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“Managing data the smart way – a matter of partnerships”

Vitro CIO Humberto Figueroa and Francisco Meneses, T-Systems Sales Director Mexico, discuss critical tasks in a growing global enterprise, ticking clocks and the increasing importance of predictive planning, production and logistics.

Time is money

With the migration of the human resources management module SAP HCM® from mainframe to SAP HANA®, Information und Technik Nordrhein-Westfalen (IT.NRW), an enterprise operated by the German state of North Rhine-Westphalia, has reduced the core payroll time for monthly salaries by 50 percent.
Mr. Ramírez, in KUO’s latest annual report, your CEO announced: “The talent of the organization should support our operations in future years”. To what extent does this expectation challenge the company’s IT?

As I often say to my team, it’s very important that we are always right behind the business. KUO is a very versatile and broad company, so we need deep, diverse knowledge. It’s about having real insights into the industries we work in and all the processes involved – just to be sure that we can create as much synergy as possible. The IT team needs to understand both the similarities and the differences between the companies within the group. And we need to be strategically aligned and able to respond to the requirements of every single business unit. We can only deliver the best possible solutions, if we have the right knowledge, understanding and people.

What’s more, I am a firm believer in shaping up for the future. This means ensuring that our team has the training and skills they will need to support, and in some ways, drive the business. So we don’t just focus on the technical side of training our talent but also on more strategic and innovative topics. That is how we want to support them to be the future leaders of the company. In installing the mindset of innovation in every single position of the IT-team.

KUO is expanding its business around the world. What role does ICT play in this success story?

When the company decided to expand outside of Mexico, one of our most creative challenges was to develop a roadmap and provide infrastructure and services that would apply globally. Whether an employee logs in from China, the US, Spain or Mexico, we wanted to ensure harmonized processes and a consistent user experience. To this end, much of our work involves process definition and configuration, particularly in our SAP landscape, since these are our core applications in which we run all our businesses. We developed a configuration template that can be rolled out across several countries.

Of course, there are differences, for example for tax and accounting, but in general, we strive to deliver the same experience for our users across all our industries and territories. We’ve developed a core operational model, so if someone switches to a different part of the business, they still use the same IT and recognize the processes. For instance, if an employee changes over from our transmission division to work in
our pork division, the experience in IT-services and using the applications is pretty much the same. At the end of the day it’s IT that gives you the chance to work in really all areas of the company. And that’s why IT at KUO sparks a special passion. Of course the processes are different whether you are part of a perishable food supply chain or being in charge for automotive supply but on the IT side, it’s the same work. That way, you can deliver much faster and share knowledge and create a similar experience for everyone too.

When KUO embarked on its digital transformation in 2016, what was your initial motivation for partnering with T-Systems, in particular with regard to your transition from a traditional approach to a cloud model?

After our initial analysis and creating a digital agenda for the group, we soon realized that transferring operations to the cloud would be a major and valuable part of our journey. Thinking about the future of the company and where we’re headed, we wanted a more flexible approach. We sometimes need to ramp up capacity from zero to 10 in a short space of time, and scale back down again quickly. So we wanted to define a strong cloud architecture that supported this level of flexibility, as well as pay-per-use pricing and the inbuilt security we’d expect.

Another key decision factor was service levels. We needed a partner that really understands the differences and implications of having varied service levels. So not just saying ‘we offer 99.99 percent availability’ but really understanding what this means and how to deliver it in practice. We also wanted a flexible financial model that offered pay-per-use and excellent scalability. Once we had selected three finalists, we started to look at other factors, too. For instance, it was important to have a partner that really understood the meaning of mission-critical operations. In the end, this was the main differentiator: T-Systems didn’t just deliver a solution, but really grasped the importance of running business-critical applications.

So once we had opted to partner with T-Systems, we began to work strategically on our innovation and digital transformation agenda. This involved a three-day workshop for senior executives where we explored industry trends and held conversations about the modern workplace and how it is changing. We also focused on how digital transformation generates business value and how we can harness this value for our company. Throughout the entire process, cyber security was one of our top priorities. We needed to train our executives to ensure they can protect our crown jewels in terms of our valuable business assets.

What’s been your experience of running services on a central technology platform (DSI) for your SAP and non-SAP applications over the last two or three years? How has security been affected?

First of all, I can confirm that we definitely made the right decision in moving all our operations to a T-Systems cloud. Not only does T-Systems have the necessary experience to host both our SAP and non-SAP environments, but the provider also offers expertise in operations, processes and SAP basis. That is a significant benefit for us.

One of the primary concerns for our senior executives was security. Previously, we’d run everything from our data centers, so we had more direct control. When you move to a multi-cloud environment, the
security threats multiply too. As everything can be impacted by a cyber security attack. But we have discovered a whole new level of security since teaming up with T-Systems – our landscape is much better protected than before, putting paid to any concerns our senior management may have had.

**How far has KUO’s digital transformation progressed? What’s coming up next?**

We’ve been working through our digital agenda since May 2018. And we’ve realized that T-Systems has a lot to offer and can contribute to our success stories. It’s a global company with knowledge, capabilities and experience in a wide range of industries and technologies. For example, we’re exploring the Internet of Things (IoT), Industry 5.0, new ways to manage inventory and 3D printing, and discussing how these new technologies can help us solve new challenges today and tomorrow. As we enter a new generation of business, we need to respond with new solutions and innovations that will help us stay ahead.

**When it comes to PLC at your production plants, what role do predictive technologies and IoT play in your processes with regard to the reliability of your infrastructures?**

Over the last few years, we’ve been introducing applications that aid decision making and data harvesting. We now need to find ways of turning this information into insight. We have access to the data, but we are only just beginning to explore its true potential and value for the business.

Traceability, for instance, is becoming a hot topic in many of our industries – automotive, chemicals, and food for example. Developments like this put pressure on IT and present challenges. But as new technologies and solutions become available, we can leverage them to respond to trends and generate value. And this is where we need the input and expertise of our partners. Our IT team of 70 colleagues may be relatively small. But our partnerships make us stronger.

**What do you expect from an IT provider in terms of supporting you as the company changes and evolves?**

Since we work across so many industries, countries and cultures, our partners needs to be aware of and respect the differences across our business units. We need a provider that can really listen and try and understand our needs and our remarkable diversity, one that really wants to learn about our business. We can’t possibly know and understand all the solutions available so we rely on T-Systems for support. They’re the experts in their business but we’re the experts in ours. Together, we can create synergies and dedicated measurable value.
KUO-CIO Adrián Ramírez holds an Information Technology Engineering degree from La Salle University and is a member of the Singularity Chapter Mexico after his participation on the Singularity University Executive Program in 2017. Mr. Ramírez has more than 30 years of experience on IT and did join Grupo KUO in 1989 in a part-time scholarship program and continued in different positions. In 2004, he took the position of CIO and in 2014 the position of CIO & Shared Services. He was named CIO of the Year 2010 by Information Week Mexico.

FACTS & FIGURES
Grupo KUO is a leading industrial conglomerate in Mexico, with annual sales amounting approximately USD $1.8 billion as of December 31st, 2018. The company exports to around 70 countries across every continent and employs approximately 23,000 people. Its current business portfolio includes three sectors: Consumer, Chemical and Automotive.

The Digital Transformation of the Mexican KUO conglomerate are the daily topics of conversation for CIO Adrián Ramírez and T-Systems Key Account Executive Maricarmen Torres.
Perfect Turnaround

In just two and a half months from paper documents to state-of-the-art SAP from the T-Systems cloud: What Fraport AG has achieved with its two Brazilian airports is a precision landing.

In the aviation industry, it is a showstopper even for professionals – the turnaround. Experts use this term to describe the period between “on-block” and “off-block”, i.e. the period between the aircraft coming to a standstill at the passenger bridge and the next flight being uncoupled. Whether it’s just dozens of passengers boarding and alighting or more than 500 – in other words, does the aircraft hold its parking position for just 30 minutes or two and a half hours – during this time the jets are refueled, cleaned, checked through, unloaded, loaded and so on. A meticulous interplay of perfection. Here every move that needs to be made, has to work like clockwork, and in a breathtakingly short time, Fraport AG, SAP and T-Systems have now achieved a similarly virtuoso interplay. They achieved an equally masterly turnaround and switched from old-fashioned paper processes to the most modern world of business solutions in record time.

The start: Airport operator Fraport AG is not only a national player, but also internationally active. For example, the Frankfurt company has stakes in Antalya Airport in Turkey, Lima Airport in Peru and the Bulgarian airports of Burgas and Varna. Two years ago, Fraport, which is listed in the MDAX, also took over Porto Alegre and Fortaleza, two Brazilian airports, and immediately started modernizing them. Especially in the IT landscape, the turbines needed new momentum.

Both airports, Porto Alegre and Fortaleza ranked 4th and 10th among Brazil’s 30 largest airports, had no ERP system of their own to date. As part of business process outsourcing, an external service provider handled business processes such as purchasing, invoicing and payroll accounting and also taxed external service providers. For the employees, this meant a lot of manual work on paper and, as a result, a high susceptibility to errors in the process engineering. “That’s why our goal was giving a modern system is in the hands of our employees,” explained Rafael Augusto da Silva, Head of SAP Applications at Fraport in Brazil.

“S/4HANA gives us more agility and mobility. And it reduces the susceptibility to errors.”

RAFAELO AUGUSTO DA SILVA, Head of SAP Applications, Fraport Brazil

The cruising flight: From the start of the project to the take-off of the productive system, just two and a half months passed, a turnaround that rarely happens so quickly in implementation practice. And that even though Fraport relies on one of the most modern ERP systems with SAP’s S/4HANA®, which is not
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I Sven Hansel

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The introduction of the SAP system gives us more agility and mobility. And it reduces the susceptibility to errors, for example in tax settlements,” says Rafael Augusto da Silva. Quarterly reports can now be generated within three days. And in addition to optimized cost and profitability evaluations, structured business information is now also available in real time. S/4HANA not only covers pure financial processes, but also supply chain and purchasing applications.

Conclusion: Perfect turnaround in record time thanks to modern methods used virtuously by “pilots” and “ground crew”, a precision landing.

The landing: From day one, 70 users worked on the system from the secure T-Systems cloud in a Brazilian data center of the Telekom subsidiary, today it counts already 115. *The introduction of the SAP system gives us more agility and mobility. And it reduces the susceptibility to errors, for example in tax settlements,” says Rafael Augusto da Silva. Quarterly reports can now be generated within three days. And in addition to optimized cost and
Open Heart Surgery

When a group of hospitals like the Steiermärkische Krankenanstaltengesellschaft changes its central hospital information system (HIS), one thing above all has to happen quickly. After all, a prolonged outage would have dramatic consequences.

Whether it’s patient admissions, room occupancy, OR management or medical and nursing documentation – in the age of digitization almost all processes in Austria’s hospitals are IT-controlled. It is therefore not necessary to be an IT expert to imagine the dimension of the project that Steiermärkische Krankenanstaltengesellschaft mbH (KAGes) was faced with at the end of 2017: a complex conversion of the central components for all eleven hospitals at 21 locations and four regional care centres of the network – not step by step, but in one night.

NO LONGER FIT FOR THE FUTURE

There were several reasons for switching IT: Since 2002, KAGes has been using i.s.h.med, a hospital information system integrated into SAP that offers doctors, nursing staff and administration a variety of functions for planning, documenting, coordinating, communicating and evaluating. “i.s.h.med is already a significant step towards a paperless hospital,” says Karl Kocever, Head of IT Infrastructure and Administrative Systems at KAGes. However, what the hospital network has not been able to sufficiently map so far is the Electronic Fever Curve, where all patient information relevant for treatment will be digitally collected in the future. “In order to be optimally prepared for the implementation of this project, a conversion to the latest release of SAP/i.s.h.med was indispensable,” says Kocever. On the other hand, the hardware and the Oracle database used to date reached their capacity limits. In order to accelerate processes and be able to deliver key figures in real time in the future, it was therefore logical to switch to the SAP HANA in-memory technology – also against the background that SAP will no longer support any other database with its software from 2025. By then at the latest,
it would have been time for KAGes to say goodbye to its Oracle environment.

"Instead of walking step by step towards the future, KAGes took the big leap," summarizes Günter Gössinger, Service Delivery Manager at T-Systems Austria. In concrete terms, this meant setting up the necessary new hardware, converting the database to Unicode, migrating to SAP HANA and upgrading the version of the SAP system to EPH8 and i.s.h.med to SP14.

MINIMAL DOWNTIME

Said, done: At the end of 2017, the team of experts from KAGes, SAP and T-Systems met for the first time to work out a plan for the mammoth project. The biggest drawback: According to SAP estimates, the changeover would require a downtime of more than 50 hours in the production system if the individual steps were carried out one after the other. More than 50 hours no insight into patient histories, no data acquisition, no documentation, no planning – unthinkable for a hospital network like KAGes with almost 18,000 employees.

But the team from Walldorf had an option: a “Minimize Downtime Service”. After an initial analysis by SAP, this procedure makes it possible to reduce the downtime of the HIS system from over 50 hours to ten hours. How? The team would carry out the project using four different IT environments: an SAP HANA target system, on which the legacy SAP system. On the one hand, users were able to continue working on “their” system as usual during the migration project; on the other hand, the legacy system twins offered the team the opportunity to carry out the necessary tests during the project phase without restricting productive operation. "Of course, working with double bottom also had another advantage," Kocever explains. "In the worst case scenario, it would have been possible to return to the old environment at any time – this considerably reduced the project risk for us."

PRACTICE MAKES PERFECT

After several months of intensive preparations, the project finally culminated in October 2018 in the actual conversion of the database and SAP system, which lasted several days. The team proceeded step by step: "In the run-up, so-called triggers were set on the database in the legacy system," explains Gössinger. "In this way, during the subsequent switch (downtime phase) to the new system, we were able to trace exactly which changes the users had made to the legacy system, i.e. which data we still had to transfer afterwards."

"Of course we practiced the individual steps of the conversion x-fold," recalls Kocever. "A few weeks before the big go-live, we also had two meticulously planned and fully played out dress rehearsals in Graz," says Kocever. "Luckily – because the rehearsal was not without difficulties." The project manager answers the question of whether this didn’t cause him stomach ache in the negative: "On the contrary. These small hurdles made us stronger. Because we now knew that this wouldn’t happen to us again in the premiere."

SPOT LANDING AT NIGHT

In the night from 5 to 6 October the time had finally come: The old system was switched off. During the downtime, during which the users no longer had access to the system, the team transferred all the changes that had been made from the old system to the new one. The restart procedure was also carried out according to a precise plan and it was only after several tests that the users were finally allowed back onto the system – with success.

"Of course, we were all relieved that we were finally able to complete the project on time and within budget," sums up Katharina Proske, Head of Sales Public and Healthcare. "Although we have been supporting KAGes’ central HIS system for many years and are very familiar with the systems and processes of the hospital network, a project of this magnitude is not an everyday occurrence at T-Systems." Kocever also draws a positive conclusion: "The project has once again shown that it is very important to have a functioning team. The cooperation between SAP, T-Systems and our people went extremely well, and it was a great pleasure for me to successfully complete such a project within the tight timeframe. In short: Surgery successful, patient alive". 

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T-Systems receives SAP Service Partner Excellence Award 2020 for Partner of the Year

"As a global market leader for SAP application operations, we provide end-to-end support for businesses that use SAP solutions, also during the SAP S/4HANA transformation. In doing so, we rely on a multi-cloud operational approach and our own Cloudifier methodology. Together with SAP, we are making partner managed cloud an important element of our SAP value proposition for the EMEA North Region."

Elena María Ordóñez del Campo
T-Systems SVP SAP
Blazing a trail through the subsidy jungle

All told, the EU spent around 58 billion euros on agricultural policy and rural development in 2017. For many German farms, these payments are a vital source of income: around 6.5 billion euros in EU agricultural subsidies will be going to German farmers between 2014 and 2020. Distributing the funds is a daunting bureaucratic task for Germany’s states. Hesse, for its part, aims to tackle the challenge in the future with a special SAP-based cloud solution.
The sleepy town of Nidda is only one of Hesse’s 524 municipalities. Straddling the Nidda River, this quiet community in rural Wetterau County is home to over 130 farms that received EU agricultural subsidies in 2017. Nationwide, Brussels paid subsidies to around 300,000 farms: from part-time farmers to big agribusinesses to producer associations who raise pigs, milk dairy cows, cultivate grain or grow fruits and vegetables.

Applying for subsidies can be complicated, however. There are 40 different processes, each with its own logic, architecture and system. To make matters worse, the underlying EU regulations are constantly changing. An IT system can only handle this kind of complexity if it is sufficiently powerful and flexible enough to adapt quickly to changes.

To meet this challenge, the Hesse Bank for Economic and Public Infrastructure Development (WIBank) decided to migrate its system for distributing agricultural subsidies to an SAP-based cloud software system. The software integrates a variety of business applications for digitally performing around 20 different funding procedures from the two primary funding programs of the EU’s Common Agricultural Policy (CAP).

CERTAINTY FOR FARMERS
“Farm subsidies aren’t just extremely complicated; they’re also closely watched by the public,” says Gottfried Milde, Chairman of the Executive Board at WIBank. “Hessian farmers need certainty and financial resources to make essential investments. They count on receiving their subsidies on time.” The bank, a member of the Helaba Group, operates subsidy programs for Hessian companies, entrepreneurs and individuals and helps them tap state, federal and EU subsidies.

The subsidy programs can be hard to navigate and, to make matters worse, each of them calculates funding needs differently. The European Agricultural Fund for Rural Development (EAFRD), for example, pays out 1.35 billion euros alone to encourage sustainable, environmentally responsible land management and rural development. During the 2014–2020 funding period, Hesse is slated to receive around 319 million euros out of the EAFRD budget.

Another five billion euros is available from the European Agricultural Guarantee Fund (EAGF). This fund pays every farmer an average of 281 euros in income support for each hectare of land. These payments make up an estimated 40 percent of farm income in Germany on average. In exchange, the EU requires farmers to meet environmental and animal welfare standards.

DIGITAL FUNDING WORKFLOW
The new software manages and controls the entire subsidy application workflow: from application completion to calculation to payment. To accomplish this feat, the software provides 20 business applications for the EAFRD and EAGF funding programs alone – including selection and verification modules, interfaces to electronic applications and geoinformation systems. Security is strict, meeting the rigorous standards applied to banks and public administrations. The SAP-based platform will eventually support all relevant subsidy programs – from simple municipal funding processes to complex systems for the entire state or country.

“SAP has several proven base structures that lend themselves well to managing subsidies and incentives. At the same time, our platform is ready for HANA and supports state- and domain-specific modifications,” says Uwe Ackermann, project manager at IBYKUS AG, the company that developed the solution. The software goes through the subsidy process in a standardized, yet personalized manner, dramatically lowering the administrative costs of subsidy management. All told, nearly 600 bank and government employees use IBYKUS’s new SAP system, which runs in the T-Systems cloud in order to ensure that WIBank has enough scalable, highly available data center resources at its disposal.

REALITY OF E-COHESION IN HESSE
The new, customized cloud solution streamlines the processes even more. “To continue paying out subsidies as promptly as our farmers expect, I need a solution platform that provides maximum flexibility and reliability as well as a clear scaling strategy,” says Milde. “The solution simplifies processes and speeds up processing times,” Milde adds. “At the same time, we greatly reduce employee workloads and provide better service for our farmers. In Hesse, the kind of e-cohesion that leads to balanced, sustainable territorial development is more than a buzzword; it’s our reality.”
“Managing data the smart way – a matter of partnerships”.

Vitro CIO Humberto Figueroa and Francisco Meneses, T-Systems Sales Director Mexico, discuss critical tasks in a growing global enterprise, ticking clocks and the increasing importance of predictive planning, production and logistics.

Mr. Figueroa, Vitro has been advancing glass technology for more than a century. How has ICT contributed to this success story?

ICT has been critical in many ways, such as for the growth and standardization of our operations. We wanted to adopt a standard model of operations and we selected SAP to do that. We invested a lot of time in deciding on, defining and aligning rules and structures for a new Vitro model to be implemented in the new system. Now we have the same charter of accounts in all our businesses, so our financial team has an integrated overview of all the companies. Part of the challenge was that we have several businesses (cosmetics and pharma containers, automotive glass, architecture, mining and a metal-mechanic business). Meeting the diverse requirements of these businesses within a single SAP instance was far from straightforward.

The transition took two or three years; we consolidated five or six different systems into just one. Now, we only need to implement new functionality once, rather than five or six times.

We integrated effort and centralized our systems and were able to organize our IT group by processes, rather than by businesses. Now, we have central IT teams with horizontal responsibilities, such as R2P (Record to Report), H2R (Hire to Retire), O2C (Order to Cash), P2P (Procure to Pay), F2I (Forecast to Inventory) and Business Analytics teams that take care of everything for all businesses and regions. We also created a shared service center that enabled us to provide back-office services to the rest of the company.

Being able to digitize and centralize all the back-office processes is one of the main benefits and it has helped us to improve efficiency.

**Vita**

Before Humberto Figueroa was appointed Chief Information Officer of the glass manufacturer Vitro in 2007, he worked as a CIO for the airline Aeroméxico. After studying computer science in Monterrey and completing an MBA at the University of Texas at Austin, he initially worked at telecom service provider Avantel in various senior IT management roles before moving on to become Infrastructure and Operations Director for Nextel, the US mobile operator.
To achieve all of this, we also centralized communications, networks and data in a single data center; this gave us a high level of reliability, and redundancy on a secondary DRP data center.

The company is growing very fast, particularly in strategic terms. What do you expect from an ICT provider to keep up with this speed?

They need to react fast, and we need flexibility to help us scale. We want to make our model more rich and powerful and achieve synergies as we acquire different companies and grow. We have to be fast to react and integrate new companies quickly so we can benefit from synergies.

That’s a good keyword. With regard to mergers, your CEO Adrián Sada Cuevas says “the priority is on integrating new businesses with the existing businesses in the shortest possible time to harness economies of scale, maximize competitive advantages, and share best practices”. How does Vitro IT deal with this pressure?

In the last 18 months, we acquired two big companies in the US – an architectural glass company and an automotive glass producer. This means we have increased our footprint and become one of the largest glass manufacturers in America, so we are very relevant in the US market and have more than 20 plants. One of our goals is to help achieve synergies from these acquisitions and support the business case in a very short period of time.

We launched more than 30 projects for the first case in order to reach these objectives, and we had a timeframe of only 12 months.
As soon as the merger agreement was signed, the clock started ticking for us to execute these projects. We needed to migrate the new business to our systems. We wanted to provide our own services and migrate all of the new company’s systems to our own infrastructure, which is run by T-Systems.

Moreover, as part of that project, we needed to consolidate network services and data in our data center in Houston, which is also operated by T-Systems. This was a critical task because without transferring all these systems, nothing would have worked and we wouldn’t have been able to provide access to SAP or even migrate employees from the acquired company to the Vitro email server. This project last year was very challenging, but it was also a real success, and we were very happy with it and with T-Systems. We were able to reach our go-live targets. It took a long time to migrate everyone – around seven months – but we did it.

We achieved synergies and were able to reduce IT operation costs. At the same time, we had to work closely with our new colleagues in IT at the companies we had acquired; we needed to make them part of our team for the projects to be successful.

What was the initial driver for Vitro in 2017 to renew the outsourcing deal with T-Systems that included Dynamic SAP services, desktop services and network management services?

We needed a solid partnership with someone that we knew and trusted, who could help us achieve our synergies quickly and efficiently. The first project we executed with T-Systems was an SAP hosting project back in 2010 where we migrated our on-premise SAP systems in Latin America to T-Systems Dynamic Services and implemented a completely dynamic pay-per-usage model. We achieved savings and performance goals, and were able to run the system faster than when we ran it on our own premises. This contract was set to expire in 2017/2018.

In 2016, ahead of the mergers, we had already developed a very strong and positive relationship with T-Systems; they were also achieving excellent compliance with agreed service levels. As a result, we asked them about extending the existing contract to include the new subsidiaries. It made sense to extend the contract so we could focus on the migration and acquisition.

We have created a ‘OneIT’ program, which means we have to be able to provide the same quality of IT services that we have in Mexico
to all Vitro companies around the world. Against this background, it made complete sense to us to stay with T-Systems.

When it comes to innovations related to the glass industry, what role do predictive planning, predictive production and predictive logistics play for Vitro?

It’s already very relevant, and it’s becoming more and more so. We have over 100 years of expertise and large volumes of data from our production lines, and we started to ask ourselves what we could achieve with all that data. As a consequence, we have launched initiatives to analyze that information and start playing with it so we can pinpoint root-cause problems with quality, yield, performance and so on.

The amount of information Vitro gets access to increases day by day. To manage this data, you need transparency, seriousness, order and agility. How do you ensure these vital values are in place?

This is a matter of partnerships. We maintain a partnership with a company called OSIsoft; all of the sensor data that is created in our plants is stored in their systems, and this enables us to analyze and present this information to the plants and operations teams to aid their decision-making. Based on this data, we can also create dashboards that we can show to top management.

We are building an architecture layer to ensure we have real-time production data that we can provide to our businesses or operations teams – or send out to the cloud for further analysis, depending on the specific problem we want to solve.

To predict the life cycle of Vitro products is one thing. Another thing is the life cycle of your manufacturing infrastructure worldwide, particularly the dozens of very expensive furnaces. How do you protect these facilities?

We have a solid, well-designed maintenance and repair process that we review annually, so that we can maintain the quality of our equipment and extend the life of those assets. In our SAP model, we have created a manufacturing and maintenance model that allows us to evaluate the maturity process for all maintenance operations, such as how many repairs are done correctly, urgently, predictively or independently. We use this model to evaluate how plants are performing in this regard.

Electric and self-driving cars are topics that concern all of your automotive customers worldwide. Players such as Daimler, Ford, Mazda, Toyota and Honda, to mention just some of them, must be taking note of how Vitro is increasing its competitive advantage in their industry. How do you make your choice (in terms of IT), bearing in mind that there are many potential innovation partners you could consider?

We’ve been working with OEMs for a long time. We currently provide advanced technology windshields and glass parts, with the specific capabilities that OEMs are requesting. Many of these innovations are jointly designed with the OEMs, to improve the quality of the antennas, components or the glass, for example.

We have various ways of integrating innovative ideas into our business. For example, through our acquisition of the Flat Glass business, we gained access to a very strong R&D division which gives us a competitive advantage. Moreover, our IT organization has a relationship with an incubator in Silicon Valley that connects us to startups in various fields, including mobility and new materials. We talk to them to see what they’re doing and explore how we can help – for example, in making cars lighter.
Today, we already see low-e glass installations in residential and commercial architecture, as well as in windshields and sunroofs. What’s going to be the next big thing for solutions in the glass industry?

We have talked to T-Systems and their innovation group to generate new ideas, not just for automotive but also in other areas of our glass business. We explained to them our challenges regarding sensors or developments for augmented reality, for instance – and we recognize that they can deliver ideas and innovative proposals that could really help us. In that sense, it is definitely an advantage to know us as a company and understand our business processes as deeply as T-Systems does.

The company
Founded in 1909, today Vitro is one of the largest manufacturers of glass products worldwide. Vitro’s companies produce, distribute, and market a wide range of glass articles, which are part of the daily life of millions of people in 58 countries.

We have over 100 years of expertise and large volumes of data from our production lines, and we started to ask ourselves what we could achieve with all that data.

We launched more than 30 projects for the first case in order to reach these objectives, and we had a timeframe of only 12 months.

From the IT perspective, I think data will play an increasingly key role across the manufacturing industry; in fact, this is already happening. How do we get data from our product that we can leverage, for example, to provide services or maintenance, or to understand how our product behaves once we deliver it?

This is also part of becoming a digital company, which is challenging in manufacturing as we don’t sell to the end consumer. So how do we connect with and access data from those endpoints that can help us enhance our processes – and by extension, our products? To put it simply: whatever the next big thing will be for the glass industry, IT will surely play an integral part.

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**Time is money**

With the migration of the human resources management module SAP HCM® from mainframe to SAP HANA®, Information und Technik Nordrhein-Westfalen (IT.NRW), an enterprise operated by the German state of North Rhine-Westphalia, has reduced the core payroll time for monthly salaries by 50 percent.

**COPY — Roger Homrich**

It may be a new record: Once a month, the State Office for Salaries and Benefits of North Rhine-Westphalia processes around 676,000 transactions for its officials, public employees, and pensioners. This makes the "payroll" office in Düsseldorf the largest public payer in Germany – and the second-largest in the world. The process has proven to be time-critical, since each of the approximately 279,000 officials and nearly 400,000 salaried employees and pension beneficiaries want their money in the bank promptly at the beginning of the month.

Until now, IT.NRW has relied on SAP’s HCM (Human Capital Management) module in its role as the state’s IT services center. The module has been running on a mainframe architecture largely without issue for years. However, the mainframe was slow and laborious to operate and maintain, which ate up time and money. Too much time and too much money, IT.NRW determined, using an expiring maintenance agreement as an opportunity to switch to a system based on an x86 architecture that was both faster and lower-maintenance. At the same time, the IT experts at IT.NRW switched SAP HCM to in-memory computing with SAP HANA. The result is impressive: The core payroll time each month was reduced by 50 percent.

**NO DATA LOSS AND MINIMAL DOWNTIME**

"With SAP HANA, we have the possibility to optimize the application and use analytical methods that were not available before," said Dr. Jan Mütter, head of IT Solutions at IT.NRW. Yet migrating to new systems is not the popular choice because the transfer of data from the old to the new system in particular pose risks. Data migration takes time to avoid data loss and other problems. There is also an inevitable downtime period that needs to be as short as possible.

"What we have accomplished is not commonplace in IT," conceded Dr. Mütter. "Together with T-Systems and a standard SAP tool from SNP, we were able to meet the 16-month changeover time and not exceed the planned costs – so, on time and on budget." Even the actual migration went smoothly over a single long weekend. For North Rhine-Westphalia’s State Office for Salaries and Benefits, the switch has also paid off in terms of costs. As Dr. Mütter explained: "The amortization period was just one year, since the considerably reduced maintenance costs in particular quickly offset the investment in the new hardware and software architecture." Clients of the State Office have noticed no change from the switch to SAP HANA: Officials and pensioners received their payments as usual, and families, with a total of over 206,000 children, received their child benefits right on time.

For its almost 700,000 monthly payments of salaries and pensions, the state of North Rhine-Westphalia upgraded to cost-saving in-memory computing.
We are aware of our responsibility

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With the T-Systems-Jump-Start-Offer, companies can book a starter package that meets their needs and try out the comprehensive options of SAP S/4HANA®, SAP Leonardo, or hybrid cloud scenarios without obligation and at a reasonable cost.

More information

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