

A top-down view of a collaborative workspace. Several people are visible from the chest down, working around a table. The table surface is covered with hand-drawn diagrams and sketches. These include a large magnifying glass, a circular flow diagram with an eye icon, a gear diagram, a network diagram with a central orange circle and a computer monitor, and various other geometric shapes and arrows. A cup of coffee is also visible on the table. The background is a light gray surface.

SPIRIT

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SPIRIT DSP: Entrepreneurial business development in an emerging market

When did you last use your skype or iPod? Strange as it might sound the heart of both skype and iPod – VVoIP embedded communication software platform – is done in Moscow by SPIRIT DSP and more than 1 billion embedded voice channels in 100+ countries are based on the SPIRIT technology platform. SPIRIT direct customers are Adobe, ARM, AT&T, Blizzard, BT, China Mobile, Cisco, Ericsson, HP, HTC, Huawei, Korea Telecom, Kyocera, LG, Microsoft, NEC, Oracle, Polycom, Radvision, Samsung, Skype, Texas Instruments, Toshiba, Veraz, ZTE, and 250+ others companies world-wide. SPIRIT smart-phone OEM customers' shipments jointly exceed 60% share of the global market. SPIRIT collaborates with the RF Ministry of Defence on satellite communication. VideoMost.com is the SPIRIT spin-off for multi-point video-web-conferencing service. Having heard this, a reasonable question is why we haven't heard much of this company before? Taking SPIRIT's experience as a starting point, this case aims to understand the question of what can we learn about entrepreneurial business development using emerging market R&D sources.

Note: This case was written by Dr Anna Trifilova under the supervision of Andrew Sviridenko (Founder and CEO of Spirit DSP). The case is based on a field research accomplished in 2010 and is written using some public sources – Andrew's blogs with Harvard Business Review, Russia: published in the Russian language. The central idea of the case is to contribute to the knowledge on innovation and entrepreneurship in emerging R&D sources and Russia in particular.

Introduction

SPIRIT, as a Company, started with two Russian graduates of the Faculty of Computational Mathematics and Cybernetics of Lomonosov Moscow State University (LMSU) back to 1980s. Today SPIRIT is listed among world's 10 top providers of innovative carrier-grade voice and video over IP software platform along with Cisco, Avaya and Comcast. This case explores the journey from start-up to global player as an example of innovation and entrepreneurship.

The future founder and owner of SPIRIT Andrew Sviridenko in 1984 was enrolled by the Faculty of Computational Mathematics and Cybernetics of LMSU. Whilst still a student he started his first new product development that gained him his first profit. In those days R&D in the area of Artificial Intelligence (AI) was very popular and considered as the engine of the future computers market. Together with his LMSU's mate, Andrew focused on neuron software, being one of the technologies of AI development. This software was a part of his graduating dissertation which after two years of further development shaped into a completed software written in 150 specification pages. Unfortunately for Andrew, it was the time of the 1990s – the threshold of the collapse of the Soviet Union and the beginning of the transformation to the market. So, before we go further, it would be efficient to provide a glimpse into the Russian R&D market of those days.

Back in time....

It is nearly a well-known fact that in Soviet Russia, prior to the 1990s, the strength of the S&T sector was considered of great importance amongst political objectives of the whole country and its international prestige. Excessive secrecy, location of many R&D assets in closed ‘nuclear’ cities, scarcity of communication between R&D establishments on all the levels, along with no financial limitations in terms of budgetary support (Watkins, 2003) created a unique S&T base which was militarily structured, highly educated, geographically dispersed, extremely large, functionally segregated (Radovilsky, 1994) and required a thorough reform when adjusting to the demands of the market economy.

In Soviet Russia, centralised planning systems allowed the devotion of many resources to S&T whilst paying little attention to economic return. S&T achievements of Russians in physics, astronomy and space research, chemistry and new materials, life and earth sciences, mathematics, new technologies, laser application, high frequency plasma, etc. were gained through “great concentration of labour and material resources, with virtually no financial limitations in the period of the former Soviet Union” (Radovilsky, 1993, p. 46) In particular it was characterised by links with the government rather than the end-users (there wasn’t market yet).

Before the market reforms, R&D was supplied to industrial enterprises as a free good of the centrally planned economy and all inventions were state property. In the USSR, intellectual state property was freely available for anyone to use without licences or royalty payments, provided that such usage was deemed to be in the interests of the state. In the Soviet period, an inventor received public recognition in the form of an Authors’ Certificate. Under no circumstances did the Authors’ Certificate grant the inventor an exclusive right for patent protection (Watkins, 2003).

Being centrally directed and totally financed by the Soviet Government, the S&T sector ill-suited liberalisation and market policy which were commenced in the whole country at the very beginning of the 1990s (Gokhberg and Shulanova, 2004). Without being targeted to improve the overall health of the economy, the Soviet science sector “may have even contributed to the economic stagnation that was beginning to manifest itself by the late-1970s and early-1980s” (Watkins, 2003, p. 7).

The collapse of the Soviet Union and the transition to the market economy at the very beginning of the 1990s radically affected the S&T sector in Russia. Among the initial structural shifts that faced S&T in the journey to a market economy, were a complete disintegration of hierarchical administrative systems and a tremendous decrease in federal budget expenditure on R&D. In addition to the bureaucratic stratification that caused the loss of government-oriented support and demand, the S&T sector within the ex-USSR found itself in the situation of attracting practically no domestic interest from the enterprise sector in R&D.

It was without doubts that no one in that country would buy any software those days; especially that no one was much accustomed to pay for copyrights of any sort. The only way out in business for people like Andrew was to go overseas.

Back to the Company....

LMSU students used to go to Europe as part of the students’ exchange programmes. During one of those visits Andrew discussed with German students if there were any possibilities of selling his accomplished R&D results. Andrew’s European fellows simply recommended him to go to the Trade Register and take (free of charge) the list of IT-companies and talk to them. *“Don’t start with sales. Say that you need*

a piece of advice rather,” – advised German students to their Russian peer. And Andrew followed it to the letter.

As it turned out, the Trade Register comprised post addresses only, phone numbers were not provided. So literally, Andrew had to walk through the whole list just knocking at the door (even without making prior appointments). *“I simply asked for a permission to come in, introducing myself a student from Moscow. I said that I was having an interesting programme, so, please, could they have a look and advise what to do next”*, or something of this kind, as Andrew recollects years later. German businessmen were pretty friendly to their ‘surprise’ visitor. In companies, people even offered Andrew some burgers and always listened to him carefully. Back to 1991, Andrew didn’t have much money even for a bus, so, he cycled nearly to twenty companies before he found someone who found some interest in his product. The owners of a small company GTS GmbH took Andrew’s software for pilot trials (and some thinking) while student Sviridenko went back to Russia. After a year of trials and some improvements, the German company bought 10 software licenses from the Russian students. They paid 10 thousand US dollars – which, for the Russia of 1991, was a real fortune.

First steps....

Sviridenko has already graduated from LMSU and with his group mates he had to decide: what to do next? That was the very first year in the history of Soviet LMSU when students were not assigned for any organisations for employment¹. Starting from the year of 1991, graduates were given the so-called ‘free diploma’, meaning that a student was free to choose his or her occupational establishments, his or her employer.

Two fellows with some experience in neuronic R&D decided to carry on with their IA software and make the next generation product. Sviridenko hired some of other IT staff, from his former group mates. The good thing about Andrew’s start-up capital was those \$10,000 from his very first deal which, by post-Soviet standards, allowed hiring any super specialist in R&D not to speak about former students! Andrew paid his employees 30 US dollars per month; another 30 US dollars were given for a month as a flat lease – being the laboratory and office simultaneously. The most expensive cost of those years would be a computer (1500 US dollars), but it was decided not to buy hardware rather than use those provided by the university.

Initially, Andrew didn’t even register the company as a ‘company’ because they all worked just as an ‘R&D team’. Most formerly, the company was registered only in 1992, being mostly just a ‘wish’ to be registered somewhere. The name SPIRIT came naturally as the abbreviation from – Software Products, Integrated Research, International Transfer.

In a newly created company Andrew was responsible for strategy, sales and business development and his business partner, his former group mate – for R&D. It was the time when all computers worldwide transferred from DOS to PC. For software companies it meant that all computer programmes should be revised. So, equally, SPIRIT changed its product for Windows. To add to external incentives, SPIRIT business partners had internal ideas how to develop their product. As a result, as Andrew recollects, the

¹ As part of the planning economy, in Soviet era all graduates in the country would be assigned for different organisations as employees, being the so-called ‘young specialists’.

scope of R&D ahead of SPIRIT alone, was enough to engage a big R&D organisation for the next 10 years. Another challenge for the start-up company was that R&D seemed to be carried on and on with no tangible end-product. The real problem for young entrepreneurs however was the cash-flow as the start-up capital gain by the first successful deal was finite while no one was interested in buying the old version of Andrew's software written for DOS. Luckily the year of 1993 brought a new business opportunity for Andrew and his business partners.

One of Sviridenko's university fellows moved to Japan and SPIRIT offered him to become a formal representative in Japan. Following a successful example of Andrew knocking the doors of German companies, the newly- assigned representative of SPIRIT started knocking the doors of Japanese high-tech companies looking forward for their interest in Russian technologies.

Never surrender....

In 1994 Sviridenko flew to Tokyo to present his company to a leader of Japanese electronics – to NEC – which had expressed interest in Russian R&D. To Japan Andrew took with him an enlarged R&D portfolio that included his own R&D and that of his R&D fellows. On that memorable (for Andrew) day a number of NEC departments visited Russian delegation and to SPIRIT's misfortune (which become their fortune in the end) – Andrew's own R&D didn't attract much interest from NEC. Instead they were looking for a rather narrow sphere of R&D particularly in the area of communication and GPS navigation. This involved R&D results of Andrew's colleagues outside SPIRIT – but fortunately it found a true interest in one of the NEC's departments.

Sviridenko didn't want to lose a chance to work with NEC and he signed a contract with only 7 months timespan to achieve the required R&D results. \$40,000 – an advance payment – was used to rent a bigger office, buy more computers and hire more people.

Misfortunes never come singly – and 3 months after the launch of the Japanese project, the leading R&D officer made a 'big' announcement by saying that he was emigrating to Germany and he was taking with him two of the best R&D officers. The fact was that they had got an invitation from Siemens sometime before and while waiting for all the documents to be done – they decided not to reject the contract at the outset and be still engaged with SPIRIT.

It was a blow out of the blue for Andrew. Half of the contract time had already passed and without the old team it would mean that he needed to start from scratch with newcomers. He couldn't use other (ready-made) people's R&D since software is too unique to be applied elsewhere. Equally, to ignore the contract and close the deal would simultaneously mean slamming the door of the entire Japanese high-tech market for ever for SPIRIT.

Andrew started with calling everyone he knew, and to his horror he learnt, that communication software was not an easy matter and many Russian programme makers didn't know much about it. No one wanted to join into the project at this late stage. In desperation Andrew spoke to his father, who had been working in the area of communication to ask for a piece of advice. Father decided to help the son and said he would help to make the software. Sviridenko-Senior called his colleagues...and with a short delay the Japanese project was fulfilled. In NEC they never learnt about the problems in the Russian company. SPIRIT got its first half of a million dollars – another fortune for 1995.

Fast forward....

It was a new stage for the company's evolution. The next version of neuronics programme – their original product - was never finished – the scope of R&D was enormous and there was hardly any demand for it in the market. Instead - unexpectedly and without much planning – telecommunications software became the major activity for SPIRIT and it has been that way since 1995.

The next stage of their development saw the Russian company engaged in a number of Japanese projects with NEC, Toshiba, Iwatsu, Japan Radio Company, Furuno, and other manufacturers – making this way a steady profit. Unfortunately this financial 'idyll' didn't last for long –in 1998 the world crisis in semiconductors (caused by overproduction) put an end to SPIRIT's cooperation with Japanese companies (because Japan was the major supplier of the semiconductors and the main client for the Russian software developer). To add to the industrial crisis, in Japan a domestic economic crisis began and the country entered a recession period. NEC experienced heavy problems: the company fired some of its staff (which was hard to believe with the Japanese life-time employment approach), and the president of the company was fired (being caught up in a bribery scandal bribes, which was again hard to imagine in that country). One consequence was that the company even sold a sky-scraper in the center of Tokyo for financial reasons. Inevitably NEC told SPIRIT that there was no budget for R&D in the near future. Andrew got a similar response from Toshiba. So once again SPIRIT had to search for new markets – and in 1998 the Russian domestic market was not considered as potential due to the lack of potential clients and high levels of piracy in software.

Expansion to new markets started with the 'tested' SPIRIT strategy – through cooperation with locals. Locals hardly experience any language or cultural barriers; equally locals understand country-of-origin effects better than outsiders. Thus, SPIRIT started looking for new local partners – who might present SPIRIT's interest internationally, finding clients and selling Russian software nationally. In doing so, SPIRIT steadily acquired different contracts. Typically on entering a new country's market SPIRIT would hire an ex-president of a big well-known company – a person who had a long experience in the area, kept many contacts, and was able to open many doors. This person took sales responsibilities, while R&D was still done in Russia. However this 'win-win' strategy failed to work in the US, though, which posed another challenge. The US market could not be neglected, both in terms of overall size and its key role as an IT-related marketplace.

A hard nut to crack....

At the outset, it seemed for SPIRIT that to enter the American market might be an easy matter – after all, it is an English speaking country and famous for its passion for innovation. To begin with, Andrew followed his regular way: met an experienced businessman at a conference, shook hands...but his chosen man couldn't sell anything in the industry for the entire year. So Andrew changed the first player – but there was still no result. Losing hope, SPIRIT redoubled its efforts in the American market, changing vice-presidents (potential cooperators) every half of the year. Sviridenko participated steadily in conferences and forums. SPIRIT made commercial advertisements – but contracts still didn't come. Later, Andrew Sviridenko tried to find an explanation for his initial failures in the American market by seeing it as a problem of mindset: *"In fact, Asians are more open to not-invented-here technologies. Economies of Japan, Taiwan, Korea, and China after the Second World War had to catch up with international R&D and thus they were ever so open for international R&D experience, they actively*

patented external ideas and diffused them internally. Americans, on the contrary, following ‘old habit’ of the iron curtain looked at us as ‘enemies of the cold war’”².

Some Americans recommended Sviridenko to move to the Silicon Valley, register a company there and hire local staff. However, firstly, Andrew didn’t wish to run transition costs with a new place of residence and to add to this pay high salaries that the Valley was known for. Secondly, this relatively ‘traditional’ American way to enter the market had a high risk of losing management control over business – ceding it to venture capitalists. As Andrew argues *“The risks are transparent: a new company is being opened in California – in IT-world centre and the most expensive US state. Quite naturally, the new comer runs out of money and goes to venture capitalists who fairly logically take the business over. They quickly put the owner away from the management, enforce their own control and install understandable for them only – an American administration – in sales, marketing, and finance. The best case if ex-owner might be kept as a vice-president in R&D but financial issues would be immediately put out of his/her scope – others would manage this side of business and this occurs far too often in the American Valley”* Instead, SPIRIT tried its best to penetrate into American market without external financial support and eventually the ice was broken.

In 2001 SPIRIT signed its first contract with Texas Instruments. *“I didn’t believe myself. Most probably, the spirit of SPIRIT has been condensed in such an enormous mass that the wall couldn’t stand the pressure’* – recalls Andrew a bit metaphorically. Slowly business on the American continent started to grow for SPIRIT but not as quickly as it had hoped. For instance, in 2004 in negotiations with Oracle the objection was raised that in the list of SPIRIT’s clients the Russians didn’t have major software companies names but rather rather NEC, Toshiba, Samsung, LG, Texas Instruments, etc. – producers of hardware. As a result, SPIRIT’s software for multipoint internet-conference connection was tested for more than a year by Oracle before they adopted it. Adobe was equally demanding – they refused to believe that all software was based on the Russians’ own R&D. They hired an American lawyer with a division in Moscow that audited with all scrutiny, in detail, SPIRIT’s software for IPR provenance. Only when this was completed was the contract signed.

One step ahead....

In 2005 SPIRIT entered other new markets – Asian and Chinese, in particular. Paradoxically, SPIRIT has only started to work on the domestic Russian market quite recently. As Andrew explains, *“Domestic companies in Russia are not ready yet for high-tech”*. To elaborate, Andrew continues: *“With a world leader it takes a year to negotiate the contract agreements and test our product, only after that the software goes to the market. In other words, from the initial contact to launching the new product to the market – takes two years, approximately. All in all we have to work ‘one step ahead’ of the market and be ahead of the market needs ... two years ahead, minimum. In Russia this business model doesn’t work.*

² Interestingly, in a recent book on emerging markets Pacek and Thorniley (2007, p. 195-196) provide a relevant illustration about American mindset towards Russians:

“Russia has been ignored in the boardrooms of major multinationals probably has a lot to do with the history and politics of the 20th century. Many board members grew up in the culture where, since 1945, Russia and the rest of the Soviet Union were the number one enemy and bogeyman. This still colours their thinking as is clear from what the manager from Europe of the best-known corporate names in the world said: “We do some good but below potential business in Russia. But when I brought this on the agenda our CEO screamed at me, that “we will not do business with those damned communists”. Some US companies no longer think this way, but many still do”.

In Russia companies do business in a simpler way – they simply see what is in ‘fashion’ overseas and just ‘copy/paste’ – anything – be it mobile service, ringtones, web-mail, social networks, whatever. Russian communication market is lagging behind European market at least for two years, and from Japanese – more than six years. In Russia innovations are not in passion³ – no one wants to run a risk; competition on the market is not strong enough⁴ for innovations to be in need of the Russian business”.

Looking at SPIRIT’s ‘Sequence of tenses’....

1991: Andrew Sviridenko graduated from Faculty of Computational Mathematics and Cybernetics of Lomonosov Moscow State University and his graduation paperwork became his first market product.

1992: The first business sale – neuronics R&D results are sold to a German company GTS GmbH. SPIRIT is registered as a Company.

1994: The very first order to deliver software for a modem and GPS-navigator from the Japanese corporation NEC.

1998: Economic crisis in Japan, SPIRIT is searching for new markets.

1996-2001: Unsuccessful attempts to penetrate to the US market.

2001: The very first contact signed with the American Texas Instruments.

2004: Contacts with American software giants Oracle and Adobe.

2005: Expansion to China; SPIRIT created the best in the world voice processor to build-in into the software and technological innovation for suppliers internationally.

2010: SPIRIT created a communication software platform to use for video conferencing in the internet...

...it seems that the Company found its own way in innovation and entrepreneurship which can be summarized into: ‘Knock every door and never surrender. Find a way when there seems no way. Run a risk but try not to lose control. Go faster than you possibly can – at least two steps ahead of time. Don’t stop even, when as it feels, there is a final destination ahead for one particular industry which has been profited for 100 years.... don’ stop communication as it is time for interactive multi-point video-web-conferencing service – which is ever so exciting’....

It is interesting to note, that in the opinion of SPIRIT founder, we might soon experience the death of the ever so common telephone technologies. Looking at the steady tendencies in technology development, Andrew argues that *“Firstly, connections are becoming more mobile, more wireless. Secondly, connection is narrowing mostly to the internet. Wires don’t transfer the voice any longer rather wires transfer ‘data’ which combines ‘voice & video’. The voice is becoming ever so free to transfer. The old concept that traditional telecommunication industry has been making its income from for the rest of 100 years is dying. Even though the opportunities for setting teleconferences are not new – it is still a niche corporate market. A talking with more than two people hasn’t yet become a widespread*

³ Watkins calls it “anecdotal evidence” that domestically, Russian industrial managers do not see the need for establishing strategic linkages with national R&D suppliers as they consider new technologies “a luxury that could easily be postponed” (Watkins, 2003, p. 15).

⁴ This view finds support in literature (Pacek and Thorniley (2007, p. 201-202): *“Competition in Russia is not yet fierce. Competition is not as intense as it is in some of the central and Eastern European markets. It is reasonable to say that in terms of competition Russia is 3-4 years behind Poland and 1-3 years behind Hungary & Czech Republic. However, it is catching up quickly. A Danish executive noted the change in the competition environment. “In the mid 1990s we were making a lot of money in Russia for not doing very much. Now we’re making a lot money in Russia, but we are working damned hard for it”.*

practice – what can't be said about the internet. Charts, social networks, sms, etc. – are really in need as profound models of group telecommunication'.

He sums up: *“This is a natural way of human communication, when every single participant can see and listen, say something, and interrupt the others if necessary”.... “Interactive multi-point video-web-conferencing service would be growing largely soon”.* Needless to say, SPIRIT has something in store for those days already...

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