Interview HÜBNER Photonics

"By working together with Fraunhofer IPM, we are able to develop new products much faster."

HÜBNER is a world-leading supplier of folding bellows and gangway systems for buses, trains and planes. So how did it get involved in the photonics sector?
Korbinian Hens: It's quite simple really; we wanted to diversify our business. HÜBNER is the world leader in its core market, which is a real privilege. But it's also a problem, because it meant the company's growth was limited by the size of the market. Our move into photonics was a clear strategic decision. We wanted to move into the high-tech space, so that we could open up brand new market segments and grow our company outside of our core business. There was just one challenge: We didn't have the necessary technological expertise. Back in 2006, HÜBNER therefore teamed up with Fraunhofer IPM and started developing terahertz systems. In 2012, we also began working with Fraunhofer IPM to develop a novel tunable laser system, which ultimately became the C-WAVE. Both prototypes received a Prism Award at the Photonics West conference in 2014, and that's when we really took things up a gear.

Korbinian Hens is a physicist and currently COO and R&D Manager at HÜBNER Photonics. He is responsible for the development, production and servicing of photonics products at the company site in Kassel.

In other words, those two awards marked the birth of Hübner Photonics?
Yes, you could say that. We had successfully developed the technology, but now we needed to make it commercially viable. Once again, we looked for a partner with the strengths we needed and at the end of 2015 we acquired Swedish laser specialists COBOLT AB. The new HÜBNER Photonics division was born out of this acquisition in 2016.

How has your close collaboration with Fraunhofer IPM helped you on this road?
Our partnership has changed and evolved a lot over the years. No one at Hübner knew anything about photonics when we embarked on the very first C-WAVE project. But we knew we wanted to look more closely at certain technologies with the help of Fraunhofer IPM. Back then, we were running development projects without having a single member of in-house staff with any expertise in technologies such as lasers. Over the years, we have of course built-up whole teams of people to look after these products and continue to develop them in future. Nonetheless, Fraunhofer IPM is still very much part of the picture. Their input is especially important when it comes to fundamental principles and basic research. By working together with Fraunhofer IPM, we are able to develop new products much faster. Here at HÜBNER, we come at projects more from the customer perspective. Our strengths lie in developing user interfaces, software and electronics, as well as adapting products to specific customer use cases. Fraunhofer IPM's

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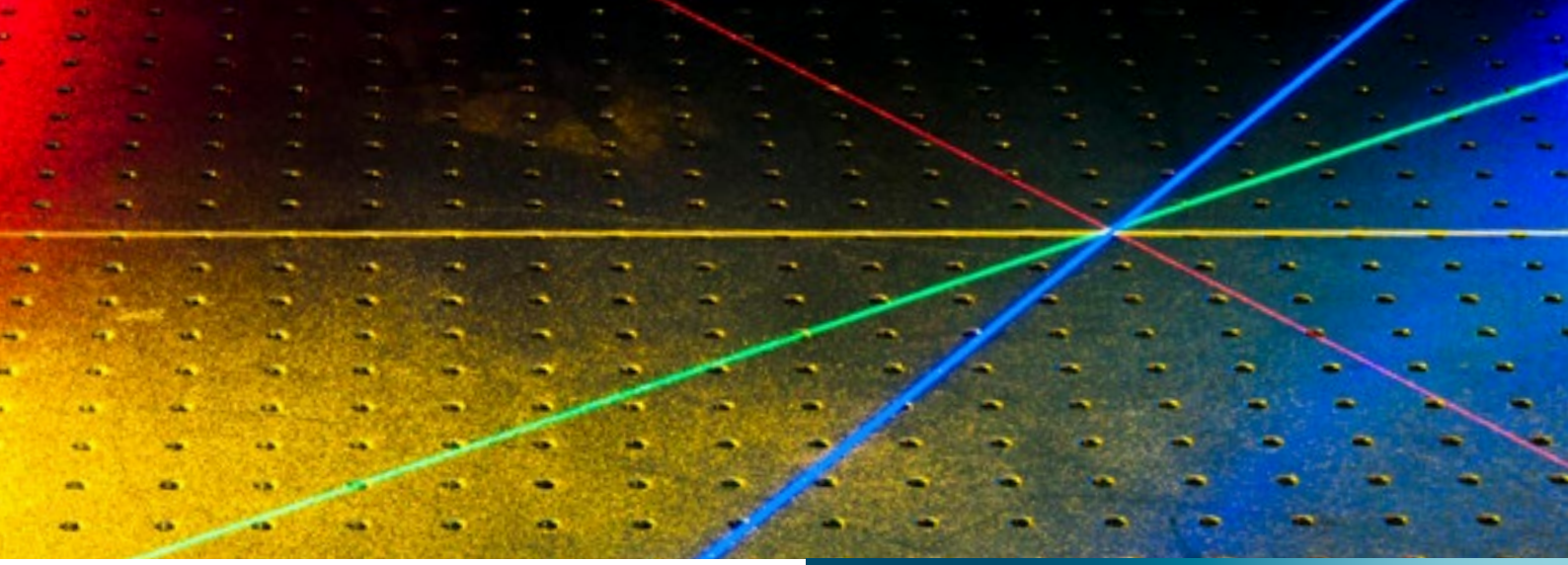

Tunable: In the C-WAVE laser system (below), the desired laser wavelength can be set specifically and easily over a wide range.

HÜBNER Photonics

HÜBNER Photonics develops and manufactures high-power lasers and terahertz systems. With a staff of around 100, it is the smallest of the three divisions of Hübner GmbH & Co. KG. In total, the Hübner Group employs around 3500 employees at 25 sites around the world, and in 2020 the group generated sales of around 450 million euros.

More info at: **www.hubner-photonics.com**

strengths lie in basic research, materials and optical design. That said, everything is very closely intertwined. It's a fluid partnership with no hard divisions. Thanks to our external research and development work with Fraunhofer IPM, we always have our finger on the pulse, as well as having the opportunity to test out the latest technologies and incorporate them into our in-house projects. It's a partnership between equals built on an open exchange of information – and that's the key to its success. A traditional customer-supplier relationship would simply not work.

What are your criteria when deciding whether or not to team up with an external partner to develop a new product?
Speed is often a key factor for us. We obviously have our own in-house development teams, and we like to use these resources wherever possible because it means we can keep the development process moving forward. However, it is equally, if not more, important that we have an in-depth understanding of all aspects of the systems we're developing – and that's where external partners such as Fraunhofer IPM come in. By working together, we can turn new technologies into commercially viable products in a much shorter timescale.

What are the ingredients for successfully breaking into a new market?
There's always a bit of guesswork involved. You never know exactly what to do. But I honestly think that success has a lot to do with people. Take Reinhard Hübner for example: It takes a really open mind and amazing foresight to take over your father's company (which he has built up over several decades) and then suddenly announce: "I'd like us to diversify and try something completely different – new markets, new products, different technologies." And having made this decision, it takes real trust to say: "OK, let's give it a go," and put your money where your mouth is. That's not something everyone can do. I honestly believe this bold decision was the spark that set everything else in motion. Plus, you obviously need a little luck along the way and the good fortune to bring the right people on board. That's what we had and together we've achieved our goal.

Thank you very much for talking to us, Mr. Hens.

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