

Looking back, five years later

by Niels van Giessen

When I re-read the 2021 *Constructeur* interview, I recognised a lot. At the same time, quite a few things have changed.

People, talents and grandmasters

What stands out for me in this interview is my admiration for the experienced professionals – the grandmasters of the craft. That appreciation has never faded; in fact, looking back, I'm even more grateful for what I was able to learn from them. I used to assume that these 'grandmasters' would be good at 'everything', but I've since adjusted that view. I've come to see and appreciate people's individual differences and unique talents.

Meanwhile, I have also learned to appreciate my own talents more – something I frequently doubted while at university and among my brilliant colleagues. What seemed self-evident to me turned out to be remarkable to others, and I experienced the same thing the other way around. Ultimately, everyone is a person with their own experiences, talents and needs; I believe it's important to be attentive to this and to express appreciation. This is essential first for a safe work environment, and subsequently for maximising creativity, results and growth. If you can't do something, say that you can't do it *yet*.

Relying on the principles

The next thing that caught my eye was the original title: 'Relying on the design principles'. I still do that every day. Someone once jokingly referred to people from our 'school' as "a bunch of leafspring fetishists". That made me laugh. After all, design principles aren't really about leafsprings – useful as they may be due to the high contrast in stiffness between different degrees of freedom. To me, these principles represent, above all, a way of looking and observing, of thinking, and of solving problems. A lens through which you view technology – but one that looks beyond the mechanical domain. This aligns seamlessly with what we do at Settels every day: approaching mechatronics and mechaphysics with the same underlying philosophy.

The challenge of knowledge transfer

At the same time, I observe a trend that concerns me. Despite all the attention paid to 'design principles,' fewer and fewer people seem to truly master the 'Van der Hoek philosophy'. You can't simply learn it from a book; you learn it from experienced practitioners. It follows the familiar medical adage: 'See one, do one, teach one.' You have to see and experience it a few times, do it yourself, and then pass it on before it truly becomes part of your mindset. That requires time and attention. This is precisely where the conflict with deadlines and project pressure arises. Our sector thrives on the efficient development of new machines, but we risk killing the goose that lays the golden eggs if we fail to sharpen our proverbial axe before felling all those trees. As a Dutch high-tech ecosystem, we must find ways to actively transfer this knowledge and expertise from current experts to new generations. At Settels, we consciously try to make time for this, even though things don't always go exactly as we would like. Ultimately, this is a challenge that extends far beyond any single company.

From problem-solving to entrepreneurship

What wasn't yet in the picture at the time of the article is the new path we have taken as a company. While we initially focused primarily on solving technical challenges for clients, we now also develop our own IP and machinery based on market insights, in collaboration with partners in the semiconductor industry. This demands a greater entrepreneurial spirit within the organisation. It takes some getting used to.

At the same time, it reminds me of my parents' horticultural greenhouse business, which my brother has taken over. That place is buzzing with innovation and a proactive drive – albeit in a different field. And at Settels, it means I get to learn new things again – not just technical ones, but broader concepts too. Right now, I'm working on such a specific technology. We have yet to discover exactly where that

path leads. But one thing is certain: I'll be starting with a blank slate, guided by those good old core principles.

Technology is, ultimately, a human endeavour

Perhaps that is the most important lesson of recent years: you never work on technology alone. I used to joke that technology is essentially the same as communication; everything you do must be conveyed to and embraced by others. You get nowhere without understanding what matters to other people. People's character, attitude and mindset shape the outcome of a challenge far more than I initially realised. The fact that people sometimes think very differently isn't an obstacle, but an asset. As is written in the biblical book of Ecclesiastes, there's a time for everything and a place for every person. Would you like to discuss what I've written, or talk for another reason? Feel free to reach out or drop by our office for a coffee!