Interview: Artificial Intelligence joins forces with ERP—3 questions for Dr Rudolf Felix

An Unbeatable Team: AI and ERP

There is a growing interest in Artificial Intelligence (AI), including in connection with ERP systems. But the fear of the supposed black box is still real. We spoke to Dr Rudolf Felix, CEO PSI FLS Fuzzy Logik & Neuro Systeme, about why nobody needs to fear AI decisions and where AI and ERP form an unbeatable team.

Dr Felix, integrating Artificial Intelligence processes into software for industry has already been a firm component of the PSI product strategy for many years and has been tried and tested in practice for just as long. Where does the Qualicision AI software already complement the PSIpenta ERP system today?

Dr Rudolf Felix: Based to a large extent on ERP data, the optimisation of production sequences in series production is practically a classic procedure. In view of the continuing large number of variants due to product individuality and the simultaneous high volatility of the markets, a very

Dr. Rudolf Felix.

large amount of data needs to flow into the productive decision-making process—including the balancing of conflicting targets, for example, in relation to utilisation and scheduling or inventory KPIs. In addition, all of this happens in real time or continuously in order to be able to react flexibly and quickly even to short-term changes.

The interaction of PSIpenta/ERP modules and Qualicision AI has already proven itself many times over. In addition, the AI integration enables qualitative labelling and the analysis of business process data in the areas of multi-criteria supplier evaluation and analysis as well as predictive maintenance. We have software tools for this that can be combined with PSIpenta/ERP.

I can well imagine that some readers will be surprised to learn that these integrations already exist in practice—and not just since yesterday. After all, especially in small and medium-sized businesses, there are still great reservations when it comes to the use of artificial intelligence. Because the corresponding expert knowledge is lacking and no one wants to

trust a black box. Conversely, does this mean that the designated customers have AI know-how?

Dr Rudolf Felix: That is a good and very important question, as there is an urgent need for clarification here. Many and especially our AI applications can be integrated into other systems in a comprehensible and explainable way. This means that neither the introduction and operation of the solutions nor the interpretation of the software decisions require AI know-how.

By displaying key performance indicators (KPIs) and their interactions, the integrated application enables users to understand, evaluate and control all AI decision recommendations solely from the context of their business process. The fact that this form of use is Qualicision AI-supported need not be the main focus; after all, AI is also software. Only it is programmed somewhat differently than usual, namely much more by the provision of suitably prepared data. This is precisely where the qualitative labelling in our tools provides support.

Optimising production sequences, evaluating suppliers, predictive maintenance—these are the areas of action in which AI and ERP already work well together. But let's take a look to the future: what ERP functional areas do you think are also predestined for AI integration?

Dr Rudolf Felix: Basically, all processes whose data companies record and manage in an ERP system are suitable. All corresponding functional areas can also be supported

Using AI-based software in manufacturing

by ERP-centric AI—from procurement and production to delivery and after-sales tracking.

One particularly relevant future topic for many companies is certainly that they can use an integration of Qualicision AI to combine all data with classic and new sustainability parameters, such as efficiency and resource conservation, and thus consistently align processes with sustainability goals. One component is, for example, data analyses on the process-related efficient use of operating resources – linked to energy efficiency goals.

These not only have a positive effect on reducing energy consumption, but also help to fulfil sustainability criteria. All process steps and results can also be systematically tracked and traced automatically. All in all, the integration of AI will enable a new quality of ERP and further develop the management of data in the direction of ERP data-supported forecasts and active decision support.

And we are already on the right track. Thank you very much for this interesting conversation, Dr Felix! ◉

Dr Rudolf Felix founded PSI FLS Fuzzy Logik & Neuro Systeme GmbH in 1992. This company has been part of the PSI Group since 2008 and offers industrial software for KPI-based decision support, learning process data analyses, predictive monitoring and value-added production optimisation, independent of industry and context, using its Qualicision AI technology.

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PSI Automotive & Industry GmbH
Leon Knigge
Marketing and PR Officer
lknigge@psi.de
www.psi-automotive-industry.de