

## Nordic Technologies AB

Rob Johnson

Erik Hallberg, chief executive of Nordic Technologies AB, was preparing for a special meeting of his board of directors in July 2017. The sole topic of discussion would be a proposal just received from Pan-European Investors to invest in Nordic Technologies. Hallberg knew that Scandinavian Venture Partners, who provided the company's first round of financing, would also be analyzing the proposal carefully and wondered what their reaction would be.

### Beginnings

During his nine-year career with one of the largest companies in the communications industry, Erik Hallberg longed to escape the big corporate world and run his own company. Hallberg, a physics student at university, had joined the communications company after earning an MBA from a leading European business school and had progressed rapidly up the corporate ladder, from sales trainee to middle management roles and now to manager of one of the international divisions of the company. His future with the company looked good, but the desire to run his own business was still there. Then at an industry conference in Helsinki he began talking about his dream with two young engineers, a conversation that led to the creation of Nordic Technologies AB in 2015.

The company, based in Stockholm, was formed to exploit a new reprogrammable technology for silicon chips based on algorithms and proprietary processes that the two engineers had developed. The new technology allowed chip designers to include on one chip a variety of processes that might otherwise require separate chip designs; then the technology would automatically reprogram the chip "on the fly" in real time as different processes or functions were required for the applications being run. Hallberg described the technology's selling points:

"The benefits for chip makers as well as users are significant – more functionality for lower cost and an order of magnitude reduction in power consumption, all without increasing the area required for the chip. Further, the technology can be added to a chip without requiring any changes in the original design flow of the processes."

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Initial discussions with potential users – chip designers and end users as diverse as computer games manufacturers and mobile telephone companies – indicated that there should be good demand for the technology.

## Initial Funding

With the initial small team in place and business plan in hand, Hallberg began seeking start-up funding for the venture, a process that he found much longer and more difficult than he had expected.

“I soon learned that many of the venture capital or private equity firms in Europe were more interested in later-stage deals or buyouts than in start-ups. Also, some of the few firms that truly focused on start-ups were, in my view, very cautious and took a lot of time to do even the initial due diligence on an opportunity.”

Discussions with individual business angel investors moved more quickly, but none had made an offer to invest.

Eventually, Hallberg received an introduction to Anders Ferm at Scandinavian Venture Partners (SVP), a Copenhagen-based firm with €320 million under management. Founded twelve years earlier by former executives in the communications and media fields, SVP invested in early- and mid-stage technology companies. SVP's investors included industrial companies in their target sectors in addition to the usual pension fund, insurance and financial investors. Ferm recalled his first meetings with the company:

“Nordic Technologies fit SVP's profile well, and I had a good initial impression of Hallberg, which was confirmed in subsequent discussions. After several meetings with his two partners, numerous telephone calls to contacts of our firm in the semiconductor industry, and talking with Hallberg about how the company could be developed, I was convinced that this was a company and a team that we should back.”

Ferm recommended to his partners that SVP invest in the company. SVP also invited two successful technology entrepreneurs whom SVP had previously backed to invest alongside SVP.

In December 2015, an initial financing of SEK 16 million<sup>1</sup> was completed, with the funds invested in zero-coupon (no dividend) convertible preferred shares equal to 48.4% ownership of the company. As part of the transaction, SVP required that 10% of the company's shares be reserved for a share option plan as an incentive for future new employees. The resulting ownership is shown in **Exhibit 1**.

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<sup>1</sup> In December 2015, SEK 1.00 = €0.1078.



## Early Days

Nordic Technologies got off to a running start, as the engineers, Mats Soderstrom and Matthias Zorn, began to implement their technology in test silicon and Hallberg used his industry contacts to initiate customer discussions. Hallberg's efforts required several trips to Silicon Valley, the center of the chip universe. Interest in testing the company's technology was high, and several customers agreed to perform tests in short order. Things looked promising. Yet, the initial enthusiasm was slightly misleading, as Hallberg recalled:

"What we learned – painfully – was that convincing companies to test the new technology was the easiest sale. Even then Nordic Technologies had to play a major role in helping implement the technology for the first time with each prospect that agreed to conduct a test. Securing follow-on orders for production chips was another matter. It seemed that the decision-making process simply disappeared into the netherworld, as managers from different divisions debated a variety of issues, not least of which was the risk of incorporating in their chips a new technology from a small start-up company."

At the same time the company was adding staff to deal with the various demands on the company – not so much for generating sales but for implementing the tests, for further development of their technology, and later for customer service. The company's "burn rate" was growing.

Gradually a few customers placed orders for the technology, but each sale was a difficult negotiation involving payment terms with a relatively small initial payment plus additional payments over the 3-5 year life of the chip. Since each new chip involved a lengthy design process prior to production, the cash received by Nordic Technologies was slow in building. Nonetheless, the company was beginning to build a backlog of orders, and again things looked promising.

From the start Hallberg and Ferm developed a very good working relationship, and Hallberg was able to leverage some of SVP's contacts with prospects and also gain much-needed credibility from SVP's investment. As both Hallberg and Ferm described it, "The partnership between Nordic Technologies and SVP is working well."

## Need for More Capital

Yet the slow growth in revenue was an increasing concern for Anders Ferm at SVP.

"I believe in the company but have become convinced that the road to success is going to be much longer – and require much more capital – than was originally forecast. It's already clear that the company will need additional capital soon, but I now believe that more rounds of finance are likely to be needed even after that."

Following several discussions with Hallberg, both men concluded that the company would benefit from having a second institutional venture capital firm alongside SVP. Ferm was clearly supportive, and SVP could fund the entire next round and more; but it was conceivable that SVP would eventually reach their allowable limit for an investment in a single company, and the two individual investors were not expected to invest significant additional amounts. Having an additional institutional investor would alleviate that concern. They also believed that an investor with broader contacts in the silicon industry, especially in Silicon Valley, would help the company enormously. Finally, they were hopeful that the company's initial customer successes would result in a significant step-up in valuation in the next financing round.