



ResponDrone



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Situational awareness system for first responders

ResponDrone is an international project co-funded by the EU and Korean government, which is dedicated to developing and applying a fleet of drones operated by a single pilot in emergency situations, providing critical information and communication services to first responders.

The three-year project aims to develop an integrated solution for first responders to easily operate several drones with multiple synchronized missions to enhance their situation assessment capacity and own protection.

ResponDrone, which is composed of 20 partners from 12 countries, received €8 million from the EU through the Horizon 2020 Research and Innovation Programme and an additional €300,000 from the Korean government.

The ResponDrone system will simplify and accelerate situation assessment, information sharing, decision making and operations management. It will also deliver high quality information to any involved control center through an intelligent web-based system, which is accessible and can be operated from a remote site. In addition, it will serve as an on-demand airborne communications network to allow people on the ground to communicate with the command center in case of cellular coverage collapse.

By using the innovative ResponDrone system, emergency response teams will be able to respond more rapidly, effectively and efficiently to an emergency or disaster and therefore save more lives. The fleet of drones will provide enhanced capabilities to support mission assessment, search and rescue operations, as well as forest fire fighting.

The deployment of the ResponDrone system will be very simple. Each fleet of a few drones will be operated by a single pilot, unlike the current situation in which each drone is operated by a single pilot.

To ensure seamless uptake and adaption by first responder organizations, ResponDrone will be fully integrated and embedded within the current processes and procedures of real emergency response agencies and teams.



The System

ResponDrone will develop and validate an integrated solution for first responders to easily operate a fleet of drones with multiple synchronized missions to enhance their situation assessment capacity and own protection. This System of Systems will simplify and accelerate situation assessment and sharing, decision making and operations management, while requiring a small crew to operate it



The ResponDrone system will be designed to fit seamlessly into any current emergency response operational processes, currently in use by first responders.



The smart planning tools will allow single drone pilots to be able to operate entire units or even fleets of drones



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Moreover, when the responsibility for flight planning and operations monitoring is transferred from the pilot in the field into a centralized system, those pilots will require less specific training, and thus creating further efficiencies



The ResponDrone drones will be capable of forming cells for serving first responders on the ground and communicate between themselves to relay data from the cloud



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