

Why Europe Can't Go It Alone on Chips: An Interview with Andreas Schumacher

18 JULY 2026

Felix Heuner

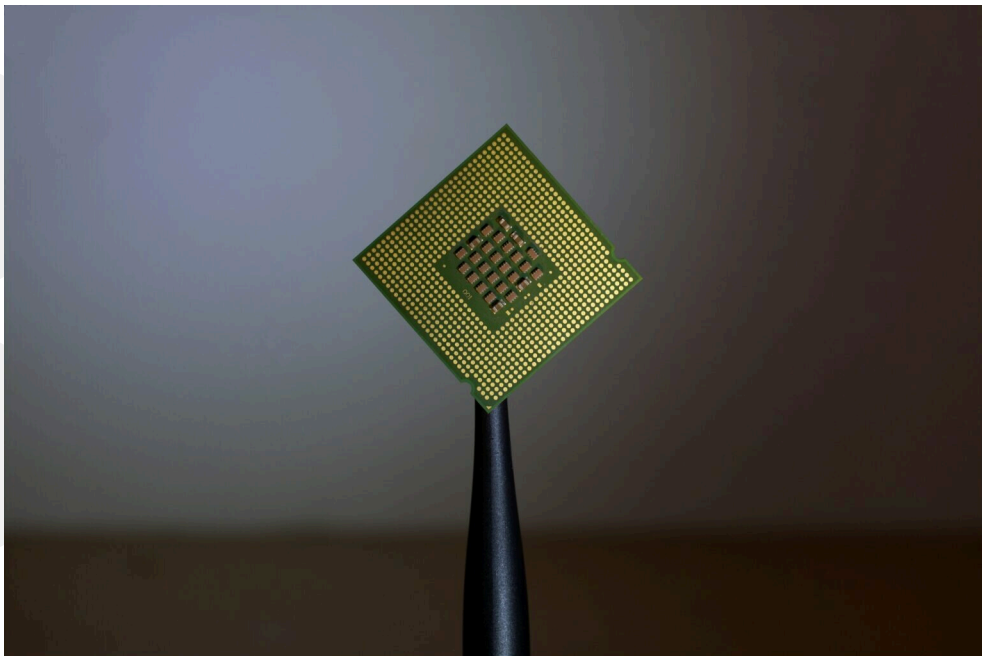


Photo by Brian Kostiuk on Unsplash

Felix

Thank you for agreeing to this interview. We've worked together on an academy on technological sovereignty. Before we start, let me say one or two sentences about your background.

You have a degree in physics from the Karlsruhe Institute of Technology and a PhD in physics that you did in Berkeley. Afterwards, you worked for Infineon and Siemens, and now you are the Head of Corporate Strategy and Mergers and Acquisitions at Infineon. In 2024, you worked at the CSIS as a visiting fellow in the Economic Security & Technology Department.

Coming from this very technical background of physics, what sparked your interest in geopolitics, and what made you want to develop in that direction?

Andreas

The step to geopolitics has to be broken down into at least two, if not three, sub-steps. Otherwise, it really seems impossibly large. The first step is the one from a technical background, physicist in my case. I started as a development and R&D engineer towards more of a general management and then ultimately a strategy role. What drove me there were two aspects. One, I am a person who is very curious and likes to explore new topics, and that's not necessarily limited to physics. Of course, there's a lot to explore in physics, but if you are in a large company like Infineon, for example, there's much more beyond the immediate realm of being an R&D engineer. So expanding my horizon and looking at strategic topics, innovation topics all across the company, seems kind of a natural evolution in retrospect.

Then the other sort of axis which motivates me is working with people, whether that's with a group of students like we did six weeks ago, or whether that's with an ever larger part of an organization, helping them to grow, shaping their environment.

If you sort of think in these two axes, it's not surprising, at least in retrospect, that I ended up or am currently in a strategy role. So that's the first transition.

The second transition is also, if broken down into those two steps, a relatively straightforward one. The semiconductor industry, from a political perspective or from a geostrategic, geoeconomic perspective, was pretty much a backwater until the early 2010s. China had already put it on various roadmaps early then, but really around 2015, 16, 17, the U.S. administration, late Obama and the first Trump administration, put some Chinese firms on an export control list. ZTE and Huawei. And that then essentially escalated throughout Trump one, Biden, and Trump two.

Fast forward, you have the COVID crisis and semiconductors were suddenly on top of every policymaker's list of hot topics. This met an industry which in the past wasn't used to lobbying or explaining, like maybe the pharmaceutical industry or the automotive industry in Germany. And so I found an interesting void, where I readily embraced this new opportunity to once again learn and work with people in an area that was still developing.

Felix

You mentioned the aspect of shaping the view of policymakers as a technology company. This is one part of your work, as I understood it. In your daily work at Infineon as head of corporate strategy and mergers and acquisitions, what is the impact of geopolitics in that field? How do you consider geopolitics in your own corporate decisions?

Andreas

First of all, let me sidestep the question a little bit and confess that I don't like the word geopolitics in this context. And I'll explain to you why. Especially in German, where you cannot distinguish between policy and politics, everything is "Politik", as you well know, especially in German, but also globally, evoking politics somehow, I find gives decision makers, managers, not only at Infineon, but in industries left and right of ours, almost like an excuse to be relatively passive. Because after all, it's politics, right?

So it is almost like the ability to be the masters of our own destiny has been taken out of our own hands. And while that is true to some extent, there is also a lot which we can influence as companies, as Infineon, but as companies in general. We can build resilient supply chains, and we can diversify our supply, just to give one very immediate example. And so what I like to call it is we have a challenging geostrategic or geoeconomic situation in front of us.

If you evoke economics and strategy in this discussion at a global scale, then you are evoking pictures which a company should be able to deal with. A company has a strategy. A company can make a supply chain resilient. So that's kind of the first remark I wanted to make.

Second remark, then, if you accept this notion, ask yourself, what is Infineon doing about this, and how is it impacting Infineon? Of course, it's impacting Infineon. The semiconductor industry, since it was basically created around 1947, has evolved to be one, if not the most global industry in the world.

There are very distinct areas of excellence, sometimes called choke points, but that already has a certain ring to it. So the industry grew up, matured at this incredible pace dictated by Moore's law for decades, again, to be one of the most global industries. And then if you suddenly throw sand into these gears, you have an industry in search of a new equilibrium. And I would argue that this equilibrium hasn't settled yet.

So, finding from a corporate perspective, a point where we can work in this new equilibrium, or from a policy perspective, how we can support policymakers in finding this new equilibrium in a meaningful way, I think, is a very fascinating and certainly worthwhile task.

Felix

Building on what you said about this challenging geo-economic framework and the drive of nation-states, or blocs of states, to reach a level of sovereignty, what would technological sovereignty be for a continent like Europe? What is a desirable and reachable objective to have?

Andreas

Let me start with a bold statement for everybody who might confuse sovereignty with autonomy. This is not achievable in semiconductors. As I had

mentioned before, semiconductors are not raw materials; they are probably the most highly engineered good humankind has ever created. If you look at even a single machine, like a lithography machine, it easily consists of hundreds of thousands of parts. Some of them may be commodity parts, but the vast majority of them are highly engineered goods in themselves. And that's only one part in one manufacturing step of a modern semiconductor. Multiply that many, many, many times over, and you come to a situation where full autonomy is simply unachievable, not only for Europe, but I would argue for any country or any region in the world.

Word is still a little bit out on China. China has tried for the longest time and has been the most determined about this. But I would argue for any other region, this is simply not in the cards. So if you accept this notion, you automatically have to turn to the need for partners. And if you think that through, the first conclusion you arrive at is obviously you want to preferably work with partners you can trust. The partners who share the same values or who have been long-term allies, and where you can even overlook some maybe short-term fluctuations, which are driven by politics and then maybe partially by policy.

So I think that's the first conclusion. Having a partner is not a weakness, but it's a strategic choice. This also gets to the point of comparative competitive advantage between nations and regions.

The next question, though, which you need to ask yourself, just in case this partner does not want to embrace a common goal, but turns out to be a little bit more self-centred for one or the other reasons, what are ways and means beyond a contract between nations that can assure that this partnership remains a stable one?

That gets you immediately to the point of what some have called weaponized interdependence. I like the word managed interdependence a little bit better because it has a less aggressive ring to it. But essentially a situation where those nations or those regions, as you called them very aptly, have their, call them specialties or really their strengths, which they promote, where they have a long-term sustainable competitive advantage, and where if push comes to shove, they can simply show another nation or another region the limits of trying to go it alone.

To make this a bit more concrete, look at what China is doing with the rare earth minerals, where just the mere mention of rare or minerals export restrictions or outright bans can get other countries, the U.S., for example, but also Europe, to concessions in trade negotiations.

Now, if we were to look again, in the semiconductor supply chain for similar strengths, which Germany has, which Europe has, which the U.S. has, those strengths are quite evident for everybody who knows the industry reasonably well.

I think these are the most important aspects, recognising what your strengths are, ideally eliminating your worst weaknesses if this is economically feasible, and then looking for trusted partners, striking agreements

which are as reliable as they can possibly be. Narrow agreements can have an advantage here, so you get a focus when you work on these agreements. And then, finally, knowing and managing your interdependencies with those countries and regions. I think that's kind of the toolbox, and that's the one I would also recommend policymakers to look at.

Felix

The critical supply chains we talk about might be located in a state, but they are operationally and strategically managed by private companies, such as Infineon. What would you say should be the role of these private companies in a cooperation with the state? Because we see very close cooperation in China, and in the US, there's a very close cooperation as well between some of the tech companies and the US military or the state. So, how do you see that situation in Europe? How is the relationship between private tech companies or companies in general and the state?

Andreas

I find this a very fascinating question and probably worthy of a PhD thesis or some academic research. Think back about what we saw in the semiconductor industry and the debate about export controls, whether they harm innovation, and whether they achieve their goals. That's been a debate which has been very, very active during the last three to four years. If you look at other industries, which are seen as strategic and relevant for national and economic security, say for example, a company which would build nuclear submarines. It is clear, and it was clear from the very beginning, that you don't sell nuclear submarine technology to North Korea. Nobody would, in their right mind, suggest that we shouldn't have export controls on nuclear submarine technology.

From the very inception of those industries, it was clear that there are certain guardrails, such as export controls. The market for these goods is not global, but you need to carve out certain parts of the world. This is essentially in the DNA of any of those companies in strategic industries.

The semiconductor industry has had export controls ever since it was invented. Part of it was not always visible, but it was always there. Now, the semiconductor industry has seen tremendous growth, and eventually, this military part, the export control part, faded somewhat in the background. Stakeholders of companies expected companies to make global profits and be more or less free of any government interference, whether that's export controls on one hand, but it's also the non-market promotion of competitors with large amounts in, for example, countries like China, to just name one of them.

So essentially, we are now looking at a semiconductor industry, which is suddenly in an era of new industrial policy. On the one hand, this industrial policy focuses on promotion. You have the CHIPS Act in Europe, and we

are currently debating the CHIPS Act two. You had funding schemes in the US, in Korea, in China, in Japan, pretty much everywhere in the world. Yet at the same time, you have governments imposing restrictions.

And some might argue that's fair because you are now a strategic industry and you benefit from certain subsidies, so you have to undergo certain restrictions. I don't think the industry has settled in an equilibrium yet.

I think now, if we look beyond the semiconductor industry to the general German and European industries, that equilibrium has not been found yet. As we are recording this, just a few weeks ago, the first draft of the Industrial Accelerator Act for Europe was published. It's heavily debated how much we should see Europe buying European goods, especially European industrial goods. The verdict is out, and there's a heavy discussion.

There are companies which promote that, and there are others which say, if we do that in Europe, then we will automatically invite retaliation and a U.S. market or a Chinese market will be closed for us. So you can kind of know which companies are on which side of the fence if you simply look at their global revenue distribution. But once again, this whole equilibrium hasn't settled.

Frankly, I believe that setting a sovereign framework of industrial policy rules and regulations is the job of the sovereign, i.e. the state. Whether that's the European Union or the German government, ultimately, companies will adapt. And it is the role of companies, people like myself, to help policy-makers understand the implications if they go one way or the other, so that they can arrive at sound, long-term, wise decisions. But ultimately, it's a decision of the sovereign. Once the guardrails have been set in a new way, the market will adapt.

We just have to realise that even though we as a company, Germany as a nation, have long advocated for a free, WTO-compliant market and markets where IP is respected, this sort of free, flat, end of history, Fukuyama-type world, this world simply isn't there, at least for the foreseeable future. And the state needs to adapt its policy, and we as companies need to adapt to these new situations eventually.

Felix

You said that in the end, the decision comes down to the state, which could be a good transition to your work at the Center for Strategic and International Studies in Washington, which is a key institution in advising the US government. What does the work at such a think tank look like for someone who comes from a technological background, and in your case, also from a corporate background?

Andreas

I say my two main observations were, first of all, I felt like a fish in the water in the most positive sense, because as we have now discussed in the first

part of the interview, the need to educate policymakers about technology more broadly, semiconductor technology specifically, is large. And many, many policymakers are keenly interested in genuinely learning, not being necessarily lobbied in one way or the other, but sort of genuinely, honestly educated by somebody who understands how they're thinking, but also somebody who has a broad enough view of the industry in general to give them the type of education they seek. That part I found super receptive at CSIS. And then, of course, the people I talked to through my engagement at CSIS. So that's the first aspect.

The second aspect is more of a personal one, but maybe also interesting for your readers. If you come from a company in a role like the one I have, you are generally interrupt-driven at a fairly high frequency. Like we now have 1/2 hour interview, I have another half hour appointment after this one, and then my day is kind of split into typically one-hour time blocks. So you do that, and your brain gets used to it. And then I suddenly get to this think tank, and I'm basically time warped back into my PhD time or even earlier, when I get to the office at nine o'clock in the morning, and I basically have nothing in my calendar except maybe a lunch appointment.

I have a stack of papers, and I have 8 hours, 10 hours, or however long I want to do something. And so getting your brain into this deep thinking mode again was totally fascinating. It was super difficult at the beginning. Maybe there was even something biochemical going on. But it literally took me two months until I wrote my first paper because it was so difficult to simply sit down and focus and write something. Also, the art of writing I had to rediscover on my own, I should say. Eventually, I learned that I can also use LLMs, but initially, I had to do that on my own. At some point it was kind of like a switch flipped, and then writing came at a faster pace.

Felix

How would you compare the US think tank ecosystem that you have experienced with the European one? Because the US is, at least that's the impression of many people, much more strategic in its approach to technology and geoeconomics. Does that perhaps also come from the ecosystem that surrounds the policymakers?

Andreas

The short answer is yes. I think the roots for that are deeper, and that's once again a topic which I would find fascinating to explore. To put it in a very, very simple way, if you count the number of think tanks, absolute or per square mile, in Paris, London, Berlin, you will find an order of magnitude lower numbers than in Washington, D.C.

If you have an order of magnitude more, you also have more diversity. You have more diversity when it comes from a political spectrum, all the way to what we say the classical left to the classical right, and you have some

think tanks which are very focused on, say, economics, others which are more technology-focused, and you have military-focused ones. So really a very broad diversity.

Now, if you ask why that is, your guess could go down a number of roads. One is that in general, the interaction, in my view at least, between industry and academia and government, in the US, is more open than it is, for example, in Germany. Now, again, you can argue whether that's good or bad. It carries compliance risks, but it also has the advantage that, especially in fast-paced technologies or generally areas where things change quickly in the industry, policymakers have easier and faster access to information from the private sector.

I think the situation in France is yet again a little bit difficult because you have the École Normale system there. For historical reasons, it might also be different in the UK. But if you put all this together, you find a different think tank ecosystem in DC than now, say, in Berlin or let alone Munich, where I am.

I think we in Europe, without throwing our values and the way we do things overboard, could benefit from that closer cooperation because times have changed and because things in the private industry change faster, whether that's in semiconductors, in AI more broadly, and many other fields. It is important that policymakers get this direct access. And if this direct access between a company or a group of companies and the policy makers is fraught from a compliance perspective, then I think the next best options are really think tanks, which act as a clearing house or as an exchange platform for that. So, I very much look forward and contribute the little I can to growing this think tank ecosystem in Germany a little bit further.

Felix

Thank you very much. This was an incredibly interesting interview. And I will get back to you once we publish our report on security policy.