



REACHING

new markets with
a new engineering process

Digital factory solution defines innovative business process

Belgian panel builder P&V elektrotechniek makes use of an innovative business process for the development and assembly of distribution panels: 'EasyPanel'. This ingenious system makes it possible to automate the entire process, from configuration through assembly, via a web application. This is something that has never been done before. As system solution for configuration and automation in this radical new concept, P&V chose the EPLAN Engineering Center and the competence from EPLAN.

Since the company's founding in 1986, P&V elektrotechniek has focused exclusively on the construction of electrical switch panels. With this approach the company grew to become one of the most important market players in the Benelux. P&V elektrotechniek's 160 employees build both custom-made switch panels and series-produced products for industry, utility companies, OEMs, integrators and installation companies. Thanks to the EasyPanel business model, P&V is now also reaching new groups of customers.



efficient engineering.

“EPLAN has not only supported us by providing software tools, but also by assisting with the implementation and by offering advice. I consider them to be a fully-fledged solution partner.”

Ghislain Vanherle, founder and CEO of P&V elektrotechniek

CONFIGURING

electrical switch panels online

“EPLAN Engineering Center forms the beating heart of our process optimisation. And it has put us on the road to a digital factory.”

Ghislain Vanherle, founder and CEO of P&V elektrotechniek



Reaching new groups of customers

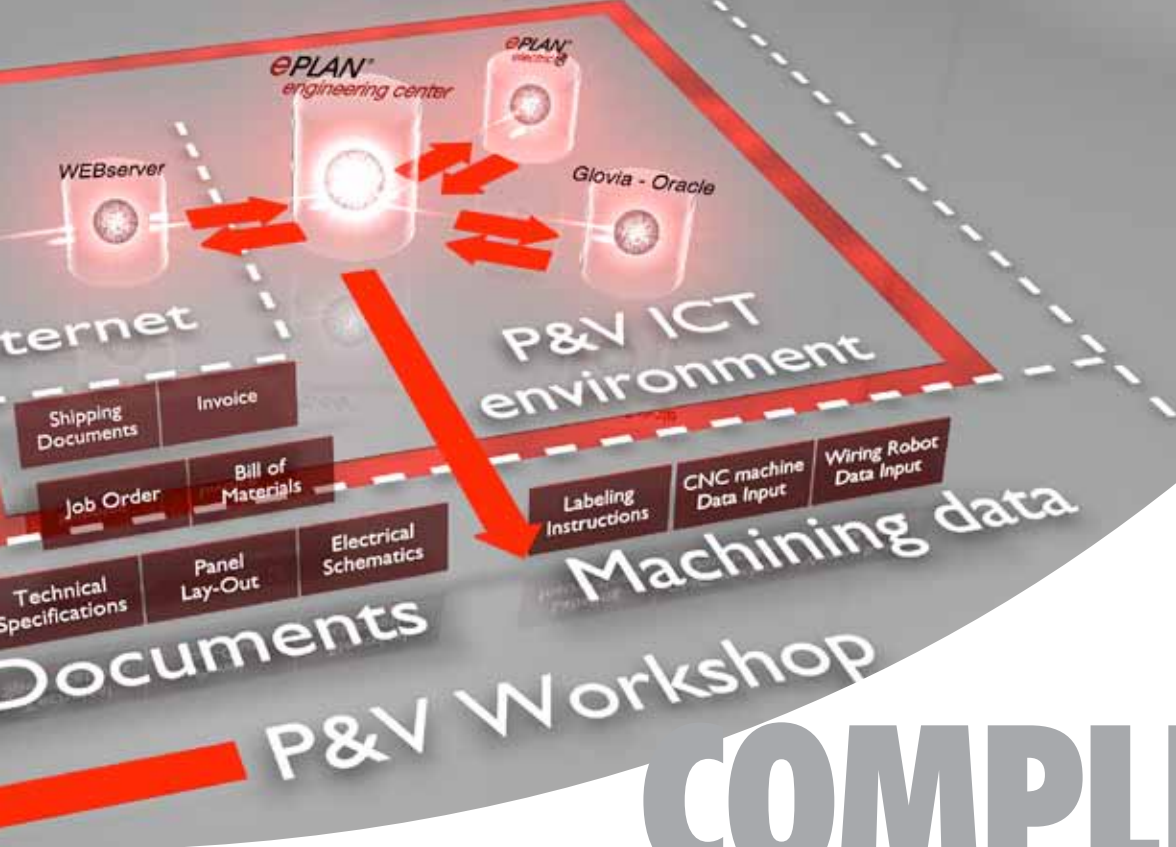
“With this new approach we are reaching a whole new range of customers”, says Ghislain Vanherle, founder and CEO of P&V elektrotechniek. “Our customers are mainly large and medium-sized businesses, machine builders and system integrators. Smaller electrical installation companies looking to purchase electrical switch panels were not included in our target market. This group is now within reach.”

New business model

With EasyPanel, P&V can now also reach smaller companies and installers. Ghislain Vanherle: “It was clear that we required a new business model to achieve this: *operation excellence*. This allows us to cater to the needs of this new target group: speed and price. For the operational implementation, we developed a web-based concept that is integrated with our fully standardised and automated business process: from request through delivery – a process that includes advanced automated production.”

The interactive process

“The process the customer walks through on www.easypanel.be is very straightforward”, says electrotechnical engineer Alain Beliën. “The customer first enters the data for his electrical switch panel online. This results in a configuration file, which he confirms with one click. The system then configures the switch panel. This data is also used to automatically calculate the price. The customer then receives an offer, a process which is also largely automated. A final confirmation is all that is required to start a fully automated process: from all the necessary documents, logistic information, and work orders to the data for the actual assembly of the switch panel.”



COMPLETELY

new

engineering model

Functional modular engineering is the central driving force

This system is based on a completely new engineering model. Ghislain Vanherle: "The people at EPLAN provided me with excellent advice. They made it clear to me that the business model required a new *technology model*: functional modular engineering. This model guarantees the full integration of all departments and disciplines. In turn, that integration opens the door to total automation. This is only possible, however, with far reaching standardization and a central engineering know-how database. So we took that step. Of course a platform was required to support that model: EPLAN Engineering Center. This is the force behind our entire business model. Thanks to this platform, we were able to make the transition from engineering-to-order to configure-to-order."

“Thanks to the solutions from EPLAN, we have succeeded in implementing a wiring robot as part of the complete business process.”

“The turnaround time from configuration to delivery has been drastically reduced to less than ten workdays. The overhead has been reduced by 17%.”

Ghislain Vanherle, founder and CEO of P&V elektrotechnik

SEAMLESS

transition
to assembly

Wiring robot performs wiring independently

For the wiring of the electrical switch panels, P&V worked with machine builder ATOS Engineering to develop an automated wiring robot.

Ghislain Vanherle: "The implementation of this wiring robot is, for me, the realisation of a long-held dream. EPLAN supplies data to the robot. This not only enables the robot to plan the routing, but also to install the correct wiring. It selects the correct tools and the correct wires, automatically calculates the shortest distance to install the wiring, cuts and strips them. Then it connects the electrical wires to the corresponding components in the switch panel. And it does this all completely automatically."

Turnaround time and overhead sharply reduced

In other words, P&V has automated the entire process: from the engineering and customer communication beforehand, to the actual assembly itself. A big step forward. Ghislain Vanherle: "We are the first company in our sector that has succeeded in automating and economically manufacturing electrical switch panels – without unnecessary costs. Furthermore, we can drastically reduce the turnaround times to less than ten workdays. These two conditions enable us to meet the needs of our new target group of wholesalers, distributors and small installation companies."

"EPLAN Engineering Center forms the beating heart of our process optimisation. And it has put us on the road to a digital factory."

Find out more about P&V elektrotechniek on www.pnv.be.

efficient engineering.



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