Leo Brand talks to Pedersen & Partners about the Digital Transformation of Vopak's global bulk storage business, and the impact on talent acquisition and retention

Leo Brand CIO Vopak

A successful digital transformation requires the repositioning of IT in the organisation; IT must evolve from a cost centre into an integral part of the value chain. Many asset-heavy companies transform into "technology" companies, where data replaces many of the assets previously listed on the balance sheet, drives customer experience and allows the creation of new business models. As a result, many formerly outsourced or "bought-in" IT functions and solutions are brought in-house.

In this series, we talk to IT leaders across a range of industries about how the choice between "making it" versus "buying it" has affected IT in their organisations, the interactions with business stakeholders, and the impact on talent acquisition and retention. ▶

Leo Brand is the CIO of Vopak, a 404-year-old Dutch company which has grown into the largest independent provider of liquid bulk storage tanks. Vopak is active in 86 terminals in 28 countries across the world and generates revenues of EUR 1.3 billion (excluding joint ventures). When Leo joined Vopak in 2014 as their CIO, he kickstarted an ambitious and highly successful digital transformation. Under Leo's leadership, Vopak became the poster child for digital transformation in the Netherlands, and for its industry globally. The company aggressively rolled out Industrial IoT, automated its port operations with bespoke robot and drone designs, infused its processes with end-to-end data gathering and processing capabilities, and significantly altered the ways it sourced, produced and serviced IT and operational technology. ▼

I remember one of your presentations explaining that one of your Digital Transformation goals was minimal human employment in your harbour and terminal operations, and how ambitious this goal seemed at the time.

That goal is still a dream, but we have made significant progress towards it. We now conduct storage tank corrosion inspections by flying autonomous drones that are equipped with AI and machine vision software over our harbour infrastructure – previously, we needed human inspection teams to walk around and climb into the storage tanks. We are also building and testing robots that go inside the tanks to inspect and clean them. ▶

The aim is to replace the human teams that enter the tanks in astronaut-type outfits to do this work, making things safer for our staff and contractors. The Covid-19 situation necessitated remote working, and this has undoubtedly accelerated many processes which are moving towards the automation of functions that a few years ago we believed only humans could do. People now recognise that tasks can be done remotely without sacrificing efficiency or productivity. ▶

Interview Team: **Peter D'Autry** Partner
Global Head of the Technology & Digital Practice Group

Interview Team: **Figaro den Hollander**
Client Partner

TRUST – RELATIONSHIP – PROFESSIONALISM

How did you decide to build technology in-house?

The technology services and products that we build ourselves cover all the processes that allow us to strategically differentiate our services to the customer. These services are focused on the storage of large quantities of oil, gas, chemicals, and vegoils in the harbours. We do not build the tech for processes that do not differentiate our services; for example, we use an Oracle SaaS platform for finance and procurement. However, even when we do not build the tech ourselves, we still work to improve the technology in these departments. In finance, we centralised financial activities through global standardisation using an SaaS solution, and deployed software robots to automate much of the admin work. This meant that we were able to reduce 30% of the workforce globally. ▼

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We are the largest independent service player in the global liquid storage business. Our logistics services are linked to operational bulk storage with different modes of transport such as train, ship, barge and truck; and we provide additional services on top of the existing ones. This is where we design and develop the technology in-house; I will never, ever outsource that, or buy it in.

After we built our in-house infrastructure, I got offers from other companies in the sector. They wanted to buy the software applications that we developed ourselves, but we refused because those products and services are key to our competitive differentiation.

This thinking about differentiation drives our choices relating to converged IT/OT architecture. We needed much more flexibility and adaptability in our architecture for our digital transformation strategy to succeed. Moreover, there will always be new players with newer and different architectures, making it harder to compete with legacy architectures. ▶

Therefore, we made the bold decision to phase out our industry standard ERP system, JD Edwards, and build our own ERP on a RAD platform from Outsystems with the first terminal operational in just over one year. This was not easy, but the architecture has been conducive to our commercial success and competitive differentiation over the last few years. ▼

> *"(…) we could potentially address inefficiencies of up to USD 190 billion per year in the global supply chain for dry bulk, liquid bulk and containers."*

We are looking into the "Uberisation" of storage tanks, in which we would rent or lease storage tanks owned by our clients to other industry players, although the "Uberisation" metaphor is too general. Uber's business model is many-to-many while ours is few-to-few – as a result, ours is a much more transparent market, and the market forces are very different. For example, a few phone calls will connect you with all major players and stakeholders in this business in Singapore, while that is just impossible with Uber.

Nevertheless, there are many parties required to make operational bulk storage happen, and data exchange is necessary to make that work. We use data to set up platforms which will allow for seamless interaction between industry players and can lead to significant cost savings; we could potentially address inefficiencies of up to USD 190 billion per year in the global supply chain for dry bulk, liquid bulk and containers.

The interactions between parties in our business can be very old-fashioned, with some still using fax machines. We have a vision of how our platform should evolve in 2020. It will be community-based, not a single large technology company collaborating with a large global logistics player on a platform functions as a toll bridge for all other competitors in the sector. Nobody would feel secure managing their own data through a competitor's platform.

In the end, people across our sector trust us to store their products and data. We run our business independently, invest in digital technologies and link all parties – from transporters to stakeholders such as customs brokers, banks and insurance companies – into our real time data streams. ▶

How do vendors adapt to clients who start to build their own infrastructure?

"Vendors" covers a very broad spectrum. Let's look at technology and management advisory firms. I used to be a consultant myself, at AT Kearney. Consulting companies will have to adapt; they must adapt, or they will dither into irrelevance. One thing is sure: the value that consulting companies provide will decrease rapidly if they do not develop and integrate technology for their customers.

I no longer listen to consultants with a general background, if they do not have expert knowledge on my industry. I see consulting firms changing rapidly; one of the largest management consulting firms recently hired 1,500 data scientists, who inevitably bring a culture change along with a completely new skill set, coming to work in jeans and sandals. Another trend is that more and more, we require consulting firms to commit to results, with the pay-off only realised when the promised benefits materialise.▼

> *"Corporate Venture Capital funds are a highly effective means to drive change."*

Over the last five years, we have started to engage with start-ups and scale-ups, and we even created a Corporate Venture Capital fund. I understand that this seems a bold decision to many of my peers, but start-ups develop technologies that interest us a lot. ▶

For instance, we invested in a small company making sensors that we believed to be strategic for our digital strategy. We made a minority investment in the company to ensure they would be in business for the long term, allowing us the necessary time and resources to co-develop a product with them. In this way, we helped them to enter the industry and "understand the challenges".

CVCs are a highly effective means to drive change. Traditional companies are afraid to lose money and cannot see the value of potentially hitting a home run with investments in strategic technologies. These initiatives also become visible to the employees in the company, encouraging them to take entrepreneurial initiatives.

The sensor company is a typical example of how our CVCs work; we usually invest minority stakes to ensure that the companies will be in business for the next ten years and co-develop products with them. Some of these investments will inevitably be write-offs, but the successful ones will more than compensate for the ones that fail. We take a position on the board so that we can access their financial information, and how they are doing compared to their projections, but we do not involve ourselves in the management.

Smaller suppliers are becoming much more attractive and more powerful. One of our long-time suppliers, a large blue-chip company, asked us why we made that investment in a start-up, instead of collaborating on sensors with them. We told the company that we had asked them repeatedly for two years, but never got a clear answer. Today, they want to become a reseller of the product. This is an illustration of how existing technology players need to change the way in which they conduct business. ▼

How does this transformation impact the relationship of IT with HR?

To put this into context, I did consulting for the Vopak board on digital transformation five years ago, and they asked me to become their CIO. The decision to change the reporting line of the CIO to the COO and the board took three months – at the time, IT was reporting to the CFO and located in the basement, underground and almost invisible. ▼

> *"Our first struggle was to have businesspeople across the organisation understand the value of IT."*

Over the past five years, we have set a very clear digital strategy that everyone across the organisation can understand, and which we execute with all employees in the company aligned. The IT department has grown by 100% since then, and its composition has changed dramatically to reflect the new competencies required. As we will operate in dual mode until the development of the new IT/OT environment is ready, double running costs will apply. Over the next two years, the Global IT/OT department will be reduced, with 40-50% of the (temporary) staff being laid off. ▶

One fact about the digital talent market is there is a huge imbalance between supply and demand, so some things need to change. Our first struggle was to have businesspeople across the organisation understand the value of IT, and establish clarity on governance, roles and responsibilities. ▼

> *"Today our small global HR team manages all HR processes in real time and presents through dashboards directly to the Board."*

HR was the first department we worked closely with. We brought in Workday and other tools and helped them organise their processes to support the transformation. Our aim was to help them understand the ways in which technology could improve HR and make it more impactful in the organisation. We then brought in technology such ▶

as AI and gamification to improve recruitment and hiring efficiency. We join incubators and accelerators to spot talent and work closely with universities on technology projects. Today our small global HR team manages all HR processes in real time and presents through dashboards directly to the Board.

Because the impact of the IT transformation was so dramatic, businesspeople now ask to join IT meetings, and IT joins client meetings on a very senior level. The discussions no longer focus on price, but on the value that the data generates and the digitalisation challenges that come with it. With our data, our clients can make massive savings in their supply chain, and once real time data becomes available in the future, AI will take over the planning challenges in the global supply chain.

We consider this cross-fertilisation of knowledge across business functions to be a very healthy indicator that our Digital Transformation strategy is working. ▼

How do you approach the problem of attracting and retaining scarce talent?

Great engineers want to work with other great engineers on cutting edge projects. We cannot pay like Google or Facebook, but we can attract amazing talent. We allow people to explore and use new tools, stay close to the business, experience the impact they create, and feel challenged.

And that, you see, creates positive gossip about our employment brand in the market. Our continuing investments in digital transformation build buzz and interest in what we do, which makes it easier to recruit and retain these talents. In a recent training program for managers in IT, we had 14 positions open, and over 1500 applications. This fills me with pride, and I do not lie awake at night afraid that I will lose great people. ■