



COVER STORY

Individuality grows with you



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Timur Kücük, managing director of IAS GmbH explains in an interview how individual ERP processes can be used to advance topics such as digitalization and competitiveness and what significance Artificial Intelligence (AI) has for caniasERP.

Mr. Kücük, the constantly increasing networking in the context of Industry 4.0 and Internet of Things (IoT) is creating a veritable flood of data. What does this mean for ERP systems in companies? Timur Kücük: It is important that the ERP software used can process the data provided in a meaningful way. In many cases, data volumes are collected and analyzed using various cloud-based tools, and the subsequent processing takes place in the downstream ERP processes. With the help of the collected data, ERP systems can make suggestions which products should be developed or which markets should be served, because they map the business logic. The ERP can be described as an important control center where all relevant information comes together. The data is prepared in such a way that the management or the executive board can make better decisions.

And artificial intelligence? What role does it play in this context? AI technologies are becoming increasingly important in the ERP area, since it is not enough to visualize the collected data arbitrarily. Rather, it must be made tangible what these data mean for the respective business models.

Are there already AI technologies that have been integrated into your software? We are currently researching in the areas of machine learning, neural networks and also artificial intelligence. Therefore, we have now developed our own database, which runs at high performance and which our existing and new customers can use. With the development of the database, we have created the basis for the future use of algorithms and thus also of artificial intelligence. Of course, as before, customers can also access third-party databases.

Are there any other innovations in the environment of Industry 4.0? We recently started offering hardware based on ARM processors, which is installed directly on the machines. It is a mini-server that can be equipped with various sensors and linked directly to ERP modules such as production planning or materials management. It can also be linked to our „Maintenance“ module, which maps machine maintenance at fixed intervals or according to planned production cycles. In the future, it will be possible to suggest „predictive“ maintenance dates based on the collected machine data. Here again the production planning and control module is integrated, since production cannot take place during maintenance.

And the data collected at the machines, who owns them? ERP manufacturer, machine builder or the person who uses the machine? The ERP manufacturers only provide the systems that process the data. Under no circumstances do they own the data. We believe that the data should always belong to the end customers. After all, they have acquired both the machines and the rights to use the software, and for this reason they also have data sovereignty. However, there are also increasingly scenarios in which manufacturers want to use the machine data: on the one hand, to improve the maintenance processes at the customer's site and, on the other hand, to optimize their own product developments. Here it is important that there is a clear regulation of how much access machine manufacturers have to their customers' production.

To come back to the topic of Artificial Intelligence: How do you see the technologies evolving? When researchers conducted an in-

telligence test with an Artificial Intelligence in 2014, the result was 27. In 2017, the AI already achieved an intelligence quotient of 47, which roughly corresponds to the knowledge and skills of a six-year-old child. If the technology continues to develop similar to the last three years, I expect that Artificial Intelligence will soon overtake human IQ. The next step will be that AI will make independent decisions and will no longer just collect data or pass on information.

Many believe that this will also make some professions superfluous. It may indeed be that certain professions become more unnecessary in the course of the spread of AI. And since AI technologies themselves are also evolving and „intelligence“ is becoming more and more intelligent, I think that this does not only apply to „simple activities“, but that in the long term higher-level jobs could also be partially replaced by AI.

The topic of cloud computing has also occupied many IT managers for years. What is your experience in this regard with and for your customers? We have also been offering caniasERP as a cloud variant for some time now. Currently, however, there is hardly any demand for this.

What do you think is the reason for this? On the one hand, there is the security aspect, which many of those responsible always have in mind. There are many uncertainties here. For example, where critical company data is located and on which servers it is processed. On the other hand, the infrastructures in many places are still not powerful enough to guarantee smooth Cloud ERP processes. This is especially true for companies located in rural environments with little infrastructure. And with a bandwidth of 50 Mbit/s, it is hardly possible to work with CAD data via the cloud. And then there is uncertainty about how IT environments once moved to a public cloud can be returned to in-house operation if the cloud structures no longer fit in with in-house processes.

Nevertheless you have a cloud version on offer... Yes, we can also run caniasERP in a cloud environment, because we want to be prepared for all eventualities. But we advise our customers to operate in a private cloud. Because individual processes can hardly be mapped in a public cloud ERP, which is supposed to be suitable for many companies. As soon as individual adaptations are to be made at just one point, it makes

sense to operate the ERP system in-house in an on-premises or private cloud environment.

And medium-sized companies in particular have individual processes that should be mapped in the ERP system. We always want to offer our customers the possibility to adapt the ERP system dynamically and flexibly to their own processes. Markets and requirements change quickly, so agility and flexibility are required. It is not practical to simply put a standard ERP system over customer-specific processes.

Are you more concerned with outdated software when implementing an ERP project, or are many of them currently undergoing modernization? It is quite common that interested parties still use Excel files to organize their business processes. And we often find legacy systems where a change to the latest version would no longer be worthwhile because the effort and costs are close to those of a new ERP implementation. For our existing customers, it depends mainly on the size of their IT department. Customers who employ many software specialists can completely redesign the use of our system within a year and integrate numerous functions.

ERP systems often have to be consolidated as a result of takeovers ... ERP consolidations are always very complex, because, for example, master data must first be cleaned up. Here caniasERP is a suitable consolidation platform. Ac-

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quired companies can be mapped in different clients and the clients can be designed very differently according to the requirements. Besides a special consulting for consolidation we offer migration tools, for example for data import. Even before the takeover, it should be checked whether data can be harmonized in the company codes. At the latest when you want to carry out evaluations across the entire corporate group, at least the article, customer and supplier masters should be stored in a similar way.

What industries do your customers come from? We mainly serve industrial customers. However, caniasERP can be used independent from the industry. In our projects we have found out that certain processes in different industries run according to a similar scheme. Therefore similar functionalities are required. For example it does not really matter if fabric webs or steel coils are rolled up. So there are certainly parallels between coil processing in the steel industry and the textile trade. And the work steps are also similar: the products are cut, punched, rewound or printed. Last but not least, the quality characteristics and traceability of the materials must be guaranteed.

How is that for customers with locations distributed worldwide? That depends on the individual customer. For example, a central ERP installation can be used and a separate client installed for each location. This makes the handling and maintenance of the ERP system quite straightforward. Another possibility would be to establish separate databases at all locations. In this case, however, all data must be combined at the latest for the joint consolidated financial statement in order to be able to perform uniform analyses. In both cases it is advantageous that we license concurrent users.

In your opinion, what speaks in favor of individually configurable ERP software? One advantage is that individual systems tend to grow with the requirements and can integrate new types of requirements. Individual software processes also make it possible to stand out from the competition. Because if everyone uses the same standard packages, they all act equally fast and well. In the long term, not all providers will be able to hold their own. In this respect, it makes sense to stand out from the competition by emphasizing your own individuality. However, one should not completely do without standards, because they make sense for data exchange or interfaces.

Do you rather recommend a complete changeover or step-by-step ERP implementation? The conversion of individual ERP modules over a longer period of time can be very costly because appropriate interfaces must first be programmed to ensure the interaction between legacy systems and new ERP software. And these are then no longer needed after the complete implementation. The license costs for parallel operation of two databases should also not be underestimated. It is not uncommon for a step-by-step changeover to postpone the productive start of the entire system continuously. Basically, however, both approaches work.

But you think an ERP conversion in one go makes more sense? Yes, that is correct. Nevertheless, extensive test scenarios before going live are naturally part of the process. In any case, the system of choice should be thoroughly tested in advance, taking into account the fact that time-consuming trainings can cause employees to be absent for other productive tasks during this time. Training, analysis and fine specification measures should not be underestimated.

What should a company pay attention to? Sufficient time should be planned for the projects. The top management should specify the goals that are to be achieved with the new ERP system and what the change should look like. Experience has shown that if goals are clearly defined in advance, there is hardly any confusion during the course of the project. The wishes of individual departments are limited from the outset.

What role do the specialist departments play in the introduction? One sees often the tendency that specialized divisions want to hold gladly to traditional. Even if traditional processes are not bad per se, the ERP introduction should still be seen as an opportunity to put existing processes to the test and try out new ones if necessary. Of course, the processes should not adapt to the software - it is rather a matter of analyzing and restructuring your own processes. If top management withdraws from responsibility at this point, key users are in demand and, with such far-reaching decisions and also with project management, they are naturally quickly pushed to their limits.



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