How Ledvance is enhancing well-being and cutting costs with "human-centric" lighting

Innovating with new business models to help enhance customer satisfaction and build stronger and more sustainable customer relationships.

Executive Summary

Ledvance GmbH, headquartered in Germany and one of the world's leaders in general lighting offering lighting, products and networked light applications, seeks to understand their customers, and their unique needs better. Their longer-term goal is to enhance real time communications with customers to help them become more profitable, as a result of having a better understanding of their unique pains.

The Company

With over 9,000 employees, offices in more than 50 countries, and business activities in more than 140 countries worldwide, Ledvance possesses outstanding global market access, built on long-standing customer relationships and on a powerful distribution network. Ledvance has a deep understanding of the general lighting market, trending technologies and ever-changing consumer needs, and utilizes this profound knowledge and experience to support the demands of both direct and indirect consumers.

The Challenge

Ledvance understood that there is a huge need in the marketplace to be innovative, from a technology perspective, in order to remain competitive. They realized that they would need to introduce new business models to enable closer relationships with their customers. Otherwise, "it just doesn't work."

The plan was to start learning what is possible with intelligent lighting, and then to start adopting these possibilities with their customers. Based on their theory, the learnings and discoveries made possible with intelligent lighting would easily lend themselves to more efficient and satisfied customers. They would begin with on-site customer inspections to check conditions, and then provided them with an estimate of their savings potential based on clear measurements, and intelligence gained with smart lighting.

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Lead Engineer,
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Andreas Heyde,
Responsible for Digital teams,
Ledvance

The Solution

Ledvance's solution was built based on both, their long- term and short-term plans:

- **Short term**

    In the shorter term Ledvance wanted to get their end customer's buy-in on adopting their new business model, and to welcome the change based on the potential benefits and values that this model would bring with it.

- **Long term**

    In the longer term, Ledvance planned on completely changing their business model, and not just the hardware necessary to launch intelligent lighting projects. Their goal is to provide lighting-as-a-service, and to become the owner of all lighting. They knew that this would only be possible with a cloud platform.

With a cloud-based IoT platform, they could monitor data, optimize customer contracts, enable new features and provide on-demand services based on customers' usage and unique needs. Ultimately, they could offer what is known as "human-centric lighting".

What steps have they taken initially?

Ledvance decided to conduct an initial pilot with one of their mid-sized customers, a sports business, to start implementing their first smart lighting initiative, and to learn about the potentials of IoT, together with their customer. They selected Axonize's smart building IoT platform, after evaluating other IoT platforms, and as a result of recommendations from Microsoft Azure.

The following are some of the reasons they preferred Axonize over the other platforms that they evaluated:

- **One platform for all use cases**

    For Ledvance, it was important to have one platform that can handle different customer use cases, rather than using different platforms for different customer-types and use cases

- **Speed**

    Speed was a major contributing element in Ledvance's IoT platform choice. They needed to be up and running quickly to govern devices. After conducting research, they knew they needed an IoT platform with a short implementation time.

- **Near-zero resources needed**

    Ledvance needed a platform that didn't require much development, as their resources for the project were limited. With Axonize, they only needed to configure the platform to fit their needs as opposed to having to write code to develop it. This saved them from having to bring on a team of programmers to develop these projects.

- **Scalability and Flexibility**

    Ledvance decided to start with a lighting use case, but their ultimate goal was to be able to scale to other smart building use cases. With Axonize's flexibility they could easily do just that, without having to develop a unique platform for each use case.

"In one day, we were able to launch an entire project and to achieve much more than what we had initially anticipated. The Axonize platform is very intuitive, and so easy to use and implement."

– Frank Blase, Lead Engineer, Ledvance

Diving deeper into the initial smart lighting customer project

Initially when Ledvance approached their sports business customer to start implementing the intelligent lighting project, the customer was skeptical. As a start up, sports business, they were simply looking for running lighting, and nothing more complicated. Ledvance explained to the customer the value of learning how to run the lighting in the most efficient way, based on data from the platform, to help cut costs and increase efficiencies.

Once their customer began to understand the value, they very excited to get started, and to start seeing results. They wanted to understand how interested, or disinterested, their customer-base is, in the different sporting events that they offer, ie. how long their customers are waiting in line for the next climbing wall. In addition, they wanted to learn at what hours the HVAC should run, and when the HVAC should be turned down or off. They were eager to learn more about their customers, and to change their climbing-route based on real data to keep it interesting, as opposed to randomly scheduling these.

Results

Ledvance is currently studying the building space, and providing the customer with critical insights, such as; CO_2, temperature, lighting, presence, energy, electric, gas and water data – all based on newly installed sensors, on which Axonize guided them during installation.

The customer is already cutting electricity, and lighting costs down by 80% more than with traditional lighting automation. The plan is to reach more than 100% of their cost savings KPIs, which looks to be a reasonable KPI for the near future. Companies save 50% just by mere retrofitting, or adding new technology or features to older systems, and an additional 30- 40% with light management, ie. sensors, dimmers, daylight usage, etc., based on building conditions and usage.

Going forward

With Axonize, Ledvance is now able to offer "Lighting-as-a-Service" to their customers, as a value-add. Ledvance is now planning to adapt this model into more sports facilities, and then to scale into other customer types and industries.

According to Andreas Heyde, who is responsible for Digital teams, and Frank Blase, Lead Engineer, Ledvance is very impressed with Axonize's fast reaction time, quality of the platform and quick and thorough customer support. Now that they have real and significant results and insights, they are looking forward to scaling to other projects, and are excited to implement more of the features that they have seen possible in the Axonize platform, in the near future.

"We choose Axonize based on Microsoft references, requirements, and based on easy configuration, and flexible usage. Our decision was based on our company's strategy, which is to not only focus on smart lighting, but to have a bigger view. We are innovative and adventurists, which is one of the many reasons that Axonize was the best choice for us."

– Andreas Heyde, Responsible for Digital Teams, Ledvance