PROJECT

AMASS

Autonomous maritime surveillance system

**Funding:** European (7th RTD Framework Programme)

**Duration:** Mar 2008 - Aug 2011

**Status:** Complete with results

**Total project cost:** €5,465,309

**EU contribution:** €3,450,460

**Call for proposal:** FP7-SEC-2007-1

**CORDIS RCN:** 86259

**Background & policy context:**

Illegal immigration by sea has become a major headache in recent years. In fact, EU member states detected more than 48,000 cases in 2007 alone (source: Frontex annual report). It is difficult to monitor – and is dangerous, often ending in tragedy. Other criminal activities, such as drug smuggling and terrorism, are also harder to police at sea. In short, controlling blue borders is a complex and costly challenge. Until now, border agencies have relied on ships, planes or helicopters to patrol and protect coastlines. But this approach is not completely reliable – and is a drain on vital resources such as money and manpower. That’s why the EU is seeking a more effective response to the challenge.

**Objectives:**

To provide authorities with early warning of illegal activities at sea and improve overall protection of European shores.

**Methodology:**

AMASS comprises a network of unmanned platforms located a considerable distance from shore. Each platform is fitted with cutting-edge sensors and operates self-sufficiently, i.e. without the need for manual intervention. Data captured by the sensors is transmitted to a central command centre, where an operator views it on screen. If a suspicious entity is detected, a crew can be dispatched to investigate or other action taken.

**Parent Programmes:**

FP7-SECURITY - Security

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

**Lead Organisation:**

<table>
<thead>
<tr>
<th>Carl Zeiss Optronics GmbH</th>
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<tr>
<td><strong>Address:</strong> CARL-ZEISSL-STRASSE 22</td>
</tr>
<tr>
<td>73447 OBERKOCHEN</td>
</tr>
<tr>
<td>Germany</td>
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<tr>
<td><strong>EU Contribution:</strong> €638,809</td>
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**Partner Organisations:**
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<th>Organisation Name</th>
<th>Address</th>
<th>EU Contribution</th>
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<tr>
<td>Iq Wireless GmbH</td>
<td>Carl-Scheele-Strasse, 14 12489 Berlin Germany</td>
<td>€492,140</td>
</tr>
<tr>
<td>Osrodek Badawczo-Rozwojowy Centrum Techniki Morskiej Spolka Akcyjna</td>
<td>Ul. Arendta Dickmana 62 81N/A109 Gdynia Poland</td>
<td>€130,590</td>
</tr>
<tr>
<td>Universidad De Las Palmas De Gran Canaria</td>
<td>C/ Juan de Quesada 30 35001 LAS PALMAS DE GRAN CANARIA Spain</td>
<td>€206,784</td>
</tr>
<tr>
<td>Armed Forces Malta</td>
<td>Headquarters Afm  Luqa CMR 02  Malta</td>
<td>€97,650</td>
</tr>
<tr>
<td>Frauenhofer Gesellschaft Zur Foerderung Der Angewandten Forschung E.v.</td>
<td>Hansastrasse 27C 80686 MUNCHEN Germany</td>
<td>€629,000</td>
</tr>
<tr>
<td>Crabbe Consulting Ltd</td>
<td>314 Bishopton Road West Stockton-On-Tees TS19 7LZ United Kingdom</td>
<td>€119,484</td>
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Instituto Canario De Ciencias Marinas

**Address:**
Carretera De Taliarte Taliarte Telde 35200 Las Palmas Spain

**EU Contribution:** €592,813

Hsf Spol. S R.o. Sokolov

**Address:**
U Divadla, 341 35601 Sokolov Czech Republic

**EU Contribution:** €176,722

**Technologies:**
Sensor technologies
Network of sensors to provide authorities with early warning of illegal activities at sea

**Development phase:** Implementation

**Key Results:**
- Reliable, around-the-clock surveillance
- Improved situational awareness
- Highly cost-efficient
- Functional in all weather conditions
- Better use of human resources
- Greater safety for all concerned

**Innovation aspects**
The leading-edge technology behind AMASS provides reliable, 24/7 surveillance – giving border agencies the early, accurate warnings they need. But that’s not all. The sensors offer a 360-degree view of the area above water – significantly improving situational awareness for coast patrols. What’s more, the platforms remain fully functional in all weather conditions. AMASS is also significantly more economical to operate than patrol ships, and frees up human resources for other tasks – providing an all-round more cost-efficient solution. But most importantly, AMASS helps border agencies protect their own personnel and save the lives of immigrants.

**Strategy targets**
Innovating for the future: technology and behaviour

**STRIA Roadmaps:**
Cooperative, connected and automated transport, Network and traffic management systems

**Transport mode:** Multimodal transport

**Transport sectors:** Passenger transport

**Transport policies:** Digitalisation, Safety/Security

**Geo-spatial type:** Other