The Industrialist

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Chief Information Officer,
Vitesco Technologies

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Vitesco Technologies' decisive commitment to cloud

Each month we speak to a different industry leader about their approach to innovation and the emerging trends impacting the industrial sector. For this edition, we talked with Vitesco Technologies' CIO Thomas Buck about the company's decisive commitment to cloud that enabled speed and flexibility in building their IT infrastructure, and that laid a perfect foundation for all their digitalization initiatives. Thomas also shares his views on the role of open data ecosystems and collaboration across the industry, and how his team is elevating cybersecurity to an organization-wide priority.

Vitesco Technologies' recipe for becoming a speed boat in the market

Realizing business benefits through cloud

The importance of open data ecosystem

Cybersecurity as an organization-wide priority

In conversation with Vitesco Technologies CIO, Thomas Buck

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Chief Information Officer, Vitesco Technologies

Today's megatrends are raising fundamental questions about the purpose of a vehicle. Advances in connected and autonomous technology, the shift from hardware to software-defined vehicles, an emphasis on sustainability and electrification, and ever-changing customer expectations pose threats to traditional automakers as well as present exciting new opportunities. All of this is also impacting industrial automotive suppliers like Vitesco Technologies. Vitesco Technologies has responded to these trends by developing innovative, efficient electrification technologies for all types of vehicles–a strategy that has paid off with strong market growth.

After the spin-off from Continental, Vitesco Technologies has created its digital backbone from the ground up. This was a blessing in disguise, as it allowed the company to prioritize cloud and security from day one, and to build a flexible foundation that could accommodate further enhancements and innovations. By leveraging next-generation solutions such as generative AI, digital twins and metaverse, Vitesco Technologies is achieving greater efficiencies in the business, enabling innovation and delivering on their customers' expectations on time and with quality.

What one word describes you best?

In general, I'm a very positive person—I can see the worst-case scenarios, but I tend to believe in the best-case scenarios. So the word I would choose would be '**confident**'.

Could you give us a quick overview of your organization?

Vitesco Technologies was part of Continental AG until it was carved out and listed in September 2021. We integrate innovative and efficient powertrain system solutions for today and tomorrow, and for vehicles of all kinds. Vitesco Technologies is an international leader in intelligent and electrified drive systems for sustainable mobility. We focused on electro-mobility very early on and have been faster than most of other players in the automotive market in transforming towards electrification. This is a strategically important field, and we expect to benefit greatly from its strong growth. Many analysts and investors believe we have done a lot of things right and are pretty well-placed in the dynamic market of electrified mobility.

When you look back, what were the critical success factors that enabled a smooth spin-off and helped Vitesco Technologies become a speed boat in the market?

I would say the most important success factor was our **team**. Further, due to the spirit and the modern culture we have at Vitesco Technologies, we have been able to attract many new talents. Together, these people, backed up by Vitesco's core values, form a very strong and skilled team.

Another factor behind our success was our **consistent focus on the cloud**—we used cloud platforms wherever possible. Right from the beginning, this gave us the necessary flexibility and speed in developing the infrastructure for Vitesco Technologies. That was decisive, because everything from that point onwards was built on that infrastructure. The sooner we had it in place, the more time we had for all the other things we needed to do. With our focus on the cloud, we were also able to lay a perfect foundation for all our digitalization initiatives. This is also paying off now, as we continue a fast digitalization journey.

A third point is that we **focused on security right from the beginning**. For me, this was a very important success factor. As it was a complete spin-off: no infrastructure, all greenfield, that allowed us to rethink our entire architecture in terms of security. For example, we were able to migrate our office and our operations resources in two different active directories, which is much more difficult in a normal environment. Another example is that it allowed us to move our most important system into a tier-level concept to better protect against ransomware attacks. As we had to copy and move it anyway, it was much easier to adapt to the tier-level concept for our particular needs.

Where is Vitesco Technologies on its journey to cloud, and what are your next steps?

Our SAP systems were the only part not in the cloud after the spin-off. With all the work that needed to be done, we preferred to just copy them within the existing external data centers. We've now addressed this, and we just started our move to SAP RISE, based on AWS. We should complete this by the beginning of 2025. I'm really happy that we are on our way on this journey, as it's the last gap to being able to say we are completely in the cloud.

We believe being in the cloud, having the right data architecture and using AI, are all necessary to achieve the insights, efficiencies and cost take-out that are currently top-of-mind for organizations. What is your view on this, especially in the light of data automation and the need for further cost reduction?

First of all, from my point of view, the decision to move to the cloud is not only about cost reduction; it's about much more. It's rather about the capabilities we have, and seeing how things are so much easier now that we are in the cloud.

Point number two: cost efficiency or cost take-out in IT will never match the cost savings we can achieve in the business. When it comes to efficiency, we would rather invest in technologies like artificial intelligence, automation and so on in the business, because the numbers there are much bigger.

We are moving ahead in many of these areas, like generative AI and digital twins. Data analytics is also still a big challenge; it is not finally solved, and we're still getting many requests. But we are gaining the efficiencies, getting the process optimization and trying to save the costs. All these can only be achieved with cloud technology and by being in the cloud. Once we have all our applications and all our data in the cloud we will be able to implement new use cases much faster. And those use cases will then finally lead to cost efficiencies. But our focus will be on achieving them in the business, rather than on the IT side.

You mentioned generative AI. What do you see as the biggest opportunities for Vitesco Technologies in leveraging the new technology?

From very early on, we have focused on the strategic field of electrification, and we are already seeing the pay-off in the orders we are getting from our customers. They believe in our story and they trust us. Now, of course, we need to deliver, and that means we need to be fast. We need to get our products to market quickly and therefore need to improve our operational speed and quality. We consider generative AI a game changer in this regard, helping to improve our business performance.

We have started to build our generative AI foundation. Our approach is to begin by collecting use cases, and then out of these we condense the common requirements. Next, we will build a foundation based on these requirements. Once the foundation is available, it will cover 80–90% of the needed requirements allowing us to scale further use cases very quickly. To support our business to grow further, we decided to focus on cases in the engineering, engineering processes and operations areas.

What role do open data ecosystem initiatives like Catena-X play in making your value chain more resilient?

Those platforms play a crucial role, but my fi st point would not be about resilience. Our customers have presented us with some clear requirements which we could simply not meet without having platforms like Catena-X in place.

If you think about sustainability, your CO_2 footprint, you have to provide it from the cradle to the grave. From the very beginning of your product to the very end. This includes all your suppliers and all your customers. And you need to collect the data and have it available all along the supply chain, and be able to report on it to show what the footprint of that product is. This applies across all OEMs (original equipment manufacturers) and all suppliers. We all have the same challenges, so we believe it totally makes sense that we come together on a platform like Catena-X to align on common data structures, to potentially fulfill those equirements and to optimize how we work towards this goal. That's why, for me, these platforms are more about realizing actual use cases than about resilience.
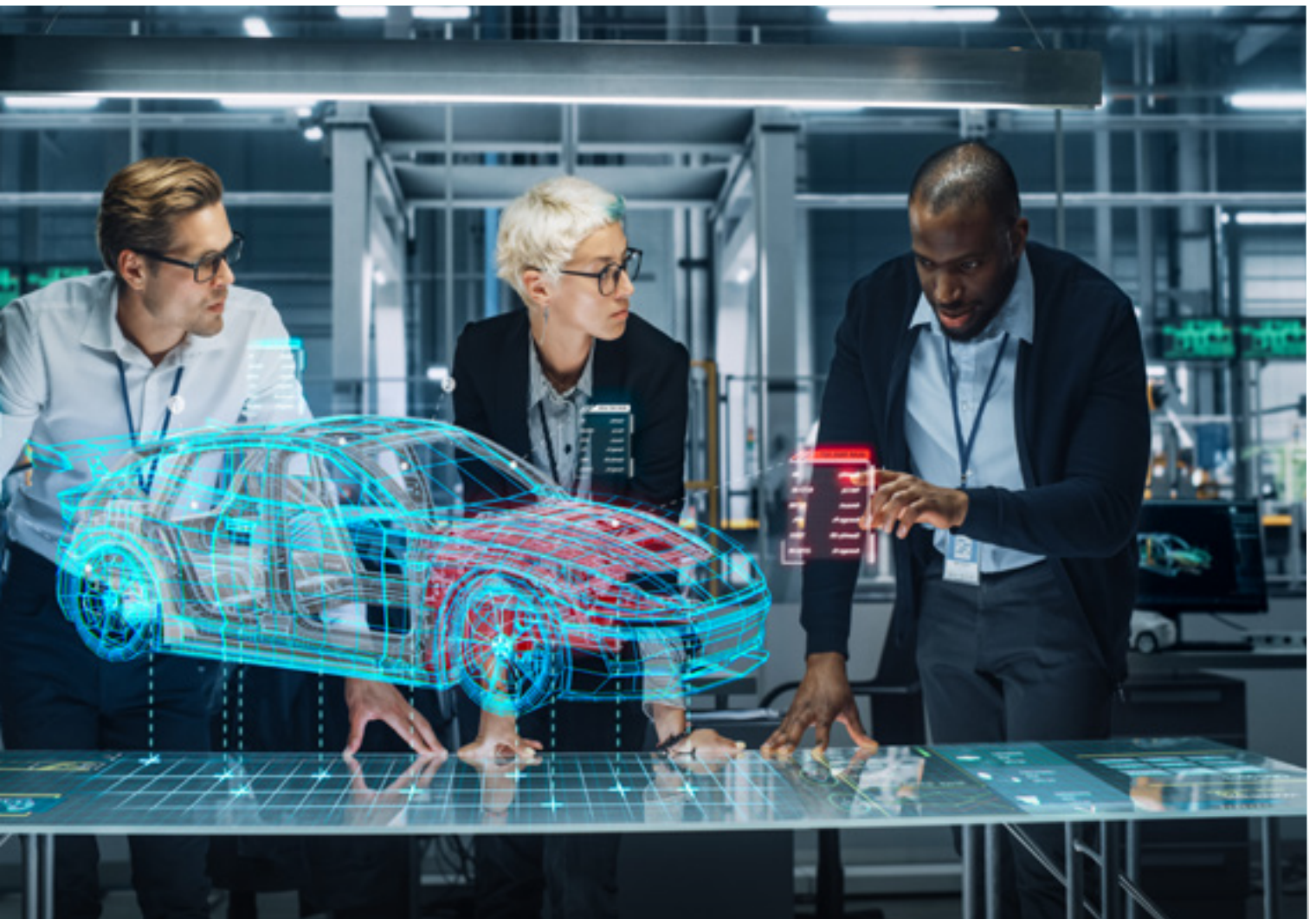
With all that in mind, what would you say is the key to further collaboration and network building across the automotive industry— from the big corporations through to the medium and smaller-sized companies?

I've been following the Catena-X topic for some time, and I think what is crucial is that we move away from general conversations and concentrate on definite use cases. In the beginning there was Gaia-X, and I struggled to fully understand how it could help. Next, Catena-X was founded with an aim to connect the automotive industry via one global data space to solve industry problems together. While giving transparency and providing an environment for the creation, operation, and collaborative use of data chains along the automotive value chain is much needed, Catena-X initially was also hard to follow. However, Catena-X demonstrated how European businesses can play a vital role in digitalization and presented 10 use cases with an intention to cover matters such as sustainability and the circular economy and so on. Now it's all much clearer for me.

Working collaboratively on these specific use cases and solutions, makes all the difference for those kinds of platforms. At Vitesco Technologies, we are also participating in other kinds of platforms in a similar way. When collaborating with all the members of your ecosystem to discuss a use case, these conversations become more valuable and you are closer to achieving results.

Cybersecurity is often seen as a purely technical function. How are you and your team helping to elevate it to an organization-wide priority?

From a technical point of view, we are on a very good level. We have the infrastructure and tools in place: we are focusing in a zero-trust environment with end-point detection and network security, and so on. But as you said, it's more than that.

We do a lot to build and maintain awareness of cybersecurity topic in the whole organization. We provide mandatory trainings for all employees multiple times a year—we track completion and send reminders. We have already run four phishing campaigns this year with the goal that by the end of the year every employee will have participated. We then communicate the results individually, tell people how they did and how they can improve, and in this way increase awareness. We also organize sessions—which have been very popular, e.g. for all our employees to see a live hacking or phishing attack: our security team shows what it looks like so people can see how it works and what the consequences are. It's all about making the whole organization more aware, gain skills and knowledge about cybersecurity. We in IT are driving all this.

To conclude, what inspires you the most?

As for what inspires me, I of course have a private life, I have hobbies and I do a lot of sports. All of this inspires me. But what I love is going to work every day and working with my team, especially when we are discussing the future of the company. How IT can support or develop new ideas, kick off new projects etc.– that's what really excites me. I've come out of workshops feeling more inspired than ever before. So, I have to say that's the truth: it's my work.

In closing

Given the dynamic of change and disruption in everything from increasing ESG demands, supply chain challenges, growing threat of cyber-attacks and geo-political factors, the imperative to build a resilient and flexible digital backbone for the industrial enterprise is evident. Digital innovation and collaboration happen first and foremost in the cloud. Thus, migrating the digital backbone to the cloud is no longer a question of "if" for industrial companies. Rather, it is a matter of "getting there as fast as possible".

How can industrial companies get more value from cloud?

Unleashing the full potential of advanced technologies, such as generative AI, digital twins, and the metaverse, will only be possible through cloud. In fact, at Accenture we believe in the interconnection of cloud as the enabler, data as the driver, and AI as the differentiator to derive increased business value for industrial organizations. This means, all operations need to be cloud-based including the installed base and individual pieces of machinery and equipment at the customer site, for the so-called digital core to work effectively. Furthermore, emerging commercial models such as intelligent servitization, which pivot on providing services rather than selling products, hinge upon the scalability, accessibility, and connectivity facilitated by modern cloud infrastructure.

Accenture research shows that nearly six in ten organizations experience a "cloud value gap", where the promise of faster innovation, greater agility, increased resilience, and lower costs remains tantalizingly out of reach. Why is this? The crux of it is that many companies migrated but didn't modernize. They had the right vision of cloud elasticity and cost reduction. But, often for good reasons, they didn't make enough changes to their technology or business to enable that vision.

To avoid this, industrial organizations should focus on the business process or use case instead of the technology. Envision how your company wants to service their clients in the future or how quality can be improved for a certain product; then work backwards to define the resulting requirements for the digital backbone and step-by-step create the future enterprise architecture required.

With this blueprint in mind, companies can draw up a roadmap and calibrate ongoing initiatives towards a consistent target picture.

This is no easy feat, given the fact that many companies struggle with grown complexity and constrained investment budgets. The greatest challenge, however, is usually neither technology nor money, but culture and people.

Industrial companies thrive when they are innovative, but they are often quite conservative in areas that are not their core competency. Thus, they often take a cautious approach towards new digital technology and "play it safe" by keeping data and hardware close to their factories. While there are some good reasons to do so for shopfloor-related services, this is often slowing them down. This means, a change approach to address cultural reservations, and empowering IT talent to make the shift towards a true cloud-centric digital backbone in a timely manner, is key.

The insights shared by Vitesco Technologies´ CIO Thomas Buck in this edition of The Industrialist emphasize the importance of the cloud for a truly digital organization that can leverage next-generation tools like digital twins, the metaverse and generative AI solutions based on core enterprise data. It became clear that technology infrastructure based on cloud enables speed, and plays an outsized role in driving the company´s sustainable growth.

Every industrial enterprise needs to develop new business models to avoid being disrupted, gain efficiencies to fund innovation, and transform mission-critical systems in a way that minimizes business risk. A modern ERP landscape, cloud-based operations and a strong digital core are prerequisites to fully unleashing the potential of data and AI– and for realizing the benefits of greater agility, resilience and cost-effectiveness. This is the time to expedite the journey to cloud.

Best regards,

Thomas Rinn
Senior Managing Director,
Global Industrial Lead, Accenture
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