NOVEL INTEGRATED SOLUTION OF OPERATING A FLEET OF DRONES WITH MULTIPLE SYNCHRONIZED MISSIONS FOR DISASTER RESPONSES

Fact Sheet

Project Information

RESPONDRONE

Grant agreement ID: 833717

Funded under H2020-EU.3.7.5.

Overall budget € 8 257 937,50

EU contribution € 7 996 187,50

Coordinated by DEUTSCHES ZENTRUM FUR LUFT - UND RAUMFAHRT EV Germany

Start date 1 May 2019

End date 30 April 2022

Project description

Unmanned aircraft systems platform to support situation assessment for first responders

In case of a disaster, the rapid, effective and efficient response of first responders is crucial for saving lives. Unmanned aircraft systems (UAS) technology can aid emergency management in complementing existing systems used in first response missions. The EU-funded RESPONDRONE project aims at developing a multi-UAS platform for first responders to enhance their situation awareness. The fleet of UAS will provide enhanced capabilities to support assessment missions, search and
rescue operations, as well as forest fire fighting by simplifying operations for first responders and thus making first response operations more efficient. The platform will be designed to provide relevant information in real-time to all involved stakeholders using a cloud-based system, supporting on-time decision making and operations management.

**Objective**

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. Moreover, it will deliver high-level information to any involved control centre through an intelligent web-based system that can be operated and accessed from a remote site as well as serving as on-demand airborne communications network to allow people on the ground to communicate with the command centre in case of cellular coverage collapse.

With these situational-awareness enhancing tools, 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 assessment missions, search and rescue operations, as well as forest fire fighting. The deployment will still be very simple. Each fleet or unit of drones will be able to be operated by a single pilot and few observers. 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, among others through advanced training programs. Therefore, RESPONDRONE will increase the effectiveness and efficiency of civil protection operations as it will consider the first responder total mission time, cost, and effectiveness (and not just considering the deployment time). RESPONDRONE will be demonstrated through participation in actual civil protection exercises on Corsica, involving several agencies simultaneously.

**Fields of science**

> > > > >

**Programme(s)**

**Topic(s)**
## Call for proposal

H2020-SU-SEC-2018

## Funding Scheme

RIA - Research and Innovation action

## Coordinator

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<th>Organisation</th>
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<td>Research Organisations</td>
<td>€ 1 318 750</td>
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**Address**

Linder Hohe  
51147 Koln  
Germany

**Website**

Contact the organisation

## Participants (19)

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<td>€ 1 403 750</td>
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**Address**

Ben Gurion International Airport  
70100 Lod

**Website**

Contact the organisation

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**Address**

Calle Juan Bravo 18 3C  
28006 Madrid
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<td>€ 138,625</td>
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SERVICE DEPARTEMENTAL D’INCENDIE ET DE SECOURS DE LA HAUTE-CORSE

France

EU contribution
€ 193 625

Address
Lieu Dit Casetta
20600 Furiani

Activity type
Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Website
Contact the organisation

VEILIGHEIDSREGIO HAAGLANDEN

Netherlands

EU contribution
€ 139 687,50

Address
Dedemsvaartweg 1
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Activity type
Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Contact the organisation

STATE FIRE AND RESCUE SERVICE

Latvia

EU contribution
€ 108 000

Address
Maskavas Street 5
LV-1050 Riga

Activity type
Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Contact the organisation

MINISTRY OF EMERGENCYSITUATIONS
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<td>PERIFIERIA DYTIKHS MAKEDONIAS</td>
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<td>REGION OF CENTRAL MACEDONIA</td>
<td>Greece</td>
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<td>Vasilissis Olgas 198 54110 Thessaloniki</td>
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<td>REGIONAL ADMINISTRATION VARNA</td>
<td>Bulgaria</td>
<td>€ 144 750</td>
<td>26 Preslav Street 9000 Varna</td>
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**INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA**

Portugal  
EU contribution: € 298 125  
Address: Rua Dr Roberto Frias Campus Da Feup, 4200 465 Porto

**COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES**

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**AMERICAN UNIVERSITY OF ARMENIA FOUNDATION**

Armenia  
EU contribution: € 183 750  
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**TIME.LEX**

Belgium  
EU contribution: € 205 750  
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AGORA P.S.V.D.
Israel
EU contribution
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(excluding Higher or Secondary Education Establishments)

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South Korea
EU contribution
€ 0
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22212 Incheon
Activity type
Other

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