involved in the management of emergencies.

Activities

USER NEEDS

This activity includes the assesment of user needs through interaction with end-users and stakeholders and the definition of the scenarios used to test the IOPES system.

OUTREACH

This activity seeks to make the outcomes of the project known by other civil protection and emergency collectives, by presenting it in scientific and specialized forums, webinars and a final conference.

SYSTEM INTEGRATION

This activity takes care of all the technical aspects required to deliver an operational IT-based solution meeting the specifications collected from end-users.

LONG-TERM SUSTAINABILITY

The aim of this activity is to identify and ideally provide all the possible resources at hand so the lifespan of IOPES goes far beyond this project itself, increasing its uptake.

FIELD TESTING

Two functional exercises will be carried out in Spain and Germany, where the IOPES system will be put to the test in different environmental and emergency conditions.

Outcomes

JAN '20 — **Kickoff meeting** 1st users' meeting

System architecture definition — **APR '20**

DEC '20 — 2nd users' **meeting**

Prototype A 1st field exercise — **MAR '21**

SEP '21 — **Prototype B** 2nd field exercise

Final System IOPES Conference Final meeting — **DEC '21**