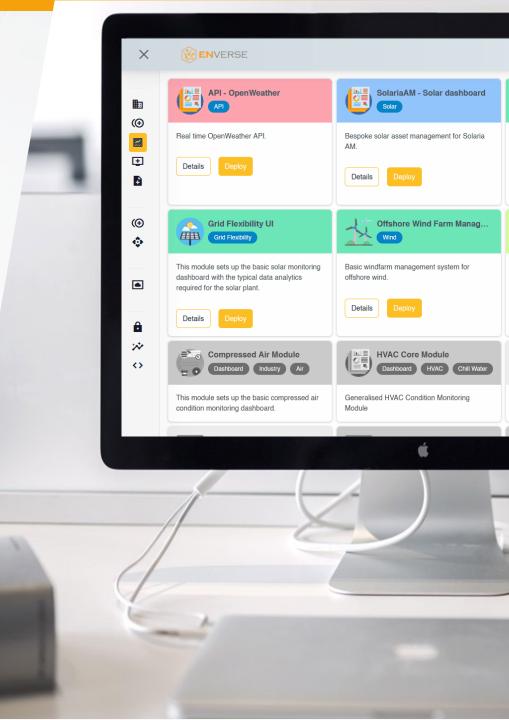


## Industrial microservices for automated data analytics and machine learning



## Case Study – Machine Vibrations

Providing better data visibility and machine health



NVERSE

- Customer wanted to use the vibration data to detect for equipment drift, evaluate equipment health, and determine equipment uptime.
- However, vibration sensors measure the raw data and the data can be inconsistent due to the varied machine operations, hence creating false alarms in the system.
- We developed an AI algorithm to detect the machine's normal operating state, and provide detection algorithm to analyse for anomalous vibration data.
- The output of the data provides the following information
  - Customer understands the machine health and provide predictive maintenance as necessary
  - Customer understands machine operating condition and can better maximise the value of their assets.

## Case Study – Leak Detection Using Al

Enhancing existing product with innovation digital solutions

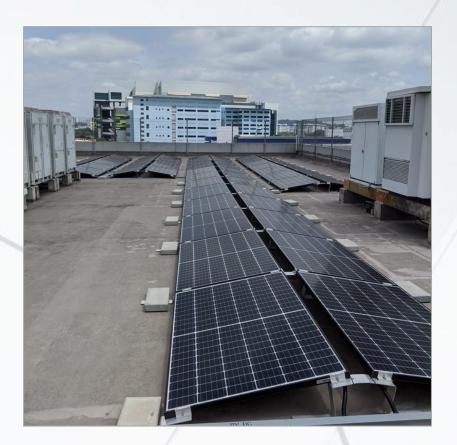


- Compressed air leakage is one of the sources of unmonitored energy losses.
- In this project, we have connected data from the compressed air sensor, polling data every 10 seconds. An AI algorithm was developed to identify the consumption pattern of compressed air and detect for potential compressed air leakage in the operation.
- In addition, an AI algorithm was also developed to evaluate performance efficient of air compressor.



## Case Study – On-Site Energy Generation

Providing better data visibility and machine health



- Solar plant suffers degradation due to various factors, such as inverter malfunction, dirt accumulation on solar panels, or cable losses.
- Using AI, we help customers to evaluate the performance of the solar power plant and monitor for inverter performance at string level.
- Using AI, we also help customers to reduce energy import from the grid as the customer has battery asset installed



We have helped customers to understanding their data better and decarbonise their business.

Let us work with you to achieve your goals, together.



Howard Low | CEO | howard@enverselab.com