

BRINGING TOGETHER RESEARCH AND INDUSTRY FOR THE DEVELOPMENT OF GLIDER ENVIRONMENTAL SERVICES



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ABOUT **BRIDGES**

BRIDGES (Bringing together Research and Industry for the Development of Glider Environmental Services) will provide ample and new opportunities for off-shore industries, such as oil & gas and sea mining and also marine research and environmental monitoring (Copernicus, MSFD). This new tool consisting of (ultra) deep ocean gliders – that are robust, cost-effective, re-locatable,

versatile and easily-deployable - will support autonomous longterm in-situ exploration of the deep ocean over a wide range of spatial and temporal scales.

Two deep EXPLORER gliders will be developed that are built on the successful unique European underwater glider, the SEA EXPLORER. During BRIDGES the SEA EXPLORER will be modularized and adapted to more diverse operations.

Threefold enhancement of the SEA EXPLORER:

- 1. Adapting for deep basins (up to 5,000 m);
- 2. Implementing a modular payload architecture to plug the sensor packages devoted to each services, and 3. Integrating the associated control support system for single and fleet operations.

From concept to market

Both EXPLORER gliders will be tested and demonstrated multiple times in near-shore and deep waters, suited to different working environments and different services. In parallel the exploitation strategy of the EXPLORER gliders will be drafted and decided. Successful market introduction of the EXPLORER gliders is foreseen as of 2020.

Bringing together Research and Industry

The **BRIDGES** consortium is composed of 19 public and private partners from 7 EU countries (SP, PT, UK, FR, NL, D, CY) and 2 associated countries (NO, IS), covering renowned scientific institutes, industrial groups and innovative SMEs.

BRIDGES is coordinated by ARMINES ENSTA-ParisTech, one of the major French Engineering Schools. The scientific coordinator is Laurent Mortier, professor of oceanography at ENSTA-ParisTech. For more than 10 years, he has been developing glider technical solutions and glider infrastructure to carry out scientific missions and marine monitoring, giving Europe a leading role in autonomous underwater technology.



BRIDGES in figures

- 19 public and private partners
- From 9 (EU) countries
- 8 millions euros awarded by the EU
- 2 multi-mission, autonomous gliders to be developed
- Adapted to 2,400m (Deep) and 5,000m (Ultra Deep) sea depth
- Multiple near-shore and deep sea trials and demonstrations
- 4 year project (2015-2019)
- Market introduction of deep EXPLORER gliders as of 2020



UPCOMING BRIDGES PUBLICATIONS AND EVENTS

First deliverables of **BRIDGES** will be publicised end of April 2016 and include:

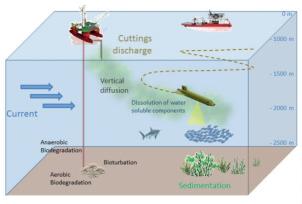
- Guidelines of a deep glider to support long-term in-situ exploration and protection services of the coastal and deep ocean (ARMINES);
- Interface standards for applications of Deep and Ultra Deep glider (52°North GmbH);
- Common interfaces and standards for sensors and their integration into the Deep and Ultra Deep EXPLORER science bay (NERC).

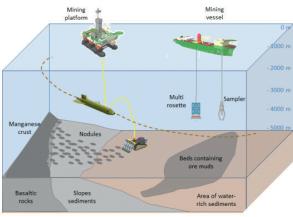
BRIDGES representatives will be present at leading international conferences on under water technology to catch you up with the latest news from BRIDGES. Upcoming events that will be visited by BRIDGES are:

- Oceans 2015, 19-22 october 2015, Washington, USA
- World Maritime Technology Conference 2015 (WMTC), 3-7 November 2015, Providence, USA
- Australasian Oil and Gas 2016 (AOG), 24-26 February 2016, Perth, Australia
- Oceanology International 2016, 15-17 March 2016, London, UK
- Offshore Technology Conference 2016 (OTC), 2-5 May 2016, Houston, USA
- Underwater Technology Conference 2016 (UTC), (14-)15-16 June 2016, Bergen, Norway

Stay informed about **BRIDGES**

To learn more about the progress and findings of BRIDGES please consult <u>www.bridges-h2020.eu</u> and make sure you receive our bi-annual BRIDGES Newsletter by sending you contact details to contact@bridges-h2020.eu.





Our public and private partners:







































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