

Supported & funded by: 

PITCH - VIS-Project OWOME - Offshore Wind Operations & Maintenance Excellence

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Vrije
Universiteit
Brussel

 **iMinds**
CONNECT.INNOVATE.CREATE

Targeted companies for the project?

- **Wind park owners** and their suppliers who strive for optimal operation and maintenance and advanced decision support.
- **Component manufacturers** who want to design more reliable and robust wind turbine components, play a important role in the maintenance.
- **Offshore Operations & Maintenance (O&M) service companies** who want to develop smart and performant services.

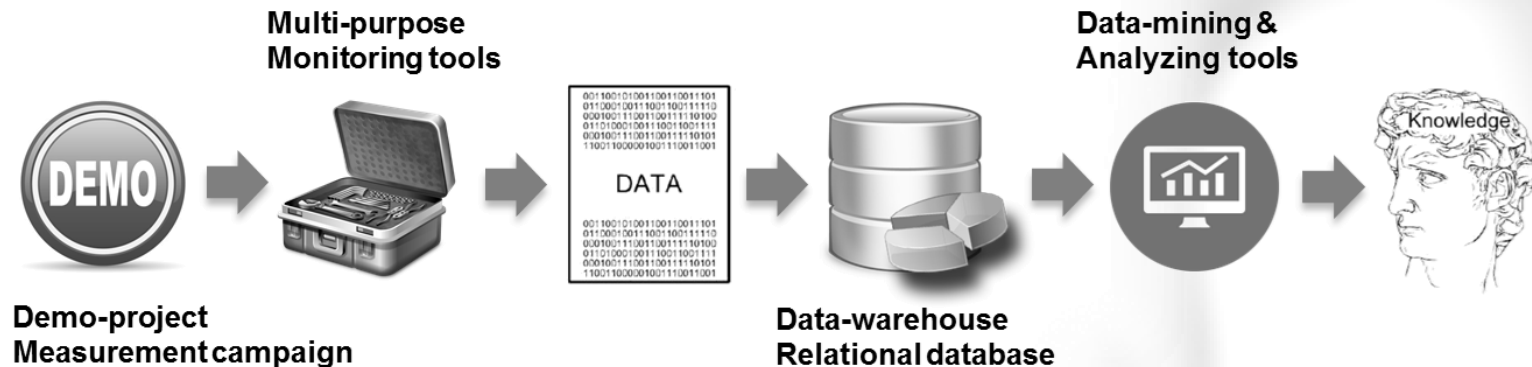


Goal of the project:

The OWOME-project supports companies with the development and validation of innovative solutions for smart O&M in offshore wind farms. This project will realize 3 multi-usage offshore measuring systems, integrates them and gathers and processes the data from different sources in a data platform in an automated way.

In this way the project makes it possible for companies to experiment with innovative O&M solutions. The project also gathers knowledge on offshore measuring and monitoring campaigns, pre-processing, selecting and analyzing datasets and application knowledge associated with offshore wind assets, all this in the form of 5 demonstrators.

Finally this project brings companies together to share O&M value creation and support the initiation of new innovation projects together with the industry and academic actors.



Why do we initiate this project?

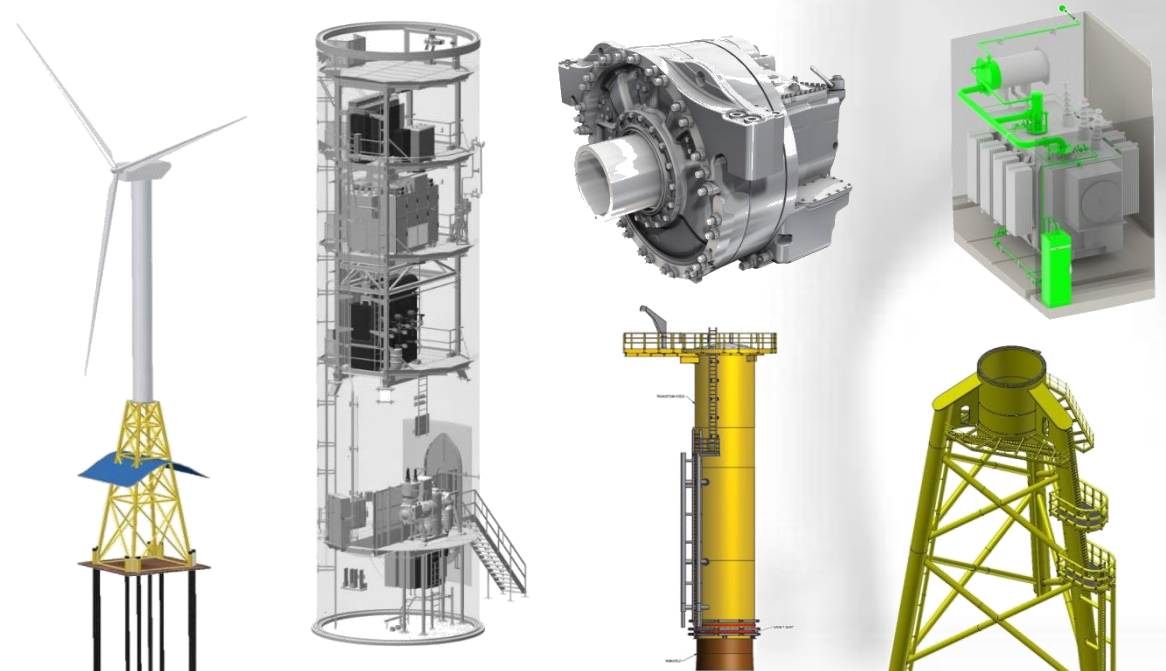
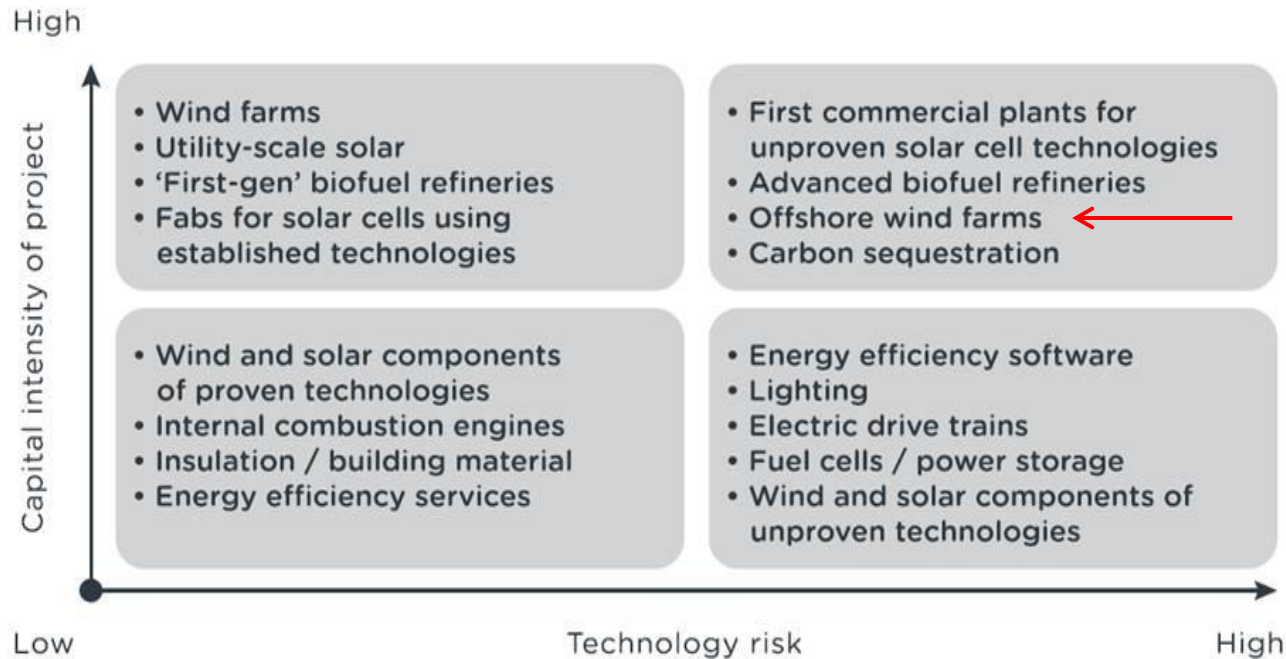
Operation & maintenance actions take $\pm 30\%$ of the total production cost of offshore electricity in wind farms. The pioneering role of Belgium in the area of offshore wind energy gives companies a unique chance to develop innovative O&M techniques based on the home market experience.

The coming years other neighboring and worldwide countries will develop a lot of offshore wind assets. If we are able to leverage our leading role and experience into more performant O&M solutions, our Belgian companies have an advantage and a strong position to claim a large part of the O&M market.



Why do we initiate this project?

Reducing O&M-costs by the use of new and more advanced monitoring techniques and decision support software as asset management tools is the main topic for the OWOME-project, but when doing so in the same time **RISK REDUCTION** and **DESIGN OPTIMIZATION** projects can take leverage from the same captured data. OWI-Lab will strive to share processed data between different actors in the offshore wind value chain in a way all partner can benefit from it. As offshore wind energy is a relative new field of technology in the renewable energy mix, the learning curve is still steep and needs its support for optimization and innovation.



Project partners

The four year OWOME-project is embedded within OWI-lab, the Belgian research, development and innovation (RD&I) platform for wind energy. The latter is part of Sirris, the collective center for and by the technological industry in Belgium.

OWI-Lab can built on the existing knowledge and infrastructure that has been developed and validated over the past five years and teamed up with research partner VUB (Vrije Universiteit Brussel) and iMinds, Flanders' digital research center and business incubator, to manage this project and make it a succes for the Belgian offshore wind industry.



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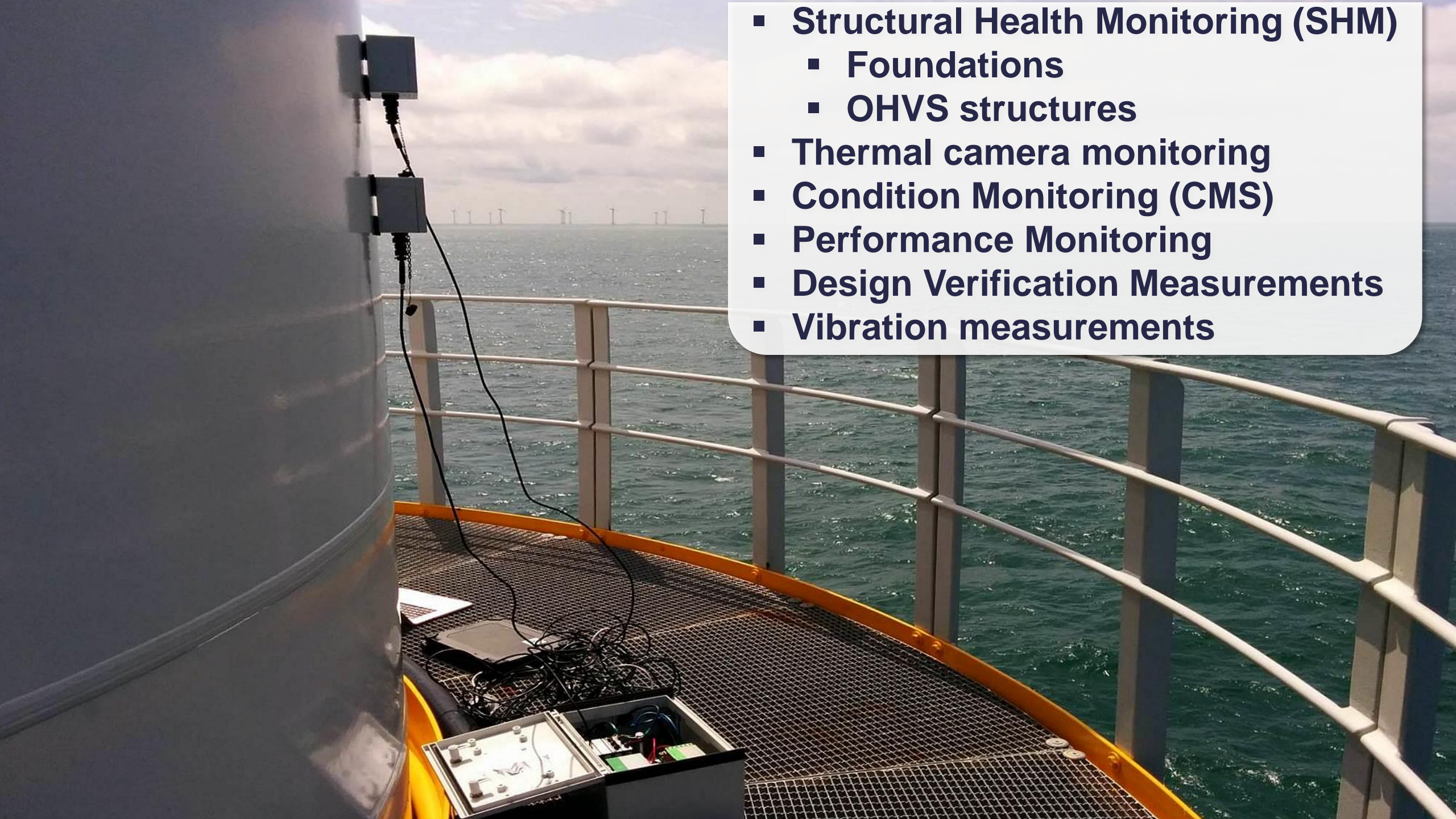
How can OWI-Lab help your company?



Some examples of enablers to support research, development and innovation

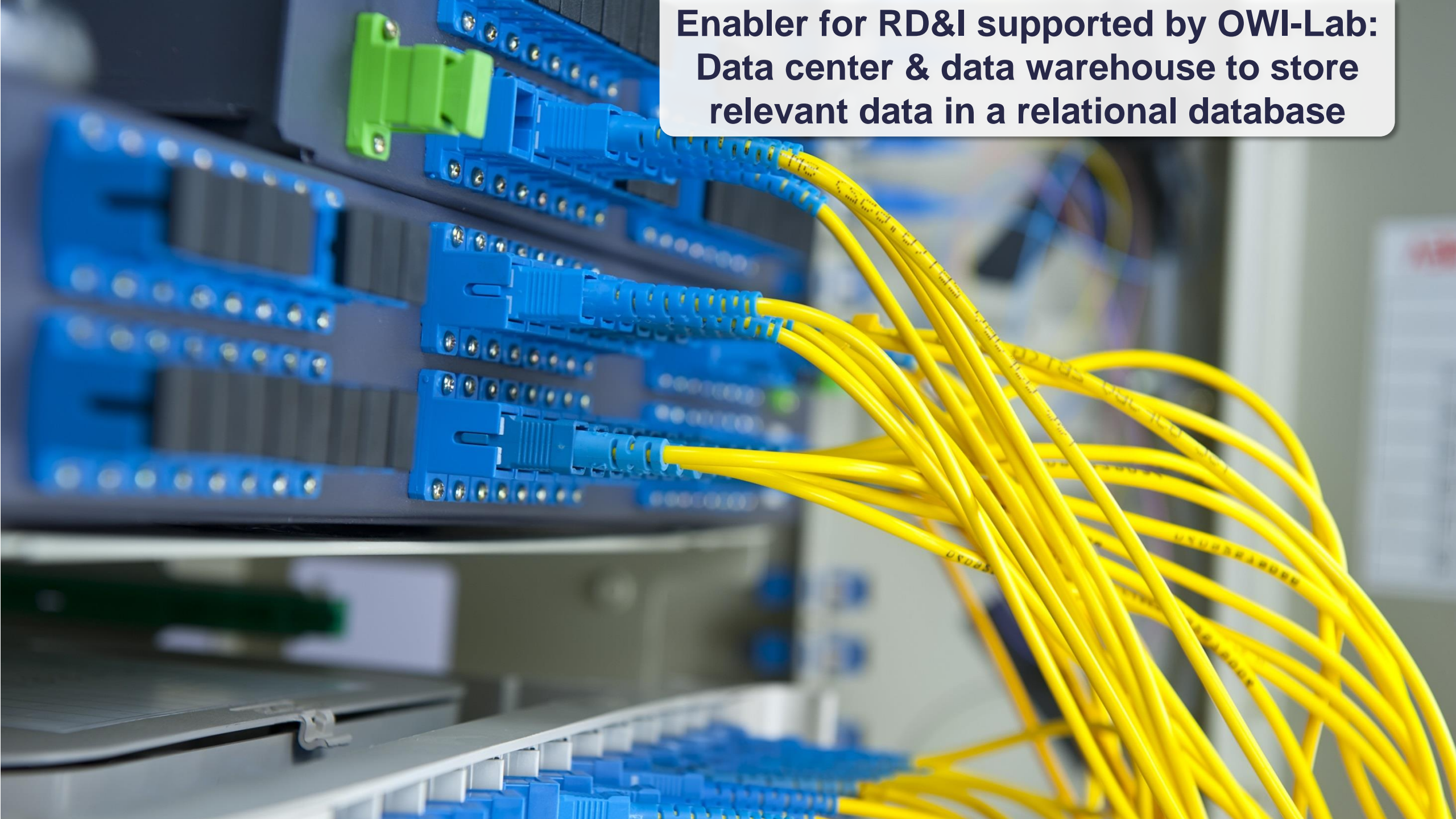


Enabler for RD&I supported
by OWI-Lab: [offshore
measurement campaigns](#) and
monitoring tools to feed the
learning curve with field data

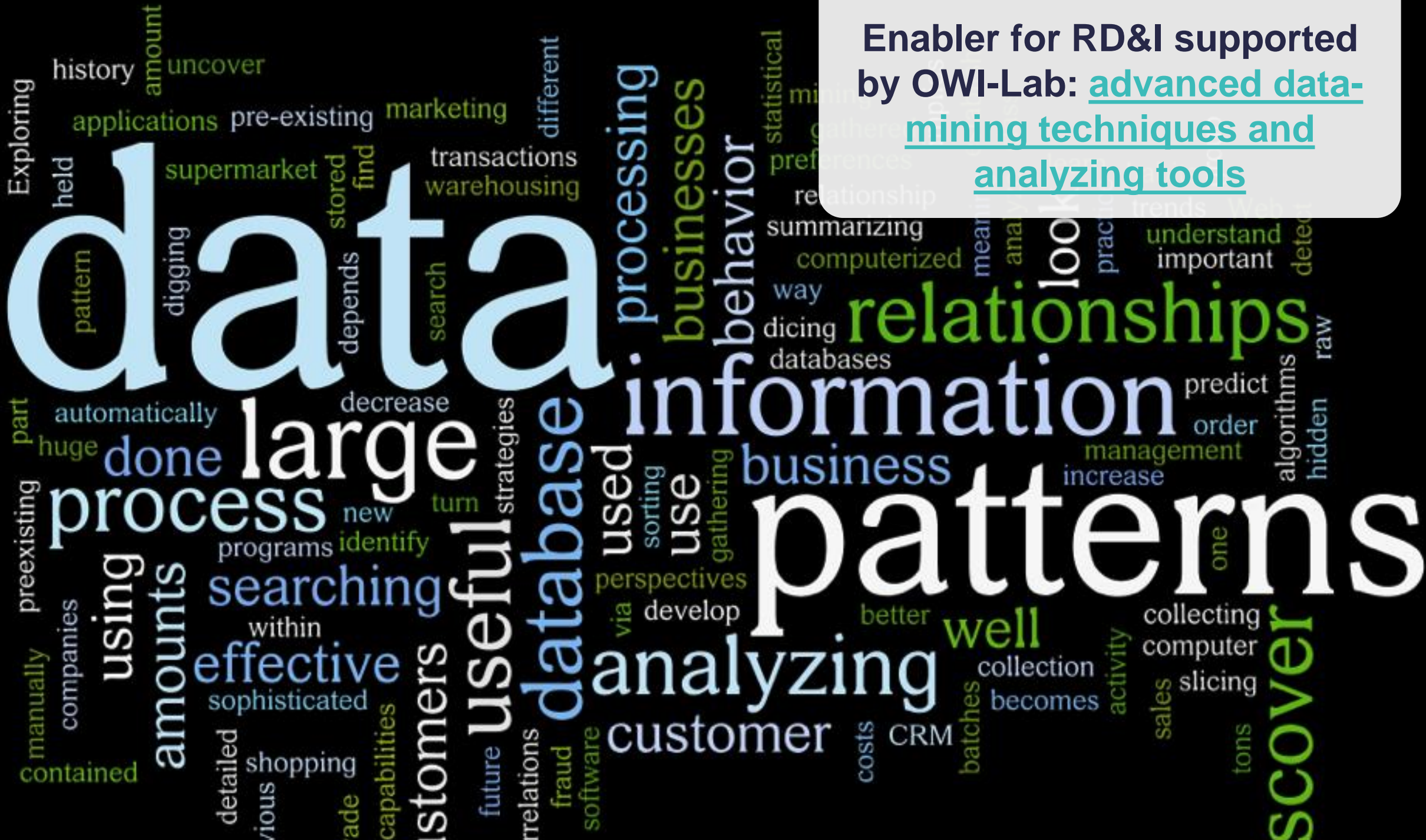


- **Structural Health Monitoring (SHM)**
 - Foundations
 - OHVS structures
- Thermal camera monitoring
- Condition Monitoring (CMS)
- Performance Monitoring
- Design Verification Measurements
- Vibration measurements

**Enabler for RD&I supported by OWI-Lab:
Data center & data warehouse to store
relevant data in a relational database**



Enabler for RD&I supported by OWI-Lab: [advanced data-mining techniques and analyzing tools](#)



Want to join the platform?

- Are you active in the Belgian offshore wind energy sector?
- Do you have an innovative idea with regard to the focus of the OWOME-project which you want to test, demonstrate, check for it's feasibility with our experts or are you looking for partners to co-create the idea?
- Are you looking for data or data-mining intelligence which can boost your product or service development cycle?
- Do you want to meet and network with Belgian companies and researchers active in the world of offshore wind energy?
- ...

Then contact [Pieter Jan Jordaens](#) for more information to become a user [group member](#).

Contact person & more information

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**Knowledge sharing – LinkedIn Group:
Offshore Wind Infrastructure
Application Lab (OWI-Lab)**



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