"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.

INTERVIEW —— Thomas van Zütphen

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 straight-forward.

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 Aeromexico. 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.

Photo: Palmer Hargreaves GmbH

14,817

Employees

2.07

billion USD consolidated sales 2017

More than **30** subsidiaries in the Americas, Europe and Asia

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 Cueva 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.

Rear windows, windscreens and sunroofs are Vitro's most important business segments as an automotive supplier.

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 correctively, 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.

Strategic growth. With the acquisition of the US company PPG, Vitro significantly expanded its international market position in the field of architectural glass.

Vitro-CIO Humberto Figueroa is convinced – for future product innovations of the glass industry IT solutions will become an integral part.

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 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.

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?

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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www.t-systems.com/solutions/predictive
www.vitro.com/en

www.t-systems.com/video/vitro

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