



## VANGUARD INITIATIVE

New growth through smart specialisation



# ADMA Energy

### INTRODUCTION TO THE PILOT

The Vanguard Initiative “Advanced Manufacturing for Energy-Related Applications in Harsh Environments” (ADMA Energy) Pilot seeks to make the EU the global leader in manufacturing robust high-integrity components for marine renewables and offshore energy applications. The pilot project is being developed across a dozen of the most advanced EU regions in this sector in order to pool their resources and expertise for the benefit of industry.

The ADMA Energy Pilot project promotes interregional cooperation in industrial and technological development between European equipment and component companies in the offshore and subsea applications. Our fields of activity include marine renewable energy (MRE – including wave, tidal and offshore wind), traditional offshore energy sectors, as well as components and systems for application in harsh, subsea, and deep-underground environments.

In terms of technology, the mission is twofold: on the one hand, to provide support for existing advanced across over Europe, whilst also providing smaller companies with new customers to grow their business.



## ACTIVITIES

The Pilot is currently developing demonstration activities across several fields:

- Real condition testing of new materials for offshore: composites, steel, ductile iron and light metals
- Cost-effective power transfer: power and conversion systems and large-scale energy storage
- Optimised corrosion management: modelling, sensing and design
- Sensing and monitoring of operations at sea
- Advanced manufacturing processes: maintenance in harsh environments, manufacturing and handling of large-size components.

The stakeholders participating in the pilot have jointly identified a number of industrial challenges that the offshore energy sectors are currently facing, as well as some of the key technologies to tackle them. These include the need for non-corrosive materials and coatings, reducing the cost of maintenance in harsh environments, sensing and remote monitoring technologies and challenges in manufacturing large-scale components. ADMA Energy can give you access to this network and potential value chains in subsea markets. The pilot will also help you collaborate and develop market-led demonstration projects with a wide range of companies and stakeholders.

## DEMO CASES

### North Sea Solutions for Innovation in Corrosion for Energy (NeSSIE)

This is an EU-funded project connecting MRE project developers with providers of anti-corrosion solutions. NeSSIE is developing three offshore renewable demonstration projects relating to corrosion. The project aims to accelerate the deployment and cost reduction of wave, tidal and offshore wind devices.

### Sensing, Instrumentation and Remote Monitoring

This demo case considers the appropriate and affordable sensing and monitoring techniques needed to reduce the risk of operating at sea. The project will allow firms to explore the potential of new techniques in sensing and instrumentation technologies, whilst uncovering the potential of data analytics in the digitisation of offshore wind farms.

## CONTACT DETAILS

### Co-leading regions:

Scotland (UK) and the Basque Country (ES).

### Scotland:

Charles Abbott (Scotland Europa) [charles.abbott@scotent.co.uk](mailto:charles.abbott@scotent.co.uk)

### Basque Country:

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