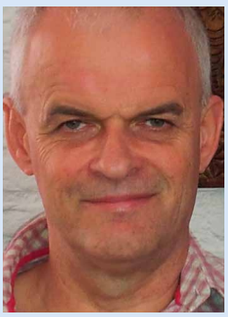
SWITCHING FROM HIGH-TECH TO AGRI-TECH IS A BUMPY RIDE



In the eighties, ASML started pioneering with its technology in the semiconductor industry. At the same time, I was working with ASM-Fico, which has been called BESI since the nineties; we were pioneering with our technology at the back-end of the semiconductor production process chain with our moulding and trim & form systems. Once you have pushed innovative high-tech products successfully to the market, it is difficult to stop pioneering in this way.

In 2014, after more than 25 years, I decided to leave the semiconductor industry and start pioneering all over again, this time with agricultural technology, or agri-tech. I left ASML and, as a son of a former farmer, I started Farmertronics to develop and build an unmanned, fully electric robot tractor. My father had worked the land with a horse; I planned to build an electronic horse, the eTrac. This gave me the opportunity to return to my roots.

Not knowing that much about the market and the requirements of farmers, I started searching for the right market niche in which to develop this new product. Developing a mobile machine seemed to be quite different from developing a static machine. In particular the battery pack needed to drive the robot forced me to choose applications that did not require that much energy. I ended up at the orchard, where no heavy-duty equipment is needed.

Now, we are developing and building a first prototype of the eTrac for repetitive tasks in the orchard, such as mowing, weeding and spraying. During these repetitive tasks, data will be collected by several 3D sensors mounted on the eTrac; at that moment, AI and deep learning come into play. We will hire the knowledge of companies such as VBTI and Avular in the Brainport region to turn the eTrac into an advanced mobile platform. Knowledge about mowing and weeding comes from LS Products and DvO Engineering.
In a similar way to that in which BESI or ASML work together with many technical partners, I have selected these partners, each with their specific knowledge, to make our venture into a success.

As well as pushing technology, there was also a market to find, as well as customers willing to buy our robot tractor. Due to the high-end components used to build the eTrac, such as an expensive, advanced battery pack, it seemed to me that it would be difficult to sell the first eTrac due to its relative high sales price. Marketing is always a matter of timing; you shouldn't be too early but also not too late. And you need some luck.

With the help of an incentive from the government that opened at the end of 2021, I found three tree nursery farms willing to buy a first-edition robot tractor, so production and sales can really take off next year. One day I hope that all my efforts with Farmertronics and the eTrac will pay off. After leaving the semiconductor industry and pioneering for nearly ten years in the agricultural market, things seem to be developing in the right way.

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