# Ocean-Bottom Distributed Acoustic Sensors: new tools for Underwater Seismology

## Fact Sheet

<table>
<thead>
<tr>
<th>Project Information</th>
<th>Funding Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ocean-DAS</strong></td>
<td><strong>Funded under</strong></td>
</tr>
<tr>
<td>Grant agreement ID: 875302</td>
<td>EXCELLENT SCIENCE - European Research Council (ERC)</td>
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<tr>
<td><strong>DOI</strong></td>
<td><strong>Total cost</strong></td>
</tr>
<tr>
<td>10.3030/875302</td>
<td>€ 0,00</td>
</tr>
<tr>
<td><strong>Closed project</strong></td>
<td><strong>EU contribution</strong></td>
</tr>
<tr>
<td></td>
<td>€ 150 000,00</td>
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<tr>
<td>EC signature date</td>
<td><strong>Coordinated by</strong></td>
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<tr>
<td>4 October 2019</td>
<td>UNIVERSIDAD DE ALCALA</td>
</tr>
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<td></td>
<td>Spain</td>
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</tbody>
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**Start date**: 1 January 2020  
**End date**: 31 December 2021

## Project description

### Keeping track of earthquakes underwater

Seismometers can detect and record waves emitted by even the smallest of earthquakes. While ocean-bottom seismometers (OBS) are useful in the study of offshore seismicity, they are expensive and their utility is limited by rapid data telemetry requirements and battery life. The EU-funded Ocean-DAS project will develop a low-cost deployable alternative for monitoring seismicity in remote areas of...
the ocean. It will retrofit existing optical fibre cables used for telecommunication and transform them (with no basic change in the cable) into powerful seismic sensing arrays. With an optoelectronic unit at the end of the cable (onshore), a full span of 50 km or more could be monitored, with thousands of measuring points interrogated.

**Fields of science**

- engineering and technology > materials engineering > fibers
- natural sciences > earth and related environmental sciences > geology > seismology
- engineering and technology > electrical engineering, electronic engineering, information engineering > electronic engineering > sensors
- natural sciences > physical sciences > optics > fibre optics

**Programme(s)**

H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council (ERC)

**Topic(s)**

ERC-2019-POC - ERC Proof of Concept Grant

**Call for proposal**

ERC-2019-PoC

See other projects for this call

**Funding Scheme**

ERC-POC-LS - ERC Proof of Concept Lump Sum Pilot

**Coordinator**

UNIVERSIDAD DE ALCALA

Net EU contribution
€ 150 000,00

Address
Plaza de san diego
28801 Alcalá de Henares/Madrid
Spain

Region
Comunidad de Madrid > Comunidad de Madrid > Madrid

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Total cost
No data

Beneficiaries (1)

UNIVERSIDAD DE ALCALA
Spain
Net EU contribution
€ 150 000,00

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No data