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Report: Commercialization of Russian Sourced Technologies in Finland

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Introduction

This report is submitted, in English, at the request of the Ministry of Education and Industry to complement the Russian Action Plan published by the Government of Finland on 16 April, 2009.

The goal of the paper is to provide a framework for the effective utilization of existing capabilities in Finland to assist the commercialization of Russian sourced technologies. The Russian Action Plan describes both the strategic interest of Finland in supporting Russian innovations, and lists, numerous existing programs focused on Russia.

This paper will identify what is needed to fully actualize the potential of these resources and capabilities. Its recommendations are based on many years of work in Russia in the field of technology commercialization, and knowledge gained as a result of the trust built through these efforts.

Background

Martti Vallila has been travelling to Russia since 1992.

The first contract for his company Virtual Pro Inc. with the US government was with the United States Information Agency (USIA) Business for Russia (BfR) program in 1994. Virtual Pro organized the visits, and one-month long business internships, for three delegations of young English speaking aspiring Russian entrepreneurs from Novosibirsk and Obninsk to Research Triangle Park (RTP), North Carolina.

The goal of this BfR was to provide young Russians with "hands on" experience in the operation of western businesses, and introductions to life in America. It was the first travel outside of Russia for most participants. Virtual Pro identified appropriate host companies in fields related to the professional interests of the carefully screened participants, convinced these companies to rotate the participants through key elements of their business operations (during internships that lasted two or four weeks) and arranged for home stays with American families. A total of 40 participants were supported in RTP in the 18 months of program administration.

Additionally, Virtual Pro conducted a session on marketing and finance (key issues of interest for the Russians) at the orientation program in Washington DC for all (over 200) participants in the pilot BfR program, before they were sent to ten locations throughout the United States, and developed a Toolkit based on the training experience with Russians gained by FOXX Oy, a company in Helsinki with which Virtual Pro had a representative relationship.

The successful administration of this BfR program led to the introduction of Mr. Vallila to the Director of the Computational Center of the Russian Academy of Science, Siberian Division, and an agreement to assist the Center in the commercialization of their technologies in western markets. Mr. Vallila has continued to develop excellent relations

in Novosibirsk, especially in Akademgorodok (academy city), the location of the greatest concentration of research institutes in Russia.

Virtual Pro was subsequently contracted by the US Department of State to study the commercialization potential of artificial intelligence technology developed in the formerly closed nuclear city of Snezhinsk, as part of the Department's Nuclear Cities Initiative (NCI). Virtual Pro delivered a report to the US State Department in 2001. Mr. Vallila was invited to present his findings to a conference in the formerly closed nuclear city of Arzamas or Sarov (where Andrei Sakharov worked) in 2002, and organized the first live video conference from Arzamas to the United States to tie in his business partners at TELCOT (Dr. Alex Bordetsky and Dr. Eugene Bourakov,) a telecommunications incubator in San Ramon California.

Virtual Pro delivered a proposal to NCI to establish a network of Technology Transfer and Innovation Centers (TTIC's) that would tie facilities in Russia's formerly closed cities to partner organizations in the US, with TELCOT serving as a pilot US facility. The proposal received the formal support of the Sarov Open Computer Center, a division of the Ministry of the Russian Federation for Atomic Energy. Unfortunately this project was never implemented, and TELCOT was closed due to the financial crisis that hit California in 2002.

The methodologies developed in this project are relevant to opportunities in today's environment, as described later in this report. Finland is in a better position to implement the business model than the more distant (and feared) United States. The climate for participation in such programs may have improved in Russia, spurred by the economic crisis and Russia's stated desire to diversify its economy, and develop innovation.

Mr. Vallila's ideas and "vision" have been explained in publications in Russian, two examples of which are included, along with their translation into English. Additional material is available in Russian on the web. An interview of Mr. Vallila published on the web received more hits than a similar interview with business guru Peter Drucker, attesting to the interest in Russia in these ideas. (Source: journalist Maria Rogovaya)

Mr. Vallila has been invited to participate as a judge and presenter at Venture Fairs organized by the Russian Venture Capital Fund in St. Petersburg, Kazan, Novosibirsk, and Moscow. A copy of the recent presentation titled "How to Commercialize Transformational Technologies from Russia" is available at the website: www.marttivalila.com.

Observations and Recommendations

Finland is in a position to provide mechanisms that are concrete and practical, and that recognize and address the unique circumstances and challenges of Russian sourced technology commercialization.

What are these unique Russian elements that must be addressed? The Russian business climate is opaque. There is a lack of trust among Russian innovators of their (Russian) internal structures.

Best evidence of this fact is the difficulty that Rusnano, the government designated commercialization mechanism, is having finding projects. President Medvedev has publicly expressed scepticism in Rusnano's ability to carry out its mission.

The "ownership" of Russian inventions is the subject of debate, controversy, and ongoing legislation. Historically, Institutes in Russia supported all research and development, much of it viewed in military or security terms. These Institutes have legitimate claims to participate and benefit from the commercialization of science in which they play a supporting role. The debate in Russia on how the interests of the Institutes and the individual inventors is balanced will continue. Much of this debate is internal (having to do with changes in legislation inside the Russian Federation) and fails to address the key issue of properly protecting Russian ideas, via patents, OUTSIDE of Russia.

As long as the Russian technology remains exclusively "inside" Russia, there will be concerns with respect to proper ownership of the technology, and the possibility that some future "claims" to the technology will surface that complicate, or nullify, agreements. The establishment of a company "outside" of Russia, with clean, clear rights to the technology outside of Russia, is a precondition to any licensing agreement with western partners.

This reality is recognized by pioneering entrepreneurial Russians who have established companies outside of Russia. Many have left Russia permanently, contributing to a "brain drain". Given today's existing and emerging collaborative communication technologies, and the connectivity that exists to sites throughout Russia, a new paradigm is possible. Owners of Russian technology can remain in Russia, and build development teams in remote locations, that work in sync with foreign partners.

President Medvedev and many others have proclaimed the need for the Russian economy to diversify, a trend given additional importance by the current crisis. There has, in fact, been little progress in this regard. Finland is in a unique position (of competitive advantage) to provide what Russia needs.

Innovation is fundamentally a bottom-up process, with ideas emerging from the minds of clever individuals. Russian industrial policy has traditionally been top down. Rusnano is an example.

It is unlikely that Russia will SUCCEED in the commercialization of its technologies in the western world ALONE. Western markets are sophisticated, with entrenched participants protective of their turf. Effective marketing and ongoing technical support networks make the entry of new players difficult. The barriers for entry are high for Russian technology, given its history of isolation and insulation from western markets.

Finland is in a privileged position to help, for reasons elaborated in the Russia Action Plan.

With its transparent business climate and trusted reputation for engineering prowess, Finland has rightfully focused on the merits of its "innovation engine" during its recent Presidency of the European Union. It is ironic that relatively little attention (so far) has

been paid to the need to adapt and then apply this expertise to Finland's historical trading partner to the East.

The Russian Action Plan is a key step in this strategic direction. Finland is a small, well-connected country where questions are effectively routed to the place they can be addressed. So far, so good. But the fact is that Finland must make some changes if it is to address this opportunity successfully.

There is understandable suspicion, in Finland, of all things Russian. While reasonable, given history, this suspicion must be countered with a sincere open-mindedness about evaluating the promise and potential of Russian technology. It is quite possible that Russian technology can result in the rare "breakthroughs" that fuel technology transformations. Because of its long isolation, and its tradition of basic research in mathematics and the sciences, it is in fact probable that Russia represents the largest source of untapped (un-commercialized) ideas in the otherwise connected global village. Finland has a responsibility, and an obligation, to conduct an evaluation of Russian technology with this in mind.

It is necessary that this evaluation is conducted by persons specifically missioned with this responsibility, and equipped with the necessary skills (including speaking Russian). This mission should include "big thinking", the serious consideration that Russian technologies may represent transformational science. The first (and crucial!) step for such science is finding a commercially viable application area.

It is possible that the best commercial application of a technology is different from the one envisioned by the Russian owner of the technology. An understanding of the real needs of western industry is a key benefit that Finland can provide, in the initial assessment of any technology. This assessment should evaluate commercial success not only in Finland, but in the EU and the rest of the world.

VTT is in a position to play a key role in this initial assessment of Russian technology. VTT is also able to propose potential industrial partners as sponsors of VTT based projects. VTT is an ideal environment in which the Russian idea, once protected, can be developed into some prototype, making it understandable for Western investors or industrial partners.

VTT needs a "front end" mechanism, missioned with the task of routing a promising Russian technology to appropriate experts within its diverse organization, and delivering a prompt response that:

- identifies a promising application area or framework
- locates appropriate resources within VTT
- identifies potential partners for a VTT based project

Russian projects for this "front end" can come from various sources:

- the established Finnnode network (St. Petersburg)
- an emerging Russian Venture Fair network (Moscow, St. Petersburg, Kazan, Novosibirsk, Rostov)
- word of mouth

- the Internet
- a book written by Mr. Vallila that describes the commercialization described herein. The book is currently being reviewed by publishers in Finland.

It is crucial to build "success stories" that illustrate the business model described here. Russians have, over the years, been subjected to much information, and many promises, from both internal and external "experts". They are understandably sceptical about the viability of any scheme.

Only successful examples will convince potential participants to take the steps necessary to commercialize their inventions via Finland.

A crucial challenge for any owner of new technology is how to fund the initial steps of commercialization. Traditionally, such funding comes from the individuals themselves (often borrowing against their assets, such as their home) or from close friends or associates. Business angels have entered this space.

In Russia, funds such as Bortnik, are available for early stage technology. Such funds are internally focused. It is not very costly for a Russian to obtain a Russian patent. Much higher costs are associated with writing and filing a PCT patent application (which must be done within one year of the filing of a Russian patent) and obtaining subsequent international patent protection.

Before investing in such a process (filing a PCT application), the Russian inventor needs access to a trusted, reliable mechanism OUTSIDE of Russia able to provide a credible assessment of the commercial viability of a proposed technology. VTT has the expertise to provide this assessment. Currently, VTT lacks an effective "front end" missioned to examine and process Russian sourced technologies.

If a technology is found to have commercial potential, there is reason for the Russian owner to invest in its protection outside of Russia, via the PCT process. This should be done with the assistance of Intellectual Property (IP) specialists OUTSIDE of Russia. Finnish IP firms are in a strong position to provide this service.

Initial financial support for the technology must come from within Russia. It is not realistic to expect financial support from a foreign source, if the technology cannot attract Russian support. Once Russian support is demonstrated, then Finland, through TEKES, has the first opportunity to be the initial (privileged) foreign supporter.

TEKES support is limited to Finnish companies. This is as it should be. Access to TEKES support should, however, be made more understandable to those from outside Finland who take the steps to establish a company in Finland. The potential availability of support from TEKES (with no dilution of equity) is a strong incentive for a Russian inventor to consider establishing his foreign company in Finland.

The current TEKES application process is fundamentally flawed, if examined from the point of view of an applicant representing Russian technology. Most basically, the application must be filed in the Finnish language! This is an unnecessary barrier to effective communication. There is broad understanding of English in Finland (a

tremendous advantage!) There is no reason to insulate the TEKES process from non speakers of Finnish.

The benefits to Finland of being selected as the foreign home for a company founded on Russian based technology are numerous. If Finland is not capable of effectively addressing this opportunity, then Russian owners of promising technology will go elsewhere.

The establishment of a company OUTSIDE of Russia with clear and transparent ownership of international IP rights to the underlying technology is an essential element of the commercialization model described here. The commercialization of new technology involves many risks. The additional "business risk" associated with the ownership of any technology by an opaque Russian company makes its licensing to a western partner unlikely.

Finland is in a privileged position to fill this need. The Russia Action Plan states: "A challenge for Finland is to foster its expertise and services in order to create products that interest Russia".

Finland's existing commercialization engine can become such a product (actually a set of products and services). Today these products are not effectively presented. As explained above, proper representation requires a believable and trusted business model that credibly explains and supports the commercialization process from beginning to end, in English, and even in Russian.

Only the existence of successful examples will make a model believable and inspire participation.

Once the Russian sourced technologies have been "incubated" in Finland, as described above, they can then be presented to the rest of the world, in order to attract additional investment or industrial partners in a position to distribute them globally. Finnish firms will, of course, have privileged access due to their proximity to the process. Elements of Finland's external commercialization mechanisms, such as Finnnode offices in Silicon Valley and China, offer an excellent format for this broader distribution of technology.

Finland can brand itself as a world leader in the commercialization of Russian sourced technologies.