

Strengthening Maritime Technology Research Center

OVERVIEW

INESC TEC is strongly committed to become a center of excellence in maritime technology and, in particular, deep sea technology. It is strategically located, with fast access to deep sea, it has been steadily building up its skills, capabilities and resources, and is presently in the process of implementing an open research infrastructure, thus preparing itself to become capable of providing services and open access to the European academic and industrial communities and, thus, become a recognized European maritime research asset.

The STRONGMAR project thus aims at creating solid and productive links in the global field of marine science and technology between INESC TEC and established leading research European institutions, capable of enhancing the scientific and technological capacity of INESC TEC and linked institutions (as well as the capacity of partnering institutions involved in the twinning action), helping raising its staff's research profile and its recognition as a European maritime research center of excellence.

These objectives will be fulfilled through a set of measures: summer schools, winter schools, short-term scientific meetings, long-term staff visits, networking meetings, workshops, conferences, technology transfer workshops with stakeholders, and other dissemination activities.

Therefore, the STRONG**MAR** project places INESC TEC as the pivot of a network of excellence, involving four European partners which are international leaders in deep sea technology.

DATA

NAME // Strengthening Maritime Technology Research Center ACRONYM // STRONGMAR REFERENCE // 692427

DURATION // 01/01/2016 to 31/12/2018 (36 months)

TYPE OF ACTION // Coordination & Support Action (CSA)

TOPIC // Twinning

CALL FOR PROPOSAL // H2020-TWINN-2015

EU CONTRIBUTION // 999.203,75 €

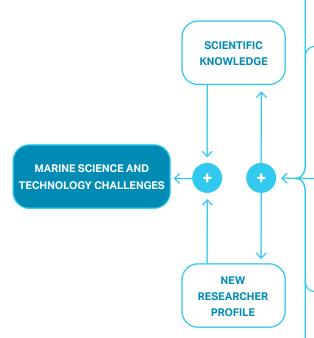
PROJECT OFFICER // Manuela Alfé

COORDINATOR // INESC TEC (Portugal)

PARTNERS // CINTAL (Portugal) / Heriot-Watt University (United Kingdom) / NATO Science & Technology Organization (Belgium) / Universitat de Girona (Spain) / University of Aberdeen (United Kingdom)

cordis // www.cordis.europa.eu/project/rcn/199452_en.html

WEBSITE // www.strongmar.eu



MULTIDISCIPLINARY COLLABORATION NETWORK

A new collaboration network involving top European research institutions in the marine science and technology area, articulated with existing networks in specific fields of expertise.

• BROAD AND FOCUSED TRAINING

A training strategy based on sessions touching multidisciplinary aspects followed by sessions focused on specific fields of expertise, allowing researchers to improve their knowledge and preparing them for the research and implementation challenges in the sea harsh environment.

• THEMATIC WORKSHOPS

Focused workshops that enable researchers to go deeper and improve their knowledge on specific topics and skills in marine science and technology area, as well as improve their knowledge in adjacent fields of expertise.

• HANDS-ON TRAINING

A training strategy targeting not only theoretical training but also hands-on training, enabling direct application of the knowledge acquired and improve their understanding of the actual requirements of the stakeholders, allowing them to design solutions with higher economic potential.

- • CROSS-FERTILIZATION AMONG FIELDS OF EXPERTISE

Interchange and interaction among different fields of expertise is fundamental to address the ocean challenges, due to the multidisciplinary nature of the application area. Cross-fertilization among fields of expertise is also key to stimulate the design of better specific solutions.

CONSORTIUM

INESC TEC // Portugal / <u>www.inesctec.pt</u> Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência

Centre for Robotics and Autonomous Systems (CRAS) Centre for Applied Photonics (CAP) Centre for Telecommunications and Multimedia (CTM)

CINTAL // Portugal / <u>www.cintal.ualg.pt</u> Centro de Investigação Tecnológica do Algarve

Signal Processing Laboratory (SiPLAB)

HERIOT-WATT UNIVERSITY // United Kingdom / www.hw.ac.uk

Edinburgh Centre for Robotics Ocean Systems Laboratory









EDINBURGH CENTRE FOR

NATO SCIENCE & TECHNOLOGY ORGANIZATION // Belgium / www.sto.nato.int

Centre for Maritime Research and Experimentation (CMRE)

UNIVERSITAT DE GIRONA // Spain / www.udg.edu

Computer Vision and Robotics Research Group (ViCOROB) Girona Underwater Vision and Robotics (CIRS)

UNIVERSITY OF ABERDEEN // United Kingdom / www.abdn.ac.uk

Power Systems, Communications and Optics Research Group

OBJECTIVES

GENERAL

- // Provide services and open access to the European academic and industrial communities.
- // Become a recognized maritime research asset.
- // Build a well-designed and coherent plan for knowledge transfer and exchange of best practices.
- // Enhance the scientific and technological capacity of INESC TEC and linked institutions.

FUNCTIONAL

Increase INESC TEC's capabilities:

- // to improve and develop innovative low cost sensors;
- // for resilient long distance and long term deployment of autonomous and semi-autonomous platforms;
- // for long distance and underwater control of robotic platforms, and the associated information harvesting;
- // to develop, produce, deploy and operate off-shore and deep sea platforms, capable of autonomous and semi-autonomous operations and tasks.

OPERATIONAL

- // Reinforcement of scientific and technological human potential of INESC TEC's staff.
- // Promote the cross-fertilization, i.e., interaction between people not only from different institutions but also with expertise in different topics.
- // Enable a stronger networking between INESC TEC's research staff and world top researchers.
- // Bring together groups of national and international research staff and world top experts, discussing advanced topics related to sea technologies.
- // Provide opportunities for developing scientific and personal relations.
- // Ensure the involvement of all relevant stakeholders and the dissemination of project results to scientific, industry and investment communities, as well as to the public.
- // Promote the exploitation of project results.

EXPECTED IMPACTS

- // Direct collection of experience and best practice guidelines by the partners, and establishment of a solid network of cooperation with other recognized institutions.
- // Extend the overall research and innovation potential of the North region of Portugal.
- // Increase the research and innovation capacity of the proposing institutions and, in particular, of INESC TEC.
- // Reach broader audiences, motivate and attract new talent, and foster cooperation with the regional industrial fabric and stakeholders.
- // Make an important contribution for the long-term sustainability and viability of the research infrastructure <u>TEC4SEA</u>, by helping to consolidate it as a recognized research asset, capable of providing unique services to the whole of the European research community and, hence, a pole of attraction of European talent to the region.
- // Overcome the identified technological barriers still hampering the full implementation of the strategic national visions: "Portuguese National Ocean Strategy" and "Portuguese Strategy for Smart Specialization".

The STRONGMAR project is funded by the European Commission under the H2020 EU Framework Programme for Research and Innovation (H2020-TWINN-2015, 692427).



Universitat de Girona



