



CURSOR

Accelerating Search and Rescue operations

CURSOR: Coordinated use of miniaturised robotic equipment and advanced sensors for search and rescue operations

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INGENIOUS Final Conference

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 832790 and from the Japan Science and Technology Agency.

Scope of the CURSOR project

Safety of the first responders



Time needed for detection and localisation of the victims



CURSOR - reduce time for detecting & locating victims trapped under the debris while increasing the personal safety of the S&R teams.

Additional focus on strong practitioners involvement

Coordinated by THW :

5 practitioners

10 technical & research partners

Supported by ARTTIC/AI

In collaboration with Japan

Duration: Sept. 2019- Febr.2023

Budget: € 7 461 361,00

www.cursor-project.eu

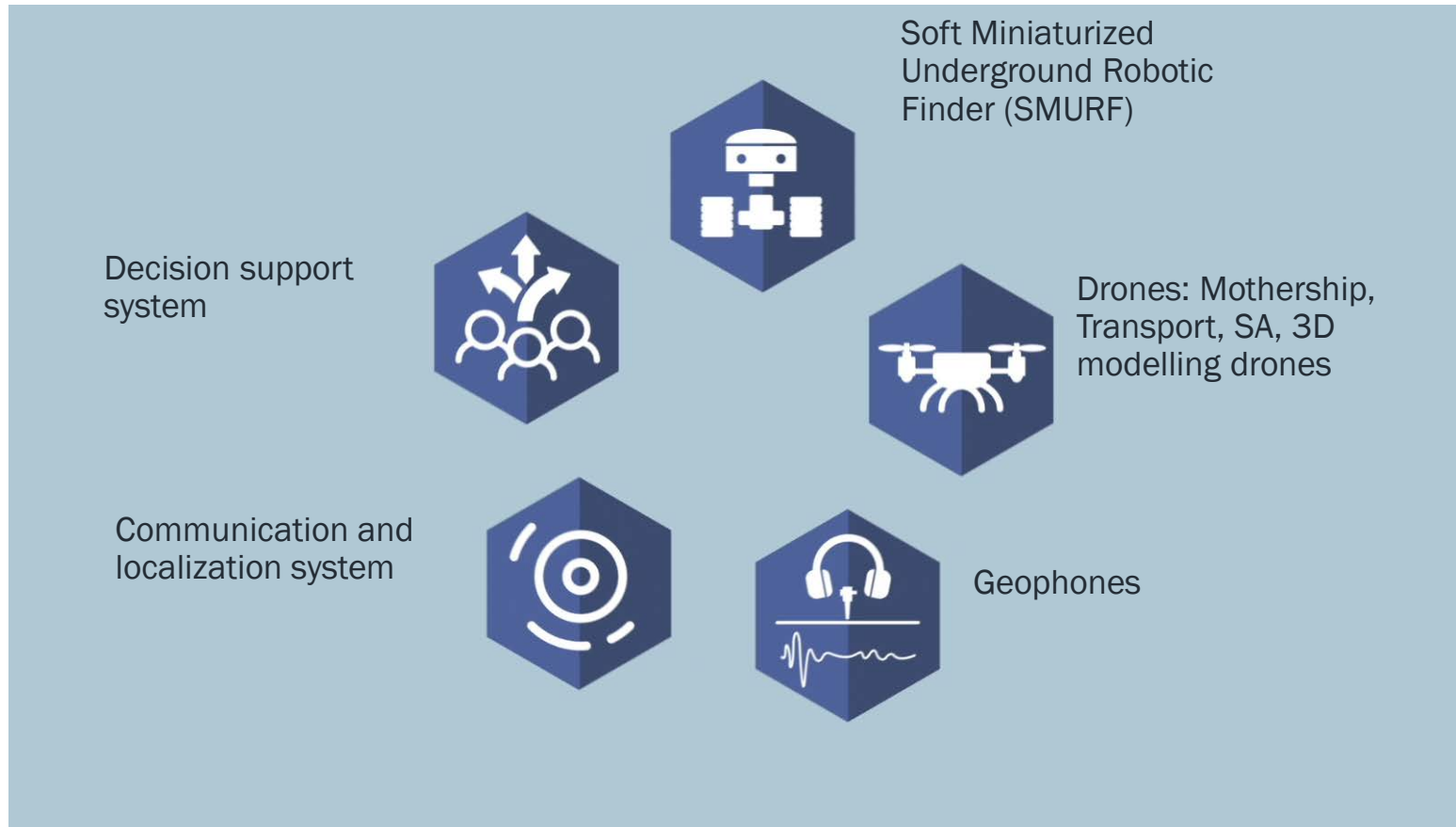


THE CONSORTIUM



CURSOR Search and Rescue (SaR) Kit

CURSOR SaR Kit components



Requirements from FR

- The ability to remotely detect and locate the disaster victims → **SMURFs, Geophones, Transport drone**
- The ability to get situational awareness in a quick and reliable manner → **3D modelling drones, SA-Drone, Mothership drone**
- The ability to create actionable intelligence based on the sensor data → **EXPER, COP, COPTERM, localisation antennas**
- The ability to have own communication bubble on the disaster site → **Emergency gateways, local communication network**



Iterative testing methodology



Main findings of the testing

Technical findings

- Component based tests usually demonstrated successful results
- Integration tests pointed out weak spots
- Changes made between tests require previous lab tests
- We removed GPR from the CURSOR SaR Kit due to very limited value during USAR deployments

General findings

- FR are not observers, they test hands-on
- Expectation management – we are testing (early) prototypes
- Training
- Failure/mistakes culture

CURSOR final results

- CURSOR SaR Kit **accelerates** the urban S&R process and **increases** the FR **safety** during the deployment.
- The concept of CURSOR has been validated by five different (members of) INSARAG certified teams
- CWA: Urban search and rescue - **Guideline for the application of a test method for innovative technologies to detect victims in debris**
- Technology validation **methodology**
- **Training** programme
- Huge amount of **research results** for further actions
- Several technologies have a strong potential to be further developed for market ready



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Thank you!

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