



# Beyond the Boundaries

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- Joep van Beurden

CSR is a technology company that continues to push the limits in its sector, bringing new developments to connectivity, audio, imaging, and location products.

Images courtesy of CSR

**B**eginning his career as a physics university teacher in Zambia, followed by a stint in crude-oil trading at Shell, Joep van Beurden, CEO of CSR, got his first taste of the technology sector working for industry heavyweight Philips. “I was based in Silicon Valley, where I got a good sense of the technology industry. It was also the first time that I was exposed to the semiconductor industry.

“After Philips, I worked at a couple of start-ups that were really trying to innovate. One was developing a 3-D sensor camera that can see depth; in another start-up we were working on embedded software for consumer electronic devices. From there, I

joined CSR as the CEO, with the brief to build on its success as a Bluetooth® company and broaden it out into more technologies and more markets.”

When Joep came into the business CSR had been very successful in its short life. “CSR was founded in 1999, and the founding team had an idea to create a silicon radio in a semiconductor technology called CMOS. At that time, conventional wisdom was that you couldn’t do radios in CMOS. And then our founding team went ahead and did it anyway. As a result, the company ended up with a single Bluetooth chip, and at that time, competitors had two- or three-chip solutions for Bluetooth. CSR had a single chip that was smaller in size, lower power, cheaper and easier to

work with so it was a very competitive product.

“At the same time, the Bluetooth standard that had been in existence for about 10 years took off, mostly because Nokia adopted the Bluetooth standard and incorporated Bluetooth chips into their phones. And Nokia selected CSR. The company basically ran away with Bluetooth and had massive success. A successful IPO followed in 2004, so when I joined in 2007, that was the company that I found—a very successful Bluetooth company; still mostly exposed to handsets, strong with Nokia, and highly profitable.”

So as pioneers in Bluetooth, CSR was seeing great success. Joep was brought into the business to >



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diversify the organisation and lessen its reliance on a single technology in a single market. “My perspective, at the time, was that although CSR was doing well and was financially in a strong position, I was concerned about the strategic position as the technology lead that the company had enjoyed was beginning to shrink. Competition was moving in and the gap was closing.

“At the same time, the strong market growth in Bluetooth silicon that the company enjoyed over the past couple of years had tapered off a little bit. In order to improve the strategic position of the company I felt two things needed to happen—we needed more adjacent technology so that we could broaden our footprint in many of the products that we were in; and we needed to be

exposed to more market segments, more verticals, other than just the handset market. If you’re exposed to handsets and Nokia, and something happens to that market or to that customer, you’re obviously affected a lot. So being present in more verticals with a broader technology base makes you a more stable and predictable company.”

So Joep and his team set out a momentous task for an already successful organisation. “We did it in two ways; we set out on an ambitious M&A program, and we invested organically in some of the adjacent technologies that we thought we needed. Organically, we developed our own Wi-Fi® and Bluetooth Smart IP, and we invested in audio technologies.

“On the M&A side, we bought two companies—one was SiRF, which was a leader in GPS, and with that we acquired leading-edge GPS location technology; and the other

one was Zoran, which was a leader in imaging, both digital still and video. By doing that, we broadened out the IP portfolio we had from just Bluetooth, adding Bluetooth Smart, Wi-Fi, audio, video, imaging, and GPS.”

Leveraging its broader technology base, CSR was now able to enter new segments. “For example, ‘Voice and Music’, where we stream audio over Bluetooth from your smart device into stereo headsets and portable speakers. Another example is ‘Automotive Infotainment’, which is everything in the car that informs or entertains you, from hands-free calling to keep you safe while on the phone, to finding your way with the sat nav, to listening to fantastic stereo audio, to even streaming video to the backseat so your kids can watch videos.

“We also moved into printers, which is an imaging segment, and are active with Bluetooth Smart in the new exciting segment of wearable products. So we’re now a much broader company from an IP/technology perspective and we’re also exposed to many more segments than just the handset market. As a result, the strategic position of the company has improved dramatically, and if you look at our financial performance over the past couple of years, that has followed suit as well.”

Coming into a successful business and creating some drastic changes was certainly a challenge for Joep. “I needed to make the case to the company, to the board, to the shareholders, ‘Guys, it was a great run, but we need to make big moves, we need to add technology and we need to move into these different verticals’, which at the time wasn’t all that obvious. If you looked at the company, you’d ask, ‘Why would you do that?’ The company was very profitable, valuable, had great cash flow and a strong balance sheet.

“The thing with these types of transformations is that the first thing the world sees is an increasing cost base. We’re

investing organically in Wi-Fi and audio, so you’re making an additional investment in R&D, which at first will not be reflected in the top line. This means that initially you’ll see your profitability go down. If you do M&A, you’ll see synergies where you can take some cost out, but initially your costs will go up again.

“To get through this, you of course need the vision and the plan, but most of all you need a lot of courage and support from the board and your shareholders. I can tell you, during the journey of these six years, we’ve had some very tough moments. If you look at our share-price chart, you can pinpoint where these tough moments were. I’m very proud of where we now are, because we saw this through and we made the plan happen, and because we did this during the dark days of 2009 and 2010—we were transforming CSR while battling this substantial financial crisis. We came out at the end as a stronger, more stable company, and in a much better position.”

CSR is a fabless company, and its relationship with suppliers is vital. “We design the chip, we write embedded software, and then work with partners to actually create the physical product. There are two main companies that we work very closely with. One is TSMC (Taiwan Semiconductor Manufacturing Company) who take our designs and create the physical chip. The other one is ASE Group who package the chip in such a way that you can interact with it.

“These two companies are extremely important for us, and as we’re a big customer for them, we also like to think we’re extremely important to them. This goes beyond just saying, ‘This is the design of the chip. I need 10 million of them by Monday. Please make them’. We really also work together on assuring that we understand exactly what technology processes they use to create the chips, so that we design hardware and software in such a fashion that it becomes easier for our foundry partners to manufacture it, and it’s

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easier for us to test the end results. The same is true for packaging.

“In the very early stages of product development, when we write our ‘Market Requirements Document’, we already start thinking about how to produce and package a chip in order to create the optimal product for our customer. So it’s a very involved, close, and long-term relationship. We’ve been working with both of these companies for many years. Both are based in Taiwan and we have offices in Taiwan that are in very close proximity to them. Of course we are an independent company with our own schedules, our own product line, but we act seamlessly across that interface.”

Joep is pleased with the progress CSR has made so far, but believes the company has further to go. “We’ve transformed CSR, but we’re clearly not done. There is a lot of work for us to further increase our profitability. There is also still a lot of opportunity in the market, especially in the area of wearables and the internet. There is a ton of opportunity for us to be growing. The combined markets of the areas where we are now exposed to, we expect over the next five years will grow on

average about 13 per cent per year. That’s far superior to what analysts expect for the semiconductor market as a whole. So we’re exposed to markets that are expected to grow much faster than the overall semiconductor industry.

“Our opportunity is to grow with those markets or, hopefully, a little bit faster. The focus for us is to execute on that opportunity, make sure that the great products that we have on the road map actually get delivered on time, on spec, and on budget, and become an even stronger and bigger company down the line. We remain focused on the areas we’re now exposed to, we continue to look for opportunities to strengthen our IP through targeted M&A, execute on the road map, and make sure we grow our business.”

Over the past couple of years, CSR has gone from strength to strength through acquisitions and vertical expansion. The organisation’s hunger for innovative technology and diversity places CSR in good stead, and with Joep at the company helm, CSR will continue to push ahead in the technology sector by developing cutting-edge products and services. ●

“ASE Group’s solid relationship with CSR is the result of years of close collaboration and trusted partnership, driven by mutual desire to innovate and deliver advanced technologies, hence positively impacting lifestyles across the globe.” - Tien Wu, COO, ASE Group

# ASE Group

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