Integrated Components for Assisted Rescue and Unmanned Search operations

Fact Sheet

Project information

ICARUS

Grant agreement ID: 285417
Project website

Status
Closed project

Start date
1 February 2012
End date
31 January 2016

Funded under:
FP7-SECURITY

Overall budget:
€ 17 306 992,64

EU contribution
€ 12 584 933,45

Coordinated by:
ECOLE ROYALE MILITAIRE - KONINKLIJKE MILITAIRE SCHOOL
Belgium

Objective

Recent dramatic events such as the earthquakes in Haiti and L'Aquila or the flooding in Pakistan have shown that local civil authorities and emergency services have difficulties with adequately managing crises. The result is that these crises lead to major disruption of the whole local society. The goal of ICARUS is to decrease the total cost (both in human lives and in €) of a major crisis. In order to realise this goal, the ICARUS project proposes to equip first responders with a comprehensive and integrated set of unmanned search and rescue tools, to increase the situational awareness of human crisis managers and to assist search and rescue teams for dealing with the difficult and dangerous, but life-saving task of finding human survivors.

As every crisis is different, it is impossible to provide one solution which fits all needs. Therefore, the ICARUS project will concentrate on developing components or building blocks that can be directly used by the crisis managers when arriving on the field. The ICARUS tools consist of assistive unmanned air, ground and sea vehicles, equipped with human detection sensors. The ICARUS unmanned vehicles are intended as the first explorers of the area, as well as in-situ supporters to act as safeguards to human personnel. The unmanned vehicles collaborate as a coordinated team, communicating via ad hoc cognitive radio networking. To ensure optimal human-robot collaboration, these ICARUS tools are seamlessly integrated into the C4I equipment of the human crisis managers and a set of training and support tools is provided to the human crisis to learn to use the ICARUS system.
Furthermore, the project aims to provide an integrated proof-of-concept solution, to be evaluated by a board of expert end-users that can verify that operational needs are addressed.

Field of Science

/engineering and technology/electrical engineering, electronic engineering, information engineering/information engineering/telecommunications/radio technology/cognitive radio
/social sciences/sociology/governance/public services

Programme(s)

FP7-SECURITY - Specific Programme "Cooperation": Security

Topic(s)

SEC-2011.4.2-2 - Unmanned search and rescue solutions – Integration Project

Call for proposal

FP7-SEC-2011-1

See other projects for this call

Funding Scheme

CP-IP - Large-scale integrating project

Coordinator

ECOLE ROYALE MILITAIRE - KONINKLIJKE MILITAIRE SCHOOL

Address

Avenue De La Renaissance 30
1000 Bruxelles

Activity type

Higher or Secondary Education Establishments

EU Contribution

€ 1 625 421,63

Website

Contact the organisation

Administrative Contact

Geert De Cubber (Dr.)

Participants (27)
<table>
<thead>
<tr>
<th>Organization</th>
<th>Country</th>
<th>Address</th>
<th>Activity type</th>
<th>EU Contribution</th>
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<tr>
<td>NATO SCIENCE &amp; TECHNOLOGY ORGANIZATION - CENTRE FOR MARITIME RESEARCH &amp; EXPERIMENTATION</td>
<td>Italy</td>
<td>Viale San Bartolomeo 400 19126 La Spezia</td>
<td>Research Organisations</td>
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<tr>
<td>FUNDACIO PRIVADA ASCAMM</td>
<td>Spain</td>
<td>Avenida Universitat Autonoma , Parc Tecnologic Del Valles 23 08290 Cerdanyola Del Valles</td>
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<td>SPACE APPLICATIONS SERVICES NV</td>
<td>Belgium</td>
<td>Leuvensesteenweg 325 1932 Zaventem</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
<td>€ 1 008 508,13</td>
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<td>Skybotix AG</td>
<td>Switzerland</td>
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EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH  
Switzerland
EU Contribution  
€ 836 800

Address
Raemistrasse 101
8092 Zuerich

Activity type
Higher or Secondary Education Establishments

Website  
Contact the organisation

Administrative Contact
Stefan Leutenegger (Mr.)

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EU Contribution  
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28037 Madrid

Activity type
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Website  
Contact the organisation

Administrative Contact
Jose Lorenzo (Mr.)

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67663 Kaiserslautern

Activity type
Higher or Secondary Education Establishments

Website  
Contact the organisation

Administrative Contact
Berthold Klein (Mr.)
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<td>NATO SCIENCE AND TECHNOLOGY ORGANISATION</td>
<td>€ 415 415,53</td>
<td>Boulevard Leopold iii 1110 Bruxelles</td>
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<td>CALZONI SRL</td>
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<td>METALLIANCE SA</td>
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Contact the organisation:
- Administrative Contact: Jean-Guy Fontaine (Prof.)
- Administrative Contact: Enzo Guglielmi (Mr.)
- Administrative Contact: Jean-Paul Meunier (Mr.)
ESRI PORTUGAL - SISTEMAS E INFORMACAO GEOGRAFICA SA
Portugal

Address: Rua Julieta Ferrao 10 - 10*
1600 131 Lisboa

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact: Francisco Nobre (Mr.)

EU Contribution: € 201 080

SPACETEC PARTNERS SPRL
Belgium

Address: Avenue Louise 66
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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact: Stéphane Ourevitch (Mr.)

EU Contribution: € 493 948

MINISTERIO DA DEFESA NACIONAL
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1400-204 Lisboa

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

Website
Contact the organisation

Administrative Contact: Victor Lobo (Mr.)

EU Contribution: € 224 310
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European wine producers step their game up