VEOLIA

Previously known as **AQUAVISTA™**

Hubgrade

PERFORMANCE

CASE STUDY I Oman Sur

OMAN SUR

Oman Sur desalination plant is located in the Sharqiyah region of Oman. The plant helps fight the depletion of the region's limited groundwater resources by processing over 200,000 m3/day of seawater. For this it relies on reverse osmosis process and recycles over 97% of the mechanical energy.
The plant is operated by Veolia Bahwan and is divided into two sections: SDP1 and SDP2.

THE PROJECT SCOPE

Bahwan Veolia, the team operating the Oman Sur desalination plant sought a digital solution that help them to **reduce the total cost** of ownership of membranes and to **better plan cleaning and replacement interventions.**
This is how a collaboration between Veolia Water Technologies, Veolia Business Support & Platform and Bahwan Veolia started. The Smart Membranes module of Hubgrade Performance has been in operation since September 2020 on Oman Sur Desalination plant.

OPERATION CHALLENGE

The Oman Sur desalination plant is located in the Sharqiyah region of Oman. The plant helps fight the depletion of the region's limited **groundwater resources** by processing over 200,000 m3/day of seawater. Membrane plant operators and managers face many business challenges such as finding the **economical optimum** for operations while meeting the production targets. They also face operational challenges such as:

- Understanding the state of fouling membranes to better plan the interventions and minimize downtime.
- Predicting the fouling behaviour of the membranes to better plan CIP (clean-in-place).
- Optimizing membrane lifetime and maximizing cleaning efficiency.
- Avoiding unplanned shutdowns.
- Optimizing the plant's maintenance schedule to save operator time.

THE ACTION

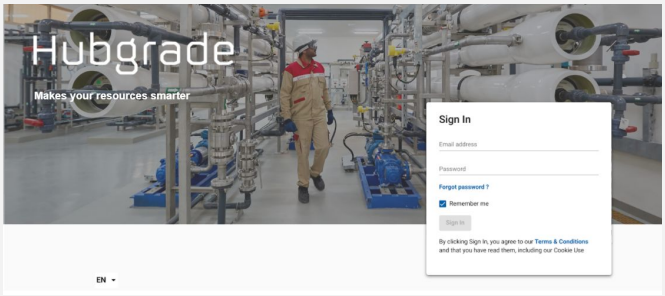
Veolia Water Technologies implemented Hubgrade which uses advanced analytics and machine learning algorithms to predict the evolution of strategic operational parameters, such as membrane fouling. Doing so enabled proactive and evidence-based decisions helping the Oman Sur operating team unlock the full value of their data.

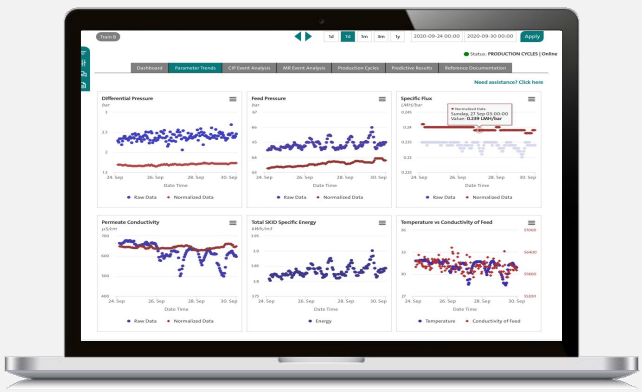
Hubgrade

Powered by VEOLIA

KEY FEATURES

- Predictive maintenance
- Key performance indicators
- Events & alerts





CLIENTS BENEFITS

Hubgrade allowed the Oman Sur team to:

- Prevent unexpected **shutdowns**.
- Have a **holistic visibility** of the operations and processes.
- **Save valuable time** by preventing lengthy manual data extraction.
- **Access key performance indicators** via dashboards to normalize fouling indicators, monitor the effectiveness of CIP and production cycles.
- **Proactively plan the maintenance schedule** for CIP and membrane replacement, thus enhancing the stock management of consumables, thanks to the predictive maintenance.
- **Access plant data and analytics** empowering evidence-based decisions making when planning for membrane replacement.

KEY FEATURES

"Thanks to Hubgrade, it's possible to identify any membrane issues sooner and be more proactive in planning the corresponding corrective action. Normalizing operational data can now be completed in two-clicks instead of 12 hours of data management and analysis." - Grégoire Bourguignon, Maintenance Manager

"We expect Hubgrade to help reduce the downtime of the plant from 2 to 1.5 or 1%." - Aditya Akella, Operations Manager

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