

OPIN Collaborative Innovation Group on Corrosion Monitoring seeks input from Ocean Energy Sector.

Europe has set forth an ambitious plan to help stop climate change before it's too late. The European Green Deal is a set of policy initiatives by the European Commission with the overarching aim of making Europe climate neutral in 2050. This will inevitably require the further development of Renewable Energy sources such as Ocean Energy. Developments can be accelerated if companies and research organisations work together. The Ocean Power Innovation Network seeks to build and foster such collaborations through Collaborative Innovation Groups (CIGs). One CIG, focussing on Corrosion Monitoring has recently been launched, and we need your input!

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Picture Sources: EMEC Gallery (emec.org.uk) and FLOATGEN (floatgen.eu)

Through the framework of Collaborative Innovation Groups (CIGs), the Ocean Power Innovation Network ([OPIN](http://opin.eu)) offers support to SMEs to collaborate with other organisations, to solve problems which are barriers to the deployment of ocean energy. CIGs focus on challenges which cannot or have not been solved by one SME alone.

The OPIN Team have supported a Collaborative Innovation Group (CIG) focussing on creating awareness on the **impact of corrosion on offshore renewable projects** and how **corrosion monitoring** can improve corrosion management.

***Challenge** = high impact of corrosion on LCoE + high cost of inspection due to difficult access and limited windows of opportunity*

***Opportunity** = availability of sensor technology, technology for data transmission and data analysis opens opportunity for remote monitoring*

Corrosion monitoring has traditionally not been used in offshore construction such as O&G platforms, due to the very different nature of their exploitation and different economics. First steps towards corrosion monitoring have however been taken in fixed offshore wind in the last few years (following the highly successful implementation of structural monitoring).

The ocean energy sector could learn from the pioneering work of the fixed offshore wind sector, however there are still gaps in the available technology (sensors, data analysis, data transmission, etc.). The CIG partners (6 companies, 1 test centre and 6 research organisations) will bring together all their individual expertise, knowledge and experiences in order to highlight the opportunity offered by remote monitoring, showcase how remote monitoring can reduce the LCoE of ocean energy devices and identify what barriers need to be overcome to make a wider uptake of corrosion monitoring feasible.

“On the short term, corrosion monitoring holds great potential for design validation and improving design assumptions. For assets in remote and difficult to access locations, it is the perfect complement to periodic inspections, reducing the uncertainty on the health of your assets. On the medium-long term, it can be used to make Risk Based Inspection possible and good documentation will help to make well-informed decisions about life extension of devices.”

Jeroen Tacq, Corrosion Expert, Sirris, [OWI-Lab](#)

To allow us to align this work with the requirements, needs and expectations for corrosion monitoring in wave, tidal and floating wind energy devices we are seeking input from the industry. We have created an online Questionnaire to gather information on previous experiences and future demands from ocean energy developers, the R&D community and supply chain organisations. The questionnaire will close on the January 22nd. If you're confronted with the problem of corrosion or are working on ways to deal with it, your opinions and feedback are of great importance to us. Help us by completing the questionnaire on this [link](#)!

The final goal of the CIG is to establish opportunities for future international collaboration projects. A summary report of the most important findings, as well as the results from the questionnaire will be made available to the wider public through the OPIN webpage. For more information, contact the OPIN network (opin@seai.ie).

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Questionnaire link: https://docs.google.com/forms/d/e/1FAIpQLSe3dPJ0OJQ6IDM-gDLoAK3PKy5-c_JSAjQ--w773ihDJPYohQ/viewform?usp=sf_link