



## **CURSOR: COORDINATED USE OF MINIATURIZED ROBOTIC EQUIPMENT AND ADVANCED SENSORS FOR SEARCH AND RESCUE OPERATIONS**

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### **ABSTRACT<sup>1</sup>**

In a disaster situation, the goal of Search and Rescue (SAR) operations is to find the largest number of victims in short time, while minimizing the risk to rescuers. Natural or man-made disasters often result in difficult working conditions for Urban Search and Rescue (USAR) teams and other First Responders (FR), such as police, medical services and civil protection units not specialised in SAR. FRs are often exposed to high risks during response due to structural instability of the disaster site and/or because of hazardous environments. Under such conditions, FRs must take quick decisions to determine the location of trapped victims as swiftly and as accurately as possible. CURSOR will develop and promote the use of novel technologies by USAR teams reducing the time for detecting survivors trapped in damaged and collapsed buildings. The project will deliver the innovative CURSOR SAR Kit, an integrated system of various technological components and platforms that allow USAR teams to: (a) work efficiently and safely on the disaster site, while detecting and locating survivors; and (b) enable collaborative response, by sharing information and accurately visualising the disaster scene and associated notifications across all levels of command. The project involves various FR organisations from Germany, France, UK and Greece; their operational know-how and network will guide the development and facilitate the uptake and sustainability of results. Leading-edge technologies will be provided by research partners, whereas key innovative components will be developed by SMEs. CURSOR is part of the initiative “H2020-EU.3.7.5: Increase Europe’s resilience to crises and disasters” and specifically the topic “SU-DRS02-2018-2019-2020: Technologies for first responders” (H2020-SU-SEC-2018). It is a Research and Innovation Action (RIA) with a duration of 36 months, starting from September 2019.

**Keywords:** search and rescue, crisis management, security, robotics, UAVs.

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