

### Indoor Outdoor Positioning for Emergency Staff

### **Eduard Angelats**

Centre Tecnològic de Telecomunicacions de Catalunya (CTTC/CERCA)

Geomatics division

874391 — IOPES — UCPM-2019-PP-AG



Project Co-financed by the EU - Union Civil Protection Mechanism

European Commission – DG ECHO, Brussels, 12th February 2020

## **IOPES** summary

- **Policy area:** Preparedness in civil protection and marine pollution.
- Area of activity: Seamless indoor-outdoor positioning; emergency management.
- **Priority covered:** Developing operational tools to facilitate emergency response.
- Total Cost: 922,970.50 €
- **EU contribution**: 773 246,00 €
- **Project timeframe:** From 1st January 2020 to 31th December 2021

• Number of beneficiaries: 7 (5 countries)















Technological providers (IT, ES, DE, IS) and emergency and civil protection related organizations (DK, ES, IS)

# IOPES background – user needs



Lack of positioning – especially indoor.

Outdated cartography.



Limitation of TETRA communications (coverage, data transmission capacity).

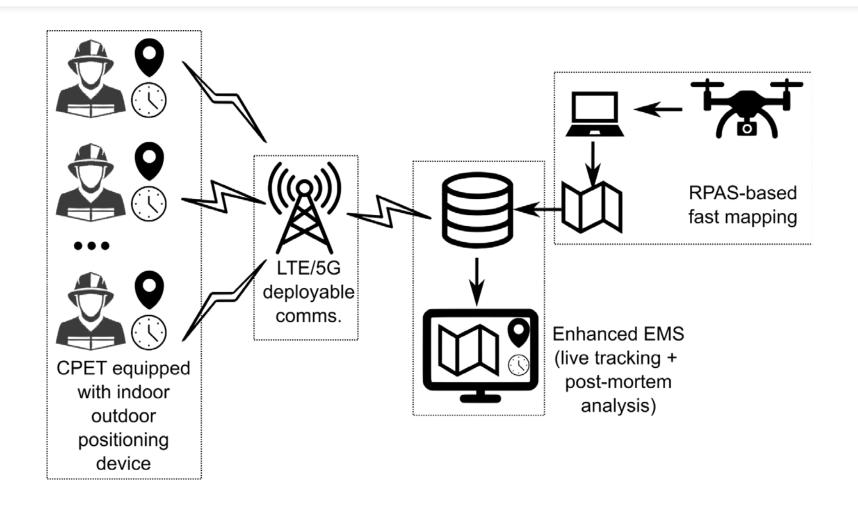
3G/4G infrastructure: may not be available during disasters.

# IOPES goal

IOPES is targeted at **strengthening** the **preparedness** of civil protection and emergency teams by making them **more responsive** to natural or man-made disasters. How?

- Providing continuous, time-tagged positioning information of CPETs (indoors + outdoors),
- 2. improving an already operational Emergency Management System (EMS),
- 3. relying in up-to-date cartography (existing | fast mapping with RPAS),
- 4. using its own deployable LTE/5G communications
- 5. to better the live decision-making process and post-mortem analysis.

## **IOPES** solution



## IOPES European dimension

IOPES is applicable **anywhere** in **Europe** since its scope of use is during emergency management and post-disaster evaluation.

### Targeted emergency scenarios:

- Floods, earthquakes, volcanic activities (eruptions), landslides and subsidence, storms,
- Building damage due to industrial accidents, explosions or fires (once the fire is extinguished).

## IOPES outcomes and major events

- 1. an IT-based solution (improved EMS + wearable + API + communications + fast mapping) to facilitate emergency response / management.
- 2. a system to collect / analyse response data for developing evidence-based response strategies.

IOPES will be **tested** by civil protection and emergency teams **in two small scale field exercises** in Spain and Germany.

The outcomes of the project known will be **disseminated** to civil protection and emergency collectives by **conference**, **webinars** and **presentations** in specialized forums.

## Thank you for your attention!

Contact: eulalia.pares@cttc.cat; jose.navarro@cttc.cat; eduard.angelats@cttc.cat

www.iopes-project.eu

(Available on 29th February)

