

# ADVANCED SERVICES CASE STUDY

## NEDERMAN INSIGHT



**SUPPORTING  
EFFICIENCY, COMPLIANCE &  
SUSTAINABILITY USING DATA**

**USING EXPERTISE TO MAKE THE  
CUSTOMER'S BUSINESS CLEAN, SAFE  
AND EFFICIENT**

**GIVING THE CUSTOMER TIME AND  
CONFIDENCE TO FOCUS ON THEIR  
CORE BUSINESS**

**N**ederman is a specialist in industrial air filtration whose headquarters are in Sweden. Its aim is to help customers to protect their employees, production and the wider environment from harmful dust, smoke and fumes. The company is 70 years old and has 1900 employees in 25 countries, distributors in an additional 30 countries and 12 production facilities on five continents.

Nederman's cloud service gives customers insight into the health and status of filtration solutions, allowing them to track system performance, predict maintenance needs, prove compliance and optimize energy use. Nederman's experts also use the data to make recommendations and give guidance, giving the customer more time and confidence to focus on their core business.

**W**hile clean air is a necessity for Nederman's customers in terms of the safety of their employees, their obligation to limit emissions into the environment and the integrity of their processes, air filtration is in many cases an inconvenience and something that is certainly not part of their core expertise. Nederman's Insight offering is intended to both reduce this inconvenience and help customers to operate their air filtration, and their business, as successfully as possible.

## THE INSIGHT STORY

The company recognised that the trend of digitalisation, encompassing connected services, the Internet of Things and use of mobile devices provided an opportunity to develop and improve the customer offering.

A new division, Nederman Insight, was created to lead the development of new offerings and business models utilising digital technology to provide services to meet customers' growing needs. It announced publicly that it was 'setting its sight on the Internet of Things'.

The new division's aim is to develop a complete ecosystem of services for new and existing installations of its products. This requires continual development of the company's competencies, which has in part been achieved through acquisition. Nederman acquired two companies, NEO Monitors, an expert in laser-based solutions for measuring gases and dust, and Auburn FilterSense, provider of particulate emissions monitors and intelligent controls for industrial particulate and dust filtration systems.

Nederman conducted pilots in four different industry segments which together represent about 25% of Nederman's sales.

The learning from these pilots was used to develop offerings that would be attractive to customers and processes, KPIs and revenue models that would work for Nederman and enable it to scale up the services to more customers.

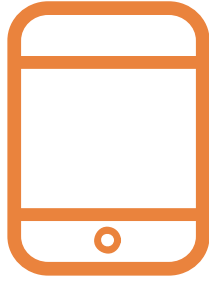
Insight uses sensors and monitors installed on Nederman's filtration equipment in the customer's operations to gather data which is shared via the cloud and accessed by both customers and Nederman engineers. Customers can download the Insight app for their iOS devices.

### UNDERSTANDING CUSTOMER PAINS

Nederman set out to understand its customers' key pains when it comes to air filtration. They used their experience of working for over 70 years with a range of customers in a range of environments to learn from the knowledge gathered from products in service. They also conducted a series of visits to customers, using storyboarding and empathy mapping tools and techniques to identify the more subtle pain points that customers do not always consider, and the opportunities to help customers to be more successful.

The pains they identified varied from the lack of system overview, to high energy costs, lack of in-house expertise, downtime due to air filtration problems, and the need to be able to evidence environmental performance for regulators.

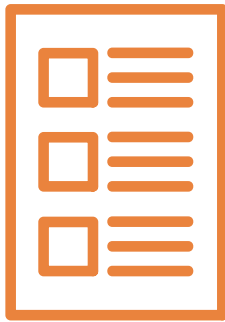
## THE SIX MODULES OF INSIGHT



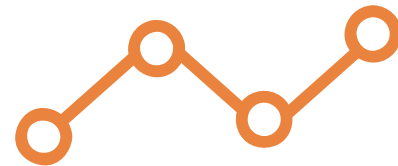
**Action Centre** enables customers to track filtration system performance and quickly identify issues. It provides a full overview of filter operation via one or more dashboards with drill-down functions. Cloud-based data storage enables remote monitoring from mobile devices



**Rule Engine** allows alarms and triggers to be customized to keep the system safe and efficient. Remote monitoring lets Nederman experts interpret the customer's data and make customized recommendations



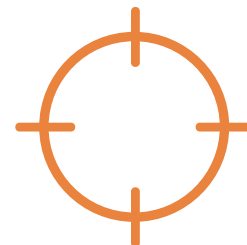
**Historic Data Log** enables the customer to create benchmarks for system performance and, based on these, make informed decisions about future improvements and investments. Data can also be collected for health and safety and environmental audits



**Machine Learning** (currently under development) uses smart algorithms to look for patterns in data to help customers identify and mitigate risks. With machine learning, the filtration systems will automatically improve from experience, without being re-programmed



**Workflow Engine** (currently under development) helps customers to manage business processes by determining defined processes, for example routines to carry out in case of an alert, and automatically setting up e-mail notifications and contingency plans



**Reporting** (currently under development) enables the customer to extract more sophisticated, customized reports and gain insights into areas such as system performance, sustainability targets and investment requirements

## DELIVERING VALUE TO CUSTOMERS

Insight addresses directly the major pains with air filtration that Nederman identified from its customers:



### **Lack of system overview**

Insight provides round-the-clock access to real and historical data enabling the customer to optimize the filtration system



### **High energy costs**

Customers can use data and receive advice and guidance from experts at Nederman to understand how to utilize the equipment fully to get maximum energy efficiency and reduce consumption



### **Lack of in-house expertise**

Nederman's advisors have access to data and work both remotely and on site with customers to analyse data and make recommendations for action



### **Downtime due to air filtration problems**

Alerts ensure quick action to prevent extended downtime and keep the work place safe. Potential problems can be identified before they arise, cutting costs and avoiding unplanned stoppages



### **The need to evidence environmental performance**

Insight collects and collates data to demonstrate energy utilisation and environmental emissions. Nederman experts perform an audit of the factory setup, propose a solution to correctly monitor emissions and configure a report to ensure compliance with regulations.



### **Maintenance scheduling**

Access to historical data and ongoing control of performance data enables maintenance to be planned efficiently and Nederman experts help customers to interpret the data and advise on settings adjustments

Crucially, the offering does not only address pain points and inconveniences, but goes further to help the customer to grow its own business successfully. Nederman supports the customer's brand strategy and image by giving it control and visibility of energy consumption, emissions and safety and the ability to evidence how seriously it takes these requirements for environmental sustainability and corporate responsibility.

Nederman is a member of the **Advanced Services Partnership** and works with its experts to understand customer pains, develop new business models and identify the organisational change needed to support advanced services.