How Gilbos made a smart product by putting user experience first

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Everyone can notice the evolution towards more digital technology in products to make them 'smarter'. But how do you go about doing this successfully as a company? Let us inspire you with the Gilbos story!

How can I use digital technology in my products to provide even better solutions for my customers? And how can I successfully make my products ‘smarter’? Because these questions are on the minds of many product builders, we are organising another webinar on smart products on 7 February, where we will hear from two companies about their own product innovations. In the previous edition earlier this year, Sigurn Vandenbrande, R&D manager at machine builder Gilbos, explained what ‘smart products’ mean to them and how they went about it.

Making the product smarter is not a goal in itself

Gilbos has been building textile machines for years to produce yarn, mainly for the carpet industry, and these machines are becoming increasingly complex. At the same time, they see a decrease in the expertise of operators and the available set-up times for their machines. How could they make it as easy as possible for customers to commission, operate and maintain the machines? By

reducing downtime and operator time, their customers can produce more and reduce costs. For Gilbos, the key was to focus on the customer's user experience: by making complex machines easier to use, increasing their effectiveness.

Smart use of digital technology

To improve the user experience of their SmarTwist machines for cabling yarn, Gilbos has focused on two directions: increasing the autonomy of the machine and providing a digital user interface for different user profiles.

Autonomy here means that the machine monitors the process and the processed product (yarn) and, based on this, makes adjustments to the machine parameters itself in order to guarantee quality despite possible wear and tear or limited operator knowledge. To this end, not only many specific sensors were added, but there was also a strong focus on processing and analysing the large amounts of data generated in order to arrive at the right decision rules for adjusting the machine. Machine learning helped to draw the right conclusions from the multitude of different sensors, different machines and different machine parameters.

The digital user interface supports operators, plant managers and maintenance technicians in their task of operating or monitoring the machines, each from their own role and from their own (mobile) device. The connectivity and software architecture were built accordingly. Even more than setting up the supporting technology, it was important to create a user interface that was as intuitive as possible, and a great deal of attention was paid to this.

Develop and support products in a new way

With the development of SmarTwist, Gilbos has seen the focus of their R&D activities shift from primarily mechanical engineering to more software engineering in recent years. The driving force behind this was always the customer's user experience and the pursuit of the simplest possible solutions. The search for the necessary technology and architecture comes only in second place. Of course, the technical profiles involved in building and supplying the machines now also need more software skills than before.

For partial aspects of the innovation, such as the implementation of the user interface, the development of specific sensors for process monitoring and methodologies for data analysis, Gilbos worked together with specific partners. In order for this cooperation to run smoothly, they also considered it important to acquire sufficient basic knowledge in these areas themselves.

Positive business impact

For Gilbos, the innovation implemented has been essential to the success of SmarTwist. In addition, software is now offered as a paid-for option and not simply sold as part of the machine. But at least as important is the knowledge that has been built up by the company. The concepts developed around user interfaces and data analysis are now also further deployed and valorised in their other products.

(Source image: Shutterstock)

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