

Russia's Modernization and Innovation from the Perspective of Foreign Investors

**FIAC White Paper
High Tech & Telecom Working Group**



Moscow, October 2010



Executive Summary

Introduction

The Foreign Investment Advisory Council ("FIAC") has mandated international communications consultancy Ketchum to research and prepare a White Paper studying the area of Modernization and Innovation ("M&I") in the Russian economy via a series of interviews and desk research. The main focus of the White Paper will be on M&I within the high tech engineering, technology and telecommunications sub-sectors, and its effect on foreign direct investment ("FDI") into the Russian Federation.

Objectives of the White Paper

The White Paper was designed to meet three objectives:

1. To provide an entirely objective assessment of international perceptions of the efforts made to re-launch and further foster M&I within Russia's economy, particularly in the telecommunications and the high tech industries
2. To consider how M&I could drive increased FDI
3. To provide a range of recommendations on how best to increase both M&I and FDI, based on the conclusions of this White Paper

Methodology and Execution

Detailed research was backed up by a series of interviews with the following stakeholders:

- International corporate investors within Russia – both FIAC members and independent players
- Investment bankers

- Institutional investors
- Venture capitalists
- Financial journalists

The primary research was then analyzed by a team of international financial communications experts at Ketchum, drawing on the deep understanding that stems from their work with a number of Russian and emerging markets interests, positioning those interests as attractive investments within the capital markets community.

The outputs and conclusions of this study are presented below based on the following structure. This structure is designed to provide a cogent narrative and a set of practical recommendations to enhance both M&I and FDI (see the table following this executive summary), based on the study's conclusions.

Chapter I: Comparison of Russia with its Main Global M&I Competitors

Chapter II: Creating M&I Momentum

Chapter III: Industrial & Academic Prioritization

Chapter IV: Russia as an R&D location

Chapter V: Russia's Human Resources as the Key Factor

Chapter VI: M&I as Societal Challenge

Chapter VII: Current Red Tape Around M&I

Chapter VIII: Reciprocity! The Role of Russian Companies Abroad in Attracting Overseas Experts and Joint Project Working



Conclusions and Recommendations

This study has unearthed and identified many reasons to be positive and optimistic about the prospects for increased M&I and higher levels of FDI into the Russian Federation. Russia continues to be seen as having an impressive track-record of significant proven success in FDI, with considerable further potential.

There are already a range of very strong investment drivers in place which could potentially help create impressive investment returns. The strength of Russia's human resources, its natural resources, and the strength and stability of its government provide a firm foundation, which can now be built upon by a successful M&I programme.

Whilst there are many reasons to be positive, for Russia to enjoy genuine and long-lasting success in the M&I of its economy, there are also a number of key challenges that must be overcome.

1. Infrastructure investment and development is vital

As can be seen throughout this document, all sources have made it entirely clear that Russia must improve its basic infrastructure before there can be significant improvements in a wider M&I agenda. **Positive Government intervention** would be welcome in areas such as the **rolling out of broadband**, and ensuring not only **availability but affordability**.

Fundamentally, however, this is less about specific technological applications such as broadband or telephony. There needs to be a **public commitment on behalf of the Government for significant investment in the essential infrastructure** of the Russian Federation – and then delivering on this commitment.

Foreign investors – either corporate or purely financial – need to believe that **Russia is "open for business"** and that it is a state that functions to the highest possible degree. Russia needs to be seen to invest in upgrading its key strategic infrastructure:

transportation; communications; education; health. It is here that the proven international examples of **private public partnerships could be considered – formalizing international commercial partnerships with the Russian Federation**. Throughout this process, it is vital that the Government mounts an **active communications campaign** to ensure that all key stakeholders are **aware of the progress made**.

2. Reform of the education system to develop "commercial scientists"

Russia's major strength is human resources. It is widely accepted in both the international corporate and investment communities that there is huge potential in place. However, virtually all correspondents commented on the **highly theoretical nature** of the Russian scientific community.

It is therefore vital that **Russian scientists are encouraged to think like business people**. The Government should look to **reform the education system** so that whilst sciences remain a highly prized academic path, there is a mandatory commercial / economic element for all scientists. To coin one particularly memorable phrase, "**The kids need to know how to monetize this stuff.**" This is clearly a long-term aspiration, but once the first steps are taken in this important direction, **a journey will have been started that should provide significant long-term benefits**.

3. Boost internal market demand for high tech innovation

Key stakeholders have noted that **Russia needs to create domestic demand** for its high tech products to spur M&I and R&D. The primary investment risk is seen in the **narrow customer base**, effectively comprising the Government and state agencies' ability to deliver.

In a highly competitive international market, **indigenous Russian businesses should be encouraged to spend more on modernization of their business processes**. As a result, these blue chips will become more productive and competitive in



the global arena. Moreover, such modernization will encourage innovation and prioritization, with a focus on the infrastructure, energy, mining and metallurgy sectors that represent Russia's traditional strengths.

It is advised that there should be **fiscal incentives for companies that genuinely move forward with the M&I agenda, or significantly invest in R&D**. Benefits could be structured in many ways. Either as an "M&I" tax which is applied to all companies that do not comply, or with taxation reduction credits for those that have shown significant progress in the area.

4. Encourage and refine domestic entrepreneurship to drive internal market

The Government can only do so much. Private commerce must be a driving force within Russia to truly move M&I forward. To facilitate this, a major government incentive would be to **introduce new legislation that simplifies the legal aspects of starting up, financing and running small companies**. The simple fact is *"the sort of person with the drive and imagination to start and run a tech focused start up probably won't fill out all those forms."*

A vibrant entrepreneurial sector will also go a long way to meeting a major challenge: the creation of a **viable M&I domestic market** – driven by Russian entrepreneurs, working with Russian scientists with Russian seed and venture capital. To facilitate this, Government can become involved by setting up **regional and national R&D centers designed to act as incubators – working with Russian businesses to monetize the assets**. This successful domestic market will in turn drive FDI – success breeds success as the investment itself is inherently less risky.

5. Develop policies designed to encourage international partnership and investment

Russia will not gain massive FDI designed to aid M&I by creating offshore servicing centers as has been the case in India. Nor will it be

the center of cheap manufacturing as is the case with China. Russia's geography and population mean that these are not viable options. However, as has been elaborated at length, Russia can be an **exporter of intellectual capacity** and a home to **international R&D partnerships**.

This process can be facilitated by the reform of existing legislation and by the consideration of a number of fiscal benefits that might include:

- Streamlining the visa process to allow international experts to work in Russia
- Reconsidering the current legislation on the importing of intellectual property
- The removal of VAT on ICT products
- The removal of import duty to enhance R&D interest from abroad

Regulation is also a key issue. The Russian Government would be well advised to look to harmonize **its internal regulations** to internationally accepted standards, or to those of its major trading partners such as the **EU**.

6. Improve transparency and ensure that current laws are effective

Much of the research for this paper suggests that new legislation *per se* will not drive reform. Rather, the Russian Government should ensure the **effective and consistent application of current legislation**. The laws are in place to create infrastructure and supply funding and education – however they are not always properly executed.

When considering international perceptions of Russia as an investment destination, there must be confidence that the **system works** and that the **law will be upheld**. At the moment, consumers can buy counterfeit Microsoft software in any central Moscow electronic store. The Government must show a **commitment to both independent intellectual property law and wider legal transparency** in general. Being seen to be



committed to these policies will **de-risk Russia as an investment** destination.

7. Communicate success

The Russian Government should actively promote its successes in the related areas of M&I and FDI. It should incorporate an M&I and FDI strand into its strategic messaging and **actively communicate the good news stories** that are abundant throughout the country. Government Ministers and spokespeople should incorporate the language of M&I into their communications, thereby helping to position potential foreign investment into the sector as less risky.

Simultaneously, the Government should insist that Russian companies or foreign companies acting in Russia also actively communicate their success. **Senior Executives should be encouraged to give interviews across all media and place articles in influential journals**, explaining how they had been successful in Russia, the investment potential/return and the successful development of M&I within the Russian Federation.

Taken together, these steps would make a material difference to the speed and extent of M&I within the Russian economy and the liquidity of FDI entering the Russian market – the twin aims to which FIAC is committed.

FIAC members are committed to partnership with both the Russian Federation's institutions and Russian companies. The conclusions and recommendations in this paper are therefore designed to directly benefit both the Russian Federation and international investors – a synergy that can only benefit all involved.

Disclaimer

The substance of this paper, the analysis and conclusions are the results of the detailed and objective research of the capital and corporate investment markets. The views expressed here are therefore a condensed version – the "view of the market."

The views included in this White Paper are therefore not representative of the corporate views of either FIAC or Ketchum.

Moscow, October 2010



Russia's suggested road-map for development of high tech excellence

	Short term (1-5 years)	Mid-term (5-10 years)	Long term (10-15 years)	What does success look like (15 years' time)
Action points / recommendations	<ul style="list-style-type: none"> Focus on fixing ailing public infrastructure and introduce smarter cities elements in collaboration with key global high tech companies Introduce tax breaks across all high tech disciplines, including high tech engineering (beyond IT and special economic zones), and import of equipment parts Focus on making Skolkovo a virtual platform for scientific collaboration Increase transparency of Russia's state corporations and their fund allocations Support broadband penetration Focus on support for fundamental sciences Ease short-term visa regime for scientific cooperation Ease certification procedures for import of industrial equipment and machinery from the EU Focus on enforcing existing legislation 	<ul style="list-style-type: none"> Investment in better public services Creating internal mass market and demand for high tech innovation in key industries like energy, mining, transportation Leverage R&D presence and investment of the biggest global high tech players in Russia to create more high skilled high tech engineers and Russian projects Create favorable conditions for Russian scientists working abroad to come back to Russia Create a number of Russian high tech "incubators" to grow mature start ups ready for venture capital influx Ease the process of setting up new businesses, including access to infrastructure Guarantee protection of IP rights, introduce more robust anti-corruption measures and enforce anti-piracy laws 	<ul style="list-style-type: none"> Support creation of high growth internal high tech market Create a number of global R&D partnerships with the largest companies, where Russia plays a unique role Ensure technology graduates get to work on meaningful large scale projects, have good foreign language and management skills Ensure universities power high tech innovation clusters, support international cross-university exchange programmes Create a stable and business-friendly environment to encourage FDI and thus improve long-term economy growth prospects Encourage largest Russian companies to invest in R&D and innovation Seek to abolish state corporations after successful transition is achieved 	<p>Russia becomes a renowned exporter of intellectual services, known for its tradition and capabilities to deliver on the world's most challenging tech projects. Russia is praised for its ability to be a strategically global partner for the largest international companies due to its ability to come up with solutions to high tech projects. There are both internal and external markets for Russian high tech innovation. Scientific work is seen as prestigious and well remunerated, so that Russians start coming back from abroad to realise their potential (repeating the success seen in financial services)</p>
PR Campaign to showcase success	<ul style="list-style-type: none"> Celebrate Russian tech success – PR campaigns and analyst briefings, including with government Select a pool of "ambassadors" to represent Russian high tech business abroad Select a pool of "mentors" that would be available for consultations on investment in Russian high tech for foreign companies Clearly indicate Russia's long term commitments, targets and goals for boosting high tech 	<ul style="list-style-type: none"> PR to be focused on showcasing real progress in terms of economy diversification, creation of internal corporate market for high tech innovation Show that Russia's main asset is people - highly educated engineers that could solve the most complex high tech problems, i.e. Russia is not an offshore destination like India Show that Russia is open for business and FDI investment in high tech, and that the rights of global investors are solid 	<ul style="list-style-type: none"> PR to focus on showcasing that Russia has been very successful in removing long standing structural impediments to growth and foreign investment 	<p>Russia is recognized and praised for its success in the high tech area and its engineering capabilities and is seen as a world class exporter of intellectual services.</p> <p>Russia is not compared with other BRICs and is not perceived as a offshore destination for IT projects</p>

Source: Ketchum Research, September 2010



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Chapter I:

Comparison of Russia with its Main Global M&I Competitors

Drawing on the range of expert interviews and perception studies conducted in the preparation of this report, it has become abundantly apparent that the success of Russia's high tech sector is seen as umbilically linked to the country's overall economic performance. The history of high tech innovation in other markets suggests that some countries, such as **India** or **Brazil**, have become key **low cost and "low innovation" IT outsourcing hubs**. Others, like **South Korea**, the **EU** and the **USA** were able to nurture sophisticated high tech innovation due to their own **strong internal demand**. It is vital for Russia to understand that it faces competition in its M&I and R&D drive – **Moscow is not the only player in this game**.

Despite its strong scientific legacy, Russia seems to be sitting somewhere in between these two points. It is too expensive to outbid other BRICs in terms of cost alone as a "low innovation" IT offshore destination, while very low internal corporate and consumer demand are insufficient to spark "mass" high tech innovation on their own.

However, Russia's unique position suggests that it does not necessarily need to rush into competition with the low cost, low margin and highly commoditized IT outsourcing offered by India. Rather it should focus on reviving what it knows best:

- Russia has the potential to become an **exporter of intellectual services** to the USA and Europe
- Russia can position itself to become a **global strategic partner in R&D innovation** for some of the largest

and most lucrative international high tech projects, including higher-end IT and software products

Following this strategy will have a number of specific benefits:

1. This is **high-margin business** – the rewards from investment are far more significant than the "outsourcing model"
2. **Reversing the "brain drain"** will make Russia the go-to partner for complex high tech problem solving
3. **Differentiating Russia** from the other BRICs will provide material benefits in driving FDI attractiveness

Some experts suggest that Russia is running out of time to benefit from its post-Soviet high tech and scientific legacy. Now is the time to act, therefore, leveraging Russia's traditional strengths such as **favorable demographics in the major urban centers**, a **higher education** sector focused on solving **complex unstructured problems** and its convenient **geographic location**.

Drawing on international precedent, high tech innovation and R&D require significant political will and government investment. For example, Israel has been very successful in creating a transparent government-funded network of high tech innovation "incubators". These incubators provide approximately \$500,000, office space and management consulting to each of a small number of carefully selected start-ups, helping drive them towards the attraction of venture capital.

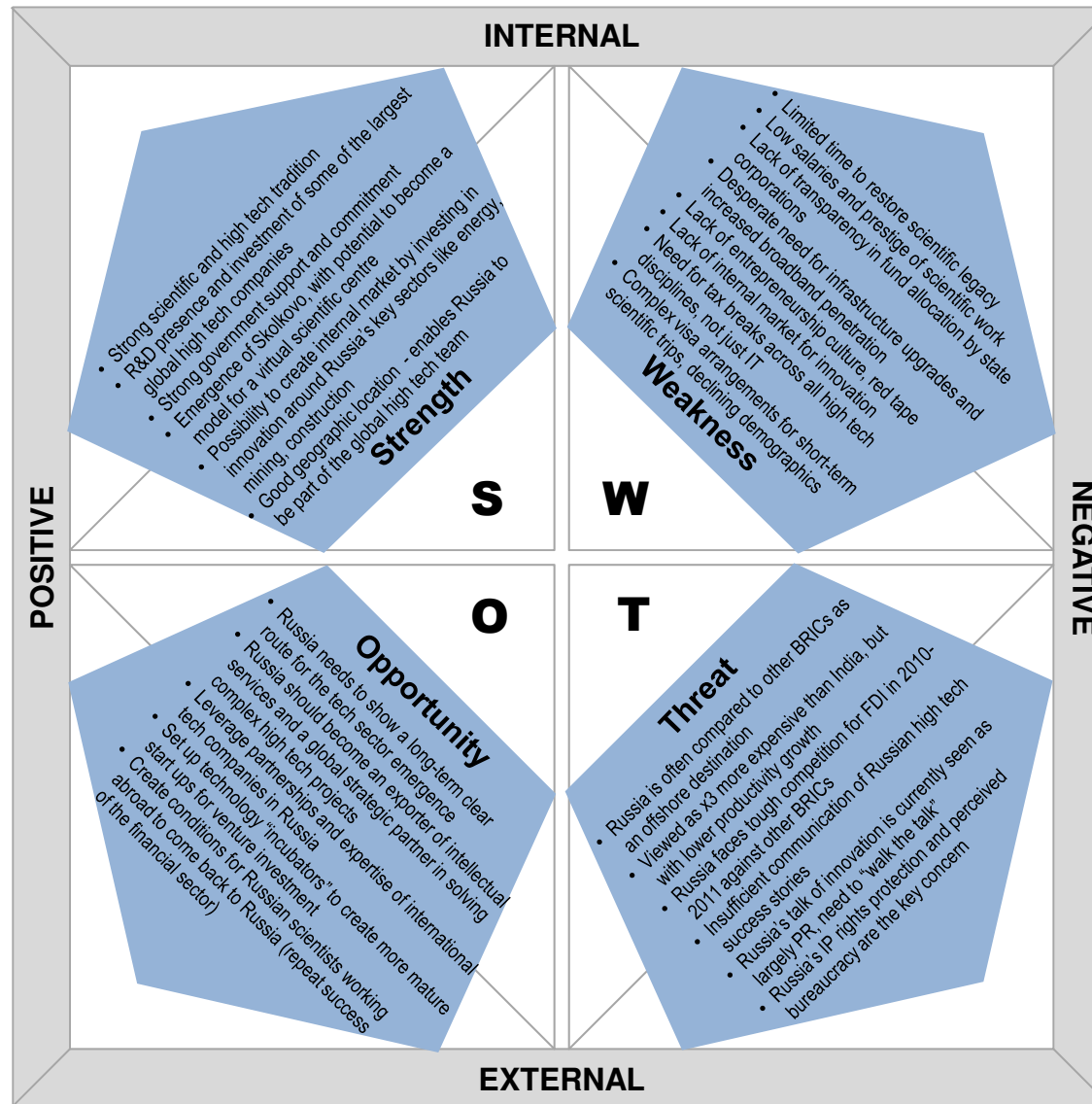


Unfortunately, Russia is currently seen as “closed for business”, by dint of **over-complicated visa procedures** for scientific co-operation, **red tape** surrounding the certification of imported equipment and **inefficient taxation** that makes the import of parts less profitable than the import of assembled products. Tax breaks are seen to favor only IT and special economic zones, and do not support high tech engineering companies focused on export. Science and technology are not perceived as lucrative, well-paid sectors, leading to talented graduates seeking jobs abroad. Procedures for doing business in Russia, it is felt, need to be simplified; there should be more transparency in the system and the existing legislation needs to be enforced (e.g. IP rights protection and anti-corruption).

For the Russian Government to overturn the perception that “Russia is closed”, it is vital that there is a proactive public policy and public relations campaign. Russia needs to show its commitment to removing the long-standing structural impediments to FDI – considered in depth later in this White Paper – and publicly celebrate its high tech success stories, challenging international stereotypes. There needs to be a belief in the Government promise – a belief that can be catalyzed by communications, but **which will ultimately only come with policy delivery and reform.**



Russia's strengths and weaknesses in high tech compared to peers



Source: Ketchum Research, September 2010



Chapter II: Creating that M&I Momentum – Comparisons with Successful Competitors

Japan and South Korea were successful in developing a high tech industry focused on satisfying their **internal market demands** and addressing the challenges of aging or declining populations. This policy drove their sophistication in biotech, industrial construction and consumer electronics, which are now recognized globally.

In response to a declining population, Koreans have been working hard to create English-speaking robot assistants to compensate for the shortage of teachers, with robots being deployed to most pre-schools and kindergartens by 2013. Additionally, high population densities created demand for **improved transportation infrastructure and innovative energy solutions.**

A low **quality of life, abundant low-cost labour and some of the highest productivity growth in the world gave India and China the edge in becoming preferred IT offshore destinations.**

The Gulf states have heavily invested in infrastructure and property development, as well as slashing taxes, taking steps to boost their energy efficiency, and promoting biotech and other high tech initiatives as a result of direct foreign investment.

The US and Europe's internal demand helped create high tech products, and enabled both markets to start outsourcing their production to cheaper offshore locations, happy to support such offshoring with low-cost, "white label" products. By subsequently reassembling these high tech products, repackaging and selling them on, these

developed countries have benefited considerably.

For Russia, success in creating M&I momentum is widely perceived to lie down the path of **creating its own niche in the global high tech landscape.** Neither applying someone else's experience nor simply "throwing money at it" is the way forward. However, the common denominator among all the acknowledged high tech successes has been the cultivation of the key intellectual asset – highly skilled human resources – and making scientific work prestigious and well-remunerated.

Russia has some of this in place already. The major challenge is to **create both a culture of entrepreneurship and a consumer-driven high tech sector.** Therefore, an additional effort is required to change Russia's mindset and culture, and to create a tradition of successful entrepreneurship. Russia's high tech innovation, like in any other peer country, will be a success only if it is market and demand-driven. The development of commercialized products is vital in both the industrial and consumer spheres. While the inescapable truth is that no government can simply "create" innovation, it can and should **give entrepreneurs the necessary tools to encourage its incubation.**

Never in human history has this process happened overnight. The time frame for Russia delivering on its ambitious high tech development is 10-15 years, according to a number of experts. The examples of the United States' Silicon Valley and the UK's biggest high tech cluster in Cambridge, confirm that a university research base is key to any long-term tech sector success. Equally, sound and innovative public



infrastructure (including broadband access in every school and office) are key to creating a modernized economy that will boost domestic demand for technology. At the same time, the government needs to focus on modernizing the economy first (e.g. repairing ailing infrastructure and upgrading production facilities to an acceptable international standard). Innovation can only take root and flourish when the ground has been prepared for this to happen.

Some experts suggest that in order to encourage a technological innovation boom in Russia, Skolkovo should become a virtual, not just the physical model. It should not be restricted by physical borders. Russia is a big country, and innovations should not be concentrated in just one place. The challenge is to find the right combination of “physical” and “virtual” Skolkovos. The suggestion is to create a “virtual Skolkovo”, comprising a collection of R&D projects, undertaken by Russian scientists and engineers, who are not physically based in the Technopolis, but have a good track-record of producing world-class results in science and technology.

If Russia is serious about innovation, state corporations like Rosnano need to become more transparent about the criteria that are applied to projects and how they chosen, as well as more open about the results

achieved. In general, there should be a level of accountability that will promote trust and encourage international cooperation.

At the same time, the market view is that, at the moment, these state corporations are utterly critical for high tech businesses, forming as they do a vital part of the ecosystem and acting as established market participants. However, in order for the industry to take off, grow and flourish in its own right, these institutions need to play their current role only during the transition phase of 3-5 years and then evolve into a different form. Some suggest they should either disappear or go public or be sold into corporate hands. Either way, they need to “lose” a number of non-core functions (for example acting as regulatory bodies) that hold them back and do not allow them to be as efficient and competitive as they might be.

Finally, the general consensus is that the Ministry of Science, Rosnano and RVC suffer from a lack of qualified experts, with considerable fears that Skolkovo may also face the same issue over time.



Mini-SWAT: Summary of Country Ratings

	Russia	Brazil	China	India	Mexico	Poland	S. Korea	Taiwan	Israel	Gulf Arabs	USA	EU
Demographics	3/4	3/4	3/4	4/4	3/4	3/4	3/4	3/4	4/4	3/4	4/4	4/4
Language skills	3/4	3/4	3/4	4/4	3/4	3/4	3/4	3/4	4/4	3/4	4/4	4/4
Cost	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	4/4	4/4
Public infrastructure	3/4	3/4	3/4	3/4	3/4	3/4	4/4	3/4	3/4	4/4	4/4	4/4
Public Education	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Higher Education	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Domestic / Global Competition	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	4/4	4/4
Bureaucratic overhead	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Access to seed money	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Tax Situation	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	4/4	3/4	3/4
Immigration laws	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Investment in R&D	3/4	3/4	3/4	3/4	4/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Special incentives	3/4	3/4	3/4	3/4	4/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Overall Rating	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4

Source: HSBC, Ketchum Research, September 2010



Table 3: Mini-SWAT: Summary of Country Ratings



Chapter III:

Industrial & Academic Prioritization

Which areas are deemed most promising in Russia? Past experience in Russia and around the globe suggests that it is impossible to tackle everything at the same time. The key is finding, defining and expanding on Russia's natural strengths, with market success being the key yardstick.

"Rome wasn't built in a day" is a common saying in English-speaking countries. It is primarily used as a simultaneous encouragement and warning to those embarking on extremely complicated tasks that will, by their very nature, take a long time. Its essence is a reminder that one should be aware of the scale of the task at hand, and understand that to do it right will mean taking the necessary time. Russian entrepreneurs, academics, industrialists and politicians should, it is widely felt, remember this expression when considering how Russian industry can be enhanced and developed to encourage M&I.

The very nature of the technology and telecommunications industrial sectors means that any initiative can lose its way under the weight of the sheer scale of the challenge. The often unrivaled breadth and depth of projects in these sectors mean that it is easy for individual regional, industrial or academic initiatives to become lost in this way.

For example, a recent study of innovation clusters by McKinsey (March 2009) showed that once a base for a cluster is established, innovation hubs must then develop a specific sector focus. Their analysis of the world's most successful clusters showed that they have first established themselves as world-class players in an emerging specialty before expanding. This focus allowed locations to concentrate limited resources, such as labor and capital, on developing competence and

credibility. **Therefore, industrial & academic prioritization is a key to success.**

As a result, the Russian business, academic and political communities must properly analyze **the current state of the market and understand the challenges and opportunities that are endemic in Russia's situation.** Once this analysis has been undertaken, it will be possible to draw up a plan for the prioritization of resources to specific sectors or themes, which can then be worked into an integrated development plan – making a number of incremental changes that will create results greater than the sum of the individual parts.

Following the detailed research carried out by FIAC, a number of conclusions can be drawn in this key area:

There are reasons to be positive.....

There are a number of industrial and related academic success stories that should be celebrated and used as a model for development in the future. The academic and industrial legacy that Russia has inherited should be recognized. A long tradition in **theoretical sciences** has driven success in a number of monetizable disciplines such as aerospace and **avionics, metallurgy, geology, communications** and **cryptology.** Following past cuts in Russia's military budget, these skills have been transformed from purely military applications and imported into civilian projects around energy, natural resources and infrastructure, where **Russia can be seen to be a genuine world leader.**

At **Sakhalin** and **Shtokman**, Russia is at the forefront of energy development. Russia remains a leader in aerospace technology,



working in partnership with companies such as **Boeing, UTC, Finmeccanica, and Eurocopter** on international projects that are based around Russia's long history in successfully developing high technology-focused projects.

But there needs to be reform....

A number of international stakeholders have commented that reform in both the education and industrial sectors is vital if there is to be an effective drive towards M&I. *"Yes, there is some incredible talent there, but they are very proud and don't want to learn new techniques"*, commented one interviewee. Another added that, *"yes there is a great heritage in engineering and physics, but there's a lack of dynamism and understanding of the market. If they don't change things, that heritage will be as relevant to modern Russia as the British industrial heritage is to the UK today."*

The deficiencies of the current Russian market must drive reform

One of the major issues for Russia is that in the high tech space, there is a distinctly marginal domestic market. The majority of clients and customers for high tech "product" are government-led and their needs are, for the most part, very specifically focused on either **defense, energy, natural resources and infrastructure development**, such as the government-backed energy and resources companies.

On a different level, there is a "widespread mistrust" of Russian products within the consumer market. *"Russians buy only vodka or caviar from Russia"* commented one interviewee. There is, therefore, little reason for foreign investors to invest in Russian technology for the Russian consumer or SME markets.

With such a limited domestic market, there is finite scope for new players to enter the market. There is, therefore, a number of major challenges that must be met by both Government and the wider academic and industrial communities.

Aspirationally, if Russians will not buy Russian products, and instead look to international providers, **"Russian companies should be targeting the global customer from the get-go."** It is also important to understand that there are **"no national high technology products or solutions"** – the international market must be the way forward. The Russian Government should look to develop an international understanding of the quality of Russian technology and innovation to drive international sales – thereby creating a new investment driver. This would be of specific interest for a number of less traditional international companies that have previously only made small investments in Russia, due to the *"lack of a market demand that drives innovation into areas that interest us."*

On a more practical level, the **Government can take the lead in publicly defining its priorities regarding the sectors that will secure priority funding / attention from the Government.** These need to be focused around the areas that will generate internal demand such as **energy and natural resources** in addition to **innovative and environmentally-friendly tech, road-building and infrastructure logistics.**

Russia could initially apply these new technologies at home and develop successfully into a global leader over time. **It could also encourage flows of capital by setting up public private partnerships to fund the huge infrastructure projects needed within Russia.** At the same time, it is very important to ensure that the government is seen as a regulator and supervisor that aims to reduce its role as a market player over time.

The major short term benefits of this approach would be twofold. Firstly, this definition will pave the way for **increased flow of funds in specific sectors, driven by the key factor of specific client demand.** The second would be to illustrate that there is a viable market in Russia, that there is a significant demand for investment and that acceptable returns can be made.



The above policies are the easy part, of course. All they require is words and public relations campaigns to highlight the Russian government's commitment to a number of industrial sectors. By contrast, longer term success will need to be driven by the **strategic integration of all interested stakeholders and their operations:** government, academia, industry and finance.

At the same time, key messages about Russia's M&I should also be focused on showing how the involvement of foreign businesses in selected Russian industrial high tech areas could be of genuine, tangible benefit to them, highlighting the steps that the Government is taking to make the Russian high tech market more open for business and internationally attuned. More specifically, the following points should be considered:

1. As and when the Government provides a visible statement of its intent in the related areas of M&I and FDI, **it must be made clear that market orientation sits at the heart of that endeavor.** For example, academia and R&D will need to be exposed more extensively to the market and be seen to come down from their "ivory towers". Although pure scientific research does have its place and should, of course, continue, it is vital that there is a move towards integrating Russia's R&D institutions into the global market. Entrepreneurial thought should be stressed at all stages of employment to create the new generation that will drive the economy. **"Kids should learn what they can monetize," to quote one interviewee in talking about entrepreneurial R&D**
2. Industry should become involved in **offering scholarships to students at all levels**, from secondary school to doctorate level and beyond. In this way, industry can play a positive role in **informing academic and course content.** Innovation and modernization should be taught as part of all courses, not simply from a

theoretical and scientific perspective, but also in more raw business terms. This will allow a greater cross-fertilization **between industry and academia**, with the industry having access to the brightest and best, having also played a role in enhancing their education

3. Another priority area is for Russia's R&D establishment to become more streamlined and co-operative. Whilst a certain level of competition between institutions will ensure efficiency, it is also vital that **"There is a streamlining of R&D centers ... at the moment it's just too chaotic."** National and regional R&D centers should be set up with specific industrial and market-related specialism, potentially in co-operation with specific state industry leaders, e.g. Gazprom, RosAtom, Rosneft
4. **It is vital to properly define Skolvoko's mission.** What Skolvoko is supposed to be: A place for foreigners? A place for Russian-foreign cooperation? A Russian place with foreign help? What's in it for Russia? What's in it for Russian companies? What's in it for foreign companies? It is vital to both clarify the messaging around Skolvoko and also then properly communicate it to all key stakeholders on an international basis. There have been "too many grand national schemes to develop tech." Skolvoko needs a clearly defined charter to ensure international significance and credibility.

What Russia needs – it is widely felt – is visible Government leadership, with the co-operation of the country's key strategic industries and the partnership of foreign strategic investors such as FIAC to drive real and meaningful change. Such leadership must be codified and embodied in a clear, integrated programme that will help to shape and support the market, thereby driving investment. Such a programme will need to be complemented by a market-savvy



academic sector, which – in co-operation with industry – will drive excellence through the continued development of M&I across all parts of the economy.

It is advised that there should be fiscal incentives for companies that genuinely move forward with the M&I agenda, or significantly invest in R&D. Benefits could be structured in many ways. Either as an “M&I” tax which is applied to all companies that do not comply, or with taxation reduction credits

for those that have shown significant progress in the area.

In conclusion, there are very positive foundations to build on. The history of engineering and scientific excellence provides excellent bedrock on which to construct a successful M&I programme designed specifically to drive greater levels of FDI.



Chapter IV:

Russia as an Attractive R&D Location

What are the major regulatory and structural barriers to enhancing Russia as a base for R&D and net receiver of FDI?

Russia's future success as an appealing R&D and FDI location depends on a number of factors. One of the most important is Russia's positive perception as an FDI destination for major international high tech corporations, thereby ensuring the economy receives enough investment to maintain productivity growth.

Fitch Ratings' recent upgrade of its outlook on Russia to positive from stable sent a very positive signal to both current and prospective investors in Russia. The rating agency stipulated that the country's economy continues to recover after taking a hard knock during the global financial crisis. Some of the managers of the largest European funds, e.g. Alister Hibbert of Blackrock's European Dynamic fund, have started talking about Russia's strong recovery and opportunities to invest. However, some of the less financially savvy but vocal stakeholders, like the Valdai Club members, continue to insist that *"there is practically no real modernization, restructuring or diversification in Russia, oil and gas remain the main sources of revenue, corruption continues unchecked and there is almost zero innovation."*

The outlook therefore is mixed. However, it is clear that the majority of experts and journalists agree that Russia's modernization is the most pressing political issue on the government's agenda. All attention is now on Russia's next step in this direction. The international investor community is keen to see a long-term plan for Russia's modernisation that gives a clear roadmap designed to make Russia's economy

diversified, modernized and open for international cooperation. Whilst a number of experts agree that Russia is rich with qualified and science-minded personnel, and that it is the visible intention of the President and the Government to modernize the country, there remains uncertainty regarding the strength of the authorities' intentions to modernize the country, to limit bureaucracy, to defend IP rights and to improve existing laws.

Based on the research and interviews that have underpinned this study, the following is a set of suggested measures for the Government to consider and gradually implement over the next decade, including some quick PR wins. These are outlined in Table 1 **"Russia's suggested road-map for development of high tech excellence"** (see page 5, at the end of the Executive Summary).

Russia already has some genuine world-class innovation in technology, such as aerospace, defense, and other military applications. It is a country of nearly 100 percent literacy, with a scientific community rich in mathematicians, physicists and engineers who, in the past, were able to develop nuclear weapons, supersonic jets, sophisticated spy satellites, and who pioneered space travel. The country's telecommunications infrastructure, at least in the big cities, is remarkably advanced. Wages have been comfortably below those of Europe or the United States. Russia's flat 13% income tax is a definite attraction for investors that Americans and Europeans can only dream of.

More specifically, in its study of global innovation clusters in March 2009, McKinsey separated all clusters in the following categories:



1. "Heroic bets": large, government-led, targeted investment efforts that focus on a specific promising sector
2. "Irresistible deals": regions that are able to attract established companies, often foreign players
3. "Knowledge oases": locations with a critical mass of highly specialized talent, such as a large research university or government R&D lab

It is striking that Russia has considerable tradition, resources and opportunities to have the "right to play" in any of these categories.

However, in order to fully unlock Russia's R&D potential these area of high tech innovation need gradually to be widened and deepened – a process which could be achieved partially though cooperation with some of the largest Russian-based international technology companies. Synergies can be created in the area of high-end industrial and corporate innovation through establishing a strong link between international businesses and their proprietary R&D platforms in the country on the one hand, and Russia's academic institutions/research base on the other. At the same time, there is a need to create a climate where scientists can sustain themselves and maintain decent living standards, in order to attract and retain more talent in the sector.

The restoration of the R&D environment and spirit in Russia is also perceived as being very important, together with a fuller recognition of what science contributes to society. With this in mind, the country's R&D centers should be properly integrated. At present, they are too separate and niche-focused. *"It doesn't feel as though there is a national strategy,"* one respondent observed.

In parallel, the review and simplification of immigration arrangements for short-term business and scientific trips could also foster international cooperation and experience-sharing. Again, it is up to the state to set out the fundamental goals and then guide and

supervise the process of their attainment, as well as ensuring internal and external communication and marketing of whatever steps are taken is integral to that initiative.

In terms of encouraging more "mass market" consumer and corporate technology R&D, a range of **cultural, legislative and societal challenges need to be overcome**. Firstly, the relative lack of a culture of entrepreneurship in Russia needs to be addressed and internal competition fostered. The problem here is two-fold. On the one hand, Russians excel at the theoretical side of science, but are not quite so adept at managing start-up companies efficiently or **applying their scientific knowledge to practical business applications**. On the other hand, they also *"expect to be paid too much for their inventions,"* which *"diminishes venture capitalists' intention to invest,"* said one interviewee.

It is worth remembering the effects of inventors' understandable desire to achieve the highest possible return. The perceived lack of IP rights, copyright or patent protection, represents a real barrier. Entrepreneurs are therefore driven to extract as much value as possible upfront. Certainly this is the impression that every Russian or visitor to the country has when they see illegal copies of Microsoft products being openly sold in the center of Moscow or even counterfeit drugs of the biggest global pharmaceutical companies, which can be found in many pharmacies across the country. The recent news of the German and Russian authorities launching a probe against several former Hewlett-Packard managers, suspected of paying bribes to win a €35m contract in Russia, do not help either.

At the same time, **few Russian scientists, engineers or entrepreneurs understand modern market trends** and can predict market demand for their innovative solutions. This knowledge should be built on in the following ways:

1. More **business and project management disciplines should be taught to young engineers and scientists**, in a way that will help



them to create and work on inventions that are monetizable, and that will meet not only internal Russia, but also international demand

2. A greater number of international student exchange programmes could help young talent understand both the requirements and global market potential of Russian technology innovations
3. **Access to an affordable knowledge infrastructure** is a must-have
4. Office space and access to public infrastructure in Russia for tech companies **is considerably more expensive than comparable infrastructure in India or China**, especially for those companies who compete with other BRICs for software and IT exports

Encouraging seed and venture capital

In terms of supporting technology entrepreneurship, and therefore R&D, the Russian government should **adopt and fund Technology Entrepreneurship Programmes to facilitate the process of taking Russian start-ups to maturity**. Currently, seed and venture funds face difficulties in finding mature start-ups for investments. The lack of entrepreneurship skills and interest from Russian inventors and researchers are among the main show-stoppers standing in the way of high tech start-up ventures, R&D and the entire start-up value chain.

Certainly, there is some venture capital available. However, what stands in the way is the slow speed with which start-ups mature and perceived flaws in state regulation, both seen as sources of considerable risk. For example, Sun Group considers c.200-300 projects per annum and invests in some of them. However, their major concern is that companies still need to understand that they must be more transparent about where funding is going, in a manner that allows for a certain level of

control and supervision from venture capital investors.

In the same vein, some market participants believe that either specific **“technology incubators”** or indeed a programme of low-interest credit financing made available to qualifying Russian high tech start-ups could also boost innovation. The credit could be offered via some of the large Russian banks.

Stimulating internal demand

A parallel challenge is the **stimulation of internal market demand for high tech innovation**. At the moment it is widely assumed that the Russian government or indeed Russian state corporations are the key customers of the high tech industry, and that corporate contracts are both scarce and hard to come by. A major challenge, therefore, is gradually to generate wider internal market demand for innovation at both corporate and consumer level.

At the same time, real competition in the technology market needs to be encouraged to ensure that price is not the single determinant of contract success. Some Russian market participants feel that there is **“no concept of the value of technology,”** that **“companies’ long-term commitment to investing in Russian technology is not being valued”** and that some of the contracts go to **“take the money and run”** companies, which are not there for the long-term.

A reduction of the “strategic sector”

One of the major impediments to foreign investment is the **scale of the strategic sector**. The consideration of “national interest” could be downsized a little to encourage external investment in M&I and R&D. Put simply, it would be a good idea for the Russian state to **“let some of this go.”** This could be delivered by an acceptance by the Government that whilst a certain level of state funding could go into proposed technology incubators, or strategic projects such as Skolovoko, it is worth the state “letting go”. Incubators are designed to produce technology that is monetizeable –



therefore making it state property regards any investment case for external parties.

Broadband internet as a driver of innovation and therefore R&D

In this context, it is widely felt that there should be appropriate steps taken to aid the **boosting of consumer demand in a way that will help build the innovative economy** and reduce transaction costs. **Broadband** needs to become available to more people across Russia, particularly among schools and SMEs, both in terms of physical availability and financial affordability, and also in provincial towns and more rural areas.

To flesh this out, the World Bank has found that in low and middle-income countries every 10% increase in broadband penetration accelerates economic growth by 1.38%. This increase is more than in high-income countries and also more than for other telecommunications services. In a similar study, McKinsey & Company estimates that a 10% increase in broadband household penetration delivers a boost to a country's GDP that ranges from 0.1% to 1.4%. Booz & Company found that 10% higher broadband penetration in a specific year is correlated to 1.5% greater labour productivity growth over the following five years. Booz also suggested that countries in the top tier of broadband penetration have exhibited 2% higher GDP growth than countries in the bottom tier.

Beyond broadband: building an information society

Beyond broadband itself, according to interviewees, if Russia wants to modernize its economy, it should **consider decreasing VAT on a limited number of ICT products most critical to building an information society in Russia** (computers, laptops, netbooks) as a means of providing fiscal stimulation to facilitate those devices' penetration into households and SMEs.

Turkey and Colombia provide strong examples of such stimulation.

On March 26th, 2009 the Prime Minister of Turkey, Recep Tayyip Erdoğan, announced tax cuts for a fixed six month period to help counteract the effects of the economic downturn. Among these cuts was a decrease in VAT from 18% to 8% on computers. An analysis of this move has shown that the resulting fall in tax-take was more than compensated for by the increase in VAT received from licensed software and peripheral device sales.

In order to **minimize transaction costs on the import of components, customs procedures should also be simplified**. Legislation across many countries and the principles of the General Agreement on Tariffs and Trade (GATT/WTO) provide a 0% VAT regime for goods, services and property rights export, whereas in the Russian Federation such tax treatment is only applicable to goods. The recommendation is therefore to include the term "export of services" into the tax law, and extend the VAT regime for goods and services so that 0% VAT is applied to IT services. The state should help IT companies decrease their infrastructure costs, such as rental costs and municipal payments in order to be competitive with world averages.

In conclusion, there is **massive potential for Russia to become a powerful R&D center**, for both Russian and international companies. There are, however, significant challenges at both the structural and fiscal levels, in addition to the need to create a more entrepreneurial, market-oriented and commercially-focused culture for scientific endeavor. Short-term measures such as tax breaks will help. But, it is in the long term – through the education of a new generation of entrepreneurs, researchers and scientists, backed by the right structures, policies and institutions – that real change can be achieved.



Chapter V:

Russia's Human Resources as the Key Factor

Human resources are Russia's most valuable asset, much more so than oil and gas. But is that resource being properly developed and cultivated?

Russia has a considerable number of marked advantages over many other nations looking to develop their economies. Not only does Russia have massive reserves of strategic natural resources, it also has a very long and successful academic tradition in theoretical sciences, and their practical application to industry.

The detailed research carried out by FIAC paints a picture of opportunity and challenges. There is real strength in the Russian educational system, and when combined with a successful academic and industrial tradition, the potential of Russia's human resources and education system to drive modernization and innovation is great.

However there are also weaknesses:

1. The resource base is limited and is skewed towards military applications
2. There is a growing disconnect between academia and industry: students do not understand the market or commercial conditions
3. There is also a feeling from non-Russians working within Russia that there is a lack of will to consider new theories in science and industry; that Russians are too proud to change
4. Finally there is a concern that there is a "brain drain" - that Russia cannot keep the best and the brightest within the country, and that the necessary brain power to drive M&I will be lost

to Russia for ever

To consider the situation in more detail ...

The positives: a strong and proud foundation

As already discussed, there is a strong foundation on which to develop a renewed, integrated academic and industrial drive to aid M&I in Russia.

"Russia was and still is famous for good fundamental science knowledge" according to one interviewee. This tradition is seen as a key investment driver for a number of foreign investors, backed by a belief that there remains **"some historic excellence – generally in military applications,"** such as metallurgy, aerospace, communications and cryptography. This excellence can be nurtured and built on, provided that there is the necessary market demand, to create new, innovative and valuable products.

Other countries with previously successful histories in engineering have found that the change in their economies has, in turn, had an impact on student recruitment patterns. The UK is, perhaps, the prime example. The country that gave the world engineers and scientists such as Newton, Faraday, and Brunell now struggles to attract British students in these fields. This is due to the UK's economy being almost entirely focused on financial and other tertiary industries.

With the rise of international investment banking, with its exceptionally high salaries, Russia is in danger of losing the best and brightest to the "quick win" of banking or law, rather than science or engineering. It is therefore vital that the **Russian government runs a programme**



emphasizing the value of and prospects in a scientific or engineering career. This strong history in science and engineering can also be used as a positive in terms of recruiting students – ensuring that they understand that they are part of a glorious Russian tradition. This will help drive the best students towards the sciences, allowing Russia to leverage its impressive history and **create a more highly trained workforce in a way that will help drive M&I across Russian industry and society.**

Managing international concerns

Much of this section needs to be considered as an extension of what has been said in Chapter III. However, it is worth covering these issues in more detail here.

1. *The resource base is limited and is skewed towards military applications*

There is a very strong perception outside of Russia that any serious academic research connected to industrial application in Russia must be connected to R&D for new military or strategic applications.

Whilst Russia has as much need as any major sovereign state to develop a strong and independent military, it is vital that Russia looks to modernize and foster innovation throughout as much of Russian industry and academia as is possible. The Russian Government needs to take the lead and be seen to encourage M&I across a number of industries – specifically channeling funding for research into areas that can aid strategic industries, and, most notably, into **projects that can eventually be monetized.**

2. *There is a growing disconnect between academia and industry: students do not understand the market or commercial conditions*

This is an issue that needs to be worked on from an early age. Russians should understand commerce as much as they understand science. If economics and business can be taught within secondary education, even those who become pure

scientists will share a connection to the world of commerce.

There are other specific moves that should be made to strengthen the bonds between academia and industry:

- The Russian Government should look to prioritize research grants for projects with specific industrial purposes around M&I
 - Industry, both Russian and international, should invest not only in sponsorships for students at all levels, but also provide wider investment in academic departments with direct connections to their business. This will then strengthen the relationship between academia and commerce, ensuring that research can, over time, be as commercial as it is theoretical
 - Additional business, project and financial management subjects could be offered to students in engineering, maths and science specializations. International student exchange programmes for 6-12 months for the brightest students could be considered
3. *There is also a feeling from non-Russians working within Russia that there is a lack of will to consider new theories in science and industry; that Russians are too proud to change*

It is through partnerships that this issue will be managed. The Russian government should look to emphasize that one of the great values of FDI is not just financial transactions, but the sharing of knowledge that can take place. All the major foreign investors interviewed, both within and outside FIAC, were adamant in their belief that their investments will only be successful if they are viewed as **partnerships** with Russian stakeholders. *"We didn't see it as a takeover per se"* commented one interviewee. **"We see our business in Russia as very much a partnership, with our global expertise, combined with the top quality skills available in Russia."**



It is this view and ethos that needs to be pushed out into Russia by the Government. Without it, there will be a possibility of conflict or at least misunderstanding between Russian and international players. There is a certain amount of frustration, illustrated by the comment, *"They are very proud – perhaps a little bit of humble pie would help them listen to advice."* This is, in part, due to the lack of international experience, a lack of access to modern equipment and the average age of high tech engineers and scientists. The majority of them are 45-50 years old and were formed as professionals during the Soviet era.

4. *Finally there is a concern that there is a "brain drain" – that Russia cannot keep the best and the brightest within the country and that the necessary brain power to drive M&I will be lost to Russia for ever*

Many of the interviewees commented that Russia shouldn't be worried *per se* about losing talent in a brain-drain. The key was "getting them back." There should not be any particular concerns regarding the best and the brightest leaving for a short time, as there could be significant benefits from having a generation that had seen the rest of the world – especially when considering the M&I agenda.

"From a strategic standpoint, creating an early awareness of the outside world, funding scholarships and fellowships, and investing in teachers' and professors' education" could have major benefits. **Russians would be open to the idea of partnership** with the international community and look to bring

their experience back with them to improve Russian industry. Russians should be encouraged to go abroad for some time in all directions – USA, Europe and Asia.

It is important to understand that this is not a fantasy. It is worth noting that many of the bankers that left in the 1990s and early 2000s to London and New York are now coming back to Moscow. The call of the motherland has been significant and they are **bringing back skills and experience with them, helping establish Moscow as a leading global financial center** – working in partnership with western financial institutions. There is every chance that this can be repeated in the more technologically-focused industry sectors, depending on the amount of funding that is directed towards preserving and developing those sectors in the ways outlined in this report.

In conclusion, Russia has a choice. It can take the strong foundation of scientific understanding and merge it with international co-operation to help energize its educational and human resources pool – helping drive forward genuine M&I throughout Russian industry and society.

Or it could take the British route, and encourage its children to be investment bankers and lawyers, and lose a great industrial heritage. The choice is, of course, not an entirely binary one, but failing to capitalize on the country's long and proud industrial and scientific heritage would be a major opportunity very definitely missed.



Chapter VI: M&I as a Societal Challenge

M&I on a broad basis cannot work without public approval. It has to be “bottom-up”, as well as “top-down”.

The public response to the recent forest fires revealed a degree of societal backlash against public money being spent on innovation before the basic infrastructure is in place (effectively, modernization). Economists, in their turn, would argue that no technological progress can be achieved without access to basic infrastructure. A recent analysis by McKinsey (March 2009) identified a set of fundamentals that are needed to establish a minimum infrastructure base for the survival of an innovation cluster. Criteria such as the quality of the physical infrastructure (for example, electricity, transportation, and telecommunications) and governance indicators (for instance, rule of law and government stability) are essential for a location to “earn the right to play.” Meeting this minimal threshold is an important prerequisite. Further improvements to this base, interestingly, are associated with only incremental growth in innovation capacity.

This leads to a vital conclusion that M&I on a broad basis **cannot work without public approval in Russia**. It can only be successful if the process is supported and pushed through at the state, corporate and personal levels. Russia’s internal audiences need to have the story told to them in a way that they can understand and support. The quest for modernization, focused initially on improving infrastructure and the public space through the automation of embedded systems, **offers huge potential for savings, and improving the populace’s quality of life**, through improvements in both speed and efficiency.

Possibly the most obvious example of what M&I at more advanced stages can achieve as a driver of positive societal change is that of innovative systems. These include smart meters for the energy sector, electronic health records for improving the healthcare system, real-time tracking and monitoring of public transport to help to cut crime and the co-ordination of emergency and security services to help locate and respond to natural disasters quicker. Broadband access will give endless opportunities for distance and e-learning, and online commerce, helping also to spark GDP growth and economic productivity – with state programmes supporting the modernization of telecommunications infrastructure further increasing efficiency and quality of life.

While a clear explanation of the societal benefits of a modernized economy and infrastructure base will help garner public support, it is also crucial to ensure that the public does not perceive modernization as “yet another sell-out” to western interests. The messages around modernization for internal audiences need to be focused around the revival of Russia’s scientific tradition, its ability to strengthen and diversify the economy, to create jobs, and to foster a range of more “equal” strategic partnerships with some of the world’s most innovative global companies. As a result, Russia will benefit from steadily accumulating high tech knowledge and will become a cluster for innovation, nurturing both indigenous and international technology and innovation.

Through access to the international best practice developed by the world’s leading companies operating in Russia and to the most sophisticated equipment, Russian scientists would be able to generate even more successful technological solutions at home on Russian soil. Broadband, again,



could be a useful tool in helping to integrate the country, provide tangible benefits to the populace, in addition to providing a key infrastructure back-bone for commerce.

In turn, this education and enlightenment of Russian society will foster a pro-M&I and pro-technical public climate, in turn contributing to societal openness in Russia to the whole M&I agenda. However, such changes in societal attitudes will only come about once the process of commercially-focused and internationally-attuned scientific and technology innovation becomes seen as truly prestigious and well-remunerated.

The **public M&I story needs to be communicated by all levels of government and through the mass media.** It is vital that the Russian populace understands the benefits of the national M&I programme and the potential for it to improve lives across the country.

On this point, it would be vital for the supporting communications campaign to really crystallize the value of the M&I programme with the Russian populace, to **create a number of highly visible and publicly beneficial programmes**, e.g. e-health and education with real benefits. Whilst communications campaigns can genuinely change perception, a certain level of real-world change is also needed. Without real change, the risk is that the Russian populace will see this all as “propaganda”.

In conclusion, while there are huge societal benefits that will flow from an effective M&I programme, such benefits will not accrue unless and until the rationale of the M&I story is clearly told to the population at large, without at the same time over-promising. In short, a powerful, compelling narrative is one thing. But, it is actual delivery that will be vital.



Chapter VII: Current Red Tape for M&I

Is bureaucracy a major deterrent to investment that will drive M&I?

In the eyes of many investors, possibly Russia's most debilitating inheritance from the Soviet Union was the massive and all-encompassing bureaucracy. Whilst this has been useful in some senses, there is a general perception across all external stakeholder groups that it has been a major bar to both FDI and M&I agendas. Some parties have suggested that Russia **needs to cut its bureaucracy by 75%** to be effective amongst international markets.

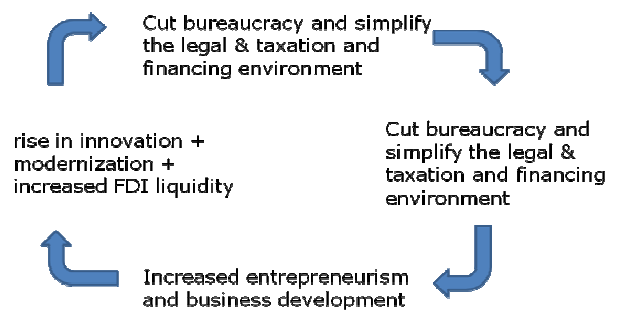
Clearly it would not be practical to suggest a root and branch reform of the interface between industry and the Russian Government, for any number of reasons – a major one being that the state still employs millions to facilitate the bureaucracy. However, there are a number of specific areas that have been highlighted through FIAC's detailed research process that could have a significant positive impact on encouraging M&I within the Russian market, in turn driving increased FDI.

1. Encourage entrepreneurship

It has to be understood that entrepreneurs are often "not the most systematic of people." This is not to say that they are lazy – far from it. It is more a case that many entrepreneurs work either alone, or in very tightly knit teams, and that the vast majority of their time is spent on the specific operational problem in hand and tracking down the necessary finance. A vital consideration is that the State should not put **extra unnecessary barriers in place.**

"Filling out forms is just not in their nature" commented one interviewee. It has been suggested that the Government should consider simplifying the current corporate legal, taxation and financing environment to facilitate growth. The benefit for M&I will be to encourage scientists and researchers to "think like businessmen and learn how to budget." There is also the factor that FDI often flows into successful small domestic business, with proven good ideas, but lacking the scale or financial muscle to be monetized at the optimal possible level.

This virtuous circle galvanized by reduced bureaucracy can be summarized as follows:



2. Encourage partnerships

international

Russia has gained much of its FDI into technology through the creation of long-standing **international partnerships.** International corporations come to Russia for a number of positive reasons, but the most successful have been where there is a balance in the relationship. However, for this to happen, international businesses need to be able to employ non-Russians. This is not merely a process of capital investment.



Human capital could well help M&I in Russia through the sharing of knowledge and techniques.

There are two major issues that could be considered by the Government. **The first is the simplification of the business visa scheme.** The Government could consider a simplified regime for **highly skilled specialists visiting Russia for a period of less than 10 days.** This could play an important role in facilitating knowledge transfer into the Russian market.

A second and more complex issue is that of immigration. **International entrepreneurs should be attracted to Russia, to work in partnership with their Russian equivalents.** This could be the start of a flowering of technology and telecommunications at the SME level, and act as a seed bed for M&I. However, this is dependent on an **opening up and easing of immigration laws,** in addition to a certain amount of corporate / legal reform. This is clearly something of an ambitious project and should be considered a long-term goal.

A final issue worth considering is that of acquisition. As with all company law in Russia, it is extremely complicated for foreign companies to acquire Russian companies. There is a massive acquisition risk and cost compared to the majority of Russia's peers in the international investment and technology markets. A majority exit in the international markets is for a start-up to sell a monetizable concept to international players. However, the detailed research informing this study reveals **considerable doubts about the ability of foreign corporates to acquire successful Russian start-ups.** This perception – and reality – must be overcome to allow constant flows of capital into Russia.

3. Reform of Import / Export duties and specifications

It is clear that information technology *per se* is not limited by international or legal barriers. However, capital investment is influenced by a number of different issues – specifically risk created by local legal issues.

Examples highlighted during the research and interviews included Russia's current export controls and burdensome procedures for the import of innovations.

Whilst a number of emerging markets in Asia have managed to create a very strong position in the finished consumer electronics and radio-electronic components sectors, Russia could still be competitive if it considers reforming its duty legislation.

The existing structure of import duties on finished consumer electronics and on radio-electronic components for their manufacture makes it unprofitable to produce consumer electronics in the Russian Federation.

Due to the current legislation, so-called "transformation value" doesn't remain in Russia, and leaks out to other countries with more "friendly" duty structure such as the Czech Republic, Ukraine and Hungary.

This makes FDI into Russia unprofitable for both multinational companies specializing in electronic contract manufacturing and big Russian companies such as Kaliningrad manufacturer BMS ("Baltmikst") or K-Systems, because higher duty fees reduce the return on investment.

Finally, it is widely perceived that there is a need to simplify Russian technical specifications and requirements for the import of equipment parts. Currently, the Russian tax system favors the import of fully assembled equipment over that of equipment parts. Therefore, the production of such equipment in Russia is again less profitable. It is possible that the adoption of EU standards could be considered as a solution to this issue.

In conclusion therefore, it is worth the Russian Government considering the mirroring of its strongest trading partner's import / export regulations – namely the EU.



4. The Application of Current Legislation & Policy

One important area for consideration is the consistent application of legislation across all jurisdictions and industries. For a country as diverse and complicated as Russia, it is important to have a unified legislative structure in place.

The Russian political and commercial sphere needs to understand that **it is vital for all contracting and financing processes to be run on as transparent a basis** as possible. A number of interviewees commented that it was occasionally felt that the **"value of technology and skills doesn't trump the value of relationships."** This issue is illustrated not to undermine the inherent value of international partnerships, but to highlight the extent to which this question of transparency is seen as a key issue. When contracts have been awarded to bidders who are both less experienced and more expensive than international partners, it is fair for international investors to question both the terms of engagement and what they have to offer.

Whilst this is part of a wider discussion, many feel that the **inconsistent application of tax law leaves space for confusion or perceived corruption.** As has been mentioned already, there is a

feeling in the wider investment community that there is no need for new legislation, **but rather a hunger to see the accurate and consistent application of current legislation.** If the current taxation law can be worked to encourage both M&I and entrepreneurship, **there shouldn't be a need to change the structure for a decade.**

In conclusion, Russia's current corporate legal environment is widely seen as a **genuine barrier to FDI.** Small changes can be made in the short-term to improve international investor sentiment, such as the **reform of both the immigration and import and export systems.** For longer term consideration are issues over **building a culture of entrepreneurship** and creating mechanisms that allow small businesses to be monetized. Russians should, of course, be incentivized to start and nurture businesses and technological enterprises. However, for this initial success to be capitalized on to the benefit of all involved, ways must be found for such **successes to be leveraged on the international market, and used to drive FDI** into the Russian technology sector.



Chapter VIII: Reciprocity! The Role of Russian Companies Abroad in Attracting Overseas Experts and Joint Project Working

There is, of course, nothing quite like a real success story to showcase the benefits of doing business in Russia and the scope for forging effective partnerships across key external markets in the EU, USA, Japan, UK, among others.

Russian technology companies have good stories to tell: **MTS, Vimpelcom, IBS Group and Kaspersky Laboratories** to name just a few. At least a dozen Russian high tech companies could become “ambassadors” for a modern and innovative Russia. The leaders of the most admired Russian companies in the sector could – and should – celebrate not only their success, but also the pivotal role that the Russian market, the skills and creativity of its people, and the traditions and resource available within Russian R&D sector played in that success.

At the same time, there is also a pressing need to market Russia’s general investment climate. At the heart of this must sit the promotion of the country’s political and economic stability, ever increasing transparency in decision making, its sizable and growing internal market, its convenient geographic location and the excellent infrastructure in the “European” part of Russia.

Government support for this programme would be useful. For example, interviewees suggested regular non-deal investor road shows or press conferences, backed by the participation of Russia’s leading private companies and/or state corporations. That said, some market participants feel that the majority of Russian companies are sadly not quite ready for that yet.

The key problem, it is felt, is that only a few purely Russian companies have the right multicultural communications skills to be able to generate the right messages and communicate those to foreign investors in a slick, genuine and positive way. By contrast, Russia-based international businesses are already communicating their successes, both to their shareholders and international media, continuously contributing to the positive image of Russia.

At the same time, these individual corporate success stories must be seen as “proof points” of the positive steps in the right direction being taken by the government, regulators and policymakers. An overall Russian M&I campaign must be focused on showing how foreign businesses’ involvement in the country will provide tangible, long-term benefits for them.

When dealing with issues on this scale, there are rarely many *genuine* “quick wins” in terms of communications, as such successes need to reflect positive change on the ground designed to address foreign investors’ key concerns, such as IP rights protection. For example, many foreign companies are concerned about transferring their R&D into Russia involving close cooperation with the local companies, given the perceived risk of losing IP rights to the state. These issues need to be reviewed and addressed at a granular level, if communications activities are to be truly effective.

While the international high tech landscape is quite diverse, there is one common feature: the need to adapt to the hurdles and barriers of entry into different markets (including varying levels of protectionism and de-



cluttering the stereotypes that hound many markets). Every country is, of course constantly striving to generate incentives designed to help make their national champions (or prime inward investors) competitive on a global scale.

A good example would be the recent \$2.9bn deal between the US commercial satellite communications company Iridium and a Franco-Italian manufacturer Thales Alenia Space to build 81 spacecraft to renew their satellite constellation. The decisive factor in closing the deal was the European partner's ability to secure an unconditional pledge by the French export credit agency, Coface, to issue a guarantee to cover 95% of the \$1.8 billion credit facility for the project, making the proposals of other non-European companies less attractive.

At the same time, even the most well-known technology giants are not immune to regulatory hurdles. In 2004, the European Commission fined Microsoft \$613m, suggesting that the technology giant broke competition law by refusing to open up its software to its rivals. And the long-running dispute between the European Union and the United States over state backing for aircraft makers Airbus and Boeing is, of course, well known.

Given the "natural" tendency to protect local companies across the world, Russian

companies abroad are generally viewed positively as long as they do not plan to acquire a local business, but merely provide additional choice for consumers. The experience of countries like Japan, South Korea and the USA shows that the best way for businesses to be viewed favorably on the international stage is first to become a "champion" on their home turf, with a reputation for high tech innovation. It is this strong domestic base that can then form the foundation of expansion abroad.

While there can be no 'off the shelf' solutions for international marketing, this common pattern of building an international profile on the bedrock of domestic success should inform the way in which Russia as a whole conveys its attractiveness as a modern, innovative FDI designation – with a proven business rationale and bottom-line impact at the heart of any messaging. If done correctly, the impact of international communications could be considerable, for indigenous Russian firms, international companies already invested in Russia and for the country as a whole. As the founder of Microsoft, Bill Gates, used to say *"If I was down to my last Dollar, I'd spend it on public relations."*

However, without the substantive change that Dollar might not be worth spending.