



ABN Clean Room Technology shifts to as-a-service model with smart cleanrooms

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By developing smart cleanrooms that make use of IoT technology and data analysis ABN Clean Room Technology has cleared the path to shifting to an as-a-service model. Thanks to a smart maintenance and service approach the operations are optimised over the life cycle and the lifetime of the cleanroom is extended. Cleanroom technology is made more accessible and value is delivered in a more sustainable way, while the customer only pays for a cleanroom that works.

This case is one of the 15 smart product examples we have compiled for you in the [Smart Product Inspirator](#)

[Discover all 15 examples](#)

[ABN Clean Room Technology](#) designs, construct, validates and commissions pre-engineered and modular cleanrooms. These rooms are indispensable for vaccine manufacturers, pharma companies innovating with mRNA technology, biopharma companies and high-tech companies

developing and manufacturing microelectronics components.

Why this smart product

The company's focus has broadened from the design and installation to the deployment and servicing of a cleanroom in a circular business model, resulting in the lifecycle extension of cleanroom technology. ABN Cleanroom Technology found that this new cleanroom business model could bring its customers significant value. The shift to an as-a-service model can be achieved with smart cleanrooms that make use of IoT technology and data extraction. In this way the company stays ahead as an innovation leader, its cleanroom technology is made more accessible and value can be delivered in a more sustainable way.

Value for the customer

Continuous connectivity with cleanrooms makes it possible to collect data on the efficiency and use of the cleanroom and to act immediately when something threatens to happen.

The insights in the use and parameters of a cleanroom support a smart maintenance and service approach that optimises operations over the life cycle and extends the lifetime of the cleanroom. The as-a-service model puts the responsibility of cleanroom performance on ABN Cleanroom technology and ensures that the customer only pays for a cleanroom that works. Across different industries the value of an IoT connected cleanroom is more and more recognised. The company keeps evolving and can always assure its customers of a cleanroom that is equipped with the latest technologies.

Technology behind smart cleanrooms and as-a-service model

At the core of the smart product solution is the CleanConnect platform, that has been developed for HVAC asset diagnosis and the analysis of laboratory & cleanroom applications. The cloud-based platform continuously collects data from connected sensors regarding the efficiency, performance and usage of cleanrooms. Thanks to the remote monitoring and data analytics capabilities of the platform one can manage the performance of the clean room, maximise the uptime and extend the lifetime. Besides providing data visualisation and alarm management, it detects pattern deviations and predicts machine failures. The platform consists of a brand independent connectivity platform provided by an external partner and an AI-based add-on software, developed in collaboration with an AI service provider.

Capturing revenue

The world is changing from a CAPEX based to an OPEX-based industry where cleanrooms will no longer be owned by the user. OPEX-business models guarantee an extended cleanroom life time extension and the lowest life cycle cost. By 2026, the company aims at offering cleanrooms in an as-a-service model only. With this business model, ABN Cleanroom Technology is a disruptor in the cleanroom world and a pioneer in introducing the cleanroom-as-a-service concept to the European market.

Next steps

ABN Cleanroom Technology keeps innovating and taking advantage of digital technologies. For instance, the company is currently working on transforming their 3D cleanroom models into virtual rooms, which means customers will be able to walk through their future cleanroom using VR glasses.

Smart Product Scenarios

To enhance your chances of success and guide your smart product innovation, Sirris offers you practical tools and guidelines. Our [Smart Products Inspirator](#) provides you with a framework for identifying valuable smart product ideas based on the 5 most common scenarios and 15 smart product examples illustrating these scenarios. With these carefully analysed scenarios we help you uncover the potential for success. The key scenarios for ABN Cleanroom Technology's smart product are: '[Digital user interface](#)' and '[Smart maintenance](#)'.

Authors



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