

## David vs. Goliath: The *Inside Secure* Story

### **When a small technology pioneer was forced to challenge the big corporations profiting from its discoveries**

This is about a business that found itself competing against giant companies that had accessed its inventions and patents but failed to pay their fair dues, writes *Richard Vacher Detourniere, CFO and General Manager of Inside Secure*, co-inventors of Near Field Communication (NFC) technology. It's a story that, sadly, is shared by many innovative small and medium sized businesses that want to protect their investments but are unable to sustain costly lawsuits.

1995 was a watershed year for smart cards: it was the year French company *Inside Secure* was founded by visionary engineers led by Polish entrepreneur Jacek Kowalski, formerly a manager at Gemplus (now GEMALTO). Using their technical skills and creativity, the company's founders had a huge impact on the world by creating the original contactless technology, also known as Near Field Communication (NFC). These ground-breaking discoveries enabled secure short-range transactions instead of placing a smart card into a terminal: pioneering work that took place years before industrial tech titans began implementing the technology in their products.

#### **A pioneering, award-winning business**

The first *Inside Secure* milestone came two years after the company's creation with the launch of our first product: the Incrypt-combi contact/contactless secure memory chip. In 2000, we supplied our first million chips to the marketplace. This pioneering spirit was rewarded with industry recognition and a list of awards including a *Frost & Sullivan* Product Innovation Award – Best Contactless Product (2006) and, from a forum celebrating the EU's top private companies, being named in the *Red Herring* Top 100 "Most Promising" Companies Driving the Future of Technology (2007). The future looked bright.

As NFC usage spread, our company had both the technical know-how and technology patents it needed. These assets paved the way for new product developments including payment cards and a chipset for smartphones, marking a new wave of growth that included contracts with Blackberry and Nokia. In 2012, however, Blackberry – responsible for one-third of our revenues - ran into problems after it failed to pursue consumer markets, like Apple and Google, and instead focus on the corporate mobile marketplace. Blackberry's problems quickly became our problem. As a young innovative company, investing significant resources in R&D, it became extremely challenging to keep our business moving when its top customer was facing such issues. The prospect of failure was knocking at the door.

#### **Reinventing the business**

We knew that we had to reinvent our company in the face of an incredibly strong headwind. However, we also knew that we didn't have the financial resources necessary to transform into a large-scale NFC chips provider that could meet the demands of the global market – even if we did have a strong patent and technology portfolio. But if we couldn't afford to design and sell the chips, we knew we could license our

technology and Intellectual Property Rights (IPR). On this basis, we entered into an agreement with France Brevets in 2102, granting France Brevets the right to handle our patent licensing programme – which of course, was not our core business.

The problem? Not one of the tech giants using and profiting from NFC technology were willing to take any license on our extensive patent portfolio without being compelled to do so.

At the end of 2013 after lengthy and unfruitful negotiations, France Brevets began litigation on our behalf: first against HTC and LG, then Samsung in early 2015. Litigation took place in multiple international jurisdictions and the defendants used every single procedure available to delay decisions. When some potential licensees were willing to take a license, some started using the controversial IEEE licensing calculation methodology that reduced *Inside Secure* licensing expectations to virtually nothing: from 0.20 cents per device to about 0.0012 cents.

*Inside Secure* has won almost every procedure and counter-case. So far, Sony has been the only company that voluntarily entered into a license agreement, without litigation and after lengthy but good faith negotiations.

The total investment by France Brevets over the period, for both the licensing programs and litigation, has been around €24 million. The reality is that no SME can afford this scale of investment on its own – and that's quite apart from the fact that it is far too challenging for an SME to enforce patents on one technology while trying, at the same time, to discuss or agree "peaceful" commercial contracts on another technology (in our case, embedded security).

### **Challenges, opportunities and growth**

The next step for our company was reinventing itself yet again, and investing in security. 2014 was the breakthrough year. We completed our transformation by initiating the divestment from the semiconductor business: licensing the NFC technology to INTEL in 2014, together with the transfer of 40 R&D engineers, then outsourcing product engineering to the US company Presto in 2015, and finally selling the remaining business to WISeKey in 2016.

*Throughout this period, we kept ownership of our NFC patent portfolio and cash received from the licenses closed by France Brevets was instrumental in funding the company's transformation - making it possible.*

Today, semiconductor companies without security expertise and content providers like HBO, Sky and banks depend on *Inside Secure* embedded technology and intellectual property to protect vital assets and activities - from connected devices to services, identity and transactions. What began as a semiconductor company focused on contactless technology and semiconductor chips turned into a company that delivers comprehensive embedded security solutions. Today, *Inside Secure* still holds some 600 patents and we employ 160 people in Europe, the USA and Asia. After almost two decades, we stands out as a company that began by inventing a technology that would change the world - and a company that recognised the need to take on some of the world's biggest corporations in order to reinvent itself.

**Martino Pillitteri**