

 CorrosieLABS®
Interreg 
Vlaanderen-Nederland
Europees Fonds voor Regionale Ontwikkeling

Corrosion & Coating Monitoring

CorrosieLABS

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Senior Engineer Metals

- Grensregio Vlaanderen – Nederland => grote concentratie industrie
- Corrosie is groot probleem: veiligheid, milieu, storingen en stilstand => hoge kost
- Nood aan:
 - testfaciliteiten en kennisborging
 - meer innovatie en samenwerking nodig

CorrosieLABS heeft als doelstelling het ontwikkelen en beschikbaar maken van fysieke testinfrastructuur die toelaat onderzoek en ontwikkeling uit te voeren rond de Preventie, Detectie en Reparatie van corrosie.



Kennis- en innovatiecentrum
Maintenance Procesindustrie



KAEFER



Scalda

Praktijklabo:
Gesimuleerde
industriële omgeving

Onderzoekslabo



driving industry by technology

Ponton

Sensoren en
meetapparatuur



Hogere Zeevaartschool



driving industry by technology

An aerial photograph of an offshore wind farm. In the foreground, a single wind turbine is visible, its white tower and blades standing out against the deep blue ocean. The tower has red and white horizontal stripes near the top. A small white boat with a dark hull is positioned to the right of the turbine, moving across the water. The ocean surface is slightly choppy with white foam at the waves.

**Where we started our work on
Corrosion Monitoring.**

What is corrosion monitoring?



Monitoring
=
Continuous Monitoring

COATINGS

CP

ENVIRONMENT
(water, often internal)

CORROSION



Why monitor Corrosion (offshore)



Corrosion is a continuous threat



Optimise by continuous monitoring



Requires

- Mitigating measures
- Must be inspected
- Maintained
- And documented

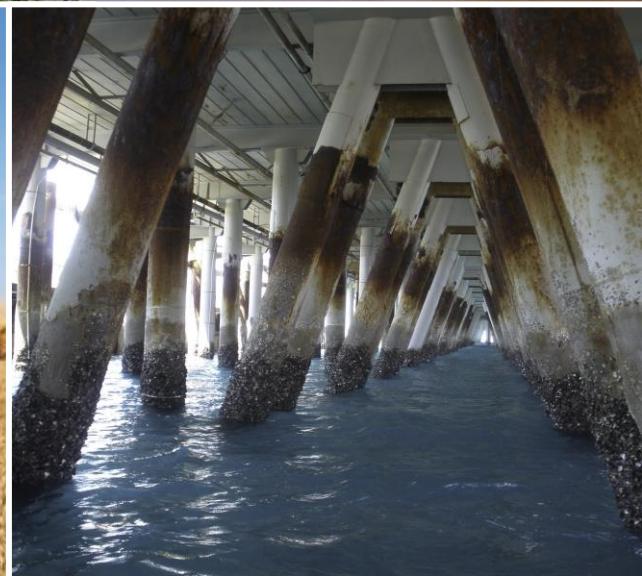


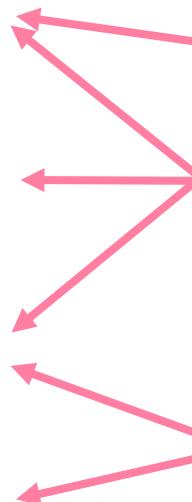
- Unmanned
- A long way from shore
- Uncertainties about design assumptions and protection measures





Corrosion Monitoring in other sectors





Needs & Expectations

Sensor technology

Data interpretation (and reporting)

Monitoring Strategy

Contact us for more information!

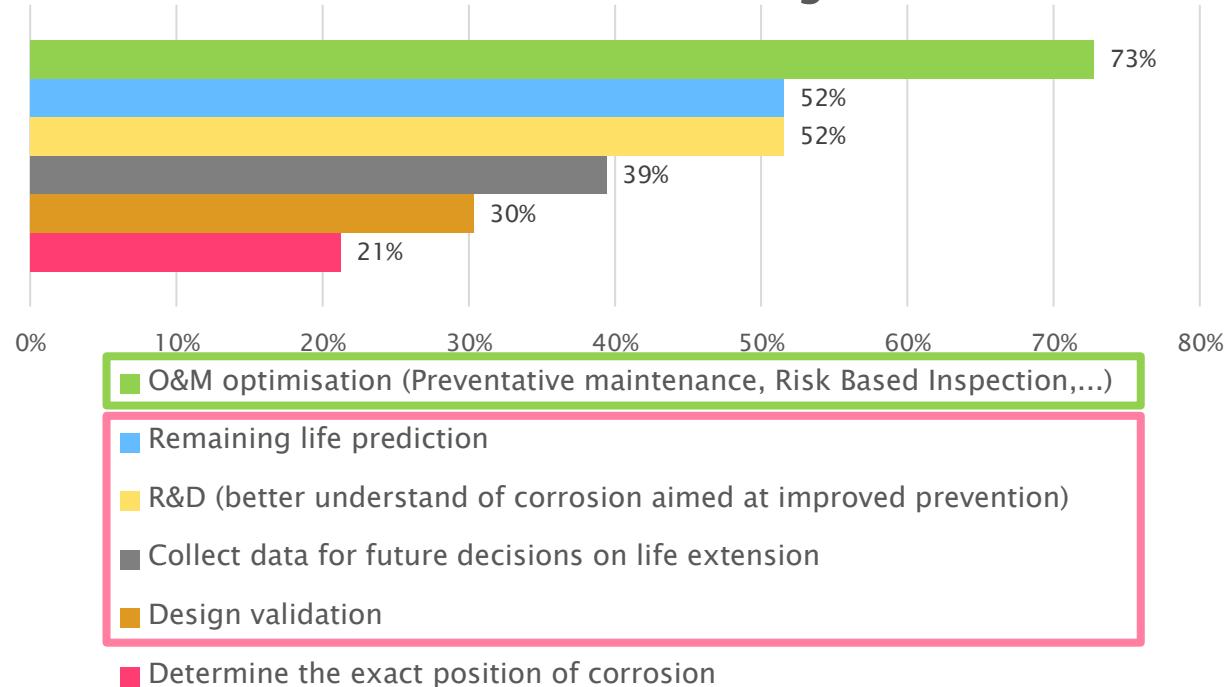
Needs and Expectations (offshore)



State-of-the-art report,
Collaborative Innovation
Group on Corrosion
Monitoring.

(Not available online,
contact me for more
information.)

What are the most important goals/objectives of Corrosion Monitoring?



Limited use today (offshore)



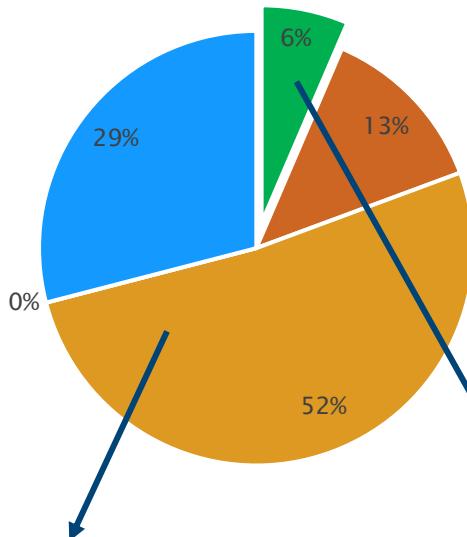
Ocean Power Innovation Network

(<https://www.nweurope.eu/projects/project-search/opin-ocean-power-innovation-network/>)

FREE to join

Collaborative Innovation Group (CIG)
on Corrosion Monitoring

Are you considering the implementation of corrosion monitoring for offshore/ocean energy devices?



- Yes, we are currently using corrosion monitoring as an asset owner.
- Yes, we are currently providing corrosion monitoring services to an asset owner.
- Yes, we would like to use it on a next (demonstration) project.
- No, we don't see the added value of corrosion monitoring.
- We are not an asset owner nor a service provider.

Large (expected) potential, limited use!

Corrosion Monitoring has a **LARGE POTENTIAL**,

However, today we know of only one offshore wind asset owner in Europe applying it on a large scale.

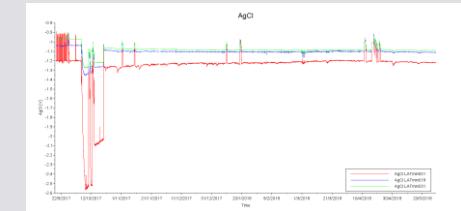
What is the Business Case for Corrosion Monitoring? What is the USP?



Corrosion Monitoring



Cathodic Protection



Corrosion Rate

Coating Degradation



Environment

Data interpretation (and reporting)



www.socorro.eu



Antwerp Maritime Academy



GHENT
UNIVERSITY



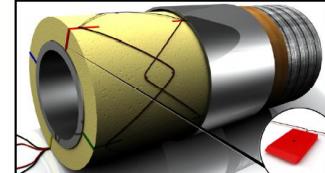
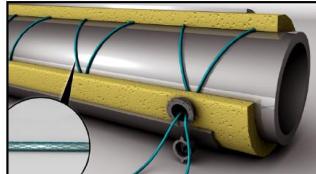
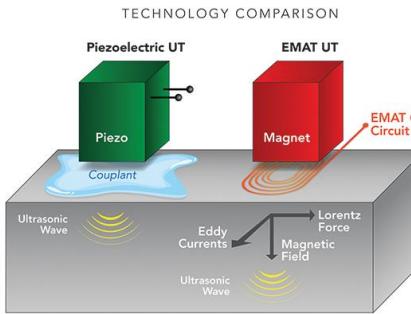
driving industry by technology

- Environmental parameters and corrosion sensors as a marker for corrosion risk
- AI and knowledge-based models
- Max. and/or Accumulated corrosion risk as thresholds to initiate inspection



Corrosie LABS®

- Focus op continue monitoring van corrosie voor RBI en ondersteuning van corrosie management
- Technieken voor detectie en inspectie





Partners for Corrosion Monitoring



KU LEUVEN

PercoSens®





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driving industry by technology



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