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## Bringing EU-Russian relations to a new level

By Jose Manuel Barroso

Relations between Russia and the European Union have been growing in importance and their dialogue has been improving in quality. Indeed, in this new rapidly changing and globalised world, the EU and Russia are increasingly interdependent. We have a common cultural heritage forged throughout the long course of Europe's history. European and Russian culture from music, to arts and literature have been influencing each other to the point of being one and the same. Europe and Russia also share the same continent and have a strong interest in stability and harmonious development from the European peninsula to Asia. Economically, our industries are set to benefit significantly from a greater integration of trade, investment and technology exchange. In the field of energy, we also have a lot to gain from an increased security of supply and transit, a diversified set of suppliers and clients and improved efficiency.

In the past two decades this relationship has been considerably strengthened, as illustrated by increased dialogue on strategic issues, growing cooperation on security and defence e.g., within the EUFOR Chad FCA and greater bilateral trade flows. Russia was the EU's third-largest supplier and fourth-largest client in 2010. The EU is Russia's most important trading partner by far, accounting for 50% of its overall trade in 2010. It is also the biggest investor in Russia and 75% of Russian FDI stocks come from EU Member States. The key question, therefore, is not whether the EU and Russia are interdependent on a wide range of political and economic issues, but rather how that interdependence will be managed.

There will certainly be a great many difficulties to overcome, as the 2008 crisis in Georgia and the erection of trade barriers after the first phase of the economic crisis have shown. However, both Russia and the EU have important "assets" which will help keep efforts on track. I would like to mention three of them.

Firstly, we share a strategic goal: a strong and results-oriented bilateral relationship is in the long term interest of European and Russian citizens and is necessary in order to address global macro-economic issues and societal challenges of mutual concern.

Secondly, our relationship is rooted in both official and informal contacts between our administrations and societies. The EU and Russia have succeeded in working on a common agenda and in defining joint projects. This pragmatic approach is based on a solid legal background and an intense network of formal or informal working groups, joint councils and summits.

Finally, our relationship is having a transformative impact. The support provided by the EU's strengthening of trade and technological cooperation is also improving the rule of law in Russia and facilitating contact between civil society on both sides; both are essential for making the modernisation effort sustainable in the long term.

Combining a strategic view of our future with a pragmatic and transformational agenda is certainly the most efficient way to improve EU-Russian relations. This was precisely our main goal when I agreed with President Medvedev the idea of a "modernisation partnership".

This partnership was formally launched at the Rostov summit in June 2010 and draws heavily on the achievement of the EU-Russian "common spaces": Economy, Freedom, Security and Justice, External Security, Research and Education. It is a broad platform which also encompasses the strengthening of the rule of law and citizens' rights. In this respect, the EU is working together with Russian authorities on a Russian-wide judicial appeal system, and we have welcomed

the creation in March 2011 of an independent EU-Russian civil society forum.

This is also a joint effort on the EU side and complements the partnerships being developed by Member States at national level. More importantly, the partnership has already started to deliver practical results -cooperation in the space sector was demonstrated by the successful launch of a Soyuz from an EU space port, as part of the Galileo programme last October; technical regulations are being aligned in several sectors; and discussions on a visa-free short-term travel regime are in progress - all of which reflect a common vision of the future.

The fact that the EBRD and the EIB are also associated to the finance of modernisation initiatives means that concrete financial support will be given to projects in both the private and public sector. This is a significant achievement.

Russia's accession to the WTO which the EU and in particular the Commission, has been very actively supporting is another building block of the modernization agenda that both the EU and Russian authorities are working on. It is clearly in the interest of the EU, Russia and the rest of the world to see this last major world player joining the multilateral trading system. Following the agreement between Georgia and Russia, the EU looks forward to seeing Russia's accession finalised at the WTO ministerial meeting mid-December. Russian accession would strengthen world trade and hopefully contribute towards consolidating EU-Russian relations and closer bilateral economic ties.

The years to come will also be crucial for proving Russian commitment to the consistency, predictability and values necessary for the country's development, notably after the Duma and Presidential elections. A new impetus regarding domestic reforms is needed as well as in the negotiation of our future Partnership and Cooperation Agreement. Dialogue on energy policy should also be increased, and an attempt should be made to find common ground on the Energy Charter and how to implement it.

Involving the business sector and our civil societies will also be crucial. European companies have played an important role in rebuilding the Russian economy and meeting consumer needs there. Contacts between our universities, artists, entrepreneurs also need to be fostered. We can provide the platform to facilitate the emergence of these trends, but it will be businesses and their leaders, our students and researchers and civil society at large that will have the main role in the next chapter of European and Russian relations.

*Jose Manuel Barroso*

*President of the European Commission*

## The great potential of the Baltic Sea cooperation

By Jyrki Katainen

The Baltic Sea has always offered an open route for trade to many countries. To this day, we continue to depend on seafaring. The Baltic Sea region is our home field. The players around it range from the small and dynamic Estonia to the leading EU Member State Germany and to the vast Russian Federation. However different we are, geographic proximity is a natural reason for close cooperation.

It is important to keep the EU Baltic Sea Strategy high on the EU agenda. It is crucial for the future of the Strategy that its objectives are clear and specific. Concrete objectives motivate the Member States and local partners to implement the strategy effectively.

The Baltic Sea Region has a tradition of cooperation in the sector of competitiveness and the single market. This cooperation needs to be strengthened. In the EU Strategy for the Baltic Sea Region we have existing mechanisms to prevent and remove obstacles of implementing the EU internal market. We have structures to share best practices regarding the implementation of the Services Directive and implementation of the Commission's important recommendation on improving the functioning of the single market, among other things.

The Baltic Sea area should be made an area that fully utilises the Single Market framework. This will mean: 1) Identifying and removing remaining Single Market barriers, 2) A high level of commitment for the work to boost implementation; and 3) Intensified problem-solving.

All this will require resources. I am convinced that it is worth it. If we manage to develop the Baltic Sea area into a true Single Market, it will benefit the EU as a whole. It will serve as a pilot area for a well-functioning Single Market, creating a model of best practices.

A well-functioning single market relies on good implementation. The method for enhancing the single market in the Baltic area should be built on tight cooperation between the EU countries around the Baltic Sea. I call for the relevant ministries in the different countries to establish an expert network – a high level single market task force – that would work on the implementation of single market legislation and other policies important to business. The aim should be a uniform regulatory environment that would make cross-border business as easy as possible.

In order to make the Baltic Sea area really connected, transport infrastructure is of major importance. One target of the EU Baltic Sea Strategy is to make transport connections faster and travel times shorter. The next Financial Framework will hopefully place stronger emphasis on transport corridors such as the Bothnian Corridor and Rail Baltica. These corridors will improve the integration of Baltic Sea States into the single market.

Inexpensive energy is another basic requirement for competitiveness. Finland has highlighted the importance of developing the EU's internal energy markets. Well functioning energy markets give the best signals for investment and improve energy security.

Finland is willing to support efforts to find positive solutions for electricity imports from third countries, and especially from Russia, to EU Member States. However, from the Finnish point of view, it is necessary that the rules for trading electricity with third countries are agreed simultaneously with the de-synchronisation plan for the Baltic States' electricity grid.

The health of the Baltic Sea's ecosystem remains of great concern. Recently, however, some positive developments have been reported: the number of protected areas has increased, currently covering over 10 per cent of the Baltic Sea marine area.

Nutrient input remains one of the key threats to the Baltic Sea ecosystem. It is quite clear that agriculture, airborne nitrogen input from both land and sea-based activities, and untreated municipal wastewater are the main sources of excessive nutrient input into the sea. In this regard, progress has been made in reducing point source discharges. For diffuse sources, the situation is far less satisfactory.

Illegal oil spills have decreased. However, the remarkable growth of maritime traffic in the Baltic increases the risk of potential major pollution accidents. Safe navigation is the basis for protection against oil and chemical pollution. Additional measures to further improve maritime safety are needed.

The Baltic Sea is not a sea within the EU. Any meaningful cooperation in the area will require cooperation with Russia.

The value of Russia's accession to the WTO cannot be overstated. Both Russia and its trading partners like us benefit hugely from Russia's integration into the global, rules-based system of trade relations. We expect that Russia's membership in the WTO will give a new boost to the overall investment and business climate in Russia. This will certainly help all of us in the region.

Practical, small-scale cooperation with Russia is needed as well. I have learned with great interest about the initiative of the City of Turku and the Regional Council of Southwest Finland, namely the Turku process. The goal is to develop concrete projects and hands-on cooperation with regional partners in Russia, such as the City of St. Petersburg, Region of Leningrad, Kaliningrad, as well as their companies, chambers of commerce and universities. This is a good example of cooperation that deserves our support.

The fact that this is done in close cooperation with key partners such as the City of Hamburg and the European Commission/DG REGIO, further enhances its potential. The Turku process, in which also the Centrum Balticum think tank actively participates, is a concrete example of what cities and regions can do to promote regional cooperation.

The Northern Dimension is a concrete tool for cooperation between the EU, Russia, Norway and Iceland. It has not appeared on the front pages lately, but it has actually been a success story, with new cooperation and new partnerships. It also gives us a good structure for equal cooperation with all our partners.

I see great potential in the Baltic Sea cooperation with the three E's – Europe, the economy and the environment. Especially I want to underline the potential that lies in removing the remaining Single Market barriers.

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*This article is based on the speech by PM Katainen at a seminar concerning the future of Europe in Turku on 12 December 2011*

Jyrki Katainen

Prime Minister

Finland



## The new threats to Northern-Europe

By Mart Laar

It is largely known, that security in the Baltic Sea region has been concern to nearly all countries around the Baltic Sea. This has not been “the Sea of Peace”. For centuries the Baltic Seas has actually been “the Sea of wars”. Wars on the Baltic Sea were nearly permanent, devastating all countries around. Even on the times, when the confrontation was not “hot” as during the times of the Cold War, was all the area extremely militarized. Peace arrived to the Baltic Sea after the collapse of the Soviet Union. By now nearly all countries around the Baltic Sea had joined either European Union or NATO or both. For some time it looked so as history had ended for the Baltic Sea countries.

This was a very naïve hope. By now history has returned to the Baltic Sea. Russia’s strong military buildup and rearmament program have made this clear to everybody. During next year Russia’s military budget will grow more as 20%. Kremlin is demonstrating its muscles on every occasion, taking more and more confronting line towards NATO. Huge part of this military buildup is concentrating to Baltic Sea region, where Russia’s military strength is significantly increased. This does not include only aggressive exercises, but also development of newest weapon systems here, including new missiles and radars. It is hard to say, why all this is done, but Russia is Russia. For the Baltic Sea countries this nevertheless means need for more cooperation.

A month ago the Defense Ministers of Baltic and Nordic countries gathered to meeting in Örebro in Sweden. In discussions participated also Defense Minister of Great Britain and high level representatives from United States, Germany, Netherlands and Poland. Soon this fact demonstrates clearly how far the cooperation among countries around the Baltic Sea and Northern-Europe has gone. Northern-Europe’s understanding of defense is not always similar to other EU countries. Several countries are actually swimming here against common European tide. Sweden is not anymore neutral country, but participating in international missions as in Libya. When in most countries defense budgets are going down, then in Estonia it will reach 2% from GDP. When many countries in Europe have given away their conscript army, then Finland and Estonia not.

At the same time, countries gathered in Örebro had very similar understandings in all main areas and questions, cooperation between them is strong and real. They also raised Europe’s attention to several new threats to our security in modern World. One of them is cyber threat.

Only some years ago these threats looked mostly theoretical. By now they have become real. First this was realized by Estonia. Cyber attacks against Estonia (a country where we vote online in national elections and conduct 98% of our banking over the internet) in 2007 nearly undermined the functioning of our society. Cyber attacks embody the fundamental trait of new security threats – they target our societies’ dependence on technology, trade and openness. They are a cheap and effective tool that advantage the attacker and can be used by states, criminals, terrorists, organized crime, and empowered individuals. Effective cyber security is not cheap and requires unprecedented cooperation between civil and military authorities, the public and private sector.

Europe’s comprehensive approach to security fits the threats we face from cyberspace, but the EU has been slow to react to changing circumstances. Member states policies could be far better coordinated. The EU has in the last year been victim to several embarrassing attacks in which gigabytes of sensitive data were lifted from Commission, Council and Parliament computers.

At the same time cyber security issues are enormously important namely for Northern Europe. It is largely known that largely thanks to their fast development in e-area these countries are specially vulnerable to all possible cyber attacks. Recent cyber attacks against Finland with significant political context are sad example of these new threats. Strong e-development is at the same time strong asset to fight these attacks. When we can share our knowledge and experience Northern countries can do lot of good not only for themselves but for all Europe.

That was the reason, why in Örebro was decided to start to work on Nordic cyber defense detachment, what we can offer when it is needed to European Common Defense and Security policy. At the beginning of the next year experts from the Nordic countries will arrive to Tallinn to NATO’s Cyber Defence Center of Excellence to prepare concrete steps toward common activities in the field of cyber security.

Other fields of cooperation are also discussed among so called NB8. Both European Union and NATO are talking about the need to cooperate more. In NATO it is called “smart defense”, in EU “sharing and pooling”. NB 8 had done soon before they were called to do this. Common procurement – by example Estonian-Finnish radar procurement or cooperation in Baltic Defense College are only some examples how useful such common projects can be. In Örebro several other possibilities for enhanced cooperation were discussed, by example common exercises. This all can strengthen security around the Baltic Sea and giving more possibilities to raise the share of NB 8 in Europe. There has been lot of talk on economic or environment cooperation in the Baltic Sea area, now has arrived time to step up with the defense cooperation also.

*Mart Laar*

*Defence Minister*

*Estonian Ministry of Defence*

*Estonia*

## The stalemate in Spitsbergen could be used to Norway's advantage

By Diana Wallis

Since I was first elected to the European Parliament in 1999, I have been involved in Arctic issues, including attempting to more adequately reflect views from within the region by promoting an alternative approach (through a labelling regime) to the recent EU ban on the trade in seal products.

As part of my involvement in Arctic matters I made my first visit to Svalbard in April 2001 from which time I have been fascinated by the set of rules which determine this Arctic archipelago's governance: the Spitsbergen Treaty of 1920.

What aroused my curiosity in the treaty, as a lawyer was how this rather elderly agreement, signed in Paris just over 90 years ago, seemingly contained very modern concepts such as environmental protection, non-discriminatory treatment of signatory state nationals and non-military use. For a treaty that was first mooted at the very beginning of the last century (even before the outbreak of the First World War) it seemed quite unique in the way consideration was given, initially, to a system of rotating and finally shared international governance aimed at both environmental protection and equitable exploitation. The final Spitsbergen Treaty of 9th February 1920 granted 'absolute sovereignty' to Norway over the Svalbard archipelago, with the freedom to regulate the area in accordance with and for the benefit of the state partners to the treaty.

It is clear to me on my various visits that the Norwegians have been admirable custodians of the archipelago on behalf of the signatories - no-one could dispute that they have done an excellent job, almost certainly going beyond what was originally foreseen. The growth of the international research community there is also much to be applauded.

Despite this there remain tantalising questions, not least that, if this has worked so well for the governance of Spitsbergen under international agreement, might it not then be a model that should be extended further into the fragile Arctic, at least to the 200 mile continental shelf zone? However, it is then that the tensions begin to surface. Norway argues that it is its own 200 mile zone, not Spitsbergen's, which should apply to resource exploitation

and governance. This is not the way other nation states in the region see it. This makes a huge difference to the future of fisheries and any possible oil and gas development within the zone.

So far such nascent tensions have been dealt with by relatively polite diplomacy and legal process between the signatories of the Spitsbergen Treaty but in effect there is a stalemate which could and, indeed should, perhaps be used as an opportunity. Indeed the final clarification could be to Norway's advantage.

The current notes of discordance over the provisions of the Treaty could provide all Arctic nations and institutions with an opportunity for reflection, perhaps in the context of an amendment to the Treaty by protocol. This would provide an occasion for a valid EU contribution and involvement, which has otherwise proved so illusive in relation to the Arctic Council.

I therefore published a small research pamphlet which I hoped would stimulate thought and debate. Indeed this has happened, not least in Norway. This pamphlet was never intended as a criticism of the Norwegian position but rather a search for more modern international structures and solutions based on what we might learn from an old but nonetheless innovative Treaty written all those years ago.

*Diana Wallis, Liberal Democrat  
MEP for Yorkshire & the Humber*

*Vice President of the European  
Parliament responsible for the  
Northern Dimension including  
the Arctic and the High North*



[www.dianawallismep.org.uk](http://www.dianawallismep.org.uk)



## Challenges for the EU from the perspective of external audit and accountability

By Olavi Ala-Nissilä

The European Court of Auditors (ECA) - or simply the Court - is the independent audit institution of the European Union. The Lisbon Treaty, which entered into force two years ago, confirmed ECA's position as one of the seven Institutions of the European Union. The Court is based in Luxembourg and has a staff around 900 professionals from all EU nationalities. Since its creation in 1977, the Court has focused its attention on the importance of EU financial management. The Court's mission is to act as an independent guardian of the financial interests of the citizens of the Union. It is a mighty challenge and requires constant alertness especially in these economically difficult times.

The Court's principal tasks are to carry out financial and compliance audits, principally in the form of the statement of assurance (or DAS); and performance audits of topics selected to maximise the impact of its work. In addition, ECA produces opinions on proposed regulations related to budgetary management and other issues of importance. During the past three years the Court has – on its own initiative – tackled also some other important issues, like EU budget reform and economic and financial crisis, in the form of position papers, reflections and contributions.

The annual report on the implementation of the EU budget is ECA's main product. The report mainly comprises the DAS opinion on the EU budget as a whole and specific assessments of various policy groups, and is published each year in November. The latest annual report – 34th overall – was published on 10 November 2011 covering the financial year 2010. The payments made from the EU budget in 2010 were EUR 122,2 billion.

The ECA's statement of assurance – déclaration d'assurance (DAS) – is based on objective evidence obtained in particular from audit testing in accordance with international audit standards. The statement includes two parts: reliability of the accounts and regularity of transactions (there are three types of transactions: revenue, commitments and payments).

In its latest annual report, concerning the financial year 2010, the Court found that the accounts present fairly the financial position of the European Union and the results of its operations and its cash flows for the year. However, the payments underlying these accounts were affected by material error, with an estimated error rate of 3,7 % for the EU budget as a whole.

The Court's estimated error rate for spending in Cohesion, energy and transport policy group (the most error prone EU spending area) was higher than for 2009, with an estimated error rate of 7,7 %. For the other areas of EU spending the estimated error rate remained relatively stable. This applies also to the biggest area of EU budget expenditure, agriculture and natural resources, where the estimated error rate was 2,3 %. However, the estimated error rate for the main part of that policy area, i.e. direct payments covered by the Integrated Administrative Control System (IACS), was below materiality level of 2 %.

In relation to performance audits, the Court's objective is to produce annually 12-15 special reports on the various themes. When selecting topics the Court considers i.a. the risks to performance for the particular area of expenditure, the level of spending involved, the time elapsed since any previous audits and political/public interest. In the performance audits the Court assesses the economy, efficiency and effectiveness of the selected areas. If there were one common theme on the various performance audits carried out by the Court in previous year, it would have to do with the importance of the planning phase. In particular, the Court concluded that when planning

and implementing EU spending programmes, the Commission and the Member States should pay greater attention to defining objectives that are specific, measurable, achievable, relevant and timed - as well as to identifying and mitigating the risks to implementation.

On the basis of the Court's audit findings and despite many years of incremental improvements in systems, there remain significant risks to the regularity of payments that can only be fully addressed by reforming legislative frameworks and re-designing control systems. The proposals for sectoral legislation governing spending after 2014 and for new financial regulation provide an opportunity to do that. The Commission, the European Parliament and the Member States have now real golden opportunity to improve the financial management of the Union.

In past few years there have been a number of significant developments in EU economic governance which raise important issues of transparency and increase the risk of gaps in accountability and public audit developing. Those developments in mind, the Court published in May 2011 a position paper on consequences for public accountability and public audit in the EU and the role of ECA in the light of current financial and economic crisis. The Court identified cases where public audit arrangements are not adequate. More specifically, the Court considered that the Treaty establishing the European Stability Mechanism should include provisions for public external audit. The general message of the position paper was that where public funds are at stake there should be adequate arrangements for transparency, public accountability and public audit. Similar concerns for adequate public accountability and public audit were highlighted in the statement and resolutions of the Contact Committee of the Heads of the EU Supreme Audit Institutions in October 2011.

Promoting transparency and accountability is a responsibility all institutions share in democratic societies. It is even more crucial in the current context where the pressure on public finances is high, the importance of the EU meeting its objectives is great, and the need to build the confidence and trust of citizens in the European Union and its institutions is acute.

Many prominent economists have called this crisis the worst since the Great Depression of 1930s. We are definitively now in a global crisis. In Europe, the impact has been felt, not only around Mediterranean Sea, but also around Baltic Sea. Drastic savings measures have been taken to regain the confidence. The results have been more positive around the Baltic Sea. However, the decisive factor at the end of the day will be the competitiveness and ability to grow and perform in sustainable way in ever tougher global competition. The crisis provides always opportunities. This crisis is too expensive to be wasted.

I invite all the readers to look for more information on the Court's our role and work in our website [www.eca.europa.eu](http://www.eca.europa.eu)

*Olavi Ala-Nissilä*

*Member of the European Court  
of Auditors, Dean*

*European Court of Auditors*



## Our common bond – ties that bind us

By Petteri Orpo

Especially during summer, Southwest Finland and its archipelago blooms and prospers as the start of holiday seasons takes many families and groups somewhere to Baltic Sea. I remember gazing the clear water along the shores of my hometown, The City of Turku – 2011 European cultural capital with Tallinn- during the 1970's and 1980's. Four things were certain then and even more so today: world and the times we lived in were different, water was clearer, Finland was and still is an export-oriented country and finally, the only remaining constant is the increasing speed of change in human societies and environment. Simply put, the importance of the Baltic Sea for our national economy can't be stressed enough.

As the Cold War ended and the development of the larger European project – union and internal market – became evident, the disintegration of Soviet Union also paved way for the independence of Baltic and East-European satellite states as they gradually entered into the European Union, transatlantic cooperation and to an open-market economy. As a result a dialogue between EU and Russia has also deepened, which will hopefully be fostered even more as the latter confirmed its full membership in World Trade Organization last month.

Within a couple of decades it has also become evident how the actions of man affect not just ecosystems, but also the daily living of human societies and businesses in so many ways, that it is difficult to fully understand the scope of all underlying processes taking place and affecting the Baltic Sea region. Politicians and citizens in all 9 countries that have shoreline in Baltic Sea must ask themselves how to preserve it without affecting too much to ecosystems stability, business, transports and energy security. As Sten Nordin, the Mayor of Stockholm, has concluded, it is less problematic to introduce new legislation or any binding agreements when financial benefits outweigh the costs.

Currently Baltic Sea suffers from large environmental deterioration: dumping of oil and hazardous toxins, poor waste water and emissions management caused by industry and agriculture and sunken shipwrecks to name a few. In future it will be hard to sell package travels for tourists if genuine progress is stalled. If we are to reach our full potential and allow people, goods and energy to circulate quickly and effortlessly around the Baltic Sea, both public and private sector must tighten their cooperation, efforts and establish partnerships for the

betterment our home sea. The Baltic Sea Action Summit (BSAS) of 2010 is but one example of successful co-operation between many actors behind a common purpose.

The responsibility of politicians is to support these types of initiatives. Even though the number of different platforms for regional, economical, social and educational cooperation are many – Helcom, Nordic-Baltic eight, Nordic Council, Council of The Baltic Sea States, EU and many others – truly grand results remain to be achieved. The upgrading of St. Petersburg's waste water plant shows for one, that Russia has taken its responsibilities seriously.

Nearly 90 million people live within the drainage basin of our "home sea" which in 2008 covered approximately 15 % of all global cargo transports and over 12 % of global gdp output. It is therefore safe to state, that in relation to population density and economical productivity the well-being of Baltic Sea is vital to societies living along its shores. The world has become complex as societal, economic, environmental and cultural integration have progressed. These processes have linked our fates and the challenges Baltic Rim economies now face.

In order to safeguard Baltic Sea for generations to come all parties concerned – international and regional organizations, states, cities, universities, think tanks and private sector actors – should broker a binding agreement on policies, funding, measures and actions which would guarantee regions competitiveness, but also preserve Baltic Sea's ecosystem in the long run. Otherwise the status of Baltic Sea area as one of the world's leading regions in economic prosperity, social and environmental sustainability is endangered.

*Petteri Orpo*

*Parliamentary representative*

*National Coalition Party*

*Finland*



## A shared vision for promoting sustainable growth

By Matthew Lodge

The Baltic Sea is a true inner sea of the EU – its shores are populated by EU Members States with the exception of Russia. The successive Polish and Danish EU Presidencies provide an additional Baltic dimension to current discussions, notwithstanding the economic crisis across Europe, and the particular challenges facing the countries of southern Europe.

If there is one lesson – and area of unanimous agreement – from the current crisis, it is that, as European economies, we need to take concrete steps to help promote growth and restart Europe's engine if we are to avoid a backward slide into recession and a further weakening of Europe's competitiveness. Whether we are in the Eurozone or outside it, we must work together to reform the European economy. Given the extent to which the countries of northern Europe and the Baltic Sea region share common ideas on free trade, open economies, support for the Single Market and budgetary discipline, we have an opportunity together to play an important role in the response to the crisis.

One aspect where we should start is work between the Baltic Sea states and wider Europe in order to ensure that the European Union continues to develop and implement a strategy for growth and competitiveness and which strengthens the Single Market and fights protectionist tendencies.

Growth must be our number one priority. We face a harsh realisation that many of our long-held assumptions, the result of decades of progress, are under threat: our belief that the world will always demand Europe's products; our belief that Europe has jobs for its people to do and that standards of living will always rise and our confidence that European nations will always be global economic leaders. One by one, these assumptions are being called into question. Studies suggest that if current trends continue, by the middle of this century, leading EU nations could fall out of the world's top-10 most powerful economies.

In a recent speech to the European Parliament, the UK Deputy Prime Minister Nick Clegg highlighted the need for a fresh approach. Policies which actively inhibit growth and diminish the flexibility of our economies need to adapt.

In March the UK published a European Growth plan backed by eight countries, including Sweden, Finland, Denmark, Estonia, Latvia, Lithuania and Poland, which focused on boosting internal and external trade, pushing innovation and reducing the costs of doing business.

One key pillar of this Growth Plan is the completion of the Single Market – both in services and the digital economy. This alone could add 800bn Euros to the EU's economy. That's around 4,200 Euros extra for the average household every year. The Services Directive should be implemented fully, with no exceptions – for too long have we dragged our feet on liberalising services. And a Digital Single Market – championed particularly by Finland and Estonia – offers the potential to expand and develop the flying start in digital innovations made by the Nordic and Baltic States. From Spotify in Sweden to Angry Birds in Finland, we need both to foster innovation by making both the establishment of new enterprises easier and facilitating the expansion of small digital companies by opening up the vast potential of the European markets to digital services.

Our determined pursuit of economic growth, however, must also take into account ecological and social sustainability. The Baltic Sea economies, with their concerted efforts to tackle the environmental problems of the Baltic Sea, clearly understand this. The first effects of climate change may be less obvious here than elsewhere, but it is none the less an immensely important issue we need to tackle together.

These two challenges, boosting our economies and tackling climate change, are directly linked. There are many who argue that growth and being "green" are somehow at odds. That's not how we see it. By placing the emphasis on a low carbon economy and innovating in cleantech and sustainable businesses – areas where the Baltic Sea states have sought to excel in recent years – must be at the core of our policy efforts to address the twin challenges of climate change and economic growth.

The UK Government is aiming to lead by example. We want to be able to say "follow us", rather than "after you", when it comes to green growth and climate policy. To get the ball rolling in the green economy, the UK has produced an innovative new mechanism for investing in green technology. The Green Investment Bank, the world's first national development bank dedicated to the green economy, will build on 3 billion pounds (3,5 bn Euro) of initial funding. Innovative new businesses can help green the economy and create more green-collar jobs. Finding the links between innovation, growth and environmental issues can also provide real solutions for future. The Baltic Sea economies could – with a determined collective effort – form a hotbed for new sustainable growth in Europe.

When considering the third important aspect of sustainable growth – social well being – many of the Baltic Sea countries are already providing the lead. This should be exploited and used as a strength. The balance of increased competitiveness and growth alongside the development of the Nordic and northern European welfare model offers a challenge and potential example to the rest of Europe. As the UK and Nordic and Baltic Prime Ministers agreed when they gathered in London in January, the challenge is to combine an increase in GDP with an increase in GWB (general well being). The Swedish Government will take up the baton when it hosts the Northern Future Forum in Stockholm on 8/9 February 2012.

And the history of the Baltic Sea region should remind us of another important dimension – we must embrace the outside world. The importance of Russia as a trading partner not just to the Baltic Sea states but the wider EU should not be underestimated. In addition to pushing forward the global free trade agenda through the WTO, of which Russia will now finally become a member, we need to work on the EU's strategic trade relations. The bottom line is that we need to support open societies in our immediate neighbourhood through strategic partnerships which encourage democracy, and the free movement of goods, capital and services.

With progress in these areas, Europe and the Baltic Sea region can enjoy a bright and prosperous economic future. But there are dangerous voices out there. We forget at our peril the risks of increased protectionism: beggar-thy-neighbour approaches are the surest way to inhibit Europe's economic recovery. And, in the long-term, our success and prosperity depend on removing the remaining barriers between us, not putting more in place.

In the words of Deputy Prime Minister Clegg: "It is time to finish what others started – reviving the ambition and spirit of the late 1980s and early 90s to bring down the barriers once and for all, modernising and completing the Single Market by 2015, demonstrating a commitment that encourages business across Europe and overseas to invest now – when we need them to."

*Matthew Lodge*

*Ambassador*

*British Embassy*

*Finland*

## The Turku process – promoting concrete cooperation with Russian partners

By Aleksii Randell

Commissioner for Regional Policy Mr Johannes Hahn, addressing the Baltic Sea Annual Forum in Gdansk 25 October 2011, noted “the very constructive cooperation with Russia” in relation to the EU Strategy for the Baltic Sea Region (EUSBSR). He referred to the active participation of many stakeholders with Russian partners in areas like environmental protection, water quality or innovation, in all our interest.

The City of Turku, in cooperation with the Regional Council of Southwest Finland, is active in this co-operation. I may even say that in many ways we are pioneers on this path, which we believe is in the interest of everyone.

In 2010, we launched a new cooperation drive, today known as the Turku process. According to a joint statement by its partners, it has a clear and concrete goal: It aims at bringing together partners “across the border” in the Baltic Sea Region, with special emphasis on cooperation with regional Russian partners. It is informal and action-oriented process of doing things together. The tripartite coordination group consists of representatives of the Cities of St. Petersburg, Hamburg and Turku/Region of Southwest Finland as the coordinator and secretariat. The European Commission/DG REGIO supports the initiative and participates to facilitate the process and resulting actions as requested by the coordinator.

The first Round Table (Turku, 23 – 24 September 2010) brought together a number of invited representatives from the Russian Federation, the European Commission, EUSBSR programme coordinators and the host country, with the aim of getting introduced to each others work and to discuss possibilities for concrete joint projects. Themes discussed included environment, innovation and university cooperation, safety and tourism.

Participants from St. Petersburg included prominent representatives of the City administration (Foreign Affairs Committee, Committee for Environment), Vodokanal, Chamber of Commerce and Industry as well as universities, i.e. key partners. Delegation of the European Commission was led by Mr Dirk Ahner, Director-General, DG REGIO.

Excellent informal atmosphere, common goals, will to work in the spirit of equality and recognition that only together we can solve our common challenges and exploit the full potential of our region led to the conclusion that a goal-oriented process should be developed and deepened. The spirit of the first Round Table of Turku was to “translate good intentions into concrete action”.

The second Round Table of the Turku process was organised as part of the traditional Turku Days in St. Petersburg 25 and 26 May, 2011. Participation of Vice-Governor Mikhail Oseevski and Member of City Government, Chairman of External Affairs Committee Alexander Prokhorenko testified about the commitment of the City of St. Petersburg to this cooperation.

The themes of St. Petersburg Round Table included the Baltic Sea innovation space, employment and professional training as well as environment – both land-based threats from agriculture (Leningrad region) and water cycle issues (Vodokanal of St. Petersburg). Expert presentations were followed by intensive discussion about priorities of action.

### Trustful bilateral city relations can serve broader regional interests

Importantly, the second Round Table broadened the scope of cooperation, bringing the Region of Leningrad and the City of Hamburg – as a member of the coordination group – into the process. This further enhances the potential of the Turku process.

The planned third Round Table, to be hosted by the City of Hamburg during Spring 2012, will concentrate on implementation of practical projects in key areas.

We believe that the Turku process – and its goal, deepened and action-oriented, mutually beneficial cooperation with Russian partners – has great potential and is of great importance. Naturally, cooperation with Russia must be pursued on several levels in parallel: international (Northern Dimension, CBSS, Helcom), national/bilateral and sub-national. From our experience, we can say that the municipal and regional partners are maybe best placed without delay to identify and implement practical examples of successful cooperation.

Cooperation requires mutual trust and shared interests. The Turku process is born out of a long and fruitful cooperation between the cities of Turku and St. Petersburg. Actually, Turku was the first city in the world to establish sister city relations with St. Petersburg. It is no coincidence that also Hamburg was also one of the first pioneers to establish twinning relations with St. Petersburg. In this way, sister city relations are serving also broader regional interests.

Turku and St. Petersburg are currently preparing to celebrate the 60th anniversary of sister city relations in 2013 with high-level events such as economic forums, business meetings, exhibitions etc. These celebrations are included in the new Agreement of Cooperation between Turku and St. Petersburg for the years 2012 – 2016, which is in process of being finalised. The new permanent Turku Center – our “city embassy” in St. Petersburg – which is run in cooperation with the Regional Council of Southwest Finland and the Turku universities, as well as our close cooperation in multilateral organisations – notably the Union of Baltic Cities UBC – create further boost to our links.

Further, the presence of the General Consulate of the Russian Federation in Turku has also proven to be a significant positive factor in developing city-to-city relations.

The Centrum Balticum Foundation – a think tank specialising in the Baltic Sea issues – has an increasingly important role as an essential partner in our drive to deepen cooperation with Russia and to enhance the role of Turku/Southwest Finland as an active resource centre and crossroads in the Baltic Sea Region. In this way, we are implementing in practice the proposal by the City of St. Petersburg in the first Turku Round Table, namely to become a Baltic Sea centre “for collecting information, for evaluating problems by experts and defining levels of their solution.”

The active endorsement and participation of the European Commission/DG REGIO and its Director-General Mr Dirk Ahner personally in the Turku process and the two Round Tables has been of great significance. We appreciate Mr Ahner’s view (BRE 2/2011) when he, referring to cooperation with Russia, stated that “the most

advanced example is the use of the long-standing association between St. Petersburg and Turku, and also between St. Petersburg and Hamburg, to create a 'Round Table' for cooperation on specific projects... This exercise, in which the Commission has also participated, may be the most successful approach to launching effective cooperation, at least in the short term". However, he reminds that even here there is the challenge of converting words into concrete action. We fully share this view and are working to do just that.

#### **Momentum of cooperation must be continued**

During Turku's tenure as the European Capital of Culture in 2011, many successful activities have been organised with partners from St. Petersburg. In the coming years, this cooperation will continue. An important example of fruitful cooperation with the state level is the forthcoming meeting of Finnish-Russian intergovernmental Economic Commission in Turku (February, 2012) and the related meetings organised by the City of Turku and the Ministry for Foreign Affairs on modernisation, maritime cluster and the Russian Pharma 2010 –strategy.

The EU Strategy for the Baltic Sea Region is an experiment, the first of its kind in Europe. Other regions are keenly watching to see how this macroregional approach works and whether it can bring new impetus into regional cooperation. It is important to show concrete results and

thus keep up the momentum. This calls for initiatives and contribution from all potential stakeholders.

The City of Turku, with its partners, believes in the benefits of cooperation. By promoting the Turku process, as well as through our bilateral and multilateral relations at national and international levels, we want to give our contribution to the shaping of a prosperous, sustainable Baltic Sea Region.

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[www.turkuprocess.fi](http://www.turkuprocess.fi)

*Aleksi Randell*

*Mayor, City of Turku*

*Chairman, Centrum  
Balticum Foundation*

*Finland*



## The City of Kotka looks to the East

By Henry Lindelöf

The City of Kotka is first and foremost a city of the sea, port, industry and culture. The logistics location of Kotka between East and West has been a determining factor in its efforts, appearance and focal areas.

The forest industry, the port, and the community that was created around the port continue to characterise the Kotka of today. Our city features a unique atmosphere, which the occasional visitor can sense for example in a football or basketball game. The emotions arising from ships and seamen longing for faraway places are aptly reflected in the production of Juha Vainio, one of the most beloved singer-songwriters in Finland, who was born and bred in Kotka.

The logistics position of Kotka in container and transit transport and in tourism is increasingly evident as a hub in trade taking place from the EU to Russia. People living in South-Eastern Finland have become accustomed to the long truck queues on the border between Finland and Russia. In many cases these queues were tens of kilometres long.

The Port of HaminaKotka Ltd, which launched operations in May this year, is the foremost Finnish port for Russian trade. More than 15 million tonnes of goods are carried annually through this twin port, primarily to St Petersburg, Moscow and other parts of Russia. The port is naturally one of the main ports for the exports of the Finnish forest industry.

The location, port and industries of Kotka render it highly international. One out ten new businesses established in Kotka is owned by a Russian; several hundred new businesses are formed each year. More than 70 nationalities live in Kotka. The growing influx of Russian tourists is seen for example at Shopping Centre Pasaati, which is visited by more than 4 million people a year. Kotka has a population of 54,000, of whom 2,000 to 3,000 are Russians.

The Maritime Museum of Finland is located in Kotka. The magnificent Maritime Centre Vellamo also houses the Museum of Kymenlaakso. Designed by the architect Ilmari Lahdelma and completed a few years ago, Vellamo has attained great acclaim in Kotka. The Maritime Centre

enjoys some 100,000 visitors annually. Alongside Maritime Centre Vellamo, Kotka Maretarium, which presents Finnish fish species, represents the foremost attractions in Kotka.

There is active co-operation between Kotka and St Petersburg. Currently, we are developing the area of the old port adjacent to Maritime Centre Vellamo. A master plan has been drawn up of this area. The area will host Rubicon, a hotel centre and Russian business centre, each in a new building. Rubicon is planned to accommodate dozens of businesses and hundreds of jobs. Our business development company Cursor Oy is largely responsible for co-operation with Russia. We have received an appropriation of over a million euros from the EU for the design of this area and Rubicon, among other things.

Kotka is also a cultural city. Creative industries ranging from artists to the media and architecture are well represented here. We are also creating a centre for creative industries in the area of our old port. Artists and other parties in different sectors could concentrate their operations in a single point also housing a restaurant and shops. This old port area encompasses 20 hectares and constitutes one of the priorities in urban planning in the next decade.

All things considered, Kotka is facing a brilliant future between two metropolises, St Petersburg and Helsinki.

*Henry Lindelöf*

*Mayor*

*City of Kotka*

*Finland*



## Maritime situational awareness across borders

By Veli-Jukka Pennala

The EU strategy for the Baltic Sea Region was adopted in October 2009. The strategy focuses on questions related to environmental and economic cooperation but nevertheless, the security perspective is also clearly present. Security, alongside with environment, economics and accessibility, is one of the four cornerstones of the implementation plan. To quote the strategy: "other forms of development will be insufficient or even totally impossible without a sense of security and confidence in maintaining the general order".

The concept of maritime security can be divided into naval safety and other forms of security. Under the concept of security you will find measures for fighting criminality across borders as well as actions taken to prevent piracy. Military actions to prevent territorial violations and to repel naval attacks are the extreme manifestations of the concept of security. According to this kind of classifications the responsibilities for different aspects of security can easily be divided to various authorities. However, the dynamics of different events do not necessarily respect the boundaries of the security concept or the responsibilities between authorities. Therefore we need well-functioning co-operation across the administrations both nationally and internationally.

### Feeling secure starts with situational awareness.

Maritime surveillance is the fundamental cornerstone of maritime situational awareness. This statement also appears in the integrated maritime policy of the European Union. One of its objectives is to create a European maritime surveillance network to secure safe use of the seas and to protect the maritime borders of Europe. Practical solutions, in addition to technical arrangements, are the efforts in favour of more efficient civil-military cooperation as well as the removal of juridical obstacles that limit the exchange of information.

In Finland we have a good tradition of cooperating between the maritime authorities. Since 1994 Finnish Navy, Frontier Guard and Maritime Administration have worked closely together within so called METO-cooperation (Maritime Environment Triauthority Operations). Few years ago, due to reorganization of the traffic administration, the Maritime Administration was replaced in the METO context by Finnish Transport Agency and Finnish Transport Safety Agency, thus increasing the number of key actors from three to four. These "main performers" also have connections of their own to other maritime actors, such as harbours, the Police, Customs and Environmental Administration just to mention few. Due to small resources and the small size of our country, the Finnish maritime actors have always strived to cooperate, but thanks to METO this cooperation has achieved a formal structure and position within the organisations.

The most essential METO-product, its flagship, is the nation-wide recognized maritime picture, maintained by the Navy. It contains data produced by the sensors of all three authorities (AIS, radar, camera, senses). The technical realization includes hundreds of logical connections between offices and sensors. However, the concept of maritime situational awareness means more than mere sensor information. The excellence of the METO cooperation lies in its entirety. It is not just a row of technical solutions, but a way of working together. The advantages of METO-cooperation have also been noticed by others both nationally and internationally. The METO-cooperation has become a model example of how you get the administrative branches of three different ministries to strive towards the same goal instead of competing for the resources. The efforts have been successful. The cooperation has improved the maritime situational awareness and at the

same time provided direct financial savings for more than 50 million euros.

Having such good experiences it was only logical to continue the national cooperation by looking across our borders, at first concentrating on the Baltic region. We started cooperating with the Swedish Navy in 2001 under the name SUCFIS (SURveillance Cooperation Finland Sweden). Thanks to good experiences gained through this cooperation, we felt encouraged to take the next step together with the Swedish Navy and invited all the Baltic countries, essential maritime authorities and organisations to a seminar in September 2008, where the SUCBAS initiative, i.e. maritime surveillance cooperation covering the entire Baltic sea, (SURveillance Cooperation Baltic Sea) was introduced. In its present state SUCBAS consists of an intensive cooperation group, including eight nations. The group has been operational since 2009. On the initiative of Finland the SUCBAS model was developed further to serve as a base for the MARSUR-project (MARitime SURveillance) led by the European Defence Agency (EDA). The target of this project is to enable the exchange of information between European navies. The brilliantly working, technical solution was presented in Brussels on 30 June 2011.

International cooperation has taught us that it is easier to achieve a technical solution than to reach other agreements. In addition to good will, national political processes including preparations for agreements are needed. The target is cooperation on a multi-authority basis, also internationally. Today, at EU-level "cross sector" thinking involves more challenges than "cross boarder" thinking. The central maritime agencies (EDA, FRONTEX and EMSA) each have their own maritime surveillance projects that naturally spring from the individual needs of each agency. One objective (and strategic instrument) of the EU-integrated maritime policy led by DG MARE is to combine the information produced by different agencies into "a European situational awareness picture". This objective has good chances of succeeding, especially thanks to the Lisbon Agreement, which helped eliminate, at least in the agreement texts, the pillars separating the civilian and military structures in the EU. In Finland this problem has been solved already on a national level, which is not the case even in all Baltic countries.

"Need to know, need to share" is the slogan of the SUCBAS cooperation. On a national level, we have been aware of this already for a long time. The keyword in every respect is "trust". Especially when international cooperation is concerned, trust does not develop immediately, but only as a result of deeds and actions. The global era is unfortunately more difficult to foresee, it is more chaotic and presents new and different threats. Good situational awareness is increasingly important and if you stand alone as a state, this awareness is no longer achievable. As a Navy we stand at the leading edge when it comes to developing maritime situational awareness across borders.

*Veli-Jukka Pennala*

*Rear Admiral, Commander*

*Finnish Navy*

*Finland*



## “Friction generates heat” – tourism, cooperation and the Baltic Sea identification factor

By Detlef Müller

Upon looking at a map of the Baltic Sea region and letting the eyes wander from South to North and from East to West, one catches sight of 11 countries which directly border the waters of the Baltic Sea. Each country and region along this coastal line has its own cultural and leisure highlights to offer potential visitors.

But perhaps *BusinessWeek* had a point when stating that the Baltic Sea region “incorporates 11 countries, dazzling cities, major shipping ports and peaceful island gateways. The only problem is no one really knows about it”<sup>1</sup>. Although bluntly put and in a sense standing in contrast to the continuously rising visitor figures of the region, there is evidence to suggest that there remains great potential for tourism development and marketing of the Baltic Sea region as an entity.

There absolutely is a large tourism potential all across the Baltic Sea. From the chalk cliffs of Rügen in Mecklenburg-Vorpommern in the Southwest all the way to St. Petersburg’s winter palace in the Northeast, this potential is right in front of our doorstep, but it takes effort and cooperation to exploit it to the maximum and to the benefit of the entire region.

At present, the cooperation in the tourism sector among the various regions is limited and a question to ask is if greater cross-Baltic Sea cooperation would yield better results for all. The Baltic Sea region certainly has high potential in attracting international travelers and visitors. However, a joint and coherent image is lacking, as are cross-Baltic promotional activities. If one supports the hypothesis that greater cooperation leads to an increase in tourism within the entire region or, put in terms of thermodynamic, if ‘friction generates heat’, long-term actions are required to convert the hesitation of regional actors into energy for the whole region.

The EU Strategy for the Baltic Sea Region (EUSBSR) must be named in this context, as it aims to strengthen the cooperation between the numerous different actors in the region, also in the field of tourism, a priority area of the strategy and for which Mecklenburg-Vorpommern is priority area coordinator. The EUSBSR provides a long-term perspective, and this is very important. Being the nature of projects, they often cease to exist after they have run out, but there generally is a need to continue efforts with a long-term view if lasting benefits are to be reaped.

From a regional perspective, the EUSBSR has moreover been a signpost pointing towards future ways of involvement of regional stakeholders during the consultation process. The strategy very much follows a bottom-up approach, being based on consultation of national, regional and other stakeholders of the region. As both - a member of a regional parliament and of the EU-Committee of the Regions - I vehemently support this approach. The knowledge that is gained from this type of consultation process is valuable in formulating strategies which truly tackle the right challenges and strive to seize the needed opportunities. It is the regions which have the possibility to share their knowledge on local challenges and opportunities and when combining the input of the various regions, a coherent picture of challenges and opportunities can be generated. Every region is unique and this is a major advantage for the Baltic Sea area if an overall marketing of itself as a tourist destination is envisaged, and I would be surprised if the regions bordering the Baltic Sea could not also

identify similarities. As discussed during the 2nd Annual Forum of the EUSBSR in Gdansk in October 2011, one similarity between the regions and countries around the Baltic Sea could already be the common culture of cooperation.

The discussion on identification or branding of the Baltic Sea region for the benefit of tourism is ongoing. Identification with the Baltic Sea region by the citizens living in the area is seen as an engine for developing tourism as is the branding of the region to the international market. The Baltic Sea Tourism Forum states that the term “Baltic Sea tourism” can more strongly and globally be positioned as a brand. Possibly, there is the need to engage in stronger joint marketing efforts.

With regard to marketing of the destination ‘Baltic Sea Region’ and tourism as the overall field, Mecklenburg-Vorpommern has, as mentioned previously, taken on the role of priority area coordinator within the EUSBSR. One of the steps taken in the context of better coordinating the various actors in the tourism field was the organization of the first Baltic Sea Tourism Forum by Mecklenburg-Vorpommern in Rostock-Warnemünde in 2008. Since then, three further forums have taken place. Clearly, there is a willingness to cooperate among the actors. The upcoming Baltic Sea Tourism Forum is envisaged to be held in Germany and Denmark 14-16 November 2012. Moreover, in 2012 - on 3-4 May - Mecklenburg-Vorpommern will host the Priority Area 12 Tourism Conference of the EUSBSR in Rostock-Warnemünde.

During the first half of 2012, it will also be interesting to follow the development of the EUSBSR during the Danish presidency of the Council of the European Union and to see to what extent Denmark will carry on with the promotion of the EUSBSR and greater cross-Baltic Sea cooperation efforts. The hope is that it will do so strongly. The economic and financial crisis which today requires much attention will certainly continue to play a major role also during the upcoming Danish presidency. Nevertheless, sight should not be lost of the need to further promote the Baltic Sea region in general and cooperation in the field of tourism in particular.

*Detlef Müller*

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Regions*

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<sup>1</sup> Collier, M., (2008) ‘The Challenge of Branding the Baltics’, *BusinessWeek*, 15 July 2008, available at [www.businessweek.com/globalbiz/content/jul2008/gb20080715\\_150523.htm?campaign\\_id=rss\\_daily](http://www.businessweek.com/globalbiz/content/jul2008/gb20080715_150523.htm?campaign_id=rss_daily).



## The Baltic Sea and the Arctic will increase their importance in the energy security for the European Union

By Jorma Korhonen

Energy issues continue to dominate world headlines. The oil market, the future of nuclear power, the rapidly changing gas market, major increase in renewable energy production and environmental concerns are shaping energy and climate policies. In the Baltic Sea Region, at issue are how best to maintain and develop reliable as well as economically and environmentally sustainable energy systems.

With the Nord Stream gas pipeline, about one third (55 billion m<sup>3</sup>) of gas imports to EU come through the Baltic Sea. The fast growing oil deliveries through Russian ports is estimated to increase Russian oil transport through the Baltic Sea to approximately 230 million tons by 2015. That corresponds to almost half of current Russian oil production. As maritime transport and petroleum shipping in particular, continue their dramatic increase in the Baltic Sea, we must confront the ensuing huge environmental risks.

Russia is the EU's most important energy supplier, and companies in the EU are Russia's key foreign investors, the Finnish company Fortum being a major example. Some have expressed concern regarding how energy security might be affected by dependence on energy from Russia. Russia's share is 36% of the EU's gas imports, as well as 31% of oil imports and 30% of coal imports. According to the latest World Energy Outlook by the International Energy Agency, the EU accounted for 61% of Russia's fossil fuel exports in 2010. However, the IEA predicts that in a longer term an increasing share of Russian energy exports go eastward to Asia.

Instead of dependence, we should recognize our mutually beneficial interdependence, which will grow as the EU's own oil and gas production diminishes. The EU and Russia are closely interconnected through a dense energy network, notably concerning oil and gas. Although both sides will continue their diversification policy, this requires close cooperation on existing and new infrastructure. This should be done through a strong legal framework for cross-border investments in joint projects. The EU and Russia need to agree on a legally binding framework for energy trade and investments. The WTO membership of Russia is welcome news for over-all economic relations with the country. Substantial energy-related provisions to be negotiated under a new basic agreement between the EU and Russia would give further predictability in the energy sector.

As anti-nuclear concern spreads in Europe after the Fukushima disaster, the gradual shutdown of all nuclear power plants in Germany will have important effects on Europe's climate change ambitions as well as on the supply and price of energy. This being said, the countries around the Baltic Sea have ambitious plans to increase nuclear energy capacity. Russia is building four reactors in the Leningrad region and planning two reactors for Kaliningrad. Finland should have one new reactor ready in 2013/2014 and two others by around 2020. Sweden has made a decision in principle to grant permission to replace their 10 reactors with new, and probably higher capacity reactors. Lithuania is planning to replace the recently closed Ignalina NPP with a new one to be built in Visaginas. Poland has plans for at least two NPP's.

Shale gas is a game-changer in the United States, and may well prove to be the same in regions of north-west Europe. Recent explorations of shale gas in Poland could result in production by 2014, with estimated reserves lasting Poland for 300 years. Poland, now a gas importer, would become a gas exporter. With increased exports of liquefied natural gas (LNG), the world is no longer dominated by pipeline gas only.

Recent oil and gas explorations in the Arctic, especially in Norway, are very promising. The agreement of the delimitation of the Barents Sea between Norway and Russia opens a vast territory for further exploration. In addition, the known large reserves in north-west Russia will increase the importance of north-west Europe in the energy supply for the EU. Some Arctic oil and gas resources might eventually be exported through the Baltic Sea. According to the IEA report, Russia will push gas output in the Barents Sea and Yamal Peninsula, at least in the longer term, to help to compensate for expected declines elsewhere in Western Siberia. Oil resources in the same areas also look very promising.

The EU regional initiative Baltic Energy Market Interconnection Plan (BEMIP) has already produced concrete plans and projects to connect the electricity networks of the three Baltic States to neighbouring EU countries. These interconnections have been partially financed through the European Energy Programmed for Recovery and new financing methods are under active consideration. BEMIP is also considering the merits of a joint LNG gas terminal in one of the Baltic countries, as well as plans for the new NPP in Visaginas in Lithuania, possibly as a joint project of the Estonia, Latvia, Lithuania and Poland.

The establishment of these interconnections will consolidate the infrastructure for the internal energy market of the European Union in the Baltic Sea region. This is an important step for further development of EU's external energy relations, enhancing the ability of the EU to "speak with one voice" with external energy partners.

The EU and its member states have ambitious plans to increase renewable energy. This means increased domestic energy production, be it hydro, wind, wood, biogas or other biofuels. Here as well, north-western Europe is well placed due to its natural resources.

The production, transport and use of energy in north-west Europe will increase considerably. In view of the EU's growing need for energy coupled with the decrease of indigenous energy production elsewhere in the EU, the importance of energy issues in the Baltic Sea Region are assured to remain in tomorrow's headlines.

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# Positioning Turku on the world map – the city's year as the European Capital of Culture

By Suvi Innilä

The year 2011 was Turku's moment to shine in the world's spotlight as the city celebrated its European Capital of Culture status alongside the Estonian city of Tallinn. Now, as the year is at its end, one can already say that Turku has taken full advantage of this unique moment, not only in terms of developing the cultural life of the city and the wellbeing of its residents, but also in relation to its global visibility and attractiveness.

The Turku 2011 preparations began as early as 2003 and aimed, throughout the process, at increasing wellbeing, developing creative industries as well as strengthening Turku's international presence – the legacy of which will last long into the future.

The Capital of Culture programme included 163 individual projects consisting of 5,000 various events and activities. These were organised by thousands of artists and other actors from as many as 63 different countries, resulting in wide-ranging cooperation. The overall attendance to the events was nearly 2 million. The programme introduced a variety of magnificent and unique large-scale events for bigger audiences- These included the Grand Opening event in mid January, the world's first heavy musical 1827 Infernal Musical, the youth orientated Eurocultured street festival in May, the awe-inspiring Cirque Dracu-la variety performances during the summer and opera performances in the courtyard of the Turku Castle during August. The Culture 2011 Tall Ships Regatta on the last weekend in August was specially arranged and brought in excess of 350 000 visitors to the Turku port and marina. The world premiere of a new Finnish opera Eerik XIV was hosted in November, whilst the six exhibitions of the Logomo centre for culture were open for the public every day during 2011.

The Turku 2011 programme was not, however, only about spectacles and grand events . It also included a wide range of community-based projects as well as research and development projects. These are providing long-term operational models of great importance to their target groups. The new art-based learning methods for pupils with learning difficulties and the individual cultural plans for the elderly people living in elderly people's homes are just a couple of examples.

'Culture does good' was Turku's main message to Europe as the European Capital of Culture. The Turku 2011 programme included tens of projects which in different ways supported and strengthened people's wellbeing and health through culture and arts. These projects were monitored and studied by a multidis-ciplinary research programme on cultural wellbeing at Turku University. This combination of practical wellbeing projects and research forms a legacy that has raised interest from all across Europe.

The Turku 2011 process was heavily focused on people. Communality, wide participation and openness were the key-principles when realizing the goals for the year. The programme was based on a wide un-derstanding of culture, aimed at luring new target groups as well as helping as many people as possible to embrace the Capital of Culture Year. The success of these objectives is already being realised. The increase in interest towards culture is strongly evident throughout Southwest Finland: over 40% of Turku residents and over 20% of other residents of Southwest Finland report increases in consumption of cul-ture. As many as 96% of the Finnish population knew about Turku's position as the European Capital of Culture, and the figure was even higher in the Turku region.

These results were partly achieved through the strong emphasis on accessibility as well as the easy ap-proach to the programme's activities. Although the year introduced the audience to bold and artistically ambitious productions, it also brought culture and arts to the streets of Turku. There were several open-air events and exhibitions of environmental art, such as the Flux Aura project, alongside many community-based cultural events taking place in the suburbs of Turku, including the Suburban Weeks project.

As mentioned, Turku's year as the European Capital of Culture was not only about developing the city and the wellbeing of its residents, it was also very much about placing Turku on the world map. The value attributed to the visibility in the domestic media was €33 million. Altogether 500 international journalists visited Turku during 2010 and 2011. They obviously liked what they saw and heard as the value of the visibility of Turku 2011 in the international media was at least €20 million. It should be noted that coverage of the cultural year was global, not only European, beginning with a two page article in the New York Times in the autumn of 2010 and continuing to reach media outlets in countries as far afield as Mexico, Thailand, Japan and Australia. Another notable achievement was Turku's nomination as the 4th most interesting travel destination in 2011, in USA Today's Top Travel destinations.

So what was it that made the international media interested in Turku as the European Capital of Culture? The answer is quite clear – everything which made Turku's year unique and special. In the globalized world, local idiosyncrasies and the qualities that distinguish one city from another are what make a place most attractive. Concerts and art exhibitions located in the archipelago, projects such as Saunalab that introduce special saunas designed by artists in the city centre, or the 876 Shades of Darkness project reflecting the Finnish relationship with darkness. All of this as well as the city's atmosphere, the restau-rants and the local food, were of great interest to the global media.

The international media was also very attracted to Turku's wellbeing approach to culture, including the 5,000 cultural prescriptions – tickets to Turku 2011 events and exhibitions - the doctors of the health cen-tres in Turku distributed to their patients in 2011.

As Turku demonstrates, receiving the European Capital of Culture title can serve as a once-in-a-life-time opportunity for a city, especially for a middle-sized European city such as Turku. However, although the year itself was a success, the challenge of maintaining the Capital of Culture spirit after 2011 is what the citizens of Turku are now embracing.

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*M.A. Suvi Innilä has been working with the Turku 2011 project since its begin-ning. She led Turku's bidding phase for becoming the European Capital of Culture 2011 during the years 2004 – 2007, and became the Programme Director of the Turku 2011 Foundation in May, 2008.*

# Role and achievements of the Nordic Council of Ministers (NCM) on environment and energy in North-West (NW) Russia, as a part of the Baltic Sea Region

By Arne Grove

The official Nordic cooperation involves five Nordic countries and is implemented in the framework of the Nordic Council of Ministers, an equivalent cooperation between the Nordic governments. Historically, relations with Russia and the Baltic countries have been directly decisive for stability and development in the Nordic region. Willing to further extend these relations NCM earmarked a substantial part of its budget for this cooperation and opened its offices in the three Baltic countries in 1991 and in St. Petersburg in 1995. Then in 2006 the office in Kaliningrad was established.

This article will be with focus from Kaliningrad since the office was opened even other activities has been undertaken by the offices in the Baltic States and St. Petersburg and by other Nordic institutions like NEFCO and Nordregio.

## Environment

The NCM Information office in Kaliningrad has been playing an active role in the promotion of the implementation of HELCOM Baltic Sea Action Plan (BSAP) since 2008 by arranging Stakeholder workshops in NW Russia aimed at facilitating involvement of local actors into the process of implementation of BSAP for NW Russia. As the result recommendations on the implementation of BSAP in NW Russia developed together and approved by the Governments of NW Russia regions were included in the National Action Plan for BSAP implementation, which was presented at the Ministerial meeting in Moscow in May 2010.

Currently, the cooperation with HELCOM on promoting the implementation of HELCOM BSAP for NW Russia is continued. To this end NCM granted EUR 200 000 to carry out activities in the Russia complementary to the activities within the EU-financed project "Sub-regional risk of spill of oil and hazardous substances in the Baltic Sea" (BRISK, 2010-2012). The NCM project called BRISK-RU ensures participation of the Russian experts in the joint implementation of the HELCOM BSAP. BRISK and BRISK-RU are flagship projects of the EU Baltic Sea Strategy and are carried out under the auspices of HELCOM. Both projects are aimed at increasing preparedness of all Baltic Sea countries to respond to major spills of oil and hazardous substances in the Baltic Sea. The work included overall risk assessment of pollution caused by shipping accidents (incl. the impact of oil, environmental vulnerability, effect of different investigated scenarios for each sub-region, effect of existing response measures for each sub-region) covering the whole Baltic Sea area; identifying gaps in existing emergency and response resources and preparing a list of needed additional resources and elaborating corresponding investment plans for sub-regions; facilitating the development and conclusion of sub-regional agreements between neighboring countries to ensure efficient joint response operations. Facilitation of participation of Russia in these activities is deemed of vital importance in reaching the goals of the HELCOM BSAP and the EU Baltic Sea Strategy.

## Energy efficiency and energy planning

Since 2008 NCM has been active in cooperation with NW Russia and the Baltic states on energy planning, energy saving, energy efficiency and promotion of use of renewable energy.

NCM established a dialogue on energy cooperation with the authorities on national, regional and local levels as well as with such international actors as BASREC, Baltic Development Forum and Union of Baltic Cities. This cooperation provided a good possibility for these organizations to work with actors responsible for energy planning and implementing the Russian Federal Law on energy efficiency adopted in November 2009. The NCM Information office in Kaliningrad made a great contribution to this cooperation by organizing a number of activities for example, energy workshops and conferences, study visits, Energy Planning Academy BALREPA and trainings on energy management according to international standards ISO 50001. One of the outcomes of this work is the established network of energy managers from 11 regions of NW Russia and municipalities of the Kaliningrad Region, as well as energy experts within involved regions.

The energy activities facilitated better understanding, motivation and contributed to the increasing of energy efficiency in NW Russia and paved the way to more projects financed by NCM, EU, local and federal funds and NEFCO (3 projects developed by some of involved municipalities are approved and 10 more projects are in a pipeline).

The energy activities financed by NCM initiated changes in the vision of involved stakeholders on sustainable development of the BSR with regard to energy policy, energy scenarios and better energy planning.

During this year's annual summit of Baltic Development Forum in Gdansk the Nordic Council of Ministers had a session on Bioenergy. Sustainable production and use of bioenergy will be a new direction of the activities of the Nordic Council of Ministers, where the role of the offices in close cooperation with the secretariat in Copenhagen can be to facilitate cooperation among relevant stakeholders and support sustainable economic growth in the Baltic Sea Region.

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## Piracy is a menace to international sea traffic

By Bo Österlund

The world slumbered for a long time in the belief that piracy was a matter of history. The first hints of the emergence of this menace and retarder of peaceful sea traffic reappeared, however, in the 1980s. News of merchant ships en route assaulted by pirates trickled from Asia, the Strait of Malacca and the waters of Indonesia. In the years 2003 – 2008 these observations were concretized revealing a global activity off the coast of western Africa, South America, India, and Bangladesh. Actually there is nothing new in piracy, i.e. in an assault upon a vessel at sea by outsiders. What is new is the intensity of the action, and the manner of operation as well as the considerable and rather far-reaching economic impacts of these highjackings.

### One assault every day

Within the five-year period given above, 622 verified hijacking attacks were registered; 387 i.e. more than 50 per cent in the waters of Indonesia. This equals, on an average, to at least one assault or attempt of piracy per day. When it comes to the frequency of the cases, the situation had remained on the same level ever since the latter half of the 1990s.

On the initiative of the United Nations, the countries in southeastern Asia on the coast of the Strait of Malacca, i.e. Indonesia, Malaysia, and Singapore were called to the same assembly hall to solve their common problem. One of the arguments in calling this convention was the announcement of the United States concerning the curtailment of its own marine presence, and, thus, its diminishing protective activity in the area. The gaze of the United States was already turning in the direction of the China Sea to acquire a foothold for its marine forces. The cooperation and joint efforts of the three countries to put an end to piracy have given successful results. In 2003 there were more than 120 registered assaults in the Indonesian territory, which was the highest frequency of such events in the world. In 2008, no more than 21 piracies were verified in the area, i.e. a fall of almost 80 per cent. This was partly due to the fact that 80 patrol ships were stationed in this archipelago of 17 000 islands to prevent piracy.

In the statistical year 2007 almost 50 per cent of the pirate attacks in the world occurred off the coasts of Somalia and Nigeria. In 2008, pirates made as many as 293 assaults upon merchant vessels, and in October 2009 the total number of the whole previous year had already been surpassed. According to the piracy report on last year (2010) published by IMB (International Maritime Bureau), piracy seems to be growing again on all the seas of the world, both when it comes to the number of cases and to their geographical extent. Last year the pirates succeeded in hijacking 53 vessels and kidnapping 1 180 sailors.

The European Union joined the defensive manoeuvres with its own operation called Atalanta. The NAVFOR (Naval Force) Atalanta, launched in December 2008, is the first marine operation aiming at crisis management carried out by the European Union. This operation is a part of the large-scale measures to stabilize the situation of Somalia. A sustainable solution demands a progress of stability and development of constitutionalism in Somalia. The present mandate of the manoeuvre will be valid until December 12, 2012.

The assignment of Atalanta is, in the first place, to protect the vessels of the WFP (World Food Program) transporting food aid to Somalia. Its second obligation is to protect other vessels sailing in the coastal waters of Somalia, and to prevent piracy and armed hijackings. In addition, the vessels participating in the operation are to shelter the AMISOM (African Union Mission in Somalia) transportations when requested by the General Secretary of the United Nations. So far, the operation Atalanta has been successful in its principal task, viz. protecting humanitarian transportations. The operation has, where possible, protected and convoyed also other sea traffic. Capturing pirates is not the principal obligation of the operation.

Last year as many as 35 of the attempted hijacking assaults were registered as being performed by Somali pirates. The activity has, however, diminished in comparison with the 102 cases of the

preceding year. This might be due to the presence of the marine forces of the international community. During the first quarter of last year pirates made armed boardings on 26 vessels, 18 vessels were objects of gunfire, 12 suffered damage on account of attempted boardings, and 11 fell victims to successful pirate hijackings.

The hijacking of a Danish sailing-boat and its prolonged "cat-and-mouse"-game is bound to corroborate this trend of change, and the introduction of more severe methods of violence. The Danish family is now free after several months of being captives

### Piracy makes you rich

Profiting lies, of course, in the background of piracy, and plain money is the decisive factor in their undertakings. The pirates insist on gaining ransom money of up to one million US dollars for the crew, the vessel, and the cargo. In comparison with other ways of earning money it may be mentioned that the turnover of fishing off the Somali coast is under 2 million US dollars annually. Piracy might thus be regarded as extraordinarily profitable "business".

As a consequence of piracy the prices of brides have risen considerably at the pirate bases. Today, the bride must be dressed in gold and diamonds, their shoes must be made in Italy, and the wedding dress must be bought in Dubai. Japanese cars, mobile telephones, plasma televisions, and DVD players change owners in the form of dowry. In the days prior to the rise of piracy the bridal dowry consisted of a few goats and some twenty hens. According to the estimates made by the Foundation "One Earth Future" piracy causes annually an extra cost of 4 – 8 thousand million €. This figure comprises the ransom money, insurance premiums, military protection operations, the extra expenses caused by compulsory route alterations, and the costs caused by anti-piracy operations of various organizations.

The operational area off the Somali coast and in the Gulf of Aden embraces slightly less than three million square kilometres. In comparison with our own lifeblood artery the Baltic Sea whose total area comprises slightly more than 400 000 square kilometres, the operational area of the Gulf of Aden is thus approximately seven times larger.

More than 22 000 vessels sail through the Suez Canal every year. These vessels transport more than eight per cent of the total world trade volume. Additionally, more than 10 000 merchant ships, fishing vessels, and fishing boats traffic in the Gulf of Aden. There are considerable oil deposits in the area, and about 20 per cent of the world's gas deposits have been discovered in this region. More than 40 per cent of the oil transportations of the world trade travel through the Strait of Hormuz, and 11 per cent through the Suez Canal. Energy transportation means "big money" to pirates, and such transportations are thus very profitable targets in the form of enormous ransom sums. Pirates have been capable of increasing their capacity of open-sea operations by adopting a new method of manoeuvres in the form of so-called mother ships; some vessels have been already captured by the pirates who have transformed them into mother ships. Sophisticated intelligence and leadership systems and a developed and enlarged land and base network create the basis of making rapidly reacting choices of procedure.

The Commander of the Naval Forces of the United States established in his speech in May 2009 that the resources of the coalition were rather limited. About 30 warships are operating in anti-piracy activities off the coasts of Somalia. In theory a war ship is supposed to be capable of intervening within no more than ten minutes when needed anywhere in its operational area but this would actually require more than 1 200 war vessels off the Somali coast. Consequently, the rational procedure is to focus on the most actively trafficked waterways. In that way it will be possible to reach the above-mentioned necessary temporal preparedness when it comes to intervention, but even then in restricted areas only. To create a similar density of vessels say in the Baltic Sea would mean concentrating more than 250 war ships in this area

(depending on the velocity of such vessels). The large regional archipelago areas will complicate such theoretical calculations because of their own specific traits and particular needs; the shortest way to reach the victim vessel is not always feasible for navigational reasons. The marine forces of the countries around the Baltic Sea have actually no resources to exercise such activity, and to bring together a necessary fleet.

#### Unarmed Merchant Vessel – Easy Booty

The most vulnerable object in all anti-piracy operations is the merchant vessel itself and its crew. The 400 000 crew members on the 20 000 vessels sailing in the Gulf of Aden annually jeopardize their lives to protect the freedom of the seas and to maintain international sea traffic.

For decades, unarmed merchant ships have been easy booties in wars and conflicts. Although the situation off Aden does not yet meet the description of open war, violence already holds the reins. The area has obtained the status of a war zone in the classification of international insurance business. The amount of insurance for a merchant vessel sailing through the Gulf of Aden was in 2008 only 0,015 per cent of the value of the ship; today the charge is 0,15 per cent, i.e. the expense is now tenfold. In the Strait of Malacca in the Far East the amount may rise up to 0,8 per cent, which is 50 times higher than in 2008. The freight charges have risen correspondingly, and the consumer is obliged to pay these soaring charges in the form of higher prices of commodities.

On the initiative of the marine authorities of the United States the security system of the IMO (the International Maritime Organization), the ISPS (the International Ship and Port Facility Security Code) involving vessels and ports with foreign trade activities has been universally adopted from the beginning of 2008. This arrangement binds every port and merchant vessel to design an up-to-date security plan, and to carry out pertinent and regular practices in this matter. Finnish foreign-trade ports are today fenced accordingly, and the access to the port area is controlled and prohibited without permission.

How then can the vessels protect themselves against pirates? The events off the Somali coast reveal that the attacks are mostly directed on vessels with low dry boards (the height of the main deck from the sea surface), sailing at low speed, with little preparedness against pirate attacks, and with slow response in repelling assaults. There is actually no chance to accelerate the low (below 15 knots) speeds or to elevate too low (below eight metres) dry boards but structural reforms might raise the threshold of being hijacked: obstacles of barbed wire on the gunwales, pressurized fire hoses on the decks etc.

In addition to the safety measures taken by the vessels themselves, war ships offer, within their resources, shelter on predetermined and hazardous route legs in the Gulf of Aden. According to the statistics pirate attacks occur mostly in broad daylight, and sailing on the risky legs should therefore be done preferably in the dark.

A pirate attack may be divided into three phases: in the first phase an unidentified object approaches the merchant vessel in a suspicious manner, in the second phase the approacher attacks, and in the third the pirates board the vessel and hijack it. If the defense measures work well, the attackers will at some point give up their intentions and disappear. If the pirates succeed in boarding their target vessel, the game is in most cases over. According to the instructions of the IMO the crew should, in such a case, stay calm, give up all resistance, and appear to be willing of cooperation with the attackers.

The various organizations within sea trafficking recommend that the defender, i.e. the merchant vessel should not resort to

weapons in order to prevent further escalation and to save the lives of the crew. during this autumn the British have begun to use armed guards on their merchant vessels.

#### Consumers pay for Criminal Actions

Still, the criminal acts of pirates are a deep-going factor in global economy. Ransom money must be paid, and the vessels with their valuable cargo may be damaged. If this, in its turn, restricts the supply of the commodities concerned, the prices will go up, and, again, the consumer is the payer. Goods deliveries will be delayed or may not reach their destination at all.

In world trade operations the ship owners have to increase the structural safety measures of their vessels; these, in turn, will incur expenses of maintenance, and the impacts will be recurred in freight charges and in consumer prices. One notable and appreciable solution might be to transfer the sea transportations to more secure routes, but this will lengthen the sea passages resulting in rising expenses to be paid lastly by the consumers. Sailing round the Cape of Good Hope in order to avoid the Gulf of Aden will lengthen the sea passage from the Persian Gulf to Rotterdam more than 3 500 sea miles; at the rate of 15 knots this would mean about ten extra days at sea. The extra cost of fuel would be paid again in higher consumer prices.

#### The Core of the Problem Lies in the Soil of Somalia

Preventing piracy and taking precautions against it is the obligation of the entire civilized world. The situation in the Strait of Malacca was stabilized through mutual understanding of the conference called by the United Nations, and the number of pirate attacks was reduced as a result of the tripartite treaty of the states in that area. The situation off the Somali coast is entirely different: even though the resources might be sufficient at sea, the core of the problem lies on the land.

The support area of the pirates, i.e. the coastal regions in Somalia is void of the jurisdictional authority of a constitutional state. The bases of the pirates seem to function well as a part of their activity. The population seems to give them their silent approval close to the large-scale unemployment in the area. To them, piracy appears to be lucrative and relatively secure business.

Apprehending persons suspected of piracy, and arrangements agreed in advance to surrender them into the hands of justice would be a step in enhancing the preliminary threshold of deterrence. Releasing pirates gives them, instead, an opportunity of renewing their attempts to attack appropriate targets; the effect of protection and its results come thus to nothing, they will flow into the sands of Somalia.

We all will benefit by a successful solution which will eradicate piracy for good from this world. The result of such a solution will be seen, if not in our wallets but at least in the prices of commodities universally needed, in the price of fuel, and, in the end, in our own well-being.

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## Russia and the European Union – a multilayered relationship

By Nina Vaskunlahti

“The EU has spent the last four years wishfully thinking that Putin’s successor as president, Dmitry Medvedev, would slowly transform Russia into a modern country and therefore a better partner”, write Ben Judah, Jana Kobzova and Nicu Popescu in a recently published paper on Russia (European Council on Foreign Relations, November 2011). During the last four years the European Union and its Member States have pursued active policies with Russia – the EU has just not spent time idly wishing for something to happen. Or better partners to appear.

It is in the interest of the European Union that the relationship with Russia develops on all levels. Since 2008 the European Union has been negotiating a New Agreement with Russia to replace the Partnership and Cooperation Agreement. The New Agreement would create a legally binding framework for the cooperation and bring the contractual relationship to the 21st century. The negotiations have not been easy. It takes time for the 27 Member States to tune their voices, and Russia for its part has chosen to be choosy in its approach proposing e.g. a series of sectoral agreements. The chapters on energy, trade and investment have been difficult to negotiate, and there has practically been a standstill situation. We have had long debates on human rights, common values and interests and how to find the best ways to respond together on global challenges. The views do not always meet but that does not mean that we would leave the negotiating table.

Russia has now successfully concluded its long WTO accession negotiations. The EU was a tough partner in these talks. The Russian chief negotiator was through out the whole 18 year period the same official, Maxim Medvedkov but on the EU side, many faces came and went. Our line, however, did not slip. Both Russia and the EU have a lot to gain as Russia finally – hopefully by autumn 2012 – becomes a member of the World Trade Organization. The EU is the most important trading partner for Russia: in 2010 alone the total volume of trade between the EU and Russia was nearly 250 bln €, and c. 80 % of the foreign investment in Russia is of European origin. The WTO accession should also pave the way for concluding the open chapters in the New Agreement.

Mobility is an important issue in the EU Russia relationship. The ultimate goal is visa freedom but there is still a way to go. It took Russia almost seven years to agree on “common steps on visa free short term travel” with the EU. These common steps define criteria and preconditions - such as border controls, document safety, biometric passports, registration requirements etc. - to be fulfilled and implemented before the EU can even think of the next steps: a mandate for actual negotiations on visa waiver agreement.

The EU and Russia do not always see the world in the same way. We often have different objectives and perceptions regarding foreign policy or global issues. Russia’s foreign policy is often directed by fairly dogmatic principles, and Russia prefers status quo. The EU, for its part, is more prepared for change and has a vast tool kit to deal with transition. The weight of “soft power” is still a relatively unknown in Russian thinking.

Differences should not, however, prevent us from seeking ways to cooperate and addressing issues of joint concern. Both have the right to own internal decision making procedures but the ever more globalising world is putting new demands which can only be responded together. Russia is not an isolated island safeguarded by endless energy reserves. It can only claim to be a global player by acceding to global rules and respecting its neighbours, individually and together.

Partnership for Modernization with Russia is a concept that was launched two years ago. It is a tool for the European Union to advance wide ranging reforms in Russia – and together with Russia. Modernization is not something that can be built in an overnight but it requires systemic approach and profound changes in the society. There will be no lasting modernization without rule of law and civil society or tackling the corruption from the top to the bottom. This is something most Russian partners also know even though acknowledging it can be more difficult.

The EU and Russia have already gone a long way together. The relationship is still challenging even though it has matured quite a lot. A mature relationship should also mean that difficult issues can be openly tackled and discussed – be it the essentials for a modern open society, human rights, cooperation with the neighbours or energy routes. The European Union has no interest to compete with Russia but to work together. But, as always, it takes two to the tango.

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## Russian finance system on the waves of global finance crisis

By Sergey Dubinin

European sovereign debt crisis dramatically enlarged the business risks of financial markets and paralyzed the European recovery. Local problem of the overleveraged Greek government has transformed into global financial burden and undermined the business community confidence. The 2011 rate of the European countries GDP growth slowed down and the Russian economy development was not an exception. 2011 year forecast diminished from 4.5% to 3.5%. The 2012 – 2014 economic growth would doubtfully overcome 4.0% annual rate. Such dates are very close to the other Eastern European countries and significantly lower the average BRICS country level.

The global financial turmoil shocked the Russian Finance System as well. The Russian stock market volatility is a result of the foreign short-term investors sell off of the Russian liquid assets and capital withdrawal. Thus the Russian ruble (RUR) exchange rate devaluated in 2011 August – October by 12% in spite of the stable surplus of the current balance of payment.

The officially declared strategic task of Russian Government is the acceleration of GDP growth and institutional and technical modernization. It's the economic policy goal – to diversify the structure of national economy and to improve the Russian business climate. Today there exists overestimation of the Russian economy risks (S&P rating is only BBB). It blocked the investments process and hinged the post-crisis recovery.

But the main danger for Russian economic growth nowadays is the potential new wave of EU and USA highly probable recession. It should decrease this economies demand for Chinese manufactured goods, Indian services and Russian commodities. The level of oil and gas prices has a key vital importance for Russian fiscal and monetary stability.

Russian Federal Budget is balanced in 2011. But in 2012 – 2014 budget expenditures forecast would be slightly larger than revenues. Budget deficit would be about 1.3 - 1.7% of GDP. The government predicts that the deficit-free budget should be achieved by 2015. Russian sovereign debt to GDP does not exceed 10%. Russian Government Reserve Fund was grown up to over RUR 1.5 trln. And the National Wealth Fund should reach RUR 2.6 trln. The Central Bank of Russia (CBR) gold and foreign currency reserves reached more than \$550 bn., which quantity is bigger than the hole amount of all Russian public and private foreign obligations.

Minister of Economic Development Elvira Nabiullina said on the "Russia Calls" Forum in October 2011: "Unlike in 2008 a financial sector is in good condition. Since then banks have significantly improved their foreign currency positions and quality of their assets." If commodity prices do not collapse the Russian economy, told Minister, will continue to growth and the Ruble will remain more or less stable. By her estimate in a worst case scenario i.e. the price of oil per barrel falls to around \$60, the Federal Budget deficit could soar to 4.5% of GDP in 2012.

Russian bank sector has a dual nature: 73 largest banks concentrate more 85 per cent of sector assets. About 1000 banks have less 15 per cent of assets. At the crisis period Ministry of Finance and Central Bank of Russia succeeded to prevent mass corporate bankruptcies,

stabilized the financial system. Monetary powers extended subordinated loans to the banks, allowed to include its in the formation of up to 15 per cent of Tier 1 capital. Ministry of Finance issued OFZ bonds that banks could count as Tier 1 capital. Those efforts were combined with strengthening the bank sector supervision and control.

In the 2008-2009 crisis period the CBR sanctions were rather limited, only 80 bank licenses were withdrawn. After crisis market capitalization value of the bank sector declined to the dates 30% below pre-crisis level. In 2010 – 2011 the new lending cycle began. One year volume of the bank credit to corporate sector increased by 12 – 15% vs. 30 – 40% before crisis. Russian banks are very close to the Basel-3 requirements. Tier 1 capital / assets quota is more 11%. The quota of the "toxic assets", estimated by CBR, is about only 9%.

In October 2011 CBR and Ministry of Finance declared the new wave anti-crisis protection program – to apply bind over lending leverage to support the Bank Sector liquidity. Corporate lending is growing more fast in second half of 2011 – by 1.4-1.5% every month.

In the same time the CBR monetary policy needs the very complicated balance between the ruble exchange rate stability, the banking credit multiplication, money supply control. In 2011 the inflation rate (CPI index) is about 6.0 - 6.5%. The CBE anti-inflation policy is more successful, the price increase is lower 2.0% annually. But the price stability makes the sovereign debt burden harder. The only realistic monetary policy nowadays should be grate-scale money supply to stimulate the economic growth. In the same time the only way to reduce the burden of the debts is high inflation about 5% in 5 – 6 nearest years.

The main challenges of the economic growth in Russia are concentrated in structural and institutional spheres. Total budget recourses are not enough to meet all the public investments, military and social goals simultaneously. The priority choice should be to fulfil all the social commitments and human and households obligations. Both the Pension Fund and Social Fund will have the deficits. The task to make them self-sufficient is extremely hard. Today and tomorrow these deficits must be covered by the National Wealth Fund resources.

Martin Wolf, Financial Times analyst, wrote: "The fundamental challenge is not financing, but adjustment..." This approach is adequate not only for nowadays eurozone problems, but for Russian economy developments factors also.

*Sergey Dubinin*

*Chairman of the Supervisory Council*

*JSC VTB Bank*

*Russia*



## Finland needs a strategy for immigration

By Mika Kaukonen

We Finns still live according to the stern belief that doing things ourselves yields the best outcome. We hardly even dare to rely on the help of our neighbors. We value hard work, diligence and perseverance. We persistently strive to reach our goals, even if it means exhausting ourselves to the bitter end.

Nevertheless, it is an irrefutable fact that the number of Finns on the labor market will decrease dramatically in the upcoming years. According to the Eurostat statistics concerning population scenarios, the dependency ratio in Finland will be the weakest among the EU countries by 2030, and the proportion of the working age population as compared to the entire population will drop from 67 percent to 58 percent. For example, it is estimated that the field of social welfare and healthcare will lose a total of 185,000 professionals by the year 2025, while at the same time there will be an additional need for 125,000 new professionals. The total need for professionals in the social welfare and healthcare field alone will rise to 310,000.

Immigration arouses many intense feelings within us Finns. The phenomenon also involves prejudices and populism. Indeed, an article in the Helsingin Sanomat newspaper by the Taloustutkimus market research company revealed to the public in November 2011 just how biased we are towards foreigners. Many of us fear that they have come to here to just "lay around" and not work at all.

On the other hand, we do not seem to be the workaholics we imagine ourselves to be. As the numbers of the employed decrease, more and more Finns would sooner be prepared to shorten their workday than to lengthen it. The majority of us would still like to retire at the age of 63. However, the government is still looking for a solution to the future problems of lengthening the workday and raising the retirement age.

It is high time to admit that Finland's greatest problem in the future is not related to today's employees and work ethics; rather, it is the ominously approaching, uncontrollable lack of labor. Instead of engaging in futile discussion about the issue, we should be thinking about who will organize the employment of foreign labor in Finland and how it will be organized. Furthermore, it is important to consider the game rules for this type of activity in our society and how those rules are to be enforced.

Indeed, Finland needs a clear strategy drawn up by the government to lure foreign labor into the country. The competition is tough, e.g. Germany is worried about losing its competitive edge because, more and more, immigrants are choosing Great Britain or France. The deliberations of the Finland Promotion Board should, without a doubt, be utilized to lure foreign employees as well, not just for the purposes of tourism.

We here at VMP have already taken concrete actions to recruit foreign staff to meet the needs of the working world in Finland. However, this area of recruitment has a weak reputation because there are many black economy entrepreneurs on the market at this very moment. Recruiting foreign staff is indeed business for us as well, but not only do we benefit from responsible recruitment but the society, client companies, employees and trade unions also benefit from it. When foreign employees arrive in Finland through a certified recruitment agency, they pay their taxes to Finland and they have a Finnish employment

relationship with a Finnish employer. Foreigners coming to Finland to work at temporary posts pay their taxes to their own country.

The benefit to our society lies in the fact that the employees coming into Finland are treated just as well as our own nationals. Coming to work through certified channels also means longer trial periods. They have from a few months to more than one year to observe the Finnish society and decide whether or not they want to bring their family here. The trade unions also receive new members. Even now, nearly 20,000 of the employees with a foreign background belong to a trade union. Foreign employees who belong to a trade union are guaranteed all of the same benefits as Finnish employees.

Pioneers and those who disrupt official consensus in our society have always been labeled as the "village idiots". Responsibility does, however, call for the perfecting and refining of practices and operations models. Bringing foreign workers into Finland only when the need is greatest is not possible in practice, at least it does not yield the best possible outcome. The days of drudging along alone are over. Foreign workers should not be seen as a threat in our eyes, but as resources in Finland's labor market of the future. Without them, we Finns should prepare for significantly longer workdays and careers.

Mika Kaukonen

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*The author works as CEO of one of Finland's largest, privately owned providers of staffing services, VMP Group. He has several years of experience in the management of international business, for example in the Middle East, the Far East, Western and Eastern Europe, which has provided him with knowledge of other cultures.*



## Current trends of internationalisation within the University of Turku

By Irinja Paakkanen

As one of the leading universities in Finland the University of Turku is an ambitious, research-led university with seven faculties and internationally acknowledged expertise from humanities to medicine and natural sciences.

The University of Turku is a significant multidisciplinary research cluster. Out of more than 3,000 academic publications per year 76 % is international. The main focus areas of the University are internationally competitive research and education, extensive business competence and effective commercialisation of innovations. The University of Turku offers an excellent research environment where multidisciplinary collaboration is enabled, among others, by six Academy of Finland Centres of Excellence, one Nordic Centre of Excellence, the Turku Centre for Biotechnology and the Turku PET Centre. The University of Turku hosts two multidisciplinary research collegia to promote research careers of young scholars: Turku Institute for Advanced Studies (TIAS) and Turku Collegium for Science and Medicine (TCSM).

### Strengthening Doctoral Training

The University has almost 2000 doctoral students, over 10 % of which is international. Each year 140 doctoral degrees are awarded. In order to strengthen the doctoral training both on national and international level the University of Turku Graduate School was established last August. The Graduate School consists of local, national and international Doctoral Programmes which cover all disciplines and PhD students of the University. The Graduate School provides systematic and high quality doctoral training on academic topics as well as on transferable skills and career planning.

### Campus of International Studies and Students

The University is recognised for the quality of teaching, research and excellent student support services. In 2011 the University of Turku was ranked 224th in the international QS World University Rankings, making it the second-highest ranked Finnish university. Turku School of Economics is ranked excellent by Eduniversal. School of Economics at the University of Turku offers also one of the Top 200 Best Masters Worldwide in Information Systems Management.

The International Student Barometer survey (Entry Wave 2010) shows that international students are very satisfied with studying conditions like libraries, computer classes, laboratories and IT-services. Foreign students in Turku give also positive feedback about international services, especially about the housing, admission procedure and orientation. Moreover, Finland's security and political stability in general is much appreciated.

Current student enrolment is over 20 000. This includes over 1,800 international students. Last year international students were mainly from Germany, Russia, China and France; altogether from 94 different countries. Most of them participate in different research projects or in one of the 16 international Master's Degree programmes. Among them, the multidisciplinary Master's Degree Programme in Baltic Sea Region Studies (BSRS) is a partner of newly selected Erasmus Mundus International Masters in Russian, Central and East European Studies (IMRCEES) programme.

### Mobility within Strategic Partnerships

Almost 1000 students studied abroad for shorter or longer periods in 2010. During 2012 the University will review all its international student and teacher exchange agreements in order to integrate exchanges and the international aspect of studies even more closely to the curriculum.

The number of incoming exchange students have grown rapidly up to 600 during the last years mainly thanks to the University's active involvement in EU programmes such as Erasmus and Erasmus Mundus. The University of Turku is currently coordinating two large Erasmus Mundus – partnerships between EU and with Russia and with Belarussia, Moldova and Ukraine. These projects are closely linked to University's international cooperation within the Baltic Sea Region University Network and Coimbra Group. The University is also a partner of several other Mundus partnerships encouraging mobility in various levels between EU and third countries.

Furthermore, the University is member of other partnerships such as Nordic Centre at Fudan University in China and Southern African-Nordic Centre (SANORD). The new EU programme Erasmus for All 2014-2020 to be launched will surely benefit the University's international commitment in education and life long learning.

### Recruiting talent

The University of Turku has recently introduced the tenure track system for teaching and research personnel. The purpose is to increase the predictability, competitiveness and attractiveness of the academic career as well as to advance the University's internationalisation. The aim is to find the most talented, suitable and motivated individuals for the tenure track positions in the increasingly competitive situation.

A new service concept *International Welcome Services* for incoming post-docs, researches, doctoral students and teachers will be launched in the beginning of 2012. The service includes e.g. advice on permissions regarding visa / residence permit, and information on arriving and settling in Turku. Moreover, the university has also recently adapted a Language Policy covering all the functions of the University, among them administration.

The action line that the University of Turku adopted a few years ago is coherent with the Finnish Ministry of Education and Culture's aim for high-quality, profiled and effective international university sector. The recent proposal for an upcoming reform of university financing model also introduces new indicators focusing more on internationalisation. This will surely encourage all actors involved to continue strengthening internationality as a natural part of the University community.

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## Not why?, not when? – but how! – innovative solutions for the Baltic Sea

By Mathias Bergman

10–15 years ago we were all concerned by the mighty slogan: Globalization.

Today, we are living in the effects of that globalization; it has become reality. And we have come to realize what that word means. It means very fast movements of ideas, capital, goods, diseases and people – and a sense of being close to each other on our planet.

The closeness and the fact that we can observe effects of actions far away in our close surroundings have also brought about a new awareness that all humans are living on the same planet under the same rules of life.

This, in turn, is now turning into the realization that we are all part of our environment – in fact, we are a product of the global environment and ecological web. Thus, the environment is not an external “object” that we should take care of in order to fulfill regulations or follow guide lines or codes of conduct. Our environment is the space where we are, and it is a prerequisite for our being there.

All human (and other) activity takes place in that environment. From this follows that whatever we do is dependent on the environment, and vice versa, all our activities have effects on our environment.

This is a biological fact.

Thus, from now on we have to act consciously, carefully and in a sustainable\* manner, in whatever we do.

This line of thinking must not be suffocating nor create unbearable pressure to Save the World. On the contrary, it contains the seed of hope for the future and provides new ideas and enormous motivation and inspiration for any type of activity.

Into this dawning world Baltic Sea Action Group (BSAG)\*\* has introduced a novel mode of cooperation. We are not trying to save the whole planet but we concentrate on a well defined and well analyzed area, the Baltic Sea area.

BSAG was founded in 2008. The foundation is a Finnish legal entity but acts as a neutral part on behalf of the whole sea, not on behalf of any state or organisation

As stated over and over again, the Baltic Sea faces an ecological disaster. In some areas thresholds have been passed already: fishery, oxygen levels, eutrophication locally. If all hazardous substances of bottom sediments were released into the sea, we would face serious risks to human health for centuries to come. This means that the marine environment close to us is already in a state that cannot be accepted if we wish to stay a part of the global web of life.

This provides a concrete background to new actions. There is no point in blaming those who might have caused the present situation – we all have, in one way or the other. BSAG has therefore set out to engage all capable actors and to speed up the processes needed to save the sea.

The cornerstones of the novel private – public partnership are:

1. Everyone can do something
2. All humans perform the best when they are motivated
3. Any kind of incentive is a strong motivator to achieve goals
4. Nobody can save the Baltic Sea alone

5. Everybody performs optimally when allowed to do what they master best
6. Visible and strong role models have huge impact
7. Without pull and push from those in power, most initiatives will fail

BSAG has created a new way of cross-border cooperation (pt 4 above) based on voluntary actions by the participants. Everybody performs tasks of their own expertise (1, 2, 5) and with their own resources. In this way the actors perform at their best, doing what they know the best (5), without creation of any new managing structures.

A main driving force behind the process is the engagement of business enterprises and companies into the field of true and realistic actions for the environment (3). Companies are part of the process because by performing their Baltic Sea-focused tasks they can develop their contact network, their markets, products and concepts (2, 3).

Thus, a large group of experts and organizations have brought their expertise to the benefit of the sea, and this concept has proven very efficient.

The role of BSAG is to keep the Baltic Sea issues on top of the political and social agendas in the countries surrounding the Baltic Sea and to coordinate and focus the different actions (7).

To achieve this, BSAG asks for public statements, **Commitments**, from all involved parties. These Commitments describe - in a standard format – what the actor will do and in what time. In this way the public can learn which actions are under way.

Another tool to keep the Baltic Sea on the agenda is the **Baltic Sea Action Summit (BSAS)**. The first Summit was arranged in Helsinki in February 2010. To this event all Heads of State were asked to make a Commitment and were invited by a trio consisting of the President of Finland, Tarja Halonen, the Prime Minister of Finland Matti Vanhanen and the Chairman of the BSAG Foundation Mr. Ilkka Herlin (4, 6, 7).

BSAS 2010 in Helsinki was a success, presenting some 150 Commitments from all Baltic Sea countries, including those of the Heads of State. One of the most concrete and valuable Commitments was that of the Prime Minister of the Russian Federation Vladimir Putin, announcing the building of a new efficient waste water treatment plant in Kaliningrad. The Summit was widely followed by international media, and fulfilled its main purposes: To link all levels of society and actions, to gain attention to the ecological state of the Baltic Sea and to speed up processes to rescue it (4, 7).

The main tasks of BSAG are to keep up the momentum gained at the Summit, to manage the Commitments given, and to collect new Commitments. For new Commitments, BSAG is constantly in contact with companies, governmental bodies and other organizations to find matches between expertise and resources and actions for the benefit of the Baltic Sea.

The Summit is a one-day bi-annual event to be arranged in cities around the Baltic Sea. The Summit functions as an international platform for this new way of concrete cooperation, and focuses the main issues

efficiently. It also represents the development of this movable rescue process.

In February 2010 BSAG arranged a Follow-up event of the Summit in Helsinki, in the presence of President Halonen and ambassadors from all Baltic Sea states. The ambassadors reported on the progress of their respective Commitments. Good progress was stated and President Halonen announced greetings from Prime Minister Putin that the Russian Federation wishes to host the next Baltic Sea Action Summit.

BSAG is also introducing its activities into Sweden, and as part of that process the "Baltic Sea Living Room" event was arranged in Turku/Åbo | September 2011. In the living room a selected group of new Commitments were presented to HRH Crown Princess Victoria of Sweden and Prince Daniel.

BSAG is now gearing up for the coming Baltic Sea Action Summit and is preparing to leave the shores of Finland to sail on the open waters of the Baltic Sea.

Only by entering ports of all Baltic Sea countries can we all together save our sea for future generations.

\* **Sustainable** = Capacity to endure. For humans, sustainability is the long-term maintenance of well being, which has environmental, economic, and social dimensions, and encompasses the concept of union, an interdependent relationship and mutual responsible position with all living and non living things on earth.

**Sustainable development** = The Brundtland Commission of the United Nations stated on March 20, 1987: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

\*\* The Foundation for a Living Baltic Sea operates under the name Baltic Sea Action Group (BSAG)

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## Foresight for EU-Russia S&T and innovation cooperation

By Vicente Carabias, Karel Haegeman, Alexander Sokolov, Manfred Spiesberger, Klaus Schuch, and Irina R. Kuklina

Science and Technology (S&T) and Innovation cooperation between the EU, its Member States (MS), Countries Associated (AC) to the EU's 7th Framework Programme for RTD (FP7), and Russia is developing dynamically at the multilateral as well as bilateral levels. In this context and in the frame of the EU-FP7 funded ERA.Net RUS project, a foresight exercise is being implemented. Structural and thematic scenarios for a sustainable S&T and Innovation (STI) cooperation between the countries involved are currently being developed with the time perspective 2020. Foresight results shall provide a basis for a joint STI funding programme and will be fed into the policy making process on STI cooperation between EU MS/AC and Russia.

### EU-Russia S&T and innovation cooperation

Support for innovation has come high on the policy agenda both in the European Union (e.g. Europe 2020 Flagship Initiative Innovation Union), as well as within Russia (e.g. Skolkovo Innovation Center near Moscow). While the EU strives to further strengthen its innovative capacities, Russia needs to catch up on innovation and acquire related know-how. At the same time cooperation in STI has been developing dynamically over the past years between Russia, the EU, its Member States, and Associated Countries to the FP7. Cooperation is ongoing on a broad scale both multilaterally and bilaterally.

At the multilateral EU level, the EU's Framework Programme encompassing research as well as innovation and the EURATOM Framework Programme (FPs) are the main cooperation forums. Russia has consistently been one of the most active non-EU and non-AC participants in the FPs. Through joint calls for research and innovation projects launched by the EU and Russia within the FPs ("coordinated calls") in various scientific fields (e.g. aeronautics, biotechnology, energy, health, nanotechnology, nuclear fission), cooperation has been intensified. Russia has funded in these projects its participating teams from own national resources.

The further development of the cooperation process is fraught with uncertainty. While there are positive signals indicating a dynamic development of cooperation, such as new funding schemes within the ERA.Net RUS project, the strengthening of bilateral cooperation and the trend of Russia opening up to international STI cooperation, we also observe some signs of stagnation. This concerns, for example, the decision of the EU to not open negotiations on the possible association of Russia to the FP7; instead a new strategic partnership in S&T shall be built, which is still vague. Moreover, uncertainties of politics within the EU and Russia, as well as international politics always have the potential for disrupting a further rapprochement.

### Foresight exploring future EU-Russia relationships

In this context of developing EU-Russia STI relationships, a foresight exercise running from 2010-2012 is being implemented in the frame of the ERA.Net RUS project. The foresight activities will provide an analytical basis for a future sustainable cooperation policy in STI between EU MS/AC and Russia. At the core of the foresight process is the preparation of structural and thematic scenarios for STI

cooperation with a time perspective up to 2020. The development of this cooperation will be directed towards addressing societal and economic challenges that both the EU and Russia are most likely to face in the future.

In the first phase of the ERA.Net RUS project from 2009-2010, substantial analytical work was performed by the project consortium, including reports on the Russian S&T system and its funding, on experience of Russian participation in ERA.Nets and on an analysis of bilateral cooperation. The analytical work was supported through a focus group meeting with scientists, which tested for strengths and weaknesses of the Russian S&T funding system. In addition a comprehensive survey was conducted among the most relevant European and Russian funding organisations to take stock of the substance of bilateral STI funding instruments that are already in place. The mentioned ERA.Net RUS analytical reports can be accessed through [www.eranet-rus.eu](http://www.eranet-rus.eu).

This preparatory work provided a solid basis and valuable input for starting up the ERA.Net RUS foresight exercise: In the framework of the structural scenario development, a "Creativity Workshop" gave room to discussing the critical variables and defining the underlying dimensions allowing to differentiate scenarios. The ERA.Net RUS foresight partners selected four scenarios for EU-Russia STI cooperation in 2020 and elaborated them in more detail: They outlined one optimistic ("*R&D policy paradise*"), one pessimistic ("*Lost in diverging priorities*") and two intermediate ("*Isolated R&D excellence*", "*Empty cooperation programming shell*") scenarios through storytelling, collection of main arguments, assessment of impact variables and drafting of roadmaps necessary to make the scenarios happen. The resulting scenarios were then validated and further developed through expert workshops with policy makers, representatives of funding organisations and researchers. Additional feedback will be gathered from the participants of the initial creativity workshop.

In an online survey European and Russian scientists will be addressed to validate thematic priorities, which have been identified as relevant for future EU-Russia STI cooperation. In addition, this expert assessment will help to single out more specific topics under the broader priorities. By cross-checking the EU and Russian thematic S&T priorities, one can confirm that priorities are evolving in the same direction, especially with regard to S&T programmes in the fields of *energy, health, nanotechnology, transport*. It is worth mentioning that the comparison of priorities revealed a strong focus on *technological implementation* (incl. *biotechnology*). While the EU emphasizes *thematic fields supporting a sustainable development*, i.e. food, water and energy security, climate change, the Russian Federation highlights apart from the similar topics environment, life sciences and nature management also *information and telecommunication systems*.

Furthermore, in a broad Delphi survey the resulting structural and thematic scenarios will be assessed on probability and desirability as well as on their relevance for value creation, for policy development and for advancement in STI.

Foresight results will be fed into the policy making process on STI cooperation between EU MS/AC and Russia. The foresight results will provide a basis for developing a joint STI funding programme and for coordinating STI efforts for better facing joint future societal and economic challenges.

*DISCLAIMER: "Please note that the European Commission is not affiliated with this publication and the opinions expressed in this article do not necessarily reflect its position or opinion".*

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## Some observations on today's European and Russian innovation process

By Marina Bouianov

### Towards a European Innovation Ecosystem

With its noticeable strengthening of efficiency, quality of life, and productive growth of any modern society, innovation in today's European community is a key element of its economical and social policy. The sustainable development of a European Innovation Ecosystem is now at the top agenda of the Europe 2020 Strategy adopted by the leaders of the EU 27 Member States in 2010. A number of various innovation policy-making and operational tools recently initiated by the European Commission (EC) and deployed to start on aim at radically improving the performance of the innovation system. Among them are the Innovation Union Initiative of 2010 driven by the EC, annual European Innovation Summits, the European Cohesion Policy, the European Research Area and the European Innovation Partnership, the next generation of the *Structural Funds post-2013*, and the new *Horizon 2020* Framework Programme for Research and Innovation (from 2014). All these inventions will focus on the actions to take to build adequate coherence across the European research and innovation system, while maintaining local flexibility to allow developing strategies to be tailored to national and regional contexts. This is predominantly important in times of the fiscal austerity and various social challenges, which now European countries are extremely facing with, e.g. the lack of generation replacement with the low fertility, unemployment and poverty issues, social protest movements, migration, multiculturalism etc. The first edition of the Innovation Convention will be opened in early December one year after the adoption of the Innovation Union flagship initiative, the EU's roadmap to turn Europe into a more innovation-friendly and competitive continent.

### "Go Russia!" Go Skolkovo!<sup>1</sup>

Russia is not an exception in this regard. Russia's innovation programme was proclaimed by the President of the Russian Federation Dmitry Medvedev in 2009 as the Modernisation Programme. It shall enable long-term and stable economic growth in the country based on high technology, knowledge, human capital and innovation. According to this Programme and by the next initiative of Dm. Medvedev the Foundation of the Development of the Centre of Research and Commercialising of New Technologies *Skolkovo* was established as a non-profit organisation in 2010. Skolkovo' financial investments have been steadily growing up from year to year. In 2010, the project funding allocated was 3.991 billion rubles. According to the Ministry of Finance of the Russian Federation, in 2011 this amount will be 15 billion rubles, in 2012 – 22 billion rubles, and in 2013 – 17.1 billion rubles. The goals of the Foundation are to mobilise national resources for advanced applied researches, and to create friendly science environment in five priority directions: energy sector and energy efficiency, space, biomedicine, nuclear science and ICT. The project includes forming the Skolkovo Institute of Science and Technology (SIST), which now actively acts, a number of research and development centres and institutes, business incubators,

<sup>1</sup> D. Medvedev' article *Go Russia!* (10.09.2009). Source: <http://eng.kremlin.ru/news/298>, the official site of the President of Russia.

and centres of technologies transfer and commercialisation. Additionally, world leading companies are welcome to join Skolkovo with opening their representative offices. Specific legislative and investment conditions and highly developed social infrastructure will be ensured for their winning business. According to the Press service of the Skolkovo Foundation<sup>2</sup>, by mid-November 2011 the Skolkovo Foundation resident list has reached 200 participants. Among outstanding international residents are *Nokia Siemens Networks* (Finland), *Siemens* (Germany), *TECHNOPARK® Zurich* of Switzerland, a number of American leading companies (*Microsoft, Boeing, Intel, Cisco, Dow Chemical, IBM*), the Swedish *Ericsson*, *Alstom* from France, the Netherland' EADS. Skolkovo is starting at precisely the time when Russia vigorously expands its collaboration with the EU community in science, technology and innovation through mutual beneficial strategic partnership and active involving in the EU funding programmes. Representatives of the Skolkovo Foundation boost up negotiations with key government bodies and innovative companies in Europe and over the world as a part of its aggressive policy in broadening international contacts and attracting foreign investments. Skolkovo hastens to be a magnet for many leading scientists and qualified professionals from abroad to demonstrate the charisma of the Russian innovation idea and the prestige of this unique innovation paradise.

### Skolkovo: an Oasis in the Desert?

Despite all these facts listed above, it seems that against the background of Russia's economic and social landscape Skolkovo' infrastructure represents a type of a closed self-sustaining system. As noticed by Viktor Galenko, Member of the Flight Safety Foundation, in his expert assessment of the Skolkovo project, "Most likely, in fact this inno-city will very quickly degenerate into the expanded representation of Western industrial and scientific giants, where young scientists work for Western' corporations"<sup>3</sup>. "Will it be a scientific ghetto or an oasis under the patronage of Western' companies, which no one can access in – it is unlikely to be an intellectual centre, whose decisions could be later adopted across the country", he continues. Here, I completely share Viktor Galenko' opinion.

Nowadays, the concept of innovation is exceptionally complex and heterogeneous. It extends very far beyond the boundaries of the standard definition and operates with such societal processes as generating human capital, enabling knowledge transfer, development of innovation culture and networking private and public sectors. In the broader view, the modern innovation system suggests the inclusion of various political, economic and social aspects of the society to be modernised. The innovation strategy shall directly reflect society' challenges and fit for purposes to meet them. The most important consideration that the innovation strategy shall be actually driven by bottom-top society demands for innovation. Of course, this requires

<sup>2</sup> Source: <http://www.i-gorod.com/en/newslist/>, the official site of the Skolkovo Foundation.

<sup>3</sup> Source: <http://finam.info/currency/news2315400001/default.asp>, the official site of the Information and Analytical Expert Agency FINAM.

more crucial government efforts to bring together the right mix of innovation policy and instruments at the global as well as national and regional levels. But this does not mean the creation of a separate state in the state in a special greenhouse climate that specialises on production of benefits unclaimed by the society. My brief figure review of today' Russian media below clearly proves these concerns.

### Snapshot of the Russian "Innovation" Landscape

- The capital flight from Russia in 2011, according to the forecast of the Central Bank of Russia (CB) is likely to exceed \$ 70 billion. According to the Head of the Central Bank Sergei Ignatyev, it is directly related to the heavy investment climate in the country. According to CB, the net outflow in 10 months of 2011 amounted to about \$ 64 billion<sup>4</sup>. To compare: in the crisis year 2009, \$ 57 billion of hot speculative capital went from Russia.
- The influential global civil society organisation *Transparency International* (TI) considers Russia to be the most corrupt of all the major countries in the world, G20. According to TI, Russia in 2010 managed to rank 154th out of 178 countries<sup>5</sup>.
- The annual turnover of corruption in Russia is now estimated at \$300 billion, which is comparable in size to Russia's budget as a whole and represents 25% of the country's GDP<sup>6</sup>. The *Association of Russian Attorneys for Human Rights* has recently reported in its *Corruption 2010* study that Russian corruption generates an amount equivalent to 50% of GDP<sup>7</sup>.
- According to the social survey of the Russian analytical centre, *Levada-centre* conducted in October 2011<sup>8</sup>, the average monthly income per person in Russia is now 9.4 thousand rubles (about 235 EUR), and per family – 23 thousand rubles (about 575 EUR). 50% Russians believe that they have lost from the recent changes in the country. 52% of respondents consider that the level of theft and corruption in the country has increased (in 2007, the figure was only 16%). According to the next survey of the *Levada-centre*<sup>9</sup>, a group of brain drain risk is about 30% of respondents. 3-4 million people have already taken some measures. The most active group includes people with high education and incomes, living in large cities. According to sociologists, in the next 12 years, they see no prospects for themselves in Russia. Their interests are now focused mostly on Germany, USA and the UK.

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*DISCLAIMER: The opinions expressed in this article are the author's alone and do not necessarily represent those of the home organisation.*

<sup>4</sup> Source: [http://www.ng.ru/economics/2011-11-21/1\\_kapital.html](http://www.ng.ru/economics/2011-11-21/1_kapital.html), *Nezavisimaya Gazeta / The Independent Newspaper*, 20.11.2011.

<sup>5</sup> Source: [http://www.transparency.org.ru/CENTER/cpi\\_10.asp](http://www.transparency.org.ru/CENTER/cpi_10.asp), the official site of the *Transparency International*.

<sup>6</sup> Source: <http://www.indem.ru/en/index.shtml>, the INDEM (Information Science for Democracy) Foundation. Study: *Diagnostics of Corruption in Russia: 2001-2005*.

<sup>7</sup> Source: <http://rusadvocat.com/>, the official site of the *Association of Russian Attorneys for Human Rights*.

<sup>8</sup> Source: <http://www.levada.ru/14-11-2011/terpet-ne-vredno-rossiyane-ne-zamechayut-uluchsheniya-zhizni-v-strane-bdubin>, the official site of the analytical centre *Levada-centre*.

<sup>9</sup> Source: <http://www.levada.ru/17-11-2011/ottok-chelovecheskogo-kapitala-bdubin-video>, *Ibid*.

## R&D procurement and the role of the SBIR program

By Charles Wessner

Although a great deal of policy attention is focused on innovation and entrepreneurship, the critical role of the initial seed funding is often left out of these discussions. Despite having one of the world's largest venture capital markets, the United States has for many years deployed a highly effective program of competitively awarded public grants and research contracts to develop proof of principle and prototypes to bring research out of the university laboratory and into the market. This program, the Small Business Innovation Research (SBIR) program, is organized in three phases.

- Phase I grants—\$150, 000 is the standard size—essentially fund a feasibility study in which award winners undertake a limited amount of research aimed at establishing an idea's scientific and commercial promise. Approximately 15 percent of all small businesses that apply receive a Phase I award.
- Phase II grants are larger—the standard amount is \$1 million—and fund more extensive R&D to develop the scientific and technical merit and the feasibility of research ideas. Approximately 40 percent of Phase I award winners go on to this next step.
- Phase III is the period during which Phase II innovation moves from the laboratory into the marketplace. During this phase, companies normally do not receive additional funding from the SBIR program, although there is a growing trend to provide additional funds on the condition that they are matched by equal amounts from the private sector.

### Key Program Characteristics

The program has a number of outstanding characteristics.

- **SBIR is highly competitive:** SBIR is a double-gated program with a limited number of successful applicants. In this regard, it may be compared aptly to leading scholarship programs for outstanding students, not only in terms of the success rate but more profoundly in terms of the social investment in private individuals based on the rationale of long-term public gain.
- **SBIR Is Significant In Scale:** The program provides innovative small businesses about \$2.5 billion a year in awards and contracts. This compares with about \$1.7 billion a year that the private venture capital markets in the United States have provided in seed stage funding in recent years.
- **Awards are Limited in Time and Amount:** SBIR is open to new entrants and stays competitive for each round of funding. While companies can and do re-apply for additional work, there are no "politically favored firms" that draw regularly on government support.
- **Preserves Ownership:** While helping to mitigate some risk, SBIR awards do not dilute equity and preserve the benefits of ownership. SBIR recipients retain rights to intellectual property developed using the SBIR award, with no royalties owed to the government, though the government retains royalty-free use for a period.
- **A Signal of Quality:** SBIR awards provide a positive certification, a signal to private investors of the technical and commercial promise of the technology held by the small business.
- **No Direct Recoupment:** The government recoups the cost of the program by taxing the salaries and earnings of eventually successful firms.

### SBIR and Public Procurement

A principal goal of the SBIR program is for small businesses to commercialize their innovative product or service successfully. This commercialization can include sales to the government through public procurement. Indeed, a variety of SBIR features make the program attractive to the government:

- **Open source Innovation:** Drawing on SBIR, the government can leverage private sector ingenuity to address public needs. In the process, it helps to convert ideas into potential products, creating new sources of innovation.
- **A Low-cost Technical Probe:** A significant virtue of SBIR is that it enables the government to explore at low cost ideas that may hold promise.
- **Diversifying the Supplier Base:** By providing a bridge between small companies and the federal agencies, SBIR can serve as a catalyst for the development of new ideas and new technologies to meet federal missions in health, transport, the environment, and defense.

SBIR's open source innovation model provides the technical solutions needed to further mission goals of government agencies. In the United States, challenges successfully addressed through SBIR solicitations range from rapidly deployable high-performance drones for the Department of Defense to needle-free injectors sought by the National Institutes of Health to facilitate mass immunizations to repairs of the Hubble Space Telescope sought by NASA, to the leading U.S. battery technology and new nano-based drilling technologies.

### "Sound in Concept and Effective in Practice"

In a recent comprehensive assessment of the program, the U.S. National Academies found that "the SBIR program is sound in concept and effective in practice." The assessment documented the program's contributions in stimulating innovation and meeting government R&D and procurement needs by engaging small business entrepreneurs. It found that SBIR encourages the entrepreneurship needed to address government missions and introduce new products to the market by providing scarce pre-venture capital funding on a competitive basis.<sup>1</sup>

Recognizing the advantages of the SBIR concept, governments around the world are adopting similar programs to encourage entrepreneurship and innovation. In Europe, Finland, Sweden and Russia have adopted SBIR-type programs. The United Kingdom's SIRI program is similar in concept. Following a successful pilot, the Netherlands has expanded the program across its government ministries. As European Member States initiate new SBIR-type programs, the European Commission is seeking to develop a European SBIR scheme that could financially support cross border cooperation for innovation procurement and public procurement of R&D.

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<sup>1</sup> National Research Council, *an Assessment of the SBIR Program*. Charles W. Wessner, ed., Washington DC: National Academies Press, 2008.



## Innovative entrepreneurships in Russia

By Ivan Bortnik

How innovative is Russia? What problems should it overcome to become more innovative?

There are several myths about Russia, how true they are?

Myth 1 – Russia has enormous scientific knowledge and therefore a great potential for innovation. It is true up to some degree. Soviet scientific knowledge was really great. However even then it was not equivalent to great achievements in innovation. It was a base for some fantastic results in space exploration, good results in defense industry. However when it was up to civil products the volume of their export - the criteria for innovative products - was really modest. However such a modest export in most of the cases was not because of low technical parameters but because of inherent inability of soviet system and mentality of soviet people to design, to produce, to promote, to sell and to organize service for product on purely competitive base. And russian scientific potential was not supported during almost 15 years. It does not disappear but became much older and therefore is now much less interesting for innovative products and services.

Myth 2 - russians are genetically are not innovative people. It is true but also only up to certain degree. Russians do not pay too much attention to details of everyday's life. If our surrounding is not quite comfortable we may live with it. We like to work enthusiastically for great ideas. But it is not exiting us to work systematically (step by step and may be for years) on improving quality and making competitive ordinary product. However it has nothing to do with our genes and is conditioned mostly by Russian history and climat when we have too many examples that a really hard and systematic work is not always a prerequisite for success story. And when competitiveness in our society is growing we see noout hat more and more examples ( like Yandex and Kaspersky Laboratory) appears of competitive products on international markets. May be it is a little bit strange to hear for western specialists but here in Russia is one of the urgent needs is to promote success stories for customer oriented products, companies and even more important - persons.

Myth 3 - Russia will not become innovative country until it has plenty of gas and oil resources. Yes it is true when it comes to Government's motivation to change rather rapidly from paternalistic soviet economy to much more market oriented one. However we may see from some recent examples that pure market economy is not a perfect one. But also Russia's participation in WTO will foster transition to market oriented economy. It is necessary not because of exhaustion of resources but because of that potential fact that energy efficiency and new sources of energy policies in many countries could give some good results and demand for oil and gas could go down.

What is a real situation with innovative companies in Russia and how it relates to these myths?

It is better to consider separately two groups of companies - large companies and small and medium enterprises. The reason for separate analyze is clear if we recall how these two groups of companies appear in Russia. Most of large companies and their management are from soviet period and are used to planned system of economy. And many of them are controlled by Government until now. Small enterprises on the contrary are organized by enthusiastic and risky persons and they never worked within soviet system as they were not allowed to exist under it. Middle sized enterprises have two origins - either they grew up from small or they are active pieces of previously large soviet companies after their collapse and breakdown. In both cases they are enterprises of new type like the small ones which rely upon only themselves and market forces.

If we analyze situation with large companies we see that most of them (nice exceptions are companies from space and ITC sectors) are not completely uninnovative, but their innovations are mostly organizational and marketing ones and average level of innovativeness measured according Oslo Manual is somewhere about 6% if we take a part of sales of their innovative products as

percentage of their full turnover. As it was said before most of them are controlled by Government and now Government obliged them to develop plans for their future development based on innovative products and technologies. Another purpose of Government activity along this directions is to stimulate R&D financing by enterprises as until now it is less than 0.3 GDP. It is also important because during last few years Government poured a good investments into universities to improve conditions within them for R&D and poor demand for R&D from enterprises makes these investments not quite effective.

With small and middle enterprises situation is different. If we measure their innovative sales (products and services) as a part of their turnover it is somewhere about 25-30% and most of their innovations are technological. It does not mean that most of their products are exported but the first task for most of them is to replace their western analogues on Russian market. And also one should keep in mind that to come on international market and to be competitive over there it is not an easy task for small company. However some of them (like "Tranzas", NT-MDT, "Diakont", "Vladmiva") are already well presented on international markets. Main fields of activity of small and medium enterprises where they are competitive are ICT, especially software, devices and instruments for medicine, science, ecology, energy saving, new materials for electronics, construction industry.

Main obstacles for innovative SME to grow are limited size of internal market with very high level of competition by foreign companies and many problems to overcome to be well presented on international markets - competitors, language, custom, small financial resources and expensive credit, etc.

Keeping in mind what was said about nature of innovative SME the Government is trying now to assist their creation and development. A special federal law was issued to facilitate the creation of innovative small enterprises by research organizations and universities. Preseed and seed funds and programs on federal and regional level are established both of public and public-private nature. R&D of SME is supported through program similar to SBIR program. Public venture funds exist with capital about two billions of US\$. Infrastructure like business incubators, technoparcs, innovative technological and engineering centers are supported by State through regions of Russia.

And finally, what about myths?

Myth 1 – it will take not less than 10-15 years of consistent policy by Government to restore Russian scientific knowledge and innovation potential up to position of soviet science. Scientific and educational schools are still here.

Myths 2 – genes of Russians are also entrepreneurial ones. When their oppression ceases they awake. Process is going on. A wise policy may speed it up.

Myths 3 – it is only up to Russians to prove that this myth is a wrong one.

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# Does the Russian economic system support technological entrepreneurship?

By Nikolai Puntikov and Stanislav Tkachenko

In September 2011 one of us moderated a round table discussion at the IV Innovation Forum in St. Petersburg. The panel has been titled "Entrepreneur as Key Player in Innovation Economics" and brought together prominent Russian investors, entrepreneurs, leaders of governmental institutions and foreign experts. The panelists have discussed dynamics of the Russian economic system from the perspective of its compliance with main features and indicators of the innovation economics, as well as issues related to education of entrepreneurs and creation of social environment that supports entrepreneurial initiative. This article has been written as an aftermath of analysis, which we performed over diversity of opinions uttered by speakers at the round table.

Today's problems of Russian national economy are well-known: corruption, low level of economic freedom, oil and gas dependency, lack of strategic vision for development of Russia's political and economic system. In an attempt to address many of them, the government declared innovation as its key priority. In the next 30 years the Russian government plans to invest over a trillion dollars in support of innovations. It is expected that the modernization will be powered by large-scale investment projects which government will support not only financially, but also by offering special tax and custom rules, liberal visa and regulation regimes, and other favorable treatment.

Government support of external economic factors (such as foreign investments) is an important measure aimed at diversification of national economy. However, domestic dimension of the economy badly needs attention of all stakeholders. Reforms of national legal and law-enforcement systems are long due. Russia has to tackle and overcome serious institutional and political barriers that prevent cooperation with foreign partners in Europe and elsewhere. Political institutions for an effective market economy are largely missing in Russia, and corruption is on rise.

Most of the speakers at the Innovation Forum in St. Petersburg provided positive assessment of the progress in establishment of innovative ecosystem in Russia in the past five years. Investment funds and business angels became visible and active; there are governmental institutes that really work, including Russian Venture Company (RVC) and Skolkovo; a lot of business incubators help startups to launch operations and raise capital. Besides, booming Russian consumption and production markets offer entrepreneurs opportunities that would be difficult to find in other countries. RVC's CEO Dr. Igor Agamirzian referred to "strong spirit of entrepreneurship" that should help Russians to overcome "technical" problems.

However, in spite of optimism, the speakers casted a good share of criticism in each case when a specific indicator of innovations economics has been considered closely. We scrutinized just a few of them with an objective to find Yes/No answer to a simple question "Does it support technological entrepreneurship?"

- **Current legislation: NO**

Lack of basic corporate, venture capital and IP legislation; unreliable judicial system; weak and non-transparent law enforcement; heavy bureaucracy at the Custom Service; corruption.

- **Taxation policy: NO**

Except for a few enclaves (like Skolkovo), there are no mechanisms of tax endorsement for innovation.

- **Human capital: YES, BUT...**

...But business is not anymore local; Russian human capital should be globally competitive. When there are no attractive opportunities due to institutional loopholes, entrepreneurs would leave Russia to work elsewhere: from Finland and Estonia to Silicon Valley and Road 128.

- **Share of innovation production in GDP: NO**

Still energy resources and primary products dominate Russian GDP.

- **Innovation economics' infrastructure: YES**

This segment enjoys fast growth explained by enthusiasm of individuals and government money. However, if long awaited reforms in other areas do not happen soon, those infrastructure institutions may well become source for innovation in other national economies, but not in Russia.

- **Capital replacement and government support: YES, BUT...**

...By providing direct financial support to individual companies the government undermines free competition and paves road for another source of corruption. It might be more efficient to invest in innovations infrastructure (incubators) and/or pay decent salary to academic scholars and university professors.

Contemporary Russian economy lacks basic institutions, needed for making innovations possible. We believe that the "holistic solution" of the puzzle could only be found if the "project" of reforming Russia's energy-dependent industrial economy into a full-pledged member of the global innovation economics was explicitly defined and consistently implemented based on the following priorities:

1. **Development of national system of effective liberal institutions of market economy.** Until now there are only imitative copies of such institutions as independent courts, self-regulating business organizations, private-public partnerships, etc.
2. **Establishment of a think-tank's type Center for reforms of national economy.** It should involve representatives of business, legislature and government and should be empowered with authority to implement practical measures in economic, judicial and social spheres.
3. **Reform of institutions of political power,** which includes increasing role of civil society in the system of governance.
4. **New regional policy for Russia** based on post-modern federation, in which regions will compete between themselves for better business climate and invest into innovation ecosystem at regional and local levels of governance.

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# Russian intelligence services can help domestic nanotechnology – by keeping at arm's length

By Fredrik Westerlund

Since 2007, Russia has been committed to a major effort to develop its domestic nanotechnology and industry as a means to modernize the Russian economy and society. There are many ways to boost national science and technology (S&T) and industry, and each state tends to combine a number of options. Increased spending on domestic research and development (R&D) is one way. Intensifying and deepening international cooperation is another. A third way is to create a domestic environment conducive to innovation and research.

Furthermore, national intelligence and security services can supply foreign know-how and technology through espionage as well as providing protection from foreign industrial espionage. This is particularly tempting for countries wanting to leap ahead without making the necessary fundamental institutional changes in order to become more innovation-friendly.

## Russian nanotechnology initiatives: little and late

The Russian Government entered the nanotechnology race late, but has devoted substantial sums to developing domestic science and industry. Over 100 bn RUR has been allocated up to 2015 and it was the leading government investor in 2009. However, since private and foreign investments are only modest and the infrastructure is underdeveloped, Russia has been losing ground in both nanotechnology research and patenting. Russia also lags behind in international evaluations of the innovation and business climate. Its main advantage in nanotechnology is its relatively strong position in international research and patenting collaboration.

## Intelligence service support: a promising short cut ...

Official Russian documents and reports from foreign intelligence services as well as assessments by scholars and former Russian intelligence officers suggest that the Russian intelligence services are collecting S&T intelligence abroad. In the Soviet era, a clandestine organization was created to collect intelligence for the biological weapons programme. It is reported to have survived and could be used to support R&D in the area of nano-biotechnology. The Soviet nuclear weapons programme was accelerated by intelligence-gathering abroad. The nuclear weapon research organization's successor, the Kurchatov Institute, enjoys a central position in the Russian nanotechnology effort.

The Russian security services can also support Russian nanotechnology by providing protection from foreign intelligence services and corporations. Safeguarding Russian science and industry has been one of the tasks of the Federal Security Service (FSB) since its creation in 1995. As late as December 2008, the head of the FSB directorate for the Saratov region singled out Russian nanotechnology projects as being of particular interest to foreign special services.

## ... or a dead end for Russian nanotechnology?

Intelligence service support could be a tempting short cut when other avenues to developing Russian nanotechnology science and industry are uncertain. It could, however, prove to be a dead end. First, the Russian intelligence services are not as efficient as their predecessors. They cannot rely on assistance from allied intelligence services or on ideologically motivated spies as they could in Soviet times. Furthermore, corruption within the services takes its toll on their efficiency.

Second, extensive collection of S&T intelligence abroad does not automatically imply dividends for domestic science

and industry. A successful transfer of foreign technology is dependent on the capacity of the recipients to make use of the information they receive. Russian nanoscience lags behind in several areas and the domestic nano-industry faces severe challenges in converting scientific advances into competitive mass-produced products.

There are also several risks connected with intelligence service support. Reliance on intelligence may dull the edge of science by making it reactive and dependent on foreign findings. Furthermore, the security mindset of intelligence services, with its emphasis on risk reduction, is in many ways the opposite of a climate conducive to research and innovation.

The most important aspect of intelligence support to Russian nanotechnology is its potentially negative impact on cross-border cooperation. If the security services in other countries suspect that Russia is spying, the flow of knowledge into Russia could suffer. Foreign companies and research institutions will be alerted to the risk of espionage, and access to state-of-the-art science abroad could become restricted for Russian researchers and engineers. Moreover, over-zealous security service officers could harm Russian nanotechnology. In 2007, several charges of espionage were brought against Russian academics. In January 2010, a Russian Academy of Sciences institute director complained over the close attention the security services were paying to Russian scientists and over trumped-up charges of espionage. Such activities could result in scientists refusing to take part in international research projects or declining funding from abroad.

In an era of technological globalization, international cooperation is of the utmost importance for scientific and technological progress. As mentioned above, Russia's primary strength in nanotechnology research and patenting is its comparatively good position concerning international collaboration. Intelligence support efforts could undermine Russia's main advantage in the field of nanotechnology. Indeed, the Russian intelligence services would perhaps serve domestic nanotechnology best by keeping a distance.

*Note: The views expressed in this article are the personal opinions of Fredrik Westerlund. They may not reflect the views of the Swedish Defence Research Agency nor Swedish Government policy.*

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# Ioffe Institute and its contribution in the development of nanotechnology in Russia

By Andrei G. Zabrodskii

The history of the Physical-Technical Institute originates from September 23, 1918. The first director of the Institute, Abram .F. Ioffe — an outstanding scientist and science organizer — laid principles of its effective operation, which rapidly promoted the Institute to among world's leading research centers. These principles are the following: combination of basic research and the ensuing applied studies; determination to tackle with most important problems in the development of science, economy, and defense potential of the country; and training of skilled personnel at the base Faculty for physics and mechanics, created by A.F. Ioffe at Leningrad Polytechnic Institute.

The Ioffe Institute is the cradle of domestic physics, in which the future Nobel Prize laureates, N.N. Semenov, L.D. Landau, P.L. Kapitsa, I.E. Tamm, and Zh.I. Alferov, commenced their scientific careers and worked. About 20 country's educational and research institutions have originated with active participation of the Institute staff members. The world's fame was brought to the Institute by works in solid-state physics, semiconductor physics, quantum electronics, power semiconductor electronics, astrophysics, physical gas dynamics, nuclear physics and controlled fusion, plasma physics, and semiconductor heterostructures. At present, studies of Institute's scientists cover nearly all areas of modern physics.

Now the Institute comprises 64 scientific laboratories grouped into 5 research divisions. Its staff counts 1058 researchers, including 260 Doctors and 560 Candidates of science.

The Institute initiated and coordinated the State program in the field of carbon nanostructures: fullerenes, nanotubes, nanodiamonds, etc., in 1994--2004. At present, the Institute develops techniques for production of nanoporous carbon, detonation nanodiamonds, and graphene for electronics and medicine.

In 1995, the concept of three-dimensional (3D) photonic crystals based on a periodic matrix of synthetic opals was put forward and then implemented at the Ioffe Institute. Ultrafast (~100 fs) photoinduced switching of the photonic energy gap has been achieved in 3D photonic crystals based on opal-semiconductor nanocomposites. A new class of optical materials, photonic-phononic crystals for ultrafast control over light fluxes, has been created.

Studies in the field of molecular-beam epitaxy of modulation-doped nanoheterostructures in the systems AlGaAs/InGaAs/GaAs and AlInAs/InGaAs/InP, commenced at the Ioffe Institute more than 20 years ago, laid foundations of the domestic industry of microwave heterostructure field-effect transistors and made it possible to create Russia's electronic components for radar, telecommunication, and satellite navigation systems. The development of techniques for fabrication of short-period semiconductor superlattices with high structural perfection has resulted in that electronic components for terahertz devices were created.

The Ioffe Institute conducts research in the field of epitaxial growth of heterostructures based on wide-bandgap materials (GaN). Methods for fabrication of effectively emitting quantum dots in the InGaN system have been developed, and LEDs for the spectral range from ultraviolet to red have been created. A technique for fabrication of monolithic white LEDs has been developed. End-face and surface-emitting laser structures have been fabricated. Vertical lasing in Bragg-cavity structures under optical excitation at room temperature has been obtained for the first time in the world.

During about half a century, the Institute has been occupying world's leading positions in research and development activities related to semiconductor heterostructure lasers: the first patent was obtained in 1962, continuous-wave lasing was achieved in 1969, record-breaking current density (40 A/cm<sup>2</sup>) was reached in 1988, an injection laser on quantum-dot structures was created in 1994, and world's record in the efficiency of a semiconductor laser (74%) was set in 2004. At present, Institute's developments serve as a basis for setting production of semiconductor heterolasers for various purposes in the country.

Ioffe Institute's scientists have made a major contribution to the development of high-efficiency solar cells based on nanoheterostructures. Here, heterostructure solar cells were created for the first time in 1969. Industrial manufacture of space solar cells with increased efficiency and improved radiation hardness was organized in Russia on the basis of these studies. Terrestrial solar photoelectric power installations based on cascaded photovoltaic converters and solar light concentrators, which make it possible to diminish by up to a factor of 1000 the area of the converters, have been developed at the Ioffe Institute. Because of their high efficiency (more than 37%) and precise tracking of the Sun, installations of this kind provide a 2--3-fold increase in the per-unit-area electric power, compared with silicon and thin-film cells.

The Ioffe Institute was one of world's research centers at which studies in the physics and technology of amorphous and glassy semiconductors were commenced. Here, an industrial technology for plasmochemical deposition of films of these materials for thin-film field-effect transistors, liquid-crystal displays, and solar cells was developed or the first time in Russia. Studies in the theory, technology, and experiments on photo- and electroluminescence in Si:Er at a wavelength of 1.55 μm, aimed to develop electronic elements for silicon optoelectronics and LEDs working at room temperature, have been carried out at the Ioffe Institute. A technique has been developed for obtaining silicon nanoclusters in a dielectric matrix for light-emitting structures. In 2011, the Research center "Thin-Film Technologies in Power Engineering" was organized at the Ioffe Institute in order to develop technologies for manufacture of thin-film micromorph units.

A technique for fabrication of an effective nanocomposite catalyst based on functionalized carbon nanotubes has been developed at the Ioffe Institute. The utilization efficiency of platinum in air-hydrogen fuel cells has been raised by up to a factor of 5, and their specific power has been doubled. A specific power of up to 600 mW/cm<sup>2</sup> has been reached for fuel cells with a platinum content of about 300 μg/cm<sup>2</sup>. Promising designs of compact power sources in the configuration with a free-breathing cathode and electrochemically stable materials have been developed.

In recent years, the Ioffe Institute has become one of the most prominent partners of Open Joint-Stock Company "RUSNANO" created in order to develop high-tech nanotechnology-based industries in Russia.

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## On innovation activity in Russia

By Ruslan Shafiev

The current state of the Russian economy shows that the development of innovation policy is a priority for the country's development. In spite of the high scientific and educational potential, the export of raw materials dominates in the economy, and the rate of research intensity of major part of the Russian industry is much lower than in the USA and the EU. Russia is also underrepresented in the world of science. Thus, according to the database of the Web of Science, total amount of Russian researches in the scientific magazines worldwide in 2008 was equal only to 2.48% (while in France - 5.53%, in Germany - 7.5%, in China - 9.69%). Russian indicator in this sphere is at the level of Brazil (2.59%) and the Netherlands (2.46%). Russian science is characterized by the low intensity of the scientific researches (6 publications in the scientific magazines indexed in the Web of Science to 100 researchers in 2008, while in the UK - 33, in Germany - 29, in the USA - 23) and on average, by much lower quality of work (total amount of the Russian researches in the global number of publications in the scientific magazines is 2.48%, its share in the global number of citations in the scientific magazines in 2004-2009 is equal only to 0.93 has complicated the implementation of the existed goals, has led to the reduction of the expenditures on innovation by the private sector and has complicated the structural weaknesses of the Russian innovation system.

I would also like to mention that main efforts for the development of applied science is realized in the framework of federal programs aimed at developing of innovative projects in all priority sectors of the economy.

At the same time, high-tech sector programs aimed at technology development in priority sectors of the economy (aviation, shipbuilding, aerospace, nuclear complex, new transport technologies, telecommunications, information security, etc.), in comparison with the interdisciplinary scientific and technological federal programs has received its accelerated development in the recent years.

Our activity in 2011-2013 will be focused not only on main directions of state support for the development of corporate research centers, but also on respective tax measures for the promotion of innovative researches and on the appropriate legislative measures for the clarification of legal status of the foundations for the support of scientific, technical and innovative activity. The Foundation for promotion of small enterprises in scientific and technical sphere as well as the appropriate program of state support of small and medium-sized businesses, as before, will be our main mechanisms aimed to support innovative business and entrepreneurship.

The Foundation's programs for 2010-2013 will be based on funding of the initial stages of the innovation process (if the commercialization of new research results begins in the form of small enterprises) as well as on the participation in pilot programs to promote innovation center Skolkovo, on the promotion of small innovative enterprises engaged in the implementation of priority programs nominated by the Commission on the Modernization and Technological Development of the Russian economy under the President of the Russian Federation.

The development of innovation activity in public corporations and large companies with state participation will be ensured through the implementation of the innovation development programs. In addition to the above mentioned, one of the effective measures should be an effective interaction between companies and leading universities, research institutions, small and medium innovative enterprises in order to use results of their intellectual activity.

For the support of such cooperation between private companies and Russian higher educational institutions and organizations the Government of the Russian Federation will allocate grants amounting to \$ 19 billion. There will also be adopted a package of amendments to tax legislation, establishing preferential conditions for the companies working in information technology sector, for the period of 2011-2019.

Infrastructural development of national innovation system, according to our opinion, is strictly related with the effectiveness of commercialization of intellectual property - the main task of major infrastructure organizations making support to the innovative activities, such as the Foundation for promotion of small enterprises in scientific and technical sphere, the Russian Venture Company, the Russian Nanotechnology Corporation, and the Vnesheconombank (lending of small innovative enterprises).

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## Internationalization of high-tech industries – lessons for the Russian government

By Kalman Kalotay

The Russian Federation is a laggard country in terms of the internationalization of its high-technology (high-tech) industries. This is quite paradoxical, as the country has in principle all the ingredients required for a more vigorous insertion into the global network of high-tech activities: a strong science, technology and innovation based inherited from Soviet times (slightly eroded since then), a vast and well trained labour pool (with skills again a bit eroded but still important), and recently large foreign direct investment (FDI) inflows and outflows. Indeed, by 2010, the country had become the 8th largest recipient of the world in terms of FDI inflows (\$41 billion) and also the 8th largest source of the world in terms of FDI outflows (\$52 billion).

The laggardness of the internationalization of high-tech industries may seem to be evident for most observers; however it is not easy to quantify it. The main methodological difficulty arises from the fact that practically all FDI statistics lump high-tech industries (their common list includes pharmaceuticals, aircraft & spacecraft, medical, precision & optical instruments, radio, television & communication equipment, and office, accounting & computing machinery) with medium-high-tech industries (electrical machinery & apparatus, motor vehicles, trailers & semi-trailers, railroad & transport equipment, chemicals & chemical products, and machinery & equipment). If we accept the merging of these two groups as still a good proxy of the propensity to engage in high-tech FDI, latest available statistics reveal a striking difference between the world average (11.3% in inflows and 9.5% in outflows) and Russian data (4.1% and 4.3%, respectively, see table 1). Note that inward and outward industry classifications do not necessarily match, because the former reflect the industries of the investor, while the latter the industry of the host firm, and the two often differ.

Another proof of the laggard status of the Russian Federation is in the universe of the largest transnational corporations (TNCs) of the country: in 2008, none of them were from high-tech industries although some of them undertook important research and development (R&D) activities. These large firms accounted for more than half of the country's outward FDI stock, with Lukoil and Gazprom together representing almost one-quarter, other natural-resource-based firms about one-fifth, and non-resource-based firms of the top 25 for about one-tenth. As a result, high-tech firms, although they exist, and sometimes internationalize, are invisible on the overall radar screen of Russian FDI.

Studies examining the Russian high-tech internationalization paradox usually conclude that the country's laggardness almost fully policy made. The 2009 Knowledge Economy Index of the World Bank for example shows that the country fares well in terms of its education system (despite all the well-founded criticism of its distance from real life), innovation, and information and communication technologies, but sorely lags behind almost all countries of the world in terms of "economic incentive regime". The score of the Russian Federation is even lower than the average of the low-income countries of the world. China's and India's indices are twice as high, and that of Brazil almost three times. The distance from developed economies is even larger: almost five times.

The policy lessons from countries that succeeded with the internationalization of high-tech industries are usually straightforward. The secretariat of the United Nations Conference on Trade and Development has analysed the cases of Canada and Singapore in detail. One of the common lessons of these successful cases is the need for a holistic approach towards general national development policies, science, technology and innovation policies, and inward and outward FDI promotion. In the Russian Federation, this interconnectedness is missing, largely due to the fact that inward and outward FDI policies are at a nascent stage, and whenever they exist, they do not seem to coordinate with other policies. Another problem is in the country's approach to science, technology and innovation, inherited from Soviet times, when business applications were seen as unnecessary, and sometimes even suspicious. Soviet science attained very high levels but cruelly failed on practical application. Finally, international benchmark countries such as Canada and Singapore have overcome the stage where concerns about the strategic nature of high-tech industries (if they are high-tech, by nature they should have some strategic value, at least) prevented their internationalization. Instead, they introduced policies such as strong intellectual property measures, which minimize eventual strategic leakages of very sensitive technology. They also adopted a flexible approach to the internationalization of high-tech industries, combining equity (traditional FDI type) investment in some segments with non-equity forms (e.g. licensing, franchising, non-equity based R&D joint ventures) in more sensitive activities. In contrast, a more rigid approach to strategic issues prevails in the Russian Federation. It goes beyond the formal restrictions of the Strategic Investment Law (Law on the procedure of foreign investment in companies having strategic significance for the preservation of national defence and State security) of 2008, which singled out aircraft and airspace as strategic industry, leaving other high-tech activities in theory outside the realm of the law. Moreover, the law intended to apply relatively simple procedures for approval. However, reality has proved to be more complex, the procedures in practice has been more burdensome than foreseen, and the other high-tech industries remained mostly in a grey zone, where officially they are not strategic but de facto are treated similarly.

Beside policy issues, the case of the Russian Federation is very different from the "best practice" countries in terms of institutions supporting inward and outward FDI. In Canada and Singapore, they have existed for a long time, and have received clear mandates in promoting their respective countries' technological upgrading in the international scene. They also have mandates to follow these goals with important financial means. In contrast, the Russian Federation lacks such well-structured agencies. Instead, inward and outward FDI promotion is done more on an informal basis, on an ad-hoc basis and at the high political level. This arrangement fits the current structure on inward and outward FDI, in which large resource-based firms with mega-projects dominate. This way the country can well control the development of natural resources and main manufacturing facilities at home and strategic expansion of flagship national firm

abroad. However, it has the disadvantage that high-level politicians by default can not devote the same (100%) attention to investment promotion matters as investment promotion agencies specialized in the field, as the formers' main aim oversight over the general development of a vast and complex country. Moreover, firms in high-tech industries tend to be smaller than natural-resource-based firms, and change more rapidly. Only specialized agencies can keep track of those developments and prepare a quick strategic response.

Given the fact that most of the problems of the Russian Federation are policy made, or are due to a weakness of institutions, change is more easily possible and desirable than in the case of countries that lack the basic science, technology, innovation and skills base of the internationalization of their high-tech industries. It requires mostly a strong political will to change, consensus building about such changes, and institutional development (including the generation of sufficient resources for the proper functioning of institutions. The case of Canada also proves that the complexity and the federalism of the country do not necessarily hinder coordinated policy action at the national level, only the process of consultations is longer, as it involves federal entities. The Russian Federation in principle has all the ingredients require for a rapid improvement of the situation.

*The views expressed in this article are those of the author, and do not necessarily reflect the opinion of the United Nations.*

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Table 1. Share of selected industries in the FDI inflows and outflows of the world and of the Russian Federation, latest period available (Per cent)

|  | World inflows<br>2007–2009 | Russian inflows<br>2010–March 2011 | World outflows<br>2007–2009 | Russian outflows<br>2010–March 2011 |
|--|----------------------------|------------------------------------|-----------------------------|-------------------------------------|
| Mining, quarrying and petroleum                          | 0.4                        | 6.8                                | 9.5                         | 6.1                                 |
| Metal and metal products                                 | 2.6                        | 4.3                                | 2.8                         | 2.2                                 |
| High- and medium-high-technology industries <sup>a</sup> | 11.3                       | 4.1                                | 9.5                         | 4.3                                 |

*Source:* Author's calculations, based on data from the UNCTAD FDI/TNC database (world flows) and from the Bank Russia (Russian flows).

<sup>a</sup> The list of high- and medium-high technology industries includes chemicals and chemical products, machinery and equipment, electrical and electronic equipment, precision instruments, motor vehicles and other transport equipment.

## Internationalization of R&D – implications for Russia

By Adujna Lemi

Although scholarly work has focused on the issue of cross-border spread of R&D activities only since the late 1980s, the internationalization of R&D is not a recent phenomenon. The expansion of communication networks to perform new R&D has made it relatively less difficult to tap into foreign innovations, and to exploit home grown innovations as well as other potential sources of innovation. As the world becomes even more integrated and as other driving factors become more favorable, the focus may have shifted from one form to the other, but the momentum has kept pace with the spread of the components of globalization.

Russia is not an exception and it has joined the web of the spread especially since 1992. Although geopolitical events, especially the end of the cold war and the collapse of the Soviet Union had significant effects on Russia's R&D intensity, recent years' R&D performance of Russia reveals that Russia has growing interest for innovation in par with other advanced countries. In response to this growing interest for innovation, Russia has started attracting not only emigrated Russian Scientists but also foreign scientists. Between 1998 and 2003, R&D spending doubled and its R&D intensity (R&D/GDP) ratio rose from 1% to 1.3%, although it slowed down to 1.1% in 2005. Even in recent years, despite the slow global recovery from the 2008/9 crisis, which resulted in a large net capital outflow from Russia resulting in the deterioration of the balance of payments, Russia demonstrated determination to attract R&D activities through special programs and incentives to put its economy on the firm footing for sound and speedy recovery. Through an initiative launched at the level of the President's Office, the program establishes innovation zone with special privileges for research and high-tech businesses. However, there are significant variations in terms of sectoral focus and government funding priorities.

Data on the R&D spending per sale of Multinational Corporations (MNCs) in Russia between 1989-2003 shows that R&D spending per sale in Russia was less than the average for all countries by a factor of five. Whereas the ratio of corporate profit tax to net income of a corporation was the highest in Russia by about three times more than the average for all other countries. Given the low level of R&D spending per sale and high corporate profit tax rate on MNCs, Russia had earned only modest amount of receipts from royalty and fees by exporting already created innovations. However, the government of Russia's Information and Communication Technology (ICT) expenditure was only slightly lower than that of the average for other countries. The later, coupled with more than average government sponsored R&D activities, was an encouraging sign for the country to attract more R&D activities by MNCs in the country during the same period.

What is more revealing of Russia's bold measures to attract R&D into the country and to become the major international destination of R&D activities was that mostly high-tech industries were spending more on R&D in Russia more than medium- and low-tech industries. In fact, only high-tech and low-tech industries spent on R&D in Russia and employed more labor during the 1990s and early 2000s. However, medium-tech industries had the largest asset holdings in Russia among the industry sub-groups.

Breaking the data by industry, only three industries dominate the R&D spending in Russia, namely: Chemicals, information, and wholesale trade, in this order in terms of their R&D spending. It is somewhat unexpected that the mining and petrol industries spent very little in Russia where this industry group has been the major contributor to the economy, at least, in terms of export earnings. In fact, the mining and petrol

industry had the highest asset holdings of all industries in the country even more than those industries that spent more on R&D activities. It is tempting to speculate from the foreign profit tax numbers that the low R&D spending of the mining and petrol industry may be a result of the high corporate profit tax that the industry faced in the country compared to other industries. It is, therefore, no wonder that the high corporate profit tax had discouraged the largest contributor to the economy, the mining and petrol industry, to undertake major R&D activities. Russia may need to structure its tax and incentive codes to favor more spending on R&D activities.

Russia also stands out as an exception in several aspects in relation to R&D performance compared to other OECD countries. For instance, although the academic sector R&D (research at universities) was only second to industrial sector in terms of national R&D performance in most OECD countries, the share of academic sector R&D was the lowest in Russia (6%), whereas in Canada academic sector R&D accounts for the highest share (38%) in recent years. Similarly, in most OECD countries, industrial financing was primarily by the business sector; the exception here is again Russia, where government was the largest source of industrial R&D funding, as recent as, in 2005. Russia's focus on basic research at the expense of applied research also made the country an exception among the OECD countries. Applied research is an area where Russia invests only a small proportion of its GDP. Recently, however, Russia started to note that applied research is better able to meet immediate social and economic needs to refocus its priorities in partnership with the European Union.

The recently launched new research program in Russia, which runs until next year (2007-2012), is expected to lead the country in applied research direction in line with the EU partnership, with priorities on energy, the environment, biotechnologies, information and communication technologies, nanotechnologies and transport. As such Russia can build on not only its recent interest in expanding the R&D initiatives but also its potentials as a destination for R&D activities. With more than two million workers in over 4,500 R&D centers throughout Russia, among which one million researchers and scientists, Russia tops most OECD countries in the world as the leading R&D destination country and potential source of innovations.

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# Some policy proposals based on the Finnish-Russian innovation collaboration

By Kari Liuhto

12 recommendations based on Finnish-Russian innovation cooperation can be summarized as follows.

1) *Establish a Joint EU-Russia Innovation Center both in Russia and in the EU.* These two units would bring together the innovation-intensive firms of Russia and the EU. It would be wise to found such a unit in St. Petersburg due to its proximity to the EU, and in a similar manner, another unit in Helsinki, which is connected to St. Petersburg by high speed trains. The EU and Russia should share the costs of establishing these units on an equal footing.

2) *Support the internationalization of innovations.* The adaptation of western innovations into the Russian market and the internationalization of the Russian goods towards the EU market is more rational than investing into insecure and expensive innovation activity, and therefore, cooperation with foreign firms most probably will lead to the fastest results.

3) *Turn the innovations conducted in the military sector into civilian use.* Closed innovation systems are expensive and inefficient, and usually, they fuel corruption. Therefore, it would be important to modernize the innovation system linked with the Russian military, as the army uses 35-40 per cent of the Russian R&D expenditure, and probably this share is to increase, if Russia is to allocate USD 650 billion into the modernization of its army in this decade. Russia might benefit from the experiences of the USA and Israel, which have turned several valuable military-related innovations into civilian use, and vice versa.

4) *Improve intellectual property rights (IPR) and the investment climate.* Inviting the world's leading IPR specialists to Russia to review the Russian IPR legislation and institutions would be the fastest way to improve property rights in the country. One of the main weaknesses of the Russian investment climate is over-bureaucracy and corruption linked to it. The only way to win the battle is to minimize the number of bureaucrats and regulations, since fighting bureaucracy with bureaucrats is doomed to fail.

5) *Institutional innovations are needed.* For instance, it is highly recommended to transform the Academy of Russian Sciences (RAS) from a research unit into a research funding organization. Such a transformation would lift the RAS above the operative research units and turn it into a strategic research policy actor. Moreover, this change would make the use of national R&D funding more effective and enhance competition between the universities, which should be the core of the research activities in Russia. In addition, closer cooperation between the Russian Ministry of Education and the Ministry of Economic Development would facilitate bringing scientific ideas into commercialized products and services.

6) *Design a service innovation policy.* The USSR neglected services, while emphasizing industrial production. The ghost of the Soviet mentality still moves in the current innovation policy of Russia, as many of the policy measures are targeted towards technological innovations. In this context, one should not forget that more than half of the Russian GDP is formed by services, and an improvement in services would definitely bring the advancements of Russian innovation policy into the hands of every Russians. Upgrading the competitiveness of services would add to the growth of the Russian GDP.

7) *Enhance management innovations.* Around a quarter of the Russian GDP is created by state-owned enterprises (SOEs) and the 100 largest SOEs cover a majority of this stake. Taking this into account, it would be rational to create a team, consisting of a dozen top international management consultants, to review the manage practices of these SOEs. Such a team would bring much needed transparency to the

operations of these SOEs and would increase the efficiency of these firms, adding positively to the overall economic growth of Russia.

8) *Create innovation competition.* One should publish a list of the most innovative regions in Russia. As the innovations are on the top of the politicians' agenda, publishing a list of the most innovative regions would encourage the regional administration to develop own innovation policies. Besides, one could establish both national and regional innovation competitions among firms and citizens, which would aid in mobilizing the SMEs and ordinary people.

9) *Establish innovation journalism to share best practices.* It is essential to communicate success stories to encourage SMEs and ordinary Russians to innovate, but simultaneously, it is wise to communicate openly about failures, since mistakes are the best teachers.

10) *Do not concentrate on radical innovations.* We very seldom experience radical innovations, and therefore, it would be rational to focus the innovation policy on improving existing products and services. Though top scientists and politicians favor radical innovations due to their publicity, continuous product and service improvement is usually the most rewarding for society as a whole. Russia does not need periodical innovation programs but it needs a sustainable innovation culture.

11) *Teach creativity and entrepreneurship in universities.* Creativity and entrepreneurship are the two main friends of successful modernization, whereas bureaucracy and conservatism are its worst foes. The federal e-learning courses dedicated to innovation and entrepreneurship would make it possible for all the Russian universities to take advantage of the latest achievements of modernization, provided that the regional universities possess a sufficient ICT environment, and dissemination is organized adequately.

12) *Avoid political stagnation.* Should Russia be unable to develop free and fair political competition, there is a real risk that a one party-dominant system will lead to the similar administrative and socio-economic stagnation that was experienced during the Brezhnev era.

This column is based on the article published by Taylor & Francis Group in the USA in a special issue the Journal of East-West Business. The special issue is called "*Innovation Policy in Russia in the Twenty-First Century: A Future Role of Foreign Firms in Modernization*".

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## Learning economy in the Baltic Sea region – an experience of the Finnish-Russian cooperation

By Irina Sarno

The Baltic Institute of Finland (BIF) promotes cooperation between countries in the Baltic Sea Region. It is an independent organization established in 1994. BIF has an extensive expertise in international project management at all stages: from the idea creation, to implementation and finalizing of the project. BIF's mission is to enhance the cooperation within the framework of the mega-Baltic Sea region, to create and develop networks of international partnership. The following themes are in BIF portfolio:

- innovation cooperation
- information society development and ICT
- environmental management and technology
- business development and export promotion
- International partnership in training managers of companies operating in foreign companies; cultural cooperation.

During last years BIF had organized a significant number of forums, conferences, seminars and workshops. For example, Finnish-Russian Innovation Forum was held in 2006 in Tampere. Given the principle of Triple Helix, stakeholders from Finland and St. Petersburg, representatives of leading companies and technology parks, universities have taken part in the Forum. As a result of the forum discussions, a three-years project on the development of the regional innovation system of St Petersburg through transnational cooperation was launched. The project partners have stressed out that an exchange of experiences, mutual learning between subjects of innovation networks is a significant component of innovation networks. In this respect, innovation systems initiate and implement the principle of learning in modern economy based on ever-rising competence of its constituent entities. Accordingly, the formation of innovative networks of cooperation in Finland and Northwest Russia means creating a system of learning among significant actors of these large regions.

One of the projects required by a system of mutual learning is St Petersburg Business Campus (StPBC). StPBC started in 2009, it comprised an interaction of the following elements:

1. a benchmarking network of Finnish companies operating in St. Petersburg
2. a network of Russian and Finnish higher education institutions that provide educational services for the companies personnel, managers
3. representatives of the authorities of Russian and Finnish regions, which support the development of Finnish and Russian companies.

The main objective of StPBC is to improve the adaptation of member-companies to the conditions of the region, to strengthen the dialogue between these companies and local stakeholders (local and regional authorities, vocational training institutions) in the region, to improve the interaction between Russian and Finnish business. In particular, this project aims at enhancing training programs for businesses in the region. The project is mainly supported by the Ministry of Employment and the Economy of Finland. The Baltic Institute of Finland is a coordinator of StPBC, and the local coordination in St Petersburg is provided by the Committee for Economic Development, Industrial Policy and Trade, City of St. Petersburg.

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## The "Triple Helix" of the Polymer Cluster

By Sergey Tsybukov

A working model of "Triple Helix" is started in St. Petersburg. It is a modern mechanism of partnership between government, business, scientific and educational community to organize innovative development of the cluster. For the first time several innovative financing mechanisms, training, shared responsibility and risk minimization are incorporated in a single project. This model is unique and have no analogues. It was brilliantly realized on the basis of one of the St. Petersburg Polymer Cluster projects - the newly opened the Prototyping Center of items from composite materials and coatings application. Our interlocutor is Sergey Tsybukov, General Manager of the LLC "SPA on plastic processing named after "Komsomolskaya Pravda":

- Sergey, what a prototyping center is and how the "Triple Helix" model works here?

- The Prototyping Center is a transition from a prototype model to the mass production. Our Prototyping Center of items from composite materials and coatings application, opened on March 15, 2011, was established to support small and medium enterprises engaged in innovation activities. This is a joint project of The Ministry of Economic Development, Government of St. Petersburg, Polymer Cluster and the St. Petersburg State University of Information Technologies, Mechanics and Optics (ITMO). The Prototyping Center establishment was invested by the polymer cluster, the St. Petersburg budget and The Ministry of Economic Development. SPbSU ITMO provided the part of the equipment to the Center through ITMO basic chair, which is opened at the LLC Plant "KP".

The equipment is a significant component of the successful Prototyping Center work. However, people who work there are the most important component. In this matter we were lucky enough to engage cooperation with ITMO and the Higher School of Economics at SPbSUEF. These departments prepare for us a team of specialists, including post-graduates (science), engineers (production) and managers (economy) with a basic technical education. These guys have studied at ITMO and have participated in research-and-development activities for the Prototyping Center. Now they earn money using their R&D at the Prototyping Center, write research theses and teach students the practical work in our Base Department.

In the future, some of them will teach at the university, somebody will be invited to work at the public office. Thus, we can see a coherent string of logic: education at the university - practical study (in part due to the city budget) - work in the Center - knowledge and skills transfer to young people - economy management. This is how the "Triple Helix" works: when a company is able to order R&D to the university, a university is ready to do this research, to train personnel and to educate leaders who will implement this research. The state co-finance the process, as its support is indispensable at some steps. But all the invested money is given back by raising taxes.

- Is it possible to find out more about results of your work?

- We will report about it at the roundtable discussion "Triple Helix" model benefits for Russia innovative development" in the business program of the Forum "Russian Industrialist - 2011". At this forum we will tell

about the basic department of ITMO established under the Polymer Cluster, about our work experience, we will also show samples, etc.

- What do you think about weak spots of the classical technical education?

- We must eliminate the huge gap between the classical technical university and the real research institute or the real production. The weak spot of the classical technical education is the situation when people come to work and don't understand how to make money on their knowledge. Unfortunately, our project is one of the few in the city. And they must be dozens.

- What is the current Prototyping Center load ratio and what are its prospects?

- We already have more orders now than we can execute. At the moment there aren't companies in the city with enough competencies to bring a project from concept to realization in a limited edition. That's why we think about staff increase and new equipment purchase.

Now we have a large R & D with "Vodokanal of St. Petersburg", where we implement new coatings, and a project with CSRI named after A.N. Krylova on the use of modern shipbuilding de-icing materials. We will continue to work with Russian Railways, RUSNANO and other public and private institutions. What about our city, we can offer the latest technologies in anti-corrosion and other protective treatment of the buildings elements (roofs, attics, basements), resolve the problem of energy conservation. Unfortunately, the Housing Committee continues to consider our proposals. I hope that the gubernatorial election will cardinaly change the situation and the attitude to Russian know-how.

I'd like to emphasize another near term prospect for the Prototyping Centre development. An international company TomasGroup, business consultant of leading companies in the world, will conduct training on business processes for our specialists. The experts of this company believe that our Center (in case of specialization in nanotechnology for structural materials and coatings creation) should become the leader among 145 world's leading prototyping centers. As a result, our project should become self-developing: we begin to engage more and more resources and complete the increasing number of tasks.

*Sergey Tsybukov*

*General Manager*

*LLC SPA on plastic processing  
named after 'Komsomolskaya  
Pravda'*

*Russia*



*The interview was written by Aleksander Kibalnik and it was earlier published at "St.Petersburg in the Mirror".*

# Integrating national innovation strategies to leverage the potential of the Baltic Sea region

By Alasdair Reid

The Baltic Sea Region (BSR) is a sub-set of the diversity of innovation potential that can be found in the EU as a whole. The BSR has regions with widely varying levels of economic development and innovation potential. This diversity exists not only between countries (the three Baltic States and the northern Polish regions versus the Nordic countries) but also nationally. The two German BSR regions, for instance, are comparatively weak performers from a national perspective. Equally, not all regions in the innovation leaders are equal, for instance, while the Finnish capital region is a European 'powerhouse', Eastern Finland lags well down the European regional innovation scoreboard. Moreover, the Nordic countries have been able to develop and pursue jointly the concept of the Nordic research and innovation area (NORDIA). Hence, the development of a Baltic Sea research and innovation area will be a considerable challenge given the lower sophistication of policy an transnational 'governance in the Baltic States and Polish regions.

During the 2007-13 period, the Structural Funds are investing €5.5 billion in research, technological development and innovation (RTDI) in the 25 BSR regions: 40% of this total is allocated to Estonia, Latvia and Lithuania and 28% in the three Polish BSR regions. Some 60% of the total investment is for research centres and for developing human potential for research and innovation are allocated to the three Baltic States. Close to 50% of ERDF investment in favour of research infrastructure is concentrated in three out of 25 BSR regions (Mecklenburg-Vorpommern, Estonia and Lithuania). This is a massive boost to the 'catching-up' innovation systems of these regions.

In both budgetary and strategic terms the Structural Funds are extremely significant in Estonia, Latvia, Lithuania and the Polish regions. They represent the vast-majority of public RTDI funding in these countries and are a key element for future competitiveness. However, the implementation rate is slow with limited results to date. Moreover, while in absolute terms the funding is considerable, in relative (per capita) terms the Structural Fund contribution barely influences the 'innovation investment' gap between the Nordic relative to the less-developed BSR regions. At best the funding will help the Polish regions and Baltic States to balance the playing field in a few selected niche' in terms of quality and excellence of R&D and innovation activities enabling them to co-operate as 'equals' with Nordic partners.

In the Nordic countries, the Structural Funds account for a marginal share of innovation policy funding, but are seen as a way of supporting 'ground-breaking' new ideas and as 'fundamental in the early phase of new developments'. Moreover, they often leverage other public-private funds into innovative platforms. The lessons of Structural Fund programming from the more advanced BSR regions, e.g. in Mecklenburg-Vorpommern, suggest that ERDF support on research infrastructure is not effective if there is not a parallel effort to develop competitive research teams.

The study suggests five options for further integration of innovation policies in the BSR and confirmed the orientation of the flagship projects of the EUSBSR. However, some additional options and some issues requiring further attention are also raised. The most developed EUSBSR flagship projects under priority 7 (innovation) is the BSR Stars project. The study confirms the rationale for a more strategic programming driven approach to 'cluster' co-operation in the Baltic Sea region. However, there is a need to take into account the differing levels of development and the different competitive advantages of the clusters around the Baltic Sea if not there is a risk that the initiative simply reinforces existing disparities pulling resources towards the strongest clusters. The need for supporting a strong long-term structured co-operation between business-academia R&D consortia could be investigated. Most nations round the BSR now have such 'competence centres' and as many operate in complementary fields, greater integration of market-led R&D would be beneficial in specific key technologies.

Nordic studies on current early-stage and seed-funds for young innovative enterprises have are sub-critical even in Denmark, Finland and Sweden. Whilst the German regions can draw on a larger national financial sector, their weaker innovation profile does not necessarily make them first priority for national funds. The Polish regions and Baltic States are experimenting with various forms of funding for early stage firms, however, the deal flow is insufficient for viable early-stage funds. Future EU support for early-stage funding should be conditional on regional/national funds not being restricted to investing in 'local companies' and through a BSR Fund-of-Funds.

The current research infrastructures (RI) investments are made in a piecemeal manner without fully considering ESFRI priorities or BSR level synergies. The level of sophistication varies from the Nordic countries national plans and Nordic wide coordination to more 'rudimentary' planning in other regions. The experience of ERDF RI investments in the Baltic States is that decisions are driven first and foremost by universities' own priorities. Open access plans aimed at ensuring optimal use of RI are seen as administrative requirements rather than as means of ensuring revenue generation or cost-sharing.

There is need for a stronger 'oversight' by the European Commission and the EIB to avoid dispersion of funding and duplication of RI. Pre-conditions for future ERDF co-financing of RI should be a) international peer-reviews of national research infrastructure plans to ensure a synergy with ESFRI and value added compared to existing infrastructure in the BSR b) 'open access plans' to allow national but also other BSR researchers/businesses to buy time or share facilities.

Joint programming through ERANETS and BSR networks form a basis for a new programmatic approach. Available funds (national, ERDF/ESF, EU, Nordic) could be structured into three to four strategic BSR research and innovation funding programmes. A model could be the Nordic Top-Level Research Initiative. This could include BSR doctoral schools linked to the research infrastructure and programmes.

A fifth area where synergies can be exploited is access to expertise in advanced technologies and innovation management. In the BSR there is a significant range of expertise in various technology fields and in terms of innovation advisory services. However, most of the regions or smaller member states around the BSR cannot mobilise 'locally' all expertise required by innovative businesses. One option would be to pool expertise in S&T parks, centres and incubators, etc. though a BSR Innovation Advisory network linked to an innovation vouchers scheme.

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## Biocenter Finland – a novel way to restructure national research infrastructures

By Eero Vuorio

Biocenter Finland (BF) was established in 2006 as a joint effort of six biocenters operated by six Finnish Universities (Helsinki, Kuopio, Oulu, Tampere and Turku, and the Abo Akademi University) to restructure and develop research infrastructures and technology services for the entire scientific community of the country, but particularly for the more than 2000 life scientists working in the partner biocenters. The aim was to combine local expertise into a nation-wide knowledge base to advance biosciences and biomedicine in a coordinated fashion through investments into newest equipment, technologies and services. Four years later also the Institute for Molecular Medicine Finland (FIMM), previously an associated member, became a full member of BF. A real boost for BF came in 2009 when the Ministry of Education and Culture provided 45 million € for to be distributed over a three year period (2010-2012) to research infrastructures and their technology services in nine areas: bioinformatics; biological imaging; genome-wide methods; model organisms; proteomics and metabolomics; stem cells and biomaterials; structural biology and biophysics; translational research technologies; and viral gene transfer and cell therapy.

The basic principles of BF are to create networks of infrastructure service providers, and to support purchase of equipment and hiring of technical staff to operate the top-of-the-line equipment in one location providing services to everyone. The infrastructure networks were invited to make proposals for provision of nationwide services, which were subsequently evaluated by a high-level panel of international experts. A small fraction of the funds were allocated to support emerging technologies, and to promote international researcher training, research career development and recruitment of international expertise for key technology areas. Within EU such a concept is unique for restructuring and developing research infrastructures and technology services at national level.

### Two generations of restructuring of life science infrastructures in Finland

The BF concept outlined above represents the second generation of restructuring of life science infrastructures and technology services in Finland. During the 1990s Universities with strong research communities in biological and medical sciences established biocenters. Financial support from the Ministry of Education, local Universities and other sources made it possible to erect new buildings to house research groups representing different areas of life science research in academia and industry. Joint purchase of equipment and establishment of core facilities marked the first generation of restructuring of research infrastructures and services. This provided researchers in biocenters with an unforeseen access to modern research technologies. The biocenter concept rapidly demonstrated its strengths also by facilitating joint seminars, training courses and collaborative research projects, and by establishing doctoral training programs.

By the time we entered the 21st century, unprecedented technological development had not only improved the performance of high-throughput analysis platforms but also made top-of-the-line equipment so

expensive and powerful that it became both unreasonable and impractical for individual biocenters to make such investments alone. Time was ripe for the second generation restructuring of Finnish biocenters, i.e. the establishment of BF in 2006. The biocenters organized their infrastructures and services into national networks with an aim to better support high-level research in participating institutions by integrating the services available and by agreeing on division of tasks according to available expertise and resources. This has led to gradual development of specific expertise profiles for Finnish biocenters. No two biocenters are alike in terms of size, scientific orientation, organization or mode of operation.

After nearly two years of operation it is fair to say that all signs indicate that the BF concept has been a success. This message comes directly from the international Scientific Advisory Board and from the host universities of the biocenters. User statistics demonstrate that all biocenters now offer services using updated equipment not only for their own researchers but for those working in other biocenters and elsewhere in academia and industry.

### BF networks are in place to form a bridge to European research infrastructures

Development of the BF concept coincided with the coordination of European research infrastructures through the ESFRI (European Strategy Forum for Research Infrastructures) process, one of the most exciting concrete science policy initiatives in Europe during the past ten years. ESFRI was established in April 2002 to produce a "European Roadmap on Research Infrastructures" reflecting a common mid- to long-term strategy for the European Union. The first roadmap was published in 2006, and updates in 2008 and 2010. A typical feature of most BMS research infrastructures is their distribution into different operational sites (National Nodes) through several Member States. The BF infrastructure networks and technology platforms provide ready-made national structures for Finnish scientists to participate in and benefit from the ESFRI initiatives. Active participation in the pan-European infrastructures has made it possible for Finnish scientists, often together with their Nordic/Baltic colleagues, to influence the European planning process and bring forward the expertise and needs of the Nordic research community. Some of the BF technology platforms are now getting ready to serve also international ESFRI customers and thereby bring Finland an increasingly important partner in the European Research Area (ERA).

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# Culminatum works to develop an attractive innovation environment for biotechnology in the BSR

By Pekka Ihalmo

Culminatum Innovation Ltd was established in 1995 to serve as a joint regional development instrument for its owners and to implement the national Centre of Expertise programme in the Helsinki region. Due to its triple-helix ownership structure, Culminatum represents a unique, independent platform able, on the one hand, to respond rapidly to the demands of local business clusters and cities and, on the other hand, to address future challenges facing society, e.g. in the healthcare sector. Since Culminatum's founding, biotechnology and life sciences have been one key focus area in developing the Helsinki area towards sustainable economy.

The Helsinki Region serves as an attractive environment for high-level academic research combined with a rapidly growing industry. In fact, the Helsinki region is Finland's largest hub of biotech companies, generating the majority of revenues (75 %) in the entire industry. The region's business ecosystems have a solid foundation in drug development and diagnostics, with bioinformatics and neurotechnology recognized as emerging new strong points.

In order to support economic growth and sustainable development in biotechnology and life sciences, Culminatum 1) builds internationalization programmes for groups of high tech services companies having value added from customers' perspective; 2) provides business acceleration support and builds bridges between innovative SMEs and healthcare organizations; and 3) encourages the utilization of the wide-ranging expertise of PhDs for reinforcing enterprises R&D&I activities. All of these initiatives are expected to support the funding, growth and entry into global markets of SMEs.

## Strong and reliable networks are the basis for successful development work

The key to success in all development activities is well-developed networks on regional and inter-regional level. The networks introduced below have provided excellent platforms for developing, launching and disseminating projects that build the competitiveness of biotechnology in BSR.

**HealthBIO Biotech Cluster** is a well-established Competence Cluster for health-related biotechnology within the Centre of Expertise Programme **OSKE**. Helsinki and the other four participating regions represent the five major bio-clusters in Finland. HealthBIO lays the ground for diverse innovation activities which, among other things, support the internationalization of biotech companies and tackle their funding bottlenecks.

Culminatum is an active member of the **ScanBalt BioRegion** promoting the development of the ScanBalt BioRegion as a globally competitive macro-region and innovation market within Health and Life Sciences. ScanBalt is a bottom-up association driven by its members (e.g. cluster development agencies, science parks and universities) and their needs, based on a shared vision for the ScanBalt BioRegion.

As a primary contact point for biotech companies in the Helsinki region, Culminatum is a Full member of **the Council of European BioRegions - CEBR**. CEBR aims to build a competitive European biotechnology sector on the world stage through networking, collaboration, recommendations for policy and sharing best practice. The main tools of CEBR are Special Interest Groups, such as Clinical Innovation and Innovative Finance for Biotechnology.

## From objectives and networks to concrete results

**Boost Biosystems** (2006–2008) was an FP6 project initiated by ScanBalt with the objective of boosting collaboration between SMEs and academia by initiating RTD consortia in the cross-disciplinary field of 'biosystems technologies', including diagnostics, *in vitro* tests, and pharmacogenomics applications. Improvements in these areas can, for instance, solve unanswered questions in diagnosing major diseases and can provide inexpensive diagnostics for poverty-related diseases. These objectives were approached, e.g. through informing on the potentials of biosystems technologies and partner matching for joint EU projects.

**Baltic Sea Innovation Network Centres – BaSIC** (2009–2012) aims to create a seamless working environment for fast-growing, innovative SMEs all over BSR, embedded in a reliable network of leading business innovation centres, science parks clusters. The BaSIC network has set up Market access services, organized cluster cooperation events and produced, e.g. cluster reports on the life sciences, which provide information for key players in research and industry.

**BSHR HealthPort** (2011–2013) addresses pivotal bottlenecks in healthcare innovation, such as insufficient commercial exploitation of solutions proposed by healthcare. Within this project, Culminatum organized a HealthPort Innovation Competition that boosted the commercial utilization of ideas arising from the clinical environment and healthcare research conducted in the BSR and in Northern Netherlands. The winners of the competition included *Ergofinger*, a unique disposable suction device attached to the dental worker's finger, and *Dr. Modz*, a user-friendly diabetes management system for juvenile diabetics.

**Networking Power** (2011–2013) aims at helping high-tech service companies in the biotechnology and pharmaceutical industries reach international markets. The project and the internationalization programmes are targeted at groups of companies having value added from customers' perspective. The internationalization measures can include, e.g. fact-finding trips to events and road shows to interesting markets and potential customer companies in Germany, Scandinavia and the rest of Europe.

**PhDs to Business Life** (2011–2013) is a project that creates and pilots study modules and models for doctoral programmes. The project strives in the way to improve the correspondence between doctoral studies and working life and to increase cooperation between doctoral programmes and enterprises. The project ensures the availability of expert personnel for life science enterprises and gives graduate students the readiness for a variety of working careers.

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## Modernization of public health care system in Russia

By Sergey Shishkin

Russia significantly lags behind industrialized countries by key health indicators. Although over the past several years mortality rate has notably dropped from 16.1 deaths per 1,000 population in 2005 to 14.2 deaths per 1,000 population in 2010, this level is still very high compared to European countries (9.6 in EU, 2009). Probability of dying aged 15-60 years is almost twice as high in Russia as Europe's median: 269 deaths vs 146 deaths per 1,000 population (2009). Morbidity rate in the country keeps growing.

Funding of health care in Russia is several times lower, while the rights of citizens to health care are comparable to those enjoyed by people in the industrialized countries. The overall health care expenditure as a share of GDP is almost 1.7 times lower than in the EU countries (5.2% vs 9% in 2008), while government health care spending as a share of GDP is twice as low (3.4% vs 6.9%). In absolute terms the Russian state spends 3.9 times less on health care needs of one person than the EU median (\$ 567 US vs \$ 2,203 US by purchasing power parity, 2008).

The importance of health problems and the need to modernize the health system to assure social and economic progress of the country have been clearly realized by the Russian government. In recent years the government has indeed done quite a lot to improve the health care system. Health care has become a priority in budget policy. Public funding of health care increased in 2010 in 1.4 times in real terms in comparison with 2005.

The decline of mortality since 2006 may be partly attributed to large-scale health programs undertaken by the government such as the Priority National Project "Health" started in 2006 and the Program of supplementary free drugs supply for selected categories of population, including the disabled and veterans initiated in 2005, as well as rising public funding of health care.

The funding of the Project "Health" has added another 10 percent to public health funds. The Project includes investments in primary and tertiary care, increase of primary care workers' salary, vaccination, subprograms for cardio-vascular and oncology diseases, urgent care for victims of car accidents, etc. The implementation of the Project has provided for substantial upgrading of medical equipment in local clinics, and has increased the amount of free tertiary care services, regular medical screening services, disease prevention services, etc.

The new stages of reform began in 2010 with the adoption of the new law on compulsory health insurance. The main change in its design is centralization of funds and administration. That was inspired by the willingness to ensure sustainability of CHI funds collection and equity in its distribution among regions.

Government increased payroll tax for health insurance from 3.1% to 5.1% in 2011. This surplus of funds has been used for financing two years programs of health care modernization elaborated in each Russian region.

The law on the foundation of health protection of citizens in the Russian Federation was adopted last November. This law envisages centralization of health care administration in the subjects of the Russian Federation: a regional authority and regional compulsory health insurance fund concentrate administrative and financial resources for all regional health care system. Municipalities have yet very low responsibility for health development. This reform will facilitate modernization of medical facilities network in the regions. However it creates risks of disengagement of municipalities from any health policy.

Both new laws have created some preconditions for development competition among insurers and among health care providers. The citizens have got the right of free selection of health insurance company and outpatient clinic for primary care. They will have also the opportunity to choose physician and facility for specialized outpatient and inpatient care from the set of providers that should be proposed for patient by physician who makes the referral for medical services that he isn't able to provide themselves.

However, despite obvious positive dynamic in health care system modernization current measures are not enough to resolve its long standing problems.

The continuum of health care is still heavily dominated by curative services provided by health care institutions. At the same time, attention given to measures designed to promote healthy life style, sports and wellness, healthier environment is not adequate to the role such measures can play in reducing morbidity and mortality compared to health care per se.

The urgent problems are inadequate and sharply differentiated actual accessibility to quality health care, inadequate protection of patients' rights, risks of unaffordable out-of-pocket payments forced on patients for treatment, which is formally free of charge (29% of patients have to pay out-of-pocket to get needed medical services, and 56% of hospitalized patients do this under-the-table).

Existing health financing mechanisms provide insufficiently strong incentives for health care providers and insurance companies to make them truly motivated and committed to sustaining the health of the citizens.

Health care continues to be characterized by deep structural disproportions. In particular, inpatient care institutions are strained due to excessive workload, while outpatient services remain underdeveloped. The efforts of different physicians and health care providers that work with a patient are not sufficiently coordinated.

It is noteworthy that approximately half of the Russian population (53%) believes that health care as the branch of economy is in poor condition.

There is a need to shift the focus of public policy towards restructuring health care system. Better health outcomes for the population will be achieved through establishing an integrated, transparent and effective health care system. This is a system that provides for intersectoral approach to health care, coordination of activities among organizations that deliver different types of care, involvement of patients as active partners of health care providers in prevention, diagnostics and treatment of illnesses. This is a system that provides for implementation of clear and feasible guarantees of free health services, ensuring legal, clear and fair conditions for receiving health services for a fee. This is a system in which all stakeholders are motivated to achieve maximum social and health outcomes per the unit of cost.

Modernization of the Russian health care system requires an increase of public funding by 1% of the GDP to 2020 as a minimum, and by 3% of the GDP as a desirable maximum. However, the crucial factor for the success of modernization of the health care system is not mere money but persistency of the government in the implementation of rational system of health care financing and delivery.

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## Future perspectives of Finnish-Russian cooperation in neighbouring areas in the field of social affairs and health

By Simo Mannila

Finland's cooperation with neighbouring areas in the Russian Federation in the field of social affairs and health started in the early 1990s. The recent evaluation report (2011) points out a range of problems but tells that the results have been remarkable both from Finnish and Russian point of view. Much has been achieved and, in general, the stakeholders are very happy with the results. Now, there is a recent piece of information from the Finnish Ministry for Foreign Affairs, telling that the cooperation will not be funded after 2012. This information concerns all cooperation, not only social affairs and health, and this is also in compliance with the international trend: the EU funding as well as bilateral funding from several countries for the cooperation with the Russian Federation has been stopped or going down. The main reason is that Russia is a stable and wealthy country – a country with a marginal sovereign debt and one of those countries we should like to help the European Union out of the present financial crisis. There does not seem to be a specific reason to support Russian cooperation as it has been going on since the 1990s.

The recent evaluation shows “soft security” and coping with some national threats as Finnish motives to the cooperation. These threats include, for instance, communicable diseases: Russian HIV/AIDS epidemic and spread of tuberculosis are manifold as compared to what is happening in Finland, and the better the situation is under control there, the safer we shall be here. A similar pursuit of mutual gains is behind the cooperation in the fight against drugs. The threats have also been seen in a more abstract light: social instability and, for instance, migration trends have been understood as risks for Finland, which has led into projects in the field of health promotion focusing children and youth.

An obvious but rather implicit motive for the cooperation with the neighbouring areas has also been assistance to the poor. It is not obvious that the Finnish interest in national risk management or charity has been in very good compliance with the self-understanding of our Russian partners.

The cooperation in the field of social affairs and health has been one of the priority areas, and its funding for 2004-09 was altogether 17 M€ which is 15% of all funding for Finland's cooperation with the neighbouring areas. Most cooperation has taken place on bilateral basis, but there has been a trend towards multilateral programmes such as the Northern Dimension Partnership on Health and Social Well-being and the Barents Cooperation Programme on Health and Related Social Issues. The Russian partners' comments for the evaluation are in favour of bilateral cooperation, which is also administratively much less complex.

Among the public and in press there is a common misunderstanding that Finland has been shovelling funds to the Russian Federation; in reality an overwhelming part of the funds have returned to Finland in the form of consultant fees and other forms of paid work. Due to it we have acquired a bulk of information concerning Russian society and governance. A high number of Finnish experts and civil servants have been involved in Finland's cooperation with

the neighbouring areas, very many of them have otherwise had scarce relations across the Eastern border of Finland and little knowledge of what is happening there. In contemporary societies of transition up-to-date knowledge is of paramount importance. Professor Pekka Sutela has often pointed out that it is not the Russian Federation that is an anomaly of global development, the – very positive - anomalies are Finland and other Nordic countries, while Russia is a rather standard country. An insight into some key global trends is behind the corner for us, if we are willing to take a look.

Finland's cooperation with the neighbouring areas has given an opportunity for capacity building in the field of Russian and Eastern European affairs, which now is at some risk of going down. This is a time of priority setting, and the Finnish civil service has more than enough to do with the national development and corresponding EU duties. In this situation there is a risk that the interest in Russian affairs looks unnecessary and not-so-urgent, the capacity already built is devaluated, and the networks will wither away.

The evaluation done states that there has been no significant thematic development in the cooperation since the 1990s. Phasing out of Finland's present cooperation with the neighbouring areas may produce new thinking concerning the themes and forms of cooperation. Finnish-Russian exchange of information between experts and civil servants in the field of social affairs and health should also in the future be promoted. A key element of the present cooperation has been profiling of Finland as a country of high level social protection and health care. The link with Finnish export has, however, until now been more or less lacking, although private initiative in social affairs and health is now supported at the national level. Improved cooperation with e.g. the fields of economy, business and environment would have mutual benefits in the future.

It is not probable that we can do without any national instruments supporting cooperation with the Russian Federation. Russian Federation is a country with a great deal of problems in the field of social affairs and health: societal infrastructure is weak, adult health poor and the sustainability of many reforms questionable. Nevertheless, it is also a country with ten time zones, GDP growth far over the EU average and world famous culture. Combining scientific and practical approaches, supporting the interests of both public and private players in the field, there is a good perspective of new efficient forms of cooperation.

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## Technologically-mediated communication in working life – a rich area for both basic and applied research

By Maarit Valo

The status and importance of basic scientific research and applied, innovation-focused research are prominent issues in today's public discussion about science policy in Finland. Research activities that seek to generate applications and innovations are now favoured because of the economic climate in which we currently live. The Innovation Union, the flagship initiative of the European Commission, strongly emphasises the need to reinforce the European Research Area. The idea is increasingly to turn research into groundbreaking products and services. According to the Innovation Union this will be accomplished by improving financing for innovative companies, developing research infrastructures and strengthening business-academia collaboration, for example.

Critical voices have risen to challenge the current keen interest in innovation-focused research. How can we secure the proper conditions for basic scientific research in Finland? Indeed, the great majority of inventions throughout time have arisen out of basic, long-term scientific research (i.e. fundamental, academic, blue sky research), motivated solely by the drive to create new knowledge. The goal of basic research is to know more and understand better, not create commercial value. Nevertheless, in the future such knowledge may prove to be invaluable for innovators.

It has been claimed that in economically turbulent times it would be most sensible and long-sighted to invest in basic scientific research because that is what can be regarded as the foundation for innovations. However, basic and applied research are by no means opposites. Rather they form a continuum with a wide range of intermediate points between the two extremes. Besides, all kinds of research are needed in order to strengthen Finland's academic standing. In the development plan for education and research for 2011–16 published by the Ministry of Education and Culture, the need for a national science strategy in Finland that acknowledges both the value of basic research and the goal of supporting innovation development is clearly stated.

Both basic scientific research and innovation-focused research are also needed to resolve challenges in our everyday working life. A good example is technologically-mediated communication at work. Today we increasingly use diverse technologies to communicate with our professional contacts, in colleague relationships, in teams and working groups, and for management and leadership purposes. Communication technologies – such "social software" as instant messaging, audio conferencing, videoconferencing, and web conferencing – allow us to be in contact with one another in distance work and distributed organisations. Colleagues can be situated in different countries and represent different cultures and/or nationalities. In the Baltic area, in Europe and worldwide there are an increasing number of organisations where international and intercultural virtual teams are commonplace. Virtual teams are collaborative groups that are geographically and culturally distributed and rely on technologically-mediated communication. Members may occasionally meet face-to-face, but most of their interpersonal contacts are conducted through communication technologies.

The early stages of research on technologically-mediated communication were coloured by profound doubts about the usefulness of online interaction. In the 1970s and 1980s it was thought that exchanging messages via computers was inefficient, impersonal, unfriendly or even hostile. It was generally believed that technical limitations (often referred to as reduced cues, cues filtered out, low social presence)

prevented computer-mediated contacts from being satisfactory or productive. Face-to-face interaction was considered to be the ideal form of communication in all circumstances.

Today we know better. Research has shown that the characteristics of technology do not hinder, restrict or disturb communication processes or outcomes. Technology does not determine the ways we interact with one another; rather, we are quite flexible and inventive in using technological devices and crossing the barriers they originally were thought to create. Numerous studies have revealed that worthwhile online interaction depends more on social and cultural factors as well as on interpersonal and group dynamics than on the technology itself. Communicative functions and the tasks in question are also decisive. Research on virtual teams has shown that the quality of teaming is conditional on a large number of factors, technology being only one of them. Even the simplest asynchronous e-mail may be experienced as an effective and rewarding tool. Moreover, communication technologies are now mobile and ubiquitous, offering more possibilities than ever before.

In research on technologically-mediated communication, studies on technology users' reactions and behaviour are at the heart of basic scientific research. Out of pure curiosity, researchers have observed and analysed the ways people interact with one another via technologies. Much of this research has been conducted in experimental laboratory settings by analysing ad-hoc groups of university students. However, findings on interactional processes depend considerably on the context in which the studies have been conducted. This is why more research should be carried out in working-life contexts, for example in real virtual teams.

Basic research on technologically-mediated communication could truly benefit from closer ties to applied research activities. Communication technologies involve a large number of devices and software, and it is of crucial importance to develop them on the basis of users' experiences. Solutions that will support collaborative interaction, facilitate teamwork, develop team leadership and enhance knowledge management in virtual contexts are waiting to be invented. Basic research and innovation-focused research should seek more collaboration for their mutual benefit.

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## The emergence in the 1970s of the Nordic mobile phone services and industry – learnings for today

By Jorma Nieminen

### The story

To help tame the current financial crisis in much of the OECD, strong investment in innovative growth is needed. Some clues for how to achieve it can be found from not so distant history of the Baltic Sea region, by which I mean the launch of the nationwide mobile phone services in the Nordic countries in 1971. These “pre-cellular” services, ARP in Finland, OLT in Norway, and MTD in Sweden and Denmark, were realised in each country by the governmental PTT administrations (“PTTs”) in close Nordic cooperation. The globally novel services, covering nearly all territory, created first volume markets for radiotelephones, and thus a new opportunity for firms with appropriate capabilities. The pre-cellular services were followed by the jointly developed NMT system, the first internationally roaming cellular service opened in late 1981. It paved way for the GSM service in 1992, originally European, but soon the dominant global standard. Importantly, the PTTs limited their role to the infrastructure and service provision. The phones were left for the private industry to create, produce and market.

Tightly entwined with the services development, a stream of innovations towards increasing phone portability was introduced by the industry, especially in Finland. A crucial early step in 1974 was the introduction of the Salora SRP 24 transportable phone, a car-phone that could be turned into a self-contained 4.5 kg portable device, useable across the country, including lakes, coastal waters, and Lapland. The transportable concept was re-applied for the Mobira Talkman NMT phone in 1984, subsequently versioned to most cellular services worldwide. Mobira understood early on the need of small personal phones, and introduced in 1985 a 750 gram concept design for the NMT 450 service, later known as Mobira Cityman, or “model Gorba” for the NMT 900 service. By 1986 Nokia-Mobira pursued a development program of several successive ever smaller phones, largely defining the product evolution for several years.

In sum, the Nordic combination of the nationwide mobile service coverage and ever more portable phones added up to the radical innovation of ubiquitous mobile telephony, first time in the world. This had important implications in terms of innovation diffusion, and market and industry growth. Industrially, Salora’s SRP unit in Salo, Finland, with its early transportable phone was best endowed to exploit the new opportunity, and gained the Nordic market lead by 1975. This led to consolidation of the Finnish industry into Mobira, a joint venture between Salora and Nokia in 1979. The company was renamed in 1986 as Nokia-Mobira, and in 1989 as Nokia Mobile Phones. With its intensive and sustained product innovation program, the Finnish industry gathered strength, became globally significant in mid-1980s and dominant in late 1990s. The sustained growth of the industry created well-paid jobs of diverse skills by tens of thousands, and injected new wealth in the economy. Such an unexpected development in a typical high-tech field mostly ruled by giant American and Japanese MNCs gives rise to a question what made it possible. A recent study, comparing the outlined Finnish case and another case in Canada with not so different antecedents, raises the quality and timing of the underlying

core innovations at the centre to help explain what happened.

### Analysis

To understand the story, we need to look at the global antecedents of the industry and what defines how innovations diffuse. The concept of cellular telephony was invented in the US in 1947, but was not realised there until 1983. Not much happened in the rest of the world either, which also explains the low competitive pressure from the dominant telecom industry in the US, Europe and Japan on the early Nordic market. This provided the local industry with an opportunity to develop capabilities in the early global lead market to meet the upcoming competition later on.

As to what made the Nordic pre-cellular and NMT services so successful, diffusion research proposes five key attributes that define the adoption speed and extent of an innovation: relative advantage, compatibility, complexity, trialability, and observability. The described Nordic combination of nationwide services and the transportable phones met the criteria well: The radical *advantage* was to first time have an anytime-anywhere phone connection, mobile or stationary. The service was *compatible* with the conventional telephone service by allowing calls to and from all over the world. Use of the mobile phone was *not complex*. Indeed, in the early service the calls were placed through a human operator who could help find a phone number, an address, a hotel, a gas station, or aid in an emergency. The service could easily be *tried* before own commitment in a friend’s car, boat, or summer place. Finally, a transportable 4.5 kg phone on a hotel’s breakfast table and the long VHF antennas on cars were conspicuously *observable* and interesting. All of this conducted to the rapid diffusion of the service and market growth.

But what gave the Nordic PTTs the foresight, entrepreneurial spark and courage to conceptualise and realise the pre-cellular services without a role model anywhere? And the wisdom to choose the public-private partnership model, in which the PTTs did the system design, specification, build-up, and service operation, but in which the private industry was called in to design, produce and market the user equipment meeting the specifications? In want of deeper scientific explanations, it may have been a case of brilliant public entrepreneurship around a core of divine inspiration.

### Learnings and propositions

What are the learnings for today’s Baltic Sea region? Citing Nobel laureate Paul Krugman, we live now in depression economics with insufficient aggregate demand and plenty of un-employed resources. Underlying is a great uncertainty about the future, eating the courage of the private business and capital to invest big even in promising ventures. And the public side is limited by excessive extant debt. The problem then is how to get innovations off the ground notwithstanding, such that idle people, machines and capital can be put in productive use. The public-private partnership model successfully used 40 years ago in the

Nordic countries to create a new mighty industry may offer a solution by splitting the load and risks of new big ventures, and reinforcing total capabilities as well as mutual courage.

In search of worthy large-scale innovations, besides the “must-dos” like reducing the carbon footprint and cleaning the Baltic Sea, three categories come on mind. The first concerns ways to improve the productivity of businesses and public organisations. The second is about enhancing people’s quality of life as they perceive it and are willing to pay for. The third comprises methods to save costs of current operations and living. It is obvious that innovations in any of these categories carry a potential of added value, and thus a business opportunity. I hope that governments, firms, NGOs, and academia around the Baltic Rim would take a note of the Nordic story, and consider whether the related ideas could be of help in getting some worthy bigger things to move ahead even amidst the current financial turbulence and wide-spread confusion. Priority should be given to innovations with potentially global appeal.

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## Heterogeneity of innovation strategies of Poland's firms

By Anna Wziątek-Kubiak

Innovation plays a critical role in economic growth and competitiveness. However in respect to intensity of innovation the New Member States lag behind the incumbent EU countries. As the NMS firms share characteristics of followers, imitators, or non-cumulative firms, it is commonly recognised that their innovation strategies are based on learning coming from external sources and differ considerably from their incumbent EU counterparts.

In respect to innovation performance Poland does not differ from other NMS. In 2008 only 27.9% of Polish enterprises in industry and services reported innovation activities. This was almost two times less than the EU-27 average. R&D intensity (R&D expenditure as % of GDP) of Poland's economy was almost three times smaller than the EU-27 average. Only 31 % of R&D expenditure was financed by the business enterprise, i.e. much less than the EU-27 average.

On the other hand, Polish innovating enterprises are a dynamic part of an economy. In last 5 years, the average dynamics of growth of employment and turnover in Polish innovation enterprises was one of the highest in the EU-27. Dynamics of growth of turnover of innovative firms was much higher than that of employment and both rates were higher than that of Poland's economy average. Innovative enterprises in Poland have increased their productivity to higher degree than economy average.

As in the case of the incumbent EU countries, Poland's innovating enterprises are heterogeneous in respect to sources of innovation. Introducing cluster analysis which is based on a wide range of internal and external factors of innovation that are introduced in Oslo Manual, we select five types of innovation strategies introduced by Polish innovating enterprises. These strategies show different ways of accumulation of knowledge which is used in competition. Surprisingly, most of these strategies are common to the incumbent EU countries.

### Types of innovation strategies introduces by Polish innovating firms

#### R&D based strategy

This is a kind of closed innovation strategy. It is characterised by a very high R&D intensity, a large share of R&D staff employed and strong cooperation with R&D organisations. However, although these firms invest in in-house R&D, they do not manage to improve the ability to identify, value and apply other sources of external knowledge coming from suppliers, customers and competitors. In effect they do not gain benefits from these cooperation.

Firms on this path to innovation tend to focus on product innovation. New products are strongly competitive on the domestic market. However focusing on R&D and neglecting the role of cooperation with non research partners does not allow them to gain a strong international competitiveness.

#### Strategy of open innovation

Firms who pursue this strategy not only do in-house R&D. They also extensively exploit knowledge from other organizations. They cooperate in R&D activities with domestic and foreign research organizations, independent researchers and with suppliers, customers and competitors. Developing in-house innovation capabilities allows these firms to accumulate and make use of external knowledge extracted from different innovation partners.

This strategy confirms that external knowledge benefits the firms that possess innovation potential. Innovation linkages

transfer into beneficial ones when they are supported by in-house R&D activities.

The share of new products in sales is one of the highest. The international competitiveness of products and production technology is also high. Open innovation strategy significantly enhances firms' competitiveness.

#### Users of innovation

This strategy is geared toward process, technology effects. It involves innovation activities aimed at improving a low level of technology, i.e. elimination of the main weaknesses of the firms.

Subcontracting of R&D substitutes in-house R&D which is low. It is accompanied by intensive cooperation with R&D organisation. This collaboration is very beneficial and results in high share of newly introduced products in sales. However their strong competitiveness on domestic market accompanies low level of international competitiveness. Comparison of this strategy with that of open innovation leads to conclusion that in-house innovation activity serving beneficiary absorption of external knowledge supports the improvement of international competitiveness of products.

#### High profile strategy

Most firms consistently run internal R&D activities and cooperate with external research organizations, including both domestic, foreign and independent scientists. These firms were supported by intensive subcontracting and cooperation. Such an approach resulted in high benefits that they took from cooperation with business partners and resulted in high innovation output and international competitiveness.

#### Low profile strategy

These firms have very low in-house innovation resources and activities and cooperation in R&D activities. They still focus on defensive restructuring. As they benefit from cooperation in terms of product quality and marketing, the role of diffusion of external knowledge is very important. However this diffusion does not translate into international competitiveness of their products which is weak. They operate in the lower quality segment of the domestic market where competitiveness of their products and technology is moderate.

### Concluding remarks

Although intensity of innovation and innovation performance of Polish firms are much lower than that of the incumbent EU counterparts, there are no large differences in innovation behaviour and strategies of innovation between Polish innovating firms and their incumbent EU counterparts. It suggests that firstly, catching up process is the most dynamic in the case of Polish innovative firms. Secondly, there is a shift in competitive pressure of Polish firms from low-quality to higher quality, innovative products.

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## Friendship between Finland and Poland

By Marjukka Mäyry

**The main purpose** for the existence **of the Union of the Finnish-Polish Associations** in Finland is to strengthen and fortify the friendly relations between Poland and Finland in today's Europe, to make the co-operation firmer and more intense at all levels. One significant way of doing this is to increase and deepen the knowledge of Polish history, society, economy, culture and your way of life in Poland among Finns and vice versa, the awareness of Polish people of Finland. Our relations as such is not a new phenomenon, they go back a long way in history.

**The Finnish-Polish Association was founded** in Helsinki as early as 1928. It started its work by taking every opportunity to make Poland better known among Finns. The initiators of founding the association were mainly highly educated, academic people; many of them being respected university professors and artists of great renown. They were in close contact with their colleagues in Poland and it was not too hard for them to pay visits to one another in those days either.

It was the Finnish-Polish Association together with the Warsaw Polish-Finnish Society, however, that actually started **the student exchange** between Poland and Finland. The associations organized many remarkable **cultural events**, for instance, the 100th Anniversary of Adam Mickiewicz in 1934. It was then that the Association published a booklet of Adam Mickiewicz's life and work.

Another significant event was four years later, **a cultural exchange program** was signed between Finland and Poland, the initiator being the Finnish-Polish Association.

Unfortunately, the Second World War broke up the co-operation for some years, but it started again soon after the war, to be more precise in 1947 and the co-operation has gone on strongly and actively ever since.

In the course of years there were so many new Polish societies all over the country, that in the year 1977 it was considered vitally important to found **an umbrella organization in Finland the Union of the Finnish-Polish Associations**. The main office is located in Helsinki where to hold meetings and where to arrange special events for members and those interested in the Finnish-Polish relations.

The main emphasis of the activity of the Union today are on **the language exchange program** and **the publication of The Finnish-Polish magazine** and also, in order to make **Polish films known in Finland and Finnish films** familiar with the Polish movie goers.

The Union in co-operation with the Warsaw Polish-Finnish Society has organized **language courses on an exchange basis**. Both parties choose three scholars for the courses and pay for their course fees, accommodation and teaching material. The exchange students can be people of all ages; people who need Polish or Finnish in their jobs or studies. These language courses are organized by the Polonicum Institute in Warsaw and by Helsinki University in Finland.

Traditionally, the annual **Polish film week** takes place in October and during the month some two to four films are shown in seven to nine cities all over Finland. We, Finns, feel privileged to watch the latest Polish films chosen by our very own film specialist. The Union organizes the film week in co-operation with the Polish Embassy in Finland.

To Poland the Union sends 3-4 documentary films to make Finnish films familiar with the Polish movie goers. There the Polish-Finnish societies organize the movies.

**The Finnish-Polish magazine** comes out annually giving information to the Finnish people interested in Poles and Poland, to make us Finns more aware about what is going on in Poland. We Finns feel fortunate to have **a magazine** published by our own Union. The Finnish-Polish Magazine comes out every year; the first time it was published was as early as the 1950's. It used to come out twice a year, but times are getting rough in Finland as well and the monetary funds are limited. The writers of the magazine are the best Finnish experts on society, economy, history and culture of Poland.

The magazine is, however, distributed not only in Finland but also to the Finnish Embassy in Warsaw, to the students studying Finnish at the University of Poznan and Warsaw, various exhibition centers, libraries, the Polish Embassy in Finland and the Finnish Embassy in Warsaw. It is also given out in various kinds of events organized for the public, not to forget passengers on the Finnlines ships sailing from Gdynia to Helsinki.

### Other forms of activities

Today we have some twenty Finnish-Polish Associations in Finland. Most of them are in close contact with their **Polish Twin Cities** and the Polish-Finnish Societies in those places. The Union of the Finnish-Polish Associations has been active in finding **partner schools** for Finnish schools in Poland and Polish schools in Finland. The Union and the Finnish-Polish Associations in co-operation with Polish-Finnish Societies have also been busy **finding contacts** for Finns in Poland and Polish people in Finland who for various reasons need such help, e.g. for their study opportunities, presentations, art exhibitions, lectures, theatre performances, travels, drama performances, puppet theatre shows, to name but a few. This co-operation works both ways.

The Union of the Finnish-Polish Associations takes part in **an annual travel Fair in Helsinki**. The representatives of our Union answer the questions coming from the visitors and give out different booklets on Poland. Many Finns find travelling to Poland a fascinating idea, Poland not being too far a destination and still quite a different country and cultural surrounding from ours.

The Union has also supported the studies of **those Polish students** who wish to learn our language or who e.g. want to study in our universities or colleges by donating Finnish literature to the universities in Warsaw and Poznan. In return for similar privileges, some **Finnish students** have been able to improve their skills in the Polish language in Poznan and Warsaw Universities.

It was only recently that one of the greatest writers of Finnish literature, probably the best-known Finnish writer in Poland, **Mr Mika Waltari**, was celebrated for his great production. Professor **Panu Rajala**, a real expert on Mika Waltari, was sent over Poland to give a lecture on Waltari and his production at the University of Poznan and Warsaw.

The Union of Finnish-Polish Associations has supported Finnish Studies at University of Warsaw and Poznan donating Finnish literature to them and with the help of the

Svenska Kulturförbunden (the Swedish Culture Society) Swedish Studies at Gdansk University by donating Finnish-Swedish literature to them.

A few years ago, **Mr Derek Fewster**, an expert on Philosophy at Helsinki University was sent over to Gdansk to give some lectures on Finnish-Swedish culture and literature.

Poland having had the chairmanship of the EU in 2011, many events were organized in Finland to make Poland, Polish culture and Polish way of life much better known in Finland. Also the Union and many Finnish-Polish Associations organized several events to make today's Poland better known by organizing a series of lectures on Poland; the lecturers were real experts on Poland, such as Professor Matti Klinge, Mr Stefan Widomski, the honorary consul of Poland, and translators of the Polish literature Mrs Päivi Paloposki and Mr Tapani Kärkkäinen.

The economy of the Union of the Finnish-Polish Associations is funded by the Ministry of Education and Culture, by membership fees and the advertisement fees received e.g. from those who advertise in our magazine. The Union has not paid staff, all activities are voluntary.

I personally think and sincerely hope that the Union of the Finnish-Polish Associations in Finland will keep going strong in the future as well. I firmly believe that the situation will be the same in Poland.

*Marjukka Mäyry*

*Chairperson of the Union  
of the Finnish-Polish  
Associations in Finland*

*Finland*



## Maritime transport in winter is necessary for Baltic Sea states

By Hans Langh

Last winter once again proved without a doubt the importance of maritime transport in wintertime. Ships were stuck in ice and industry was forced to wait for raw materials and explain to customers why their goods were not being delivered on time.

There are two strategies for ensuring smooth maritime shipping in wintertime: mobilise more icebreakers in maritime areas or use ships that can successfully move through ice.

Finland has chosen a policy whereby icebreaking services are financed with taxable fairway dues. This means that ships that don't really require icebreaking assistance pay just as much for the service as ships that must be towed by icebreakers from open waters to unloading ports and, once emptied, on to loading ports and then practically to the start of open waters. Fairway dues in 2010 totalled EUR 67.8 million. Some 50 per cent of annual taxable fairway dues are attributed to icebreaking activities alone. A 9.5 per cent increase in taxable fairway dues is being proposed for 2012, the justification for which is the high cost of icebreaking, including towing services, in the Bay of Bothnia.

The need for icebreakers would substantially decrease if the ships that carry raw materials for industry were to load new cargo from the same port. An empty ship sailing from port to port travels in small draughts, which means its propeller mostly crushes chunks of ice with a weak thrust.

When Finland offers towing services to ships with a weaker engine output at no separate fee, it makes no sense for higher-quality, ice-going ships to sail to Finland. For that reason, Finnish industry uses the cheapest possible vessels. The best ice-going ships in Europe sail to St. Petersburg.

This also puts Finland in an unusual situation: because of the icebreakers, ships that could very well continue in open fairways without the help of icebreakers are forced to wait. This is because icebreakers are so occupied with towing weak vessels that they would not be able to assist ships travelling in the fairway if the weather conditions suddenly changed, a field of ice broke free and help was needed. The ideal situation would be if the vessels had nearly the same level of ice-going characteristics. The better ice-going vessels would sail in one convoy and weaker vessels in their own. Nowadays, one bad ship causes insurmountable problems for everyone.

In my opinion, a vessel should have an engine output and a hull shape that allow it to sail in an open fairway, and it should only require towing in exceptional situations to break through major ice ridges. For example, Langh Ship's three 6500 dwt vessels that navigate in the Bay of Bothnia – m/s Laura, m/s Hjördis and m/s Marjatta – have an engine output of 5850 kW and two winters ago did not require towing a single time, even though it was a relatively tough winter. Last winter, the vessels in question each required towing on only one occasion after breaking through a difficult ridge of ice. The task of icebreakers should be to assist vessels through difficult barriers – not to tow them from open water to a port.

In contrast, Langh Ship's 1A Super ships – m/s Aila and m/s Linda – which navigated the St. Petersburg–Helsinki–Central Europe route last winter, did not require icebreaking services at all. Those 11500 dwt ships have an engine output of 8400 kW. An old rule of thumb is that a good ice-going vessel should have one horsepower per dtw.

Free towing assistance has led to a situation whereby effective ice-going vessels have largely left the Bay of Bothnia. The vessels that remain have a weak engine output and at the same time represent an environmental risk if they encounter problems in difficult ice conditions.

Only about 18 per cent of the industrial products exported from Finland are shipped on Finnish vessels, and the Finnish

fleet will inevitably require renewal, as the average age of our merchant fleet is among the highest in Europe, at 17.5 years. Icebreakers require huge investments from the state. The price for one medium icebreaker exceeds EUR 100 million. If the goal is to smoothly handle increasing maritime transport, such as mining industry transports, with the current low-powered ships, several new icebreakers will be required.

The stricter requirements laid down by the International Maritime Organisation (IMO) as of 2015 and 2016 set pressures of their own on the renewal of vessels. These requirements involve restrictions on sulphur and nitrogen oxide emissions, ballast water cleaning, purification of cargo-hold cleaning water, and reducing nitrogen and phosphorous emissions. It is important to invest in new ships that fulfil the future requirements now; because modifying ships that are too old is unprofitable and operating old ships on low-emission diesel fuel will be too costly for all parties and will destroy the competitiveness of industry in the Baltic Sea area.

In this situation, we should ensure that new ships can sail properly in ice too and that we will not succumb to equipping our future ships with insufficient power under the pretext of environmental requirements. Icebreakers with a high engine output towing vessels with a low output creates a combination that causes considerable contamination to environmentally sensitive maritime areas of the North. This kind of combination causes considerably more emissions in relation to the volumes being shipped than, for example, a convoy of five ice-going vessels sailing behind an icebreaker.

The stricter regulations can be turned into a competitive advantage for maritime transport through innovative technological and political solutions.

At the moment, it is extremely difficult and costly to secure financing for new cargo vessels. Banks consider the shipping business to be high risk and, in addition to the Euribor, require very high margins. The requirements of the Basel II accord also raise the interest margins. The Baltic Sea states could, for example, within the framework already approved by the EU, grant reasonably priced guarantees, which would enable investments in new vessels.

Industry and merchant shipping must together find an ideal solution to future challenges in order to safeguard the competitiveness of industry in the Baltic Sea region.

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*Maritime Counsellor, Honorary  
Honorary Doctorate in Economic  
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*Founder and Managing Director*

*Oy Langh Ship Ab*

*Finland*



# Strong recovery in maritime transport volumes stalled with economic uncertainty

By Elisa Holma

The year 2010 was time for growth and strong recovery in cargo volumes in the Baltic Sea ports. Also this year started with favourable economic development in all of the nine Baltic Sea countries. Foreign trade increased especially during the first half, but towards the end of the year, development has been slowing down and even stalled. However, in many ports, total cargo volumes are expected to reach higher levels than in 2010. The expectations for growth in 2012 are rather modest and cautious, being overshadowed by the prospect of a new economic recession.

## Recovering cargo volumes in the Baltic Sea ports in 2010

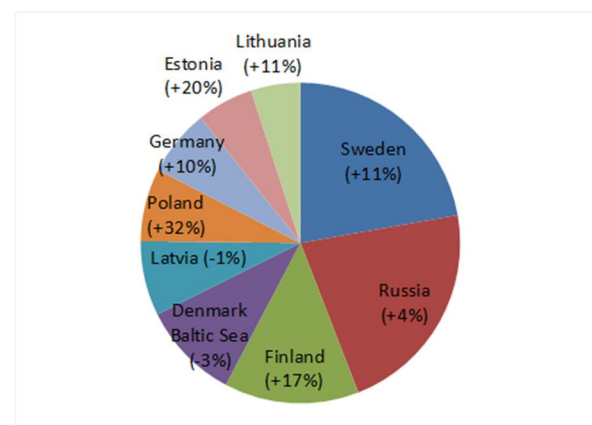
In 2010, Baltic Sea ports handled a total of 809 million tons of cargo (+9% y-o-y), after a dramatic drop of 10% in 2009. Cargo volumes increased in all Baltic Sea countries except for Denmark (Baltic Sea coast) and Latvia, where diminished transports of fossil fuels kept the cargo volumes at a slightly lower level than in 2009. The annual growth was strongest in Poland (+32% to 60 million tonnes), and in Estonia (+20% to 46 million tonnes). In both Poland and Estonia, strong growth was seen in all cargo types. In general, international imports, which faced the biggest falls in volumes in 2009, increased more than exports in the Baltic Sea ports (+14% and +6% respectively). Measured in total cargo volumes, Sweden regained its leading position in the Baltic Sea, with a share of more than a fifth. Sweden was closely followed by Russia, where volumes are largely composed of oil exports.

The volumes of all cargo types in international traffic increased in 2010. Strongest growth was seen in non-bulk cargoes (+17%), which had seen the deepest fall the year before. This class includes for example containers, where the volumes increased the most (+27%). Liquid bulk remained clearly the largest type of cargo handled in the Baltic Sea ports, with a total volume of 305 million tonnes (+1%). Dry bulk cargoes in international traffic were handled 190 million tonnes (+12% y-o-y).

Despite the strong growth, total volumes were still 2% (-17 mln tonnes) behind the peak volumes of the year 2007, non-bulk cargoes lagging the furthest behind peak volumes. In 2010, other than bulk cargoes were handled 8% less than in 2007, and dry bulk 4% less. Instead, liquid bulk cargoes reached the peak volumes in 2010.

Primorsk, St. Petersburg and Gothenburg remained the three biggest ports in the Baltic Sea in 2010. Most of the ten biggest ports were located in the eastern part of the Baltic Sea, four of these being located in the Gulf of Finland.

Fig. 1. Cargo handled in the Baltic Sea ports by country and annual growth rate (%) in 2010. Source: Baltic Port List 2011.



## Slowing growth and uncertainty this year

Year 2011 started with favourable economic development in all of the Baltic Sea countries. Especially the first half of the year seemed encouraging, but towards the end of the year the expectations for growth have weakened and common economic uncertainty has increased.

The Baltic Sea region countries still have not recovered completely from the previous recession caused by the global financial crisis. Each country around the Baltic Sea has proceeded somewhat at its own pace when it comes to economic growth. During the autumn, general uncertainty in the global and European economies started again to weaken significantly both companies' and consumers' trust towards economic growth. In September, IMF forecasted GDP growth for the nine Baltic Sea countries together to be 3.3% this year and 2.3% next year, but predictions of a new recession have already been heard.

The amount of maritime cargo traffic in the Baltic Sea kept rising during the first half of the year. Total volumes handled by the 20 biggest ports increased appr. 7.5% in January-June 2011, year-on-year. As a result of a strong beginning of the year, most ports are expecting higher volumes to be handled this year than in 2010.

## Modest growth expectations for the year 2012

According to the Baltic Port Barometer survey, carried out in August-September, the ports have cautious, yet optimistic, expectations for the year 2012. Modest growth is expected in cargo volumes in 2012, but at the same time the expectations are overshadowed by the prospect of a new economic recession. The brightest outlook is seen among the ports located in the eastern part of the Baltic Sea.

However, expectations for the year 2012 have clearly come down compared to predictions given in 2010 for the year 2011. Baltic Port Index (BPI), which gives an overview of the ports' expectations for the year to come, has halved from last year. BPI is now at 21 (last year at 50), meaning that the ports' expectations have weakened, but they still remain positive.

The volumes of all cargo types are expected to increase in the Baltic Sea, but expectations for bulk cargoes are more modest compared to non-bulk cargoes. Within non-bulk cargo, growth is expected especially in containers.

*The article is based on an annual market data package, published by the Centre for Maritime Studies at the University of Turku. The package includes three publications: Baltic Port List, Baltic Port Insight and Baltic Port Barometer. Of these three, Baltic Port List 2011 includes detailed port statistics on 2010 and time series since 2006, Baltic Port Insight gives an overview of the current year in the Baltic Sea countries and ports, and Baltic Port Barometer provides information on Baltic Sea port development trends by assessing the business and traffic prospects across the BSR over short-term, year-on-year.*

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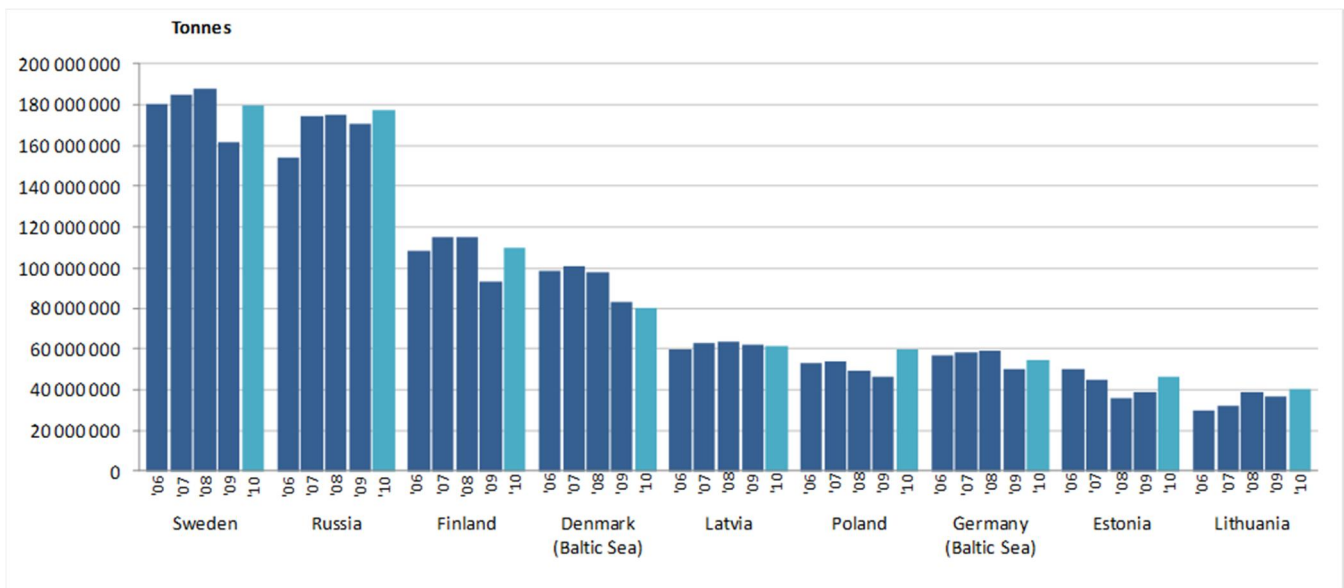
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Fig. 2. Total cargo volumes in the Baltic Sea ports by country in 2006-2010. Source: Baltic Port List 2011.



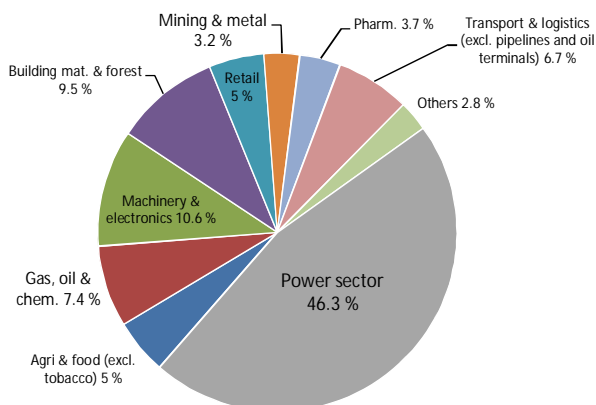
## Real investment in Northwest Russia – Ground Zero for reindustrialization?

By Vladimir Miklashevsky

Over 40 major investment projects in Northwest Russia totaling \$13.6bn in value were declared, under construction, or launched during August 2010 to July 2011.<sup>1</sup> The region's share of real investment projects<sup>2</sup> nationally climbed to 18% during the period. The value of individual projects range from \$15m to \$4.6bn,<sup>3</sup> and almost 40% of projects include foreign capital. As in other federal districts, the Russian state has been behind the most substantial investments. State money is also backing many private projects.

Consistent with trends elsewhere in Russia, the biggest real investments are in power sector. The second and third largest project categories are machinery & electronics and construction materials & forest industries (Figure 1). In other parts of Russia real investments in gas, oil refining and chemical industries lead the list, but in Northwest Russia machinery and retail have substantially higher shares than the norm. Agriculture, food, mining and metals, in contrast, are significantly lower. In terms of the number of projects, agriculture and food industries were a firm second (16%) after machinery & electronics with highest share (19%).

Figure 1. Main real investments in Northwest Russia, % of total value invested, August 2010 – July 2011



Source: East Office, Ekspert

At the moment, the Russian state is the only investor in power projects (\$6.3bn) in Northwest Russia. Rosatom, the state atomic energy corporation, is erecting the LAES-2 nuclear reactor in Sosnovy Bor in the Leningrad oblast. The plant's planned capacity should rise to 2,344 MW and 500 Gcal/h. The total investment is expected to be about \$4.6bn. Russian energy giants Gazprom and EES are behind several power block and electric substations.

The automotive industry continued to lead machinery investment. After a wave of launches of new automobile

plants in 2007–2010 (Ford, GM, Hyundai-Kia, MAN, Nissan, Toyota etc.), there has been a second wave in automotive components production. Known as "Russia's Detroit," the Leningrad oblast continues to attract new car assembly plants and kit producers that are largely funded with foreign capital. Nokian Tyres, a Finnish tire manufacturer (classified as "Others" in our sector groups) is expanding production to over 5.5m tires a year with an investment of \$343m. The second wave in machinery is increasing production and maintenance of equipment for power plants. Rosatom's Atomenergomash is building a new plant for production of reactor equipment (\$113m) on the grounds of Petrozavodskmash in Karelia. OSK, a Russian shipbuilder, and the South Korean STX have released a memorandum of intent to build a \$720m shipyard (greenfield) in St. Petersburg.

Despite this activity in central districts, the major investments in building materials and forest industry are in remote regions. Northwest Russia attracted almost \$1.3bn during August 2010 – July 2011. Founded by Russia's richest official, Andrei Molchanov,<sup>4</sup> the LSR Group has launched a \$600m cement plant (greenfield) in the Leningrad region and is currently constructing a brickyard (\$371m). In the Novgorod region, the German Pflleiderer has resumed construction of a medium-density fiberboard (MDF) plant (\$267m). The company began the project in 2008, but suspended its efforts during the global recession.

Real incomes and consumption levels above the national average in St. Petersburg and Leningrad oblast have attracted both domestic and foreign retailers. According to the *Ekspert* data, five large investment projects in retail (\$674m) were green-lighted in August 2010 – July 2011. Foreign investors also are participating in two smaller projects: a \$27m shopping mall in the Kaliningrad region by Metro and a \$15m hypermarket in St. Petersburg by Auchan. The construction company Briz has erected its \$500m Galeria Shopping Center in St. Petersburg. There are several substantial projects in retail missing from the *Ekspert* data, however. In November 2010, for example, Finnish retailer Stockmann opened a shopping mall (\$260m) in St. Petersburg. In April 2011, the Finnish provider of trading sector services Kesko declared its intentions to invest \$850m during 2011–2015 in hypermarkets in the St. Petersburg and Moscow regions. Another Finnish retailer, S Group, announced plans during the period to build a number of hypermarkets in St. Petersburg in the near future.

There are six projects in the transport sector, totaling nearly \$1bn. If the oil terminal in Ust-Luga on the shores of the Baltic Sea is included, the value for the category nearly doubles to \$1.8bn. The terminal has been finalized by Gennady Timchenko's oil trader Gunvor. Another big terminal (\$200m) is also under construction at the Ust-Luga Port. The main investors are European container terminal operator Eurogate and First Quantum, owned by Vitaly Yuzhilin, a St. Petersburg billionaire. The state is helping investors at both the federal and regional level with access roads, land acquisition, and tax breaks.

<sup>1</sup> In addition to Kaliningrad, Leningrad, Novgorod and Pskov oblasts, St. Petersburg City we also consider Karelia and Murmansk oblast.

<sup>2</sup> Projects exceeding \$12m.

<sup>3</sup> Individual country level data provided by *Ekspert Business Weekly* No. 3 (737), 14 (748), 24 (758), 37 (770).

<sup>4</sup> According to Forbes, Andrei Molchanov, a member of the upper house of the Russian parliament, earned more than \$100m in 2010.

Cheap money provided by state-owned banks was a big main driver of the current spike in investment in agriculture and the food industry. In August 2010 – April 2011, seven projects, worth \$680m were registered in Northwest Russia. A new distinctive feature of these agriculture and food industry projects was their high capital intensity. The average amount of investment per project is expected to come close to \$100m. Among them are three giant pig farms (two funded with foreign capital).

Analyzing available data, a fall in real investments took place during May-July 2011 compared to the same period in 2010 (seasonally adjusted). Yet, the exact figure is ambiguous due to the estimation methods. Political risks and scarce capital availability obviously restrict real investment. The state decides where to allocate financing, and has lately shown greater interest in promoting social than real industrial investments. One hope is Russia's upcoming WTO membership which is expected to clarify rules and encourage efficiency gains through increased competition.

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## Adaptation of business models to local conditions in Russia – five Nordic companies' experience

By Kim Wikström and Elena Ganskau

Nordic companies are increasingly interested in establishing business in Russia. They face challenges in adapting their business models to the local environment. The reason for this lies in severe differences regarding culture, legislation, technology, available capabilities and competition. There is also a considerable amount of incorrect stereotypes to be found in their guidelines for conducting business locally. There is an urgent need to find suitable approaches for how these companies should act and perform so that they meet local expectations and requirements. At the same time they should utilize their global capabilities and innovate for potential quantum leaps in a strongly emerging market.

PBI Research Institute has for several years analyzed various types of business models in project-based firms globally and in Russia. In 2010-2011, PBI conducted a study of how Nordic companies adapt their business models to local conditions and which factors play a decisive role in their development in Russia. Five Nordic companies representing different industries in Russia were selected for the analysis. In total, 26 interviews with the companies' managers and customers as well as industry experts were conducted and analyzed in combination with an analysis of documentation, such as strategic intentions and webpages. The aim was to discover the companies' approach to conducting business in Russia. The focus was on summarizing best practices and existing problems, and giving recommendations for further development of the companies' activities in Russia. Despite the fact that the results are based on the experience of only five companies, they provide valuable insight and guidelines regarding how foreign companies strive to establish and develop operations in Russia.

The companies studied employ different types of approaches in Russia and have different experiences and levels of maturity in their operations in Russia. The following business models were identified:

(1) The production-centered business model builds on local production for different industrial segments within serial and individual projects. Priority is given to product development, including design and innovation when considering local needs and demands. In addition, the closeness to the market ensures quick decisions and adaptation. These companies have a strong market position and support from local authorities, giving them more openings as regards prospects for further growth. Moreover, they have close collaboration with the local universities and suppliers. They mainly faced problems related to poor infrastructure, underdeveloped legislation, and having to obtain numerous approvals and permissions. Additionally, the various political situations in specific regions were often challenging for the local production. However, a cost benefit has been achieved, at least until now, as there are significant import duties if the products are produced abroad.

(2) The sales-centered business model is based on the organization of sales, distribution, and delivery process. These companies can capitalize on strengths using an efficient supply chain, unique benefits, lower pricing, a broader product line, or more customization options. However, customs duties and other costs linked to

transportation make the position of foreign companies without a local production base quite vulnerable. Furthermore, the importance and benefit from the local office is more limited. The model does not allow too rapid growth and it is not seen as a sustainable way to do business from a Russian point of view as local embedding is important. Moreover, sudden changes or disturbances at the border can dramatically impact the business. The benefits are flexibility and also the possibility of growth by extending the sales network.

(3) The service-centered business model means that the company's activity is focused on service solutions supporting the customers' value generating processes, e.g. design, installation, maintenance, after-sales support, etc. This model functions well if a company has long-term agreements with customers, quickly responds to inquiries, and has a wide network of service centers and warehouses with spare parts. However, the Russian market for services is underdeveloped and unpredictable. In addition, the level of competition is high – small local companies offer lower prices and acceptable quality, as well as flexible contract terms and fast delivery. This model gives constant feedback from the customers that could be better utilized by establishing a stronger presence by having spare parts, a certain degree of expertise and sales personnel in Russia. Furthermore, as the business environment is evolving quite rapidly, the companies tend to suffer from the distance involved.

(4) The essence of the investment-centered business model relates to organization and development of local projects aimed at meeting the interests of investing organizations. The investing company's role is to connect the sources of investment with local networks, including experts, authorities, producers, and suppliers. The outcome of projects may include both new material objects and intangible effects (e.g. ecological). This model is quite flexible and does not require launching large local facilities, although it is strongly dependent on a well managed network of partners, as well as political and legal factors. Thereby it is also rather vulnerable and there is a risk of missing business opportunities, because the local presence is weak. This is especially true for the early phases, when new investments and projects are discussed and planned.

There are significant differences when working with key clients in Russia and Nordic countries. It is quite problematic to develop long-term relationships, networks, and trust because of local, specific peculiarities. At the same time, the established personal contacts between managers and clients remain a significant reason to continue collaboration. Relationships between the customer and subcontractors in Russia often have a complicated structure, and different interests have to be balanced. Foreign companies cannot be involved in "the game" because of their ethical norms or lack of information or.

A point of development was in all five cases to increase the local presence. To pay attention to the collaboration between the local operations and the other relevant actors within the company is important.

As for relationships with headquarters, it is interesting and important that the independence of local management

in making local decisions had a positive impact on motivation and development of the operation. However, our observations also revealed cases, where the headquarters tended to ignore initiatives and suggestions from the Russian side. As a result, the offering was designed and developed irrespective of local market needs or the decisions were accepted on the level of the entire company and were therefore not efficient locally. Cultural and language differences remain significant and create a problem when introducing the parent company's values and standards. Moreover, the opposite was observed where the local operations with autonomy became isolated and could not benefit from the experience and knowledge base in the Nordic companies. Training multicultural (multilingual) managers and transferring international experience through "best practices" can be a solution, blended with job-rotation and working in joint projects. Nonetheless, a strong motivation to work in Russia is important for local success. It is not easy to adapt Nordic values and business standards to Russian market conditions; collaboration needs to be based on respect, trust and a well-built value base. A strong interest from the executive level and involvement from the headquarters seems to support a sustainable local development, as long as local management is not micro-managed.

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# Implementing a luxury strategy in Russia

By Esa Rautalinko

Finland's strong export tradition to Russia has been considered as an advantage. Growing Russian GDP has created increasing export possibilities and the proximity of the two countries enables efficient logistics to the biggest cities and their surroundings. However, the market has changed dramatically in the past two decades and will continue to do so in the foreseeable future. Unfortunately a large number of Finnish exporters have neglected their homework. Old assumptions and traditional "facts" are not today's realities and relying on those might be fatal.

Domestic Russian production has increased significantly in virtually all product categories and existing gaps in offerings have already been filled. Surely regulative actions have speeded the development, as in all emerging economies. But it would be short-sighted not to take into account the massive work done in Russia in the areas of R&D, marketing and production. A lot of this has naturally been enabled by foreign capital and corporations, but increasingly by Russian players.

The old Finnish "good enough for us, good enough to be exported" thinking is a sure way to a shrinking business. Because of this old way of thinking, Finnish exports to Russia has been sales focused, especially in consumer goods. Strategic marketing thinking has not been a priority and in many cases even the most trivial background work has not been done. And yet Russia gives almost endless possibilities for a true marketer because of the markets diversity.

Honkarakenne is the world leader in log homes focusing on luxury and premium customer segments offering individually designed houses and high-end service. Research data shows, that throughout the world there are strong trends supporting the chosen strategy.

## 1. Increasing wealth

The global financial crisis has naturally dented individual customers and created challenges, but the clear trend is that as an average people are getting wealthier. At the same time increasing differences in wealth distribution are creating social challenges. But still, there is a growing number of wealthy people in all major markets.

## 2. Individuality

The need for self expression rises together with wealth. Tailor-made solutions are vital in order to satisfy demanding customers and the solutions need to be integrated into a highly sophisticated way of service.

## 3. Urbanization

Even countries with a declining population, like Russia, verify this trend. Consumers are not willing to make compromises with a working infrastructure and expectations even in remote vacation locations are high, often higher than in cities. Because of this, large development projects are both popular and economical.

## 4. Ecology

Energy efficiency and CO2 footprint have been popular buzzwords for quite some time. However, ecology is not the primary selection criteria for most of the consumers. But real competitive advantages can be created and on the other hand, authorities are going to ensure by regulation that a positive development takes place.

These global trends need to be interpreted from a target market perspective, not from a Finnish one. Finns have a complicated, if not a traumatic tradition dealing with wealth and individuality when comparing us to emerging economies. Research data shows that Russians are more willing than Finns to invest in durables. When the needed funding is available, Russians put a lot of effort in acquiring a house fulfilling individual family needs. And very typically a substantial investment is allocated to elaborate interior detailing and decoration. So Russia, better than any other

market Honkarakenne is working with, is living true the abovementioned trends.

Another myth Finns still somewhat believe in is that product quality is everything. There is no denying the importance of traditional quality thinking. But instead of a competitive advantage it has become a hygiene factor, an entry ticket to attend the game. Thinking has to be widened to non-tangible service models, or "semi-tangibles", which as a term probably better describes the challenge. Most companies have defined service processes and have also put performance indicators into place (preferably in a multi-million CRM system...) but are still facing challenges and unpredicted customer behavior.

Sadly it is very rare that truly meaningful customer insights can be extracted from this expensively collected data. Service processes are always experienced individually and therefore beforehand decided KPIs have a challenge describing the customer experience. Some typical KPI data is naturally valuable, but having a constant multi-faceted dialogue with the customer from the first contact throughout the purchasing process is vital. And it is essential to recognize that the dialogue has to continue for the length of the whole life cycle until the next cycle begins. This is the only way to ensure a vital luxury strategy.

So what are the key learnings implementing a luxury strategy in Russia?

### 1. Do not use Finland as a benchmark

Russian customers have a different interpretation of luxury than Finns. In houses this means bigger average sizes, bold architecture, attention to detail and thorough interior styling.

### 2. Improve you speed

Russians are fast decision makers and expect the same from you. Finns have an excellent reputation of being precise and on time, but at the same time we are often considered to be hopelessly slow.

### 3. Be ready for changes

Especially luxury segment customers expect agility. Define your capability to make even last minute changes and which are the details where changes can be made and where not. Otherwise you end up selling nothing or selling with a poor margin.

### 4. Personalize your service

Service models for masses are for mass products. Luxury products need to be sold through a customized model in a flexible manner. This means that the work is resource consuming and you have to deal with it.

### 5. Product quality is not good enough

Relying on product quality as a sole competitive edge means failure. Quality can be copied in an increasing speed but experiences not. Also, it is harder to put a price ticket on experience than it is on quality.

### 6. It's not over

Luxury segment customers do not expect a project but a relationship. The relationship needs to be nurtured throughout the years even if there is no sales in perspective. You have to recognize the effects of both positive and negative grapevine. Luxury is created through experience.

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## Sanitary ware market differences in the Baltic Sea region

By Pekka Kuusniemi

Recent crises have further differentiated sanitary ware markets in Finland and Sweden compared to the Baltic countries and Poland. Traditionally, the Nordic markets have a strong network of installers who purchase sanitary ware from technical wholesalers to be installed in their customer's premises. That has guaranteed a certain quality level for these products, which have a very central role in people's everyday life. In the newer market economies, purchasing power is naturally still on a lower level and therefore consumers tend to look after cheaper products and install products by themselves. Very often the channel to the market is so called "big boxes", Do-It-Yourself –shops, when the price is the driver number one and professional advice is lacking.

New buildings like block of flats are mostly built and sold unaccomplished in the Baltics and Poland. That fact leads to totally different challenges when all consumers must be reached one-by-one. Each consumer makes most of their decisions regarding interior furniture, even fast furniture like kitchen fittings and bathroom equipment after purchased walls and ceiling. In the Nordics you are more often offered alternatives considering the level how flats are equipped but always constructors build houses till turn-key-completion.

### Price sensitivity still leading

Whether we talk about higher or lower purchasing power markets, it is surprising how price sensitive product category sanitary ware has become. It is up to all market actors, but something can be considered to be done wrongly when there are e.g. washbasin faucets at a price level of ten euros. Still, we have to keep in mind that these durable goods are including a huge risk if they are faulty. Therefore, the potential to develop the sanitary ware market is huge if market actors would succeed to guide consumers better in these questions. If you would invest fifty percent of a price of a new pair of jeans or at a price of

a junior's ice hockey stick, you would have pleasant moments ten years ahead with your high quality faucet. The difference between these investments is the duration. You don't risk anything if buying a pair of jeans but having a water tower behind your low quality sanitary ware that creates a major water damage risk in addition to less good user-friendliness.

### Towards water saving sanitary fittings

Water and energy saving is growing in importance also in the newer market economies. However, if we compare e.g. Swedish and Polish consumers in this respect there is a clear difference. Both markets give value to modern solutions with which you are able to use water in a user-friendly way. But, while Swedes are thinking more of saving world's water resources and using less energy to warm up the shower water, Polish consumers are interested more in their own wallet than ecology. Both are good reasons to think twice when making a choice for the next ten to twenty years. The payback time for a water saving solution is surprisingly short. If that could be added to the easy to use-features it would be a great benefit for the Baltic consumers to enjoy water and save energy in long term.

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## Russia – facing new challenges on the world gas markets

By Nodari Simoniya

During last several years we are witnessing very dramatic developments and drastic changes on the world gas markets. Russia (in fact “Gasprom”) was not prepared to adequately respond to these challenges. The more so, that in recent years in the West it became fashionable to speak about a threat of Russian energy monopoly for Europe that in future might allegedly lead to political dependence. These statements are constantly disseminated by almost all Western mass media sources with the latter naturally not taking any trouble to present in the least bit serious analysis of real state of affairs.

It's quite enough, however, to address facts and statistical data to receive evidence that in decades following the time when historical “gas in exchange for pipes” agreements with Austria and Germany were signed, in spite of absolute physical increase of gas deliveries from the Soviet Union, its share in total volume of European gas import decreased more than twice. It happened naturally due to diversification of import sources (from Norway with Algeria as well as other North African countries, plus Qatar, Trinidad and Tobago, etc.). What monopoly are we talking about?

And, nevertheless, “Gasprom” is a monopolist, but only in its own country. At its complete disposal the company has all the main export gas pipelines thanks to which it “makes miserable” the life of all the independent gas producers in Russia either imposing crushing terms of gas purchase, or forcing them to burn associated gas in flares, polluting the atmosphere. The history, however, has evidence that any monopoly sooner or later comes to an end. And such a monopoly usually breaks in its “weak link”. Until recently “Gasprom's” life was comfortable. It was “sitting” on “Soviet inheritance” and kept to the comfortable tracks beaten in earlier times. But when it became necessary to develop new deposits “Gasprom's” “weak link” became apparent – Arctic with its multiple challenges: severe climate, need for absolutely new innovation technology, its unknown off-shore, etc. The monopoly's leadership was neither psychologically, nor professionally ready to meet these challenges quickly, dynamically and widely.

More than this, “Gasprom's” leadership was permanently ignoring the fact that the Government had long ago formulated the concept of *state-private partnership* (SPP) where the state's role was in formulation of ideas and large national projects, in partial investment in the latter (especially in various infrastructure spheres), etc., while the role of business was that of operational initiative, realization of information technologies and the role of main investor. In the past “Gasprom” has clearly demonstrated its inability, and even reluctance to give up its comfortable existence and fit into this SPP concept, having balanced its purely corporative interests with national goals. All this could not pass by V.Putin's attention. Just as the fact that he practically had to display initiative himself in realization of actually all the largest energy projects applying the method of “manual management” (as if Russia is Singapore). Discontent accumulated. Finally, premier Putin has decided to apply “shock therapy” for “Gasprom” in LNG projects sphere, having created for the latter an active competitor represented by “Novatek”.

Perhaps, it is necessary to stress that all the steps made by the Government and V.Putin personally are in no way aimed at destruction of “Gasprom” as a large corporation. It would have been extremely unreasonable and damageable for the whole economy. But they are efficiently aimed against negative aspects of “Gasprom's” monopolism, which in recent years have turned into the main brake on almost all the large energy projects of Russia, and turned for “Gasprom” itself into hindering factor of its own development. V.Putin as chairman of the Committee of Foreign Investments in every way possible contributed to growth and organizational strengthening of private “Novatek”. More than that, the Government's criticism of “Gasprom” is becoming more and more open and directly threatening *monopolist status* of this company. In early February of 2011 V.Putin at a meeting in St.Petersburg in 2010 on the results of fuel and energy complex directly declared that the Government of Russian Federation may be ready for changes in the legislation if “Gasprom” – Russian

monopolist in gas transportation via main pipelines – did not allow independent gas producers access to its transportation capacities. “Either you work more efficiently, or we shall be forced to change the existing rules, to change the legislation”, - said the premier at this meeting, having stressed that “the company puts its own interests above the interests of the industry's development”.

“Novatek” in its turn not waste any minute and immediately started formation of his grand LNG production center on the Yamal peninsula. The leadership of the company intends according it's 2015-2017 plan to more than double capitalization of their company (up to US\$100 bln.) and bring natural gas extraction up to 60-80 billion cubic meters, and that of gas condensate – to 8 mln. tons. (In 2010 Novotek's production was 37,2 bcm of gas and 26 million barrels of condensate. Their big achievement was that in the meantime practically opened through navigation along the Northern Sea Route: August 14, 2010 tanker “Baltika” with experimental consignment of gas condensate (70 000 tons) freighted by “Novatek” from Sovcomflot (state shipping company) left Murmansk in Russia's extreme northwest and went to the Asia-Pacific region across the Arctic Ocean's Northern Sea Route. This consignment for China National Offshore Oil Company arrived at the Chinese port of Ningbo on 6 September. Business Monitor International consultancy commented upon this event as follows: “Novatek” can reduce its normal journey to Asia of around 20,400 km around the Suez Canal to around 12,500 km, allowing for significant reduction in transit time, fuel cost, and the risk of pirate attacks. President of “Novatek” L. Mikhelson who was on board of “Rossia” tanker during the whole route told “Vedomosty” reporter that delivery of condensate via Suez Channel at that time would have cost “Novatek” US\$ 50 per ton, i.e. approximately US\$3.5 mln. for the whole consignment, while delivery along NSR cost half a million dollars less.

Finally I would like to briefly formulate the main conclusions made from the above:

1. Russian Arctic zone is not only the key base for development of oil and gas industry, but also a “weak link” where in the last 3-4 years began and have been building up important shifts in the very model of this sector.
2. The most significant shifts are: the breakthrough of monopoly of some state oil and gas monopolies on home market and appearance of real competition.
3. It became obvious that fast and effective development of Russian fuel and energy complex is simply impossible without the closest international cooperation both with states-consumers of Russian hydrocarbons and advanced oil and gas corporations and service world companies. Any pretension on independent development of Arctic resources leads only to lengthy procrastinations and rise in cost of large energy projects.
4. At the same time the process of renewal of Russia's oil and gas industry will take several years, as the scale of the tasks it faces is enormous, while the obstacles necessary to overcome are too rooted in general economic structure of Russian society (the principal ones are double-dyed bureaucracy, pervasive corruption and still inevitable due to the management's low level of professionalism method of “hand management”).

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# Russia towards energy saving and renewable energy

By Viesturs Ozolins

Global climate change has been a much debated subject, but question remains that the global climate is changing, with possibly grave consequences for human societies. Technologies for energy efficiency and renewable energy have become recognized as an important part for reducing carbon dioxide (CO<sub>2</sub>) emissions and mitigating global climate change.

Russia is one of largest contributor to total CO<sub>2</sub> emissions in the world, together with the United States and China. With the rise of transnational environmental problems like global climate change, attention has been focused on international technology transfer as an instrument to mitigate these problems. Historically, Western technology transfer and cooperation played a significant role in some key aspects. International experience transfer leading to energy efficiency improvements and greater deployment of renewable energy could lead to substantial reductions of CO<sub>2</sub> emissions in Russia.

Despite huge existing technical-economic opportunities for energy efficiency and renewable energy, and despite advanced Russian technological capabilities, many transaction barriers limit technology transfer and investment in technologies for energy efficiency and renewable energy. Same time outdated standards created in Soviet times what are still used in energy sector quite often tight the hands for efficient project realizations.

There are good reasons why energy use is inefficient relative to that in Western countries. Some of these reasons can be found also in developed and developing countries. For example, equipment's and infrastructure were designed, developed, and produced during a period when energy was extremely cheap. Undervalued inputs led to much economic inefficiency in general.

Russia's President has stated lately that energy efficiency and energy conservation are among the 5 strategic priorities for Russia's technological development. In line with these governmental initiatives, this topical was served as an international platform for the exchange of practical experience and know-how gathered by companies and experts in the field of energy conservation and energy efficiency.

Company Gebwell Ltd. is a Finnish company specialized in energy saving and environment friendly heating and cooling system development, engineering and production who works hand in hand with Russian partners for energy efficiency projects. The vast product selection includes ground source heat pumps, energy accumulator systems and district heating substations.

As an expert in district heating field and renewable ground source energy technologies I will analyze several aspects of these systems and perspectives in Russia.

## District Heating System

District heating is one of the most used heating systems in Russia but the system efficiency is very low, supply and distribution pipes in many cases are old and poorly insulated up to now. Heating equipment's in buildings are old and poorly maintained. District heat distribution systems are poorly controlled (if at all). And opening windows in wintertime is often still the in many cases only method to regulate heat comfort.

Energy efficiency and rehabilitation in district heating systems represent very high domestic priorities for Russia lately. Even with simply automation of heating processes large amount of energy could be saved. The main goal of such automation is to optimize heat production and distribution according to real-time fluctuations in heat demand, hydraulic conditions, and outdoor temperatures. Such control should take place in the heat plants, substations, and individual buildings and apartments.

Russian authorities are beginning to recognize the unsustainability of an economic model based on natural resource extraction, and to understand that improvements in energy efficiency would boost long-term economic competitiveness.

Technologies for improving the heating systems within existing buildings include building level energy metering units, and automation for controlling the heat entering the building,

apartment-level heat meters and thermostatic radiator valves for controlling the heat to individual apartments, heat balancing valves for balancing the heat flows within the building, pipe insulation, and new substations for energy distribution.

Up to now the large amount of buildings in Russia connected to district heating system are not equipped with simple heat metering equipment's what basically should be one of the first steps towards energy saving measures. Same time building thermal envelopes also can be improved. Measures include additional roof and wall exterior or interior insulation, window replacement and mechanical ventilation systems.

Improvements to district heating systems include combustion controls and analyzers at heat plants, automation systems for distribution networks, variable speed drives on motors and pumps, pipe insulation, new pipelines, and new individual substations.

During last 10 years there has been many renovation projects implemented in district heating sector and building level as well, but this is just a small part large Russian energy system. Thanks to Russian government new energy efficiency law has been introduced with certain measures towards energy efficiency.

## Renewable Energy and Ground Source Energy

Renewables, this has become one of the most often used terms in energy sector worldwide in last years. I think this is one of future perspectives also in Russia, but due to relatively cheap energy available this technology has not been so popular up to now.

One of the most popular and promising renewable energy technologies for heating sector in Northern Europe is ground source heat pumps and according today's situation it is less costly heating production system.

Up to now this technology has not been very popular, but Russian energy price growth in domestic market has led to heat pump market development due to its efficiency and environment friendly technology. Many people do not know that ground source systems can be used not only for heating production but cooling applications as well. For example one such kind of ground source system is able increase cooling efficiency many times comparing with regular air conditioning systems. Due to above mentioned this technology becomes more and more popular also in Russia due to its efficiency.

Learning from experience gained during many years participating in energy saving project realization in Europe, Russia and China, the key factor is hidden in heads of citizens as energy efficiency project should start there. Up to now it has been significant problem in Russia, but due to rapid energy prices increasing society is forced to think about energy saving measures also on consumer level.

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## Antitrust cases against Russian oil companies – battle for cheap petrol is under way

By Svetlana Avdasheva and Guzel Yusupova

In 2006-2007, Russia amended its competition law and rules on prosecution. Turnover penalties (from 1 to 15% of the sale on the market affected) were introduced instead of fixed and relatively low fines. Impact of new system, potentially effective, depends dramatically on the goals of the rules enforcement. During last years the major aims of antitrust provisions enforcement is 'battle for low prices,' and the most important cases for Russian competition agency (Federal antitrust service RF, FAS) were the cases against oil companies.

Low prices as a goal does not correspond to world best practice of antitrust policy aimed at protection of competition but not the competitors or buyers directly. However we should keep in mind that Russian economy is dominated by resource-extracting, capital-intensive industries, with a small number of interdependent producers and high entry barriers. Structural features of Russian markets support coordination between sellers, tacit or explicit, which in turn results in high prices.

Prices for oil products occupy special place in the Russian economic policy. On the one hand, economy and budget are highly dependent on oil business, including export. On the other hand, low retail prices on oil are considered as a kind of social obligations of Russian government. The desire to keep oil product prices stable makes trying different way to solve the problem, in spite of the fact, that oil product prices in Russia are among the lowest in Europe (see figure 1).

Enforcement of antitrust provisions is considered as one of possible ways to force oil companies to charge low prices. In Autumn 2008 FAS identified four largest Russian oil companies – Lukoil, TNK-BP, Rosneft and Gazprom Neft as collectively dominant in four markets - gasoline, diesel fuel, heating fuel oil, and aircraft kerosene and abusing their dominance in the form of excessive prices and discrimination against independent wholesale buyers of oil products.

Decisions on the violation of the competition law were supported by two types of evidence: first is comparison of world oil price index and oil product price increase in domestic market and second is comparison of price and cost indexes of oil companies. FAS found that when world oil price increased, domestic retail prices of oil products increased at the same or higher rate, and the lag was minimal. On the contrary, under decreasing world oil prices domestic retail prices fell at lower rate and with increasing time lag. FAS also found that the increases in the prices of the products were greater than the increases in their costs, and were also greater than the increase in the wholesale price index for Russian industries. All the cases contain analyses of the prices, costs, and profits "needed for production and sale". However, Russian antitrust law does not provide instructions on what price mark-ups or profit rates might be "needed" in a market, nor what determines whether increases in those rates are permissible. In this context enforcement of the prohibition on 'excessive' price becomes too arbitrarily.

In summer 2009 the second wave of cases against 'Big Four' was initiated. The accusation of 'unjustified withdrawal of a commodity from the market' replaced the accusation of 'excessive price'. The increase of export volumes was regarded as a cause for the reduction in quantity and the increase of prices in domestic wholesale and retail; markets in the early 2009. Again, without any ruling it is difficult to find standard of decisions considered to be legal (do not export at all? do not export when prices in domestic market increase?).

In both cases oil companies were accused as discriminating independent wholesale buyers by charging higher prices in comparison to the subsidiaries of Big Four. In

addition, there was some emphasis placed on the refusal to supply independent wholesale customers during periods of supply shortage.

Supreme Arbitration Court RF found oil companies guilty (TNK BP in May 2010, Gazprom Neft in February 2011). Overall sum of penalties for Big Four, initially exceeding 26 bln RuR, was reduced to about 6 bln RuR. At the same time many regional subsidiaries of oil companies are accused by regional subdivisions of FAS in more than 500 cases during last three years.

Punishment of largest oil producers hardly can achieve primary objective of competition policy, in spite it could be able to prevent price increase in domestic markets (see figure 1). However, other policy measures are also under discussion or even implementation. In February 2011 prime-minister Vladimir Putin asked from Russian oil companies to decrease retail prices on gasoline and diesel fuel. Paradoxically, direct price cap on petrol can be preferable in comparison with antitrust enforcement for the prices exceeding cost, since the latter heavily depress the incentives of producer for cost-saving. To the autumn 2011 other legislative initiatives are under consideration. These are draft laws introducing new rules of contracts and pricing of oil and oil products.

To conclude, the battle for cheap petrol in Russia is still under way, and antitrust enforcement is only one of the weapons in this fight.

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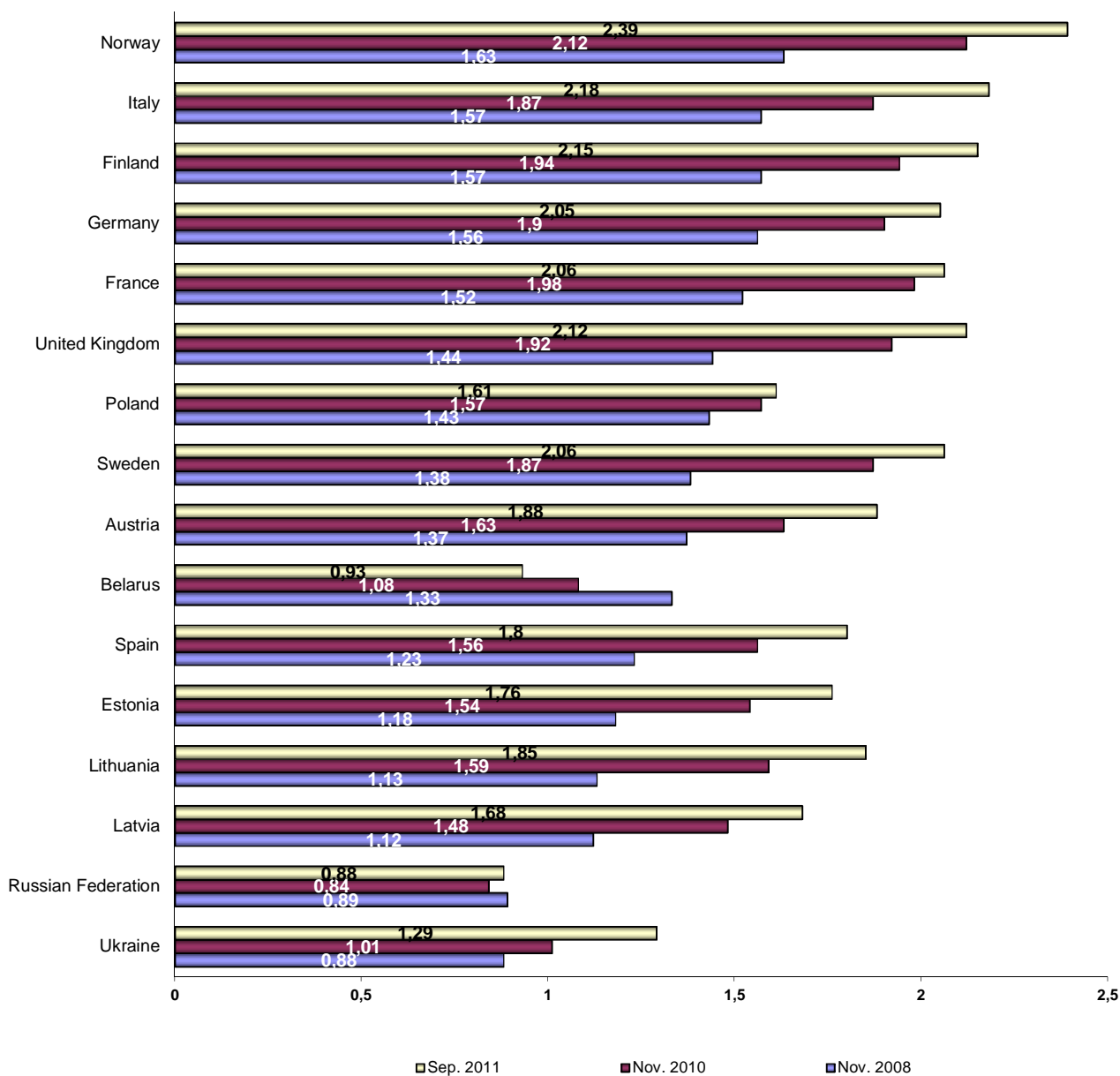
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Figure.1. The Comparison of retail gasoline prices in the world: Europe, Russian Federation, United Kingdom (Nov.2008, Nov.2010, Sept.2011), USD cent per liter



Source: <http://www.gtz.de/de/dokumente/gtz2009-en-ifp-part-2.pdf>  
<http://www.gtz.de/de/dokumente/giz2011-international-fuel-prices-2010-2011-data-preview.pdf>

## Special Economic Zones in Russia – new trends

By Stanislav Tkachenko and Dmitry Tkachenko

Special economic zones (SEZ) play special role in implementation of Russian Government's vision on how national economy should be reformed and modernized. Internal dynamics of their development is rather positive in recent four years. Since the end of 2009, there are seven new SEZ in several Russian regions and of different types of them. In general, there are 24 SEZ in Russian Federation today: 4 SEZ of industrial and production type, 4 SEZ of technological and innovation type, 13 SEZ with a specialization in tourism as well as 3 SEZ in sea-ports and logistics.

Among newly established SEZ there is highly advertised by Russian Prime-Minister "The Titanium Valley" in Sverdlovsk region, "Togliatti" SEZ in Samara region, which should save so called "monocity" from consequences of growing unemployment and even social unrest, and Murmansk Sea-Port SEZ with specialization in logistics.

Following indicators demonstrates SEZ development in Russian Federation in recent years:

|   | 2007   | 2008   | 2009    | 2010    | 2011<br>(January-June) |
|---|--------|--------|---------|---------|------------------------|
| Number of residents registered                        | 50     | 141    | 207     | 267     | 288                    |
| Investment announced, billion RUR                     | 34,237 | 90,839 | 144,864 | 219,900 | n.a.                   |
| Number of jobs created by SEZ                         | 699    | 3709   | 3919    | 5234    | n.a.                   |
| Volume of sales of products and services, billion RUR | 1,310  | 10,963 | 20,800  | 31,400  | n.a.                   |

Source: The Chamber of Audits of Russian Federation, 2011

Despite of very optimistic statistics on SEZs, it should be taken with cautious since all indicators, presented in the table above, are nominal ones and describe intentions rather than real achievements of SEZs administrations and Russian government. For example, statistics on residents of SEZs who actually started their projects is not available as well as volume of real investments and jobs, provided due to fulfillment of these projects. That's why representation of available statistics on SEZs is quite poor.

The growing skepticism on effectiveness of the whole SEZ's project and utilization of money from Russian federal budget let the Chamber of Audit of Russian Federation to start investigation of activities of SEZs in 2010-2011 and in previous periods. We may sum up results of the investigation by following:

- In 2005-2011 Russian budget devoted RUR 87,7 billion for implementing SEZs-related projects. Only RUR 46,3 billion, or 53 %, has been spent in reality,

other budget money has been secured at the accounts of the governmental Vnesheconombank (VEB). In April 2011 there were about RUR 40 billion (i.e. € 1 billion) of deposits of the Joint-Share Company "Special Economic Zones" at the VEB accounts. SEZ in Saint-Petersburg at the end of 2010 has received from the JSC "SEZ" only \$55 million of \$440 million, which has been approved by Russian Budget for its development.

- Only 58 of 396 infrastructural projects has been completed up to the Chamber of Audit investigation (15% of planned).
- Only 206 of 288 residents of SEZs have started their projects in SEZs, and their real investments has reached the level of RUR 36,2 billion.
- Economic efficiency of budget resources in industrial zones, is about 1,9 rouble per 1 rouble of budgetary investments; in the case of technological and innovation SEZs the figure is even less impressive – RUR 0,3 per RUR 1 of budget money.

Analysis of the 2011 Chamber of Audit investigation lead us to conclusion that at this moment the whole project of SEZs faces serious structural and institutional problems, which Russian Government don't know how to deal with. We have to mention here slow construction of infrastructure for SEZs by regional authorities, bureaucratic inefficiency, red-tape, lack of Russian managers with practical skills.

The most problematic sector is nowadays the tourist and recreational SEZs. These zones are located mostly in areas with very poor transport infrastructure and are hardly accessible both for businesses to invest and tourists to travel. The only exception is the tourist special economic zone in Kaliningrad, but it faces another difficulty due to the fact that it is located in national nature reserve (The Kuronian Spit). Construction and development in such areas are restricted by many environmental as well as bureaucratic regulations. That's why prospects for business success of tourist SEZ in Kaliningrad are rather bleak today. Poor infrastructure and lack of free land prevent development activities in another ambitious Kaliningrad project – Special gambling zone near the Yantarny settlement.

Despite of obvious difficulties, related to SEZs' establishment, their legal regime, effectiveness of investments, etc, Russian Government continue to put emphasis on them as very important driving mechanisms of Russian economy's modernization. In March 2011 the Prime-Minister Vladimir Putin has announced that in existing SEZs period of activities, which includes special legal status and tax exemptions, should be prolonged from 20 years nowadays to 35-40 year in the near future. Today there are several drafts of Federal Laws discussed by Russian governmental officials and law-makers in the State Duma and the Council of Federation. They include removal of restrictions for residents of SEZs for non-profile forms of activities, i.e. ability to lease their premises to other residents, to provide food for company's employees, etc. Russian Government is intending to simplify the registration

process for residents of technological and innovation type of SEZs as well as utilize mechanism of liberalization of tax regime to attract more residents into existing zones.

Summing up our overview of the current state of SEZs genesis, we should conclude that despite of serious problems, Special Economic Zones are very significant engines of modernization of national economy both at the federal and regional levels of economic governance. That's why Russian authorities will continue putting political and financial resources in their development to avoid resource curse . But it is almost impossible for them to get any long-lasting positive results from such efforts without further reforms of state corporations, liberalization of economic practices, establishment competitive institutions in domestic economy and demonopolization of its sensitive sectors. Russian membership in WTO is crucial step on the way and successful special economic zones will move this liberal trend even further.

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## Six more years with Vladimir Putin

By Lena Jonson

On 24 September 2011 it was clearly demonstrated that Dmitry Medvedev's presidency had come to an end. He declared that he steps back in favour of the candidacy of Vladimir Putin in the March 2012 presidential elections. Medvedev's decision was perceived by most independent observers as the end of the 2009 modernization campaign and its embedded promises of political reform. Domestic critics regard the return of Putin as president a catastrophe for the country.

The serious problems described by Medvedev in his article "Russia, Go!" and in which he motivated the "modernization" campaign still exist. What Medvedev described as illnesses of a system, such as widespread corruption, lack of transparency, of democracy and rule of law, are as serious, or even more serious, today. How will Putin, during a third term as president, respond to these challenges? According to most Western observers and many Russian analysts, the Russian political system is highly obsolete in the context of the complexities of contemporary society. If Putin understood the scope of this challenge, his programme would be expected to include political reform.

Putin's critics do not expect political reform. In their analysis, Putin is both the creator of the present power system and its prisoner. He is at the top of a system created to guarantee him full control and stability. The power vertical, the large percentage of siloviki in state administration, and the Putin clan control of economic life are backbones of the system. At the same time corruption, which spreads due to lack of transparency and rule of law, undermines the very system and prevents control and management from above.

What Putin needs is to transfuse new blood into the system, blood which could help vitalise and modernize the system without revising its foundation. Yet, as pointed out by his critics, Putin has consummated a system where channels from below for demands, requests, and new ideas have been closed. Political alternatives are prevented by laws, regulations, and practices from above which make it utterly difficult for all efforts of independent political mobilization.

The United Russia party today constitutes the major channel for the communication of ideas upwards. Major career paths run through pro-Putin youth organizations. Although time has changed and no parallels should be made with the Soviet Communist Party nomenclatura, there are similarities with the way that alternative communication channels have been closed under Putin. The present system provides new faces but sorts out new ideas from reaching the official political discourse and agenda. Medvedev recently launched a website called "large government" to encourage new political ideas within the framework of United Russia's discourse. Yet, as long as there are no political mechanisms for introducing new ideas, except through the party of power, and no political institutions to be held accountable, "large government" innovations remain an illusion.

Putin has demonstrated, ever since he came to power in 2000 that his instincts as well as the instincts of the large contingent of siloviki in state decision-making positions, are to guarantee that the right of free speech, meetings, and demonstrations will remain highly restricted. As returning president he needs to try at least some piecemeal political reform during the years to come. Otherwise, six more years of restrictions postponing political reform could be highly counterproductive for his regime and for society at large.

According to sociological research, Russian society is undergoing deep changes. During the last more than one and a half years we have witnessed a trend of reduced support for the United Russia party, and for Medvedev and Putin. United

Russia is, however, guaranteed a majority in the State Duma, and Putin can be sure of being elected next March. Research shows that the strongest critics live in the large cities and belong to the middle class, individuals who have no party to articulate their demands. Some sociologists talk in terms of a "crisis in political confidence". Civic grass-root movements have mobilized people on specific issues and there are reports of spontaneous and temporary organizations and manifestations around the country by wider social groups in society on issues such as benefits, housing and employment. The use of laughter, irony and satire as political weapons by the democratic opposition during the last autumn are signs of a new political atmosphere in society.

Thus, the future President will meet a completely new situation with regard to the mood of the population. However, as pointed out by several analysts, the new situation includes not only discontent from the democratic opposition. Far stronger are the ultra-right nationalists fed by frustrated discontent and xenophobia. Putin seems more receptive to the mood and arguments from this constituency. He might have been taken by surprise by the mass manifestation of the almost 10.000 frustrated xenophobic young men at the Manezh Square in December 2010. He knows the strength of these moods, and he has on several occasions demonstrated his will to play the nationalist card. Therefore, he also cautiously prevents the nationalists from creating any independent organization outside or within the official party system.

With an economy highly dependent upon the export on oil and gas, and a state budget based on expectations on high world market prices on energy, Russia is vulnerable to fluctuations. The budget adopted recently for the period 2012-2014 with cuts of means to the social sector and increases to defence and internal security give small margins in case popular discontent would explode.

The issue of political reform will, whether he wants it or not, haunt Putin during the coming years. As he is basically unwilling to respond to such demands, Putin will take on measures to prevent them from spreading. But this may instead give nourishment for the opposition to grow. While the parties of the democratic opposition are viewed as no alternative for most people as demonstrated by opinion polls, a new generation of democratic leaders may appear from the civic grass-root movements. People like Alexei Navalnyi, Evgeniya Chirikova and Ilya Yasin may be among a future generation of leaders. However, if a reform movement is to succeed, a major role must be played by reform-minded groups already within the political elite. So far, there are no signs of this. The Putin elite seems united so far.

The changes in the Russian political atmosphere during the last one and a half years may be the faint sign of something new in the making, so far mainly hidden under the surface. Although this new popular energy may not materialize in the short run, at the end of the day it may become important, perhaps decisive, for political reform and modernization. This is something that a Putin 2.0 needs to take into account.

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## The outline of political reforms in future Russia

By Kirill Rodionov

In September Vladimir Putin and Dmitry Medvedev declared a new configuration of the executive authority for the nearest 6 years. The reshuffle within the tandem became yet another act in the process of the power vertical strengthening, which started after Boris Eltsin had quitted as the President of the country. Political analysts are calculating how old the Nation Leader will be in 2024 and they draw parallels with the period of Brezhnev's stagnation. Is everything that fatal? Can one expect any changes?

In Russia the periods of political «warming up» and «cooling down» are synchronized with the periods of strengthening and weakening in the West. For example, the transition from NEP to the policy of collectivization, accelerated industrialization and mass terror occurred at the same time with the beginning of the Great Depression. Fast postwar recovery of Europe, consolidation of the Western countries under the authority of USA were the important factors of the situation, when by 1953 most of the Soviet elite had realized the necessity of reforms. The transition from Khrushchiov-Kosygin's reformation to the conservation of the USSR political system coincided in time with the Student Revolutions of 1968 and the following crisis of 1970s in the West (stagflation and energy crises of 1973 and 1979).

The world situation underwent a sweeping change in the 80s - «neoliberal revolution» of Reagan and Thatcher, democratic transformation of the South European countries, and the beginning of the market reforms in China also brought the politics in the USSR to the understanding that some reforms were necessary. Under the conditions of slump in oil prices in the middle of the 80s, acceleration of the European integration, a dynamic economic growth in the developed countries and reinforcement of the USA international influence Russia had to make radical reorganization of its socio-political and economic systems. But at the turn of the millennium the global situation changed once again – the crash of NASDAQ high-tech market in 2000, recession in the USA in 2001, the terrorist attack in 2001, difficulties of the USA in Iraq and Afghanistan, the failure of the referendum for ratification of the EU Constitution in 2004, the beginning of the mortgage crisis in the USA in 2007, and the financial turmoil of 2008-2009 indicate weakening of the Western countries in the first decade of the 21st century. Meanwhile in Russia certain authoritarian tendencies have started to gain momentum – the central TV channels takeover by the Kremlin, the raise of cutoff point for the political parties to pass to the State Duma, and the cancellation of gubernatorial elections.

The world economic crisis, which has started in 2008, is of a systemic character. Like the crises of the 30s and 70s, this crisis will be over only after a fundamental transformation of the world economy, including the formation of a new model for economic regulation, global economic cooperation and international currency relations. As the Great Depression and stagflation crisis experience shows, the development and implementation period for the new institutions and economic development mechanisms which is characterized by instability of the world economy usually lasts about 10 years. That's why it may be assumed that the world economy will return to the stable growth in the 2020s. Apparently, Russia will have to go through a radical reorganization at that very period, so as to adapt to the changes occurring at the global stage.

What will be the nature of the country's future transformation? After 1991 Russia made an attempt of triple transition – from the Empire to the nation, from the plan to the market and from totalitarianism to democracy. It was only the transition from the Soviet planned economy to the market economy that turned out to be relatively successful. Without doubt, there are many problems in Russian economy today: strong budget dependence on oil and gas revenues, bloating government sector, low efficiency of the regulating institutions. However these problems are related to the overcoming Soviet heritage only to some degree - most of the oil net supplying countries face similar challenges. The problems of building a functioning democracy and creating a political nation turned out to be more difficult. The reformers of the future generations will have to solve these problems.

### Political Reform

The configuration of the branches of government will be the most important aspect of the future political reform. The actual unaccountability of the Government to the Parliament was one of the main weaknesses of the Constitution of 1993. During the last fifteen years the bodies of legislative power have had practically no influence on the ministerial formation. In addition, the Lower House of the Russian Parliament didn't bear any political liability for the realization consequences of its decisions, and that made a negative impact on the lawmaking. The imbalance in the powers of the legislative and executive branches of government blocked the democratic process in 1990s and stimulated the strengthening of the authoritative tendencies in later years. In order to make the Government accountable to the Parliament it is necessary to link the ministerial formation procedure to the results of the Parliament elections.

### Creation of the National State

Throughout the greater part of its history Russia hasn't been a national state, but a territorially integrated empire. Russia's existence as the mother country which united its conquered colonies justified the need for strong authoritative power which controlled separatism of the outskirts. After 1991 the empire has partially reproduced itself - the modern Russia includes regions which do not belong to it in the historical and cultural context, such as the North Caucasus. As in the Russian Empire and the Soviet Union the integration of regions in post-Soviet Russia is ensured by the vertical power and suppression of any spontaneous national movements. Personalistic regimes are formed in the national republics, which form the background for future separation from Russia. In the future Russia must be reconsidered as the National Russian State.

The formation of the National State must be accompanied by the entrance into the supranational communities of the Western world. Today there are no real preconditions for deep integration of Russia with the Western world. But China can play an important role in the future. This country is becoming the main competitor of the USA at the global level. As after the Second World War the Soviet menace was the reason for including Germany into the geopolitical space of the West, so modern China can be the key factor in the rapprochement between Russia and the developed countries.

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## Belarus – no economic miracle for free

By Anaïs Marin

Last summer the Belarusian blogosphere circulated an announcement inviting internet users to the virtual funerals of the “Belarusian economic miracle”. Recent developments in Belarus-Russian relations show that the death notice was premature however: albeit weakened by a year of financial hardships, Belarus’ unsustainable economy has once again been rescued.

Isolated by the West since his last controversial re-election on 19 December 2010, Aliaksandr Lukashenka had but Moscow to turn to for economic support. In signing a series of agreements he recently secured the inflow of the Russian credits and subsidies desperately needed for maintaining the Belarusian economy afloat. These funds should also help him save his own skin in the process. Lukashenka’s paternalistic governance model being the cornerstone of his alleged “social contract” with Belarusians – whereby they would accept his autocratic rule in exchange for relative prosperity – any reduction in the generous social policies towards the population could jeopardize the stability of the regime itself.

Salvation has a cost however. Preserving Belarus’ Soviet-like economic model implies further delaying the structural reforms deemed indispensable to make the Belarusian economy competitive. More importantly, Russian support does not come for free, but in return for concessions which make Belarus more dependent on its neighbor for direct investments, cheap energy resources and hard currency.

Shortage of foreign currency is actually what triggered the down-spiraling of the Belarusian economy starting in January 2011, when the deficit of Belarus’ trade balance almost reached \$1bn. It is now estimated to approximate \$5bn, while foreign currency reserves have dwindled to \$4bn, although Belarus would need three times more cash to cover three months of its export needs. The third alarming macro-economic unbalance that appeared in the course of the past years is public indebtedness: Belarus’ foreign debt increased to \$25bn in January 2011 and it now amounts to over 56% of GDP.

The combination of these factors has put inflationary pressures on the already weakened Belarusian economy. According to Central Bank estimates, inflation could bypass 100% year-on-year by the beginning of 2012. The authorities responded to the subsequent depreciation of the national currency in devaluing the Belarusian ruble, first in late May by 56%, then again on 20 October, bringing its value against the US dollar to BYR 8680, whereas it was slightly over BYR 3000 one year ago.

The social consequences of the unfolding crisis are manifold. Several industries that cannot pay back their debts had to cut their production and lay off personnel. Inflation, devaluation and rising unemployment have eaten up the populist pay raises decided before the elections, when the average monthly salary of state-paid employees (ie. 70% of the Belarusian workforce) was raised to the symbolic level of \$500 equivalent. In real terms, the average purchasing power of Belarusians has now fallen to \$230.

Belarusians have reacted to this worsening economic situation with strategies of “exit and voice”. Labor emigration has exploded over the past months. Already before the crisis, 1mln Belarusians (20% of the working population) was employed abroad. The figure is on the rise, with Russia and Ukraine as favorite destinations, given that in the absence of a framework agreement on visas and mobility, access to the EU job market is almost closed for Belarusians.

Disappointment with the regime for mishandling the economic crisis was first voiced out in June when car-drivers

organized a slow-down action that paralyzed central Minsk following an increase in gasoline prices. The two following months, silent street demonstrations gathered thousands of protesters in several Belarusian towns on Wednesdays. Organized through social networks, this unprecedented wave of social unrest seriously worried the regime, which responded with violent repression and a tightening of the anti-riot legislation.

Adding to the ongoing crackdown against the political opposition, the worsening of the human rights situation in Belarus deprives the regime of any hope to obtain loans from Western countries and the IMF. Against this background, the aid package provided by Russia in November, the most generous “present” Belarus ever received in the past 20 years, is a godsend for Lukashenka: it allows his regime to “buy” social peace. This should be facilitated by the transfer of the second tranche, worth \$400mln, of a \$3bn three-year loan granted by the Eurasian Economic Community’s Stabilization Fund earlier this year.

In exchange, official Minsk apparently committed itself to supporting Russia’s reintegration plans of the post-Soviet economic space, made public by Vladimir Putin on 4 October. Lukashenka enthusiastically responded to this initiative of creating a “Eurasian Union” on the basis of the existing Customs Union of Russia, Belarus and Kazakhstan and on 18 November he signed the subsequent trilateral declaration. That same day, Russia’s Sberbank granted a \$1bn loan to Belarus.

Moscow’s aid package includes several other “rewards”, but such generosity is not altruistic: in trading its financial aid for geopolitical loyalty, Russia is strengthening its control over Belarus.

This is especially true in the energy field. On 25 November the representatives of the Union state of Russia and Belarus signed a contract on the conditions for supply and transit of Russian natural gas for 2012-14 which provides for prices to decrease to \$165 per 1000m<sup>3</sup>. This is about 40% less than what Belarus is currently paying, and represents a saving of \$2bn annually. In return for the rebate, official Minsk agreed to finalize the sale to Gazprom of the remaining 50% stakes of Beltransgaz, the state company owning the Belarusian pipeline network. Other privatization deals should follow that will allow the Belarusian regime to amass hard currency in exchange for selling out Belarus’ industrial assets.

Lukashenka’s unsustainable economic model has once again been miraculously rescued, but Belarusians will have to pay Russia back in kind – thus putting the very sovereignty of their country under serious threat.

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# Economic cooperation around the Baltic Sea – in search of efficiency and good governance

By Barbro Widing

The recent EU Council conclusions on the review of the EU Strategy for the Baltic Sea Region (EUSBSR) and its annual meeting in Gdansk give reason to look at cooperation out of the box. Gdansk is well on its way to regain past splendour, but how is the international economic situation and public debt crises affecting cooperation around the Baltic Sea? Which are the outlooks for economic cooperation? How can we promote small and medium sized companies and their market access over the borders and improve good governance, too?

During the last twenty years networks have emerged and fell into oblivion. Most of them are not good at informing externally about their activities. Usually not horizontal nor cross sectorial, the networks are mainly paying attention to the stakeholders already engaged. When active people involved change jobs, organisations tend to stay, but dormant. As we know, there is no lack of organisations ranging from intergovernmental, regional, sub regional, cities to private-public networks and organisations.

Lately the intergovernmental regional councils of the north, viz. the Nordic Council, the Barents Euroarctic Council, the Arctic Council and the Council of Baltic Sea States have increased the exchange of information of activities. Consolidating resources in an umbrella organisation for Northern Europe, top of Europe, with separate regional chambers, have not been an issue of discussion. This lack of interest can partly be explained by different structures and memberships of the regional councils above. The oldest of them, the Nordic Council and the Nordic Council of Ministers have managed to develop a pragmatic structure based on five states and three autonomous regions. Their office in Vilnius support civic society development in Belarus. Estonia, Latvia and Lithuania have joined as co-owners of the Nordic Investment Bank. In addition there are some NB 8 and + dialogues.

During the first years of existence EUSBSR has led to further activation of collaboration networks. Some 80 projects are on track based on the vision to enable a sustainable environment, to enhance the region's prosperity, to increase accessibility and attractiveness and to ensure safety and security in the region. However, a closer look reveals that many of the reported projects were on the way already before EUSBSR. Due to practical restraints most projects do not involve partners from the entire region.

In this time of scarcity there is an obvious need of analytic thinking and new ways of working: how could we be better at tackling the real problems of our societies? Are we ready to develop collaboration into real coordination?

EUSBSR is the first macro-regional strategy of EU. It is built on a comprehensive approach to address cross-cutting or horizontal topics and cross border challenges. Obvious building blocks are transport, ICT and energy networks, but much could be achieved in other fields as well – if there is political will. A strategic step is the new linkage between the EUSBSR activities and the Europe 2020 goals. It implies identification of actions benefitting also from cooperation between neighbouring countries. However, as national administration is well established in sectors, the benefits of macro-regional strategic actions are obviously a challenge. As a first step for cross border actions towards a macro-region, is there political will to streamline regional cooperation processes in the participating countries? The process would benefit from an allocated technical assistance for the whole macro-region in the EU Cohesion Policy structures. The proposed partnership agreements between the member states and the EU commission on the future focus of EU structural funds are major building blocks towards macro-regions. Another main contribution is aligning of funding from various EU funds and other international finance institutions further. The envisaged overall assessment of macro-regional strategies and the evaluation of their added value in 2013, demand practical experience to be compiled soon.

The preparations for the second macro-regional strategy, viz. the EU Danube strategy, benefitted from previous EUSBSR work.

The analysis for the EU Danube strategy brought forward strategic thinking in setting *targets for cooperative actions*. This could be a straight way to compile the rather fragmented activities of the EUSBSR. Consequently, setting targets also for economic cooperation and its priority areas would promote horizontal actions around the Baltic Sea. Discussions about targets may serve as a door opener between different sectors and start co-creative processes. Such a process might promote refocusing EUSBSR cooperation on the most urgent and challenging problems for the region, which are macro-regional. However, horizontal action is not an easy way of cooperation and the process must rely on *political commitment at all levels*.

Success in the next review of EUSBSR in 2012 presuppose effective third country involvement in solving macro-regional challenges. Today the Northern Dimension, the Council of Baltic Sea States, the Nordic Council of Ministers and HELCOM are main cooperation platforms to involve non EU members in the region. How to ensure overall coordination of all the implementation activities? Involving relevant cooperation partners, in particular the Russian Federation, must be made as easy and direct as possible.

While not forgetting north-south dimensions of the EUSBSR, prosperity of the Baltic Sea Region is based on openness and dialogue with the surrounding world. Participation of relevant cooperation "outsiders" is especially valuable when using the EUSBSR as a globalisation strategy. Thus involving any relevant cooperation partners from outside the region should not be excluded.<sup>1</sup>

## Tasks ahead

Finnish small and medium sized companies represent less than a fifth of total exports from Finland, much less than in other similar countries. Specific national action is needed to push them out of their "comfort zone" and assist in forming new alliances to strengthen their potential and global competitiveness, thus creating new jobs as well.

When aiming at better alignment of existing sources of funding in the macro-region, venture capital should not be forgotten. The international debt crises made it difficult for SMEs to finance their investments. At present the venture market regulation is national, but the SMEs would largely benefit from a harmonised regional venture capital market.

In Gdansk the first political state of the region report was presented. It also contained some interesting regional analysis e.g. on labour migration. What could regionally be done to promote labour mobility? Another important cornerstone would be to regionally harmonise the mutual recognition of degrees over the borders.

The cooperation envisaged above could well be test cases in the renewal of the Council of Baltic Sea States in its endeavours towards long term sustainable growth. Using our region as a testing ground for public policy and public private partnerships are worth exploring – especially in difficult times.

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<sup>1</sup> A good example is the EPSIS project where Finland coordinates work together with Denmark, Sweden and the United Kingdom to support service innovation. In the European Service Innovation. Think Tank the partners and 10 additional European public authorities focus on the design and implementation of service innovation support.

## Russia's 2012/2013 CBSS Presidency

By Dmitri Lanko

On July 1, 2012 the Russian Federation will take over the Presidency of the Council of Baltic Sea States from Germany. This time Russia appears to be better prepared for the Presidency compared to 2001/2002, when it held the Presidency for the last time. In late 2000 Russian diplomats serving for the Second European Department of the Russian Foreign Ministry, which is responsible for Russia's relations with countries of Northern Europe, including Nordic and Baltic States as well as the CBSS and other regional organizations, did not yet know what the priorities of the Presidency to start in half a year time were going to be. Today they know. There will be two major priorities. First, in line with the keyword of contemporary Russian politics, it is going to be cooperation for modernization. Second, in line with the guidelines of Russian policy towards Europe in general, it is going to be simplification of visa regimes.

The focus on modernization underlines the continuity between the Russian Presidency and the current German Presidency. One aim of the German Presidency was the modernize the south-eastern part of the Baltic Sea Region, under which Germany and Russia mean the Kaliningrad Region of the Russian Federation and neighboring areas of Lithuania and Poland. In line with that priority SEBA – Modernization Partnership for South East Baltic Area – has been established. During its presidency, Russia will do its best to attract more partners from among both public and private entities, first of all, to attract investors to infrastructure projects comparable to establishment of the ferry line connecting the seaport of Baltiysk in the Kaliningrad Region with both mainland Russia and foreign ports.

Russia will even go further and propose to establish an expert group on modernization under the auspices of the CBSS, taking the Expert Group on Sustainable Development – Baltic 21 as example. At the same time, Russian modernization discourse is widely criticized both outside and inside Russia. First, an important part of the context of modernization in Russia is the presidency of Dmitry Medvedev in 2008 – 2012, who made modernization a keyword of his term. As Medvedev is not planning to seek reelection in 2012, one may predict that the very word of modernization will disappear from the vocabulary of Russian diplomats and civil servants. Second, the outcomes of Medvedev's modernization face criticism for its focus on the soft and inability to tackle the hard problems of contemporary Russian economy.

Water supply infrastructure in Russian cities provides with a good example here. A feature of the infrastructure, which Russia inherited from the Soviet Union, is that it has to undergo maintenance annually; the maintenance usually takes around three weeks, when hot water is not supplied to residential buildings. Medvedev's modernization plan does not foresee reconstruction of hardware in order to shorten or even eliminate the three-week-long maintenance period; instead, it foresees soft improvement – setting a web site, which informs the residents of when exactly hot water will not be supplied to their homes. Though being an improvement, such kind of modernization fails to attract support of public opinion.

The focus on simplification of visa regimes underlines the continuity between the Russian Presidency and the

Norwegian Presidency, which preceded the German Presidency. Though fight against trafficking in human beings was declared a priority of Norwegian Presidency, Norway decided to achieve it not via strengthening, but via lightening visa regime with Russia. In early 2011 Russia and Norway agreed on visa-free travel for residents in a 30-kilometer-wide zone on each side of the border between the two countries. The agreement will come in force in early 2012. It has already attracted attention of some other CBSS members: Poland and Lithuania would like to reach a similar agreement concerning residents of the Kaliningrad Region and neighboring areas of those countries, Latvia is interested in an agreement of the kind too.

During its Presidency, Russia will do its best to intensify negotiations on those agreements. Russian diplomats have already declared that the Russian-Norwegian agreement is the first step towards establishment of the common space of freedom between Russia and the European Union as agreed between the parties in St. Petersburg in 2003; in Russian view, the common space of freedom will allow all Russian citizens to travel visa-free to all Schengen countries and to the United Kingdom and Ireland. Declaring a priority within the CBSS being in line with Russian relations with the EU is a significant change in Russian policy towards the Baltic Sea Region; previously Russian diplomats have been very skeptical about the role of the European Commission in the CBSS, especially about its efforts aimed at standardizing of projects fulfilled under the auspices of the CBSS and other sub-regional institutions.

During its Presidency, Russia will also seek for continuity between its Presidency and the forthcoming Finnish Presidency. Thus, continuity with previous and future Presidencies is the keyword of Russia's 2012/2013 CBSS Presidency. Russia has overcome its isolationism in terms of that it sets top priorities of its Presidency in a dialogue with foreign partners. However, Russia remains an isolated country in terms of that its Foreign Ministry continues being isolated from other Russian actors interested in cooperation in the Baltic Sea Region, including companies, NGOs and think tanks. Priorities of Russia's presidency have not been initiated by those actors bottom-up. Instead, Russian Foreign Ministry will seek for partners in Russia to implement the priorities top-down. Those wishing to see improvements in this aspect must wait till Russia's 2023/2024 CBSS Presidency.

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## Finland, and migration in the Baltic Sea Region

By Ismo Söderling

The current population of Finland is approximately 5.3 million. Just like the inhabitants of the other Nordic countries, many Finns have emigrated over time. The biggest migrations were directed at North America in the late 1800s and Sweden after the Second World War. Currently about 600,000 people in the United States claim Finnish heritage in the census, and in Sweden, the corresponding number is about 400,000. Finland is different from the other Nordic countries in that post-war emigration in particular has been quite active. In the case of Sweden the main attraction was our westerly neighbor's economic boom-time and Finland's own mass unemployment. In that respect, the migration to Sweden is somewhat similar to the current migration from Estonia to Finland.

Of Finland's inhabitants 2.7 % are foreign nationals; in other words, a substantially lower percentage than the EU27 average of 6.4 %. As a matter of fact, Finland's figure is the lowest in all of Western Europe; in the EU's present composition the only countries that lag behind Finland in relative terms are all former Socialist countries.

The size of the foreign population in Finland depends on how it is defined. The statistics below give an indication of the number of people with immigrant backgrounds currently living in Finland.

- At the end of 2010, there were 225,000 people in Finland who spoke a foreign language (i.e. not Finnish, Swedish or Sami).
- Approximately 168,000 foreign nationals were living in the country.
- There were 195,000 foreign-born people who spoke a language other than Finnish.

Depending on the criteria for defining "foreigners", the difference between the different immigrant categories can be as much as 30 %. The biggest immigrant groups had moved to Finland from Estonia and Russia.

### What is the future of immigration to Finland?

In 1995, when I gave a lecture on immigration, I commented that *"I assume that in twenty years, there will be approximately 200,000 immigrants living in Finland, in other words, four times their current number"*. The scale of my prediction roused some polemics among the audience and the other presenters. In the space of 15 years, however, we had already reached that number. What about going forward? It is always difficult to predict the future, but we do have a few demographic facts at our disposal. Our current fertility rate is 1.85 – despite the high level, it nevertheless remains below natural population growth. According to an estimate by Statistics Finland, mortality will surpass births in Finland by 2036. If the prediction is accurate, Finland's population growth will rely solely on immigration after that point.

But who are the potential new arrivals? That will certainly depend on the immigration policy practiced in our country. At the moment Finland has no active immigration policy. In terms of present immigration, one-third of immigrants come for employment-related reasons while two-thirds come because of family or educational reasons. In most other Western nations, this ratio is the reverse.

We will probably not see a major change in the main migration flows soon. The so-called great migrations from

Russia have not yet occurred, so the pressure to migrate from there to Finland will probably continue. The same is true for Estonia – though with certain caveats: some of the migration pressure from Estonia toward Finland may morph into work commuting. Estonians might work in Finland but still keep their home in Estonia. Asians, on the other hand, are well-known for their strong family networks and hence we will probably continue to see ongoing migration to Finland from Vietnam, India, China and Thailand.

In an article published in 1994, I wrote as follows:

*"The real migration pressure toward Europe comes from the Islamic countries in the Mediterranean Region. Two factors increase the likelihood of such migration: first, there is a decades-long tradition of migration to Europe. Second, population growth in the region is reaching proportions that will inevitably lead to some degree of migration pressure. For example, in Central Europe, there is one person under the age of 20 for each 60-year-old. In North Africa, the same ratio is 10 young people for each 60-year-old. The populations of Algeria, Morocco and Tunisia are expected to double over the next 25 years. In addition, many less-developed Third World countries suffer from political instability (Algeria, for example) and economic recession. Leaving the Sahara behind and looking toward Europe will certainly be a challenge for Hassan"*.

There are probably about 10 million immigrants from North African countries currently living in Western Europe, which makes the EU a natural immigration destination for North Africans. In order to promote greater economic and political stability in the so-called Maghreb countries it is important for the EU to economically engage these countries more effectively, enclosing the Mediterranean Sea within a single economic region. Whenever there is a political vacuum, someone will step in to fill it – and right now, the EU is in the midst of a grace period. Finland, too, will be affected by some of this migration pressure in the future.

### Population projections in the Baltic Sea Region

The EU countries along the coast of the Baltic Sea (Finland, the Baltic countries, Sweden, Poland, Germany) now have a total population of about 141 million. According to Eurostat projections (Population Project), by 2050 the combined population of these countries will decline by nearly 10 million. The most worrisome aspect of this is that the population of Germany, which has been the engine behind EU's economic growth, already began to decline in 2004. The Baltic countries are also expected to lose about 10 % of their populations over the next four decades. The Nordic countries are in a somewhat better position in that their populations are experiencing growth.

Population researchers put a high value on the Nordic welfare model and its family policies that support child rearing and family formation in general. Even now, Nordic fertility rates clearly surpass those of other countries in the Baltic Sea Region. According to family researchers, what contributes to fertility is not just the welfare model, but also Nordic equality practices: the more equal the roles within families, the higher the number of children born to them.

**Summing up**

Finland has become an immigration-receiving country as the last one of the Nordic countries. The greatest number of new arrivals has come from neighboring areas, i.e. Russia and Estonia. Immigration to Finland is characterized by being largely motivated by family-related migration. Employment migration to Finland has at least so far been minor. The growing economic cooperation between Estonia and Finland will probably mean that, as a result of the countries' close geographic proximity, some segment of migration will be replaced by cross-border work commuting. In that case, some of the Estonians working in Helsinki will continue to maintain homes on the eastern side of the Gulf of Finland. Such cross-border employment regions have already formed between Germany and Poland.

The population of the Baltic Sea Region is in decline. The most troubling situation is in the Baltic countries, whose populations are predicted to decline by as much as 10 % over the next generation. In addition to growing migration, the plummeting birth rate is contributing to the decline. For example, the birth rate in the Catholic Poland

is currently approximately 1.4, at the same level as Italy's. According to family researchers, the Nordic welfare model and particularly its family-friendly policies encourage people to have children. Similarly, gender equality has been shown to have a positive effect on the number of children born.

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## Joint promotion of the Baltic Sea Region – triple helix cooperation in practice

By Malla Paajanen and Riitta Kosonen

The climate of global competition has forced economies to look for growth potential in wider contexts than ever before. Macro-regional promotion, such as promotion of the Baltic Sea Region (BSR), shifts cities and countries from their traditional competitive positions to joint promotion and cooperation. The experience from the two-year project BaltMet Promo proves that the macro-regional promotion is challenging, but doable, and it can be successful and rewarding if the promotion work has been planned carefully. Most importantly, implementation of the work plan becomes substantially stronger if the cooperation platform comprises all critical stakeholders. The triple helix structure that brings together the business, research and education, and public sector is not the easiest tool to use, but its power is incontestable, as shown in the case of BaltMet Promo.

Promotional activities to attract tourists or investors are typical for cities, regions, and nations. Less frequently these activities are implemented on macro-regional level. However, the macro-regional perspective is gradually catching on in policy making, and even in strategy-building. The EU Strategy for the Baltic Sea Region (EUSBSR) represents the first comprehensive strategy covering several community policies that is targeted on a macro-region. In EUSBSR regional identity building has been identified as one of the horizontal activities.

The BaltMet Promo project partnership consisted of five city members of the BaltMet network, with City of Helsinki as the lead partner, research institutions, and the Baltic Development Forum that initiated the first BSR branding effort in 2007. The partnership covered six BSR countries (Finland, Latvia, Lithuania, Poland, Germany and Denmark) and received part-financing from the Baltic Sea Region Programme in 2010-11. In EUSBSR, BaltMet Promo was given the role to report on developments in regional identity building in different on-going projects. The project was coordinated by CEMAT at the Aalto University School of Economics, Helsinki.

BaltMet Promo was built on triple helix cooperation. In macro-regional promotion the triple helix approach is a necessity because no single stakeholder group has a mandate, motivation or obligation to take promotion agenda for the whole region. There is no owner, or authority, to claim 'property rights' on a macro-region such as BSR.

The project worked with a bottom-up approach. The core was to build three products that are of macro-regional nature. These 'BSR products' were designed in tourism, filmmaking talent, and investments. The product building process was not to create macro-regional products from scratch, rather it was product packaging. First, comprehensive research was compiled on the supply and demand for each product. In the next phase the research knowledge was delivered to the pilot team which consisted of specialists representing the project partners and business sector. Finally, the products were launched to their target market.

Two of the three pilot products chose Japan as the target market. In tourism, the Baltic Sea Region tourism product with a title 'Live like locals' invited Japanese tourists to experience the BSR cities in the local way. This meant, for instance, staying in an apartment instead of a hotel, walking in the fish market instead of taking a guided bus tour, or visiting a blacksmith studio instead of a museum. As the test market, three Japanese bloggers were selected to visit the Region in three different city combinations: Helsinki-St. Petersburg, Berlin-Warsaw, and Vilnius, Riga, and Tallinn. During their stay these Japanese young women kept blog of their travel experience, and their regular blog readers were able to follow their route in real-time and learn about their tips for what to do

and see. After the bloggers' visit to the destinations, their stories were delivered to Tokyo at the international JATA tourism fair in which representatives of the cities met with tourism agencies to gain their interest to add the 'Live like locals' product to their destination categories.

The filmmaking pilot product was designed as a 3-day coproduction forum for 10 young film directors, script writers and producers from BSR and 10 from Japan. The BSR-Japan Coproduction Forum was held in Vilnius in November gaining synergies with Scanorama international film festival which was held at the same time. The coproduction forum offered these 20 young professionals an opportunity to present their ideas on a 'pitching forum' to an distinguished panel of professionals. For many young filmmakers this was the first occasion of this kind. The interactive format of the forum was appreciated as in filmmaking like in all creative industries networking is a fundamental part of building a professional career. A virtual guidebook with country-specific information on filmmaking was also published to support coproduction between BSR and Japan.

The investment pilot organized Investor's Panels at two international trade fairs at MIPIM and Hannover Messe to introduce the region's strongholds as well as a Matchmaking event enabling investors to meet representatives from companies in BSR. An Investor's Guide was also published to present the Region's competitive advantages for investors.

Based on the experience from BaltMet Promo, macro-regional promotion can gain from a bottom-up approach that underlines the role of careful product building and wide stakeholder cooperation. This underlines the necessity to gain the business sector's interest to see the business potential in macro-regional product building and clustering. Even when the business potential is easy to acknowledge, its capitalization is neither easy nor fast. The BaltMet Promo story proves that cities and universities can have a substantial role in coordinating triple helix cooperation. Most efficiently this can be done by forming the triple helix cooperation platform that recognizes the natural division of roles; the business sector as product providers, universities as source of information about the market situation and potential, and cities and promotional organizations as nodes of contacts and communication.

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## Words cannot save the Baltic Sea

By Liisa Rohweder

The need of intensifying the protection of the marine environment of the Baltic Sea and the sustainable use of its resources is a widely accepted truth. If we do not act now, we might lose the beautiful sea and its ecosystem forever.

The WWF Baltic Ecoregion Programme, comprised of WWF and partner organizations in each of the 9 coastal Baltic Sea countries, has been working for decades to protect the Baltic Sea. We have stressed the need for bold, hi-level political leadership to address the many challenges facing the Baltic Sea and have thus been active in influencing a number of agreements and conventions agreed by Baltic Sea governments intended to 'save the sea'. WWF Finland is one of the partner organizations in the Baltic Ecoregion Programme.

Words and agreements, however, cannot 'save' the Baltic Sea without the delivery and follow-through of the promises made. In 2007 we began to evaluate the degree to which governments were delivering upon their stated commitments – in the form of 'Scorecard' reports. Unfortunately, one of the key conclusions from these scorecard reports was that there was a growing gap between the statements and commitments made by governments and the corresponding actions needed to actually deliver upon their promises.

The latest WWF Baltic Sea Scorecard report was launched in August 2011. This report measured each of the nine coastal Baltic Sea countries' performance in implementing some of the most important international, regional and European agreements and conventions designed to manage and protect the Baltic Sea. On the basis of commitments made in these agreements, the 2011 scorecard assessed a limited number of key indicators within five focal areas of crucial importance to the Baltic Sea and its health: Eutrophication, Hazardous Substances, the Protection of Biodiversity, Maritime Activities, and Integrated Sea Use Management – the last being a more integrated approach to planning and managing the use of the sea and its resources. These five areas are all interlinked and dependent on each other. Negative or positive trends within one area will have immediate effects on the other areas as well. Special consideration was taken to grade Russia on a similar scale, even though all agreements and policies did not apply, as Russia is not an EU Member.

The Scorecard measured what each of the 9 governments actually delivered in these crucial areas and therefore how well political commitments were being met – as no agreement – no matter how ambitious – can be successful without equally ambitious delivery and implementation. The results of the analysis was expressed in 4 grade levels – from the top grade of 'A' to the weakest grade 'C' and at the bottom of the scale is an 'F' indicating a failing grade.

The results of the 2011 Scorecard are disappointing; the total grade for the whole region is an F, indicating that governments have failed to take their responsibility in the work to improve the situation for the Baltic Sea. At the top of the scores are Germany and Sweden, both earning a C grade. All other countries received an F. Finland ranked third, followed by Denmark, Estonia, Lithuania, Poland, Latvia and Russia in last place.

The areas of most concern regarding lack of adequate follow-through by governments include Eutrophication and the Protection of Biodiversity, which unfortunately reflects well the poor situation in the Baltic Sea with yearly algal blooms and declining species and habitats. There has been some improvement when compared with earlier scorecards in the areas of Hazardous Substances, Maritime Activities and Integrated Sea Use Management, even though the overall score, for all countries together, in each of these areas is still only a C.

As the Scorecard demonstrates, words and agreements cannot 'save' the Baltic Sea without the delivery and follow-through of the promises made. These poor grades clearly indicate that the Baltic Sea countries are still failing to deliver upon their commitments and take the actions needed to protect and restore the Baltic Sea.

Baltic Sea Governments must show leadership and demonstrate their leadership and with actions, not only words. This and future Scorecards will continue to highlight the difference between commitments and delivery as the lack of action today is undermining the ambitions to save the Baltic Sea.

In addition to implementing existing agreements it is also time for governments to reform policies so that they work in harmony and not at cross-purposes which is too often the case today.

There is for example a need to redirect the EU Common Agricultural Policy from the current emphasis on intensification - which contributes to increased eutrophication - to instead supporting farmers to investing in sustainable agriculture which can promote biodiversity and a clean thriving rural environment.

Another example is the need to reform the EU Common Fisheries Policy to stop overfishing and ensure the sustainability of fish stocks, ecosystems and fishing communities.

And while government action and leadership is essential, it is not enough. It is the collective responsibility of all 'users' of the Baltic Sea's resources - businesses, communities, individuals, and civil society - to come together to secure the protection and sustainable development of this region.

We intend to revisit the Scorecard in the coming years in order to measure and monitor Government's progress – and see if they are, in fact, doing what they promised. We hope that providing a picture of the current situation will help encourage countries, governments, corporations and individuals to engage in and speed up the fight to protect and restore our joint treasure – the Baltic Sea.

For more information about the scorecard, please visit: [http://wwf.panda.org/what\\_we\\_do/where\\_we\\_work/baltic/publications/?201517/WWF-Baltic-Sea-Scorecard-2011-Report](http://wwf.panda.org/what_we_do/where_we_work/baltic/publications/?201517/WWF-Baltic-Sea-Scorecard-2011-Report) or <http://wwf.fi>

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Table 1. Summary of results

| Countries            | Eutrophication | Hazardous substances | Biodiversity  | Maritime activities | ISUM          | Total Score    | Grade    |
|----------------------|----------------|----------------------|---------------|---------------------|---------------|----------------|----------|
| Denmark              | 8/24           | 7/12                 | 4/15          | 6/13                | 3/15          | 28/79          | F        |
| Estonia              | 5/24           | 6/12                 | 3/15          | 7/13                | 5/15          | 26/79          | F        |
| Finland              | 5/24           | 9/12                 | 2/15          | 8/13                | 5/15          | 29/79          | F        |
| Germany              | 14/24          | 7/12                 | 5/15          | 4/13                | 6/15          | 36/79          | C        |
| Latvia               | 4/24           | 5/12                 | 5/15          | 2/13                | 3/15          | 19/79          | F        |
| Lithuania            | 6/24           | 6/12                 | 4/15          | 6/13                | 3/15          | 25/79          | F        |
| Poland               | 7/24           | 6/12                 | 3/15          | 4/13                | 5/15          | 25/79          | F        |
| Russia               | 8/24           | 1/12                 | 1/15          | 5/13                | 3/15          | 18/79          | F        |
| Sweden               | 11/24          | 7/12                 | 2/15          | 8/13                | 8/15          | 36/79          | C        |
| <b>All Countries</b> | <b>68/216</b>  | <b>54/108</b>        | <b>29/135</b> | <b>50/117</b>       | <b>41/135</b> | <b>242/711</b> | <b>F</b> |

## Dioxin in Baltic salmon and herring – is it a toxicological problem?

By Mikko Nikinmaa

Big Baltic salmon and herring often contain dioxin levels that exceed the limits set to food items in the European Union. The permissible level agreed upon is solely a convention. Setting a limit based on scientific grounds would be impossible, as for example the acute toxicity of dioxin in different rat strains varies 10000-fold. Setting an equal limit for all food items does not take into account that the consumption of different items varies markedly. In Finland the milk consumption per day exceeds the consumption of Baltic herring and salmon per month. Yet the dioxin limits for both food sources are the same.

After 1970's the levels of both dioxin and PCBs (polychlorinated biphenyls, their toxicity is often given as dioxin equivalents) in the Baltic Sea environment have decreased, mainly as the result of increasing efficiency of water cleaning in paper and pulp industry. The decreased environmental contamination has been seen in Baltic Sea animals. Whereas seals in 1960's and 1970's were quite often infertile, at present their reproduction is so effective that they are a major fish consumer in the Baltic. The estimated population of grey seal in the Baltic Sea is currently approaching 10000; a five-fold increase from the population below 2000 in 1970's.

Despite the fact that both dioxin and PCBs have not been released in the environment in significant amount during the past years, they are still found in quite high concentrations. The major factors contributing to this are that the compounds are very stable and lipophilic. Consequently, they accumulate in organisms and concentrate in top predators such as salmon and seals. Since salmon and herring are typically quite fatty fish, lipophilic toxicants, such as dioxin, accumulate in them easily. Because dioxin and PCBs are very stable they are included in persistent organic pollutants (POPs).

Owing to the facts that dioxin concentration in Baltic Sea and its organisms is on the decline, that the permissible level is based on agreement and not hard scientific evidence and that the agreed permissible levels do not take into account the likely differences of intake, one can conclude that the presently observed dioxin levels in Baltic herring and salmon are not toxicologically important. They do not present a threat either to the organisms themselves or humans that are eating them.

Although one of the factors causing high dioxin levels in herring and salmon is that they are fatty fish, the regulation of dioxin levels in fish is poorly known. Dioxin and many other aromatic hydrocarbons go to the aryl hydrocarbon receptor (AhR) –dependent biotransformation pathway to be transformed to excretable forms. Because research on aryl hydrocarbon receptor started from toxicological angle, the protein is often called dioxin receptor. However, although the biotransformation pathway handles organic man-made toxicants, it did not evolve because of the recently produced artificial compounds such as dioxin. Rather, the pathway exists in animals as diverse as the nematode *Caenorhabditis elegans* and man. One of the functions that the AhR-dependent pathway is involved in is the development of neural system.

The ligands that the AhR-pathway has evolved to handle are poorly known. In addition to the involvement of the pathway in the development of neural systems (with unknown ligands), it may have evolved for the

biotransformation of toxic compounds in food, possibly of any coloured compounds (which are often aromatic molecules), or to treat breakdown products of compounds like haemo- and other globins or chlorophylls.

In fact, treating toxic food compounds may be the reason why dioxin remains at elevated levels in salmon and herring. The foodstuffs eaten by fish and by terrestrial domestic animals are markedly different. The compounds contained in cyanobacteria, phytoplankton and zooplankton are taken in by aquatic animals and will be transferred to the highest trophic level, top predators. Thus, these animals will need to be able to treat all the compounds ingested in the normal food. The compounds reaching the aquatic, mainly animal-eating, fish, and terrestrial domestic, mainly plant-eating, animals, are necessarily quite different. So, if the AhR-pathway plays a role in treating toxic compounds in food, one can expect that the structure of aryl hydrocarbon receptors in fish and mammals is different. Owing to the different structures of the receptors their ability to treat unnatural ligands such as dioxin can be markedly different. The possibly important role of the aryl hydrocarbon receptor in treating compounds contained in the natural food of aquatic animals is suggested by the fact that fish have evolved a more versatile AhR system than any terrestrial vertebrates.

Fish aryl hydrocarbon receptors bind and treat dioxin more poorly than mammalian ones. Since the ability to convert dioxin to a more polar compound is necessary for excretion, dioxin remains in fish but can be excreted in mammals. As the compound remains unaltered, it concentrates in fatty fish. The highest levels are reached in the biggest and oldest fish.

Understanding the reasons behind and possible consequences of high dioxin levels in fish requires that the functions of the animals is known in detail. The dioxin example illustrates that any investigations of environmental problems needs a functional component to evaluate alterations in ecosystems. Although environmental effects are often considered without physiological studies, one should remember that environmental effects can only take place, if the function of some organisms in the ecosystem is affected. Only by combining genetic, physiological and ecological approaches can environmental responses be understood. Such understanding is required to predict the economic consequences of environmental disturbances.

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## The challenges of professional fishery in the Baltic Sea – a Finnish point of view

By Kim Jordas

The Finnish fishery has been going through a change in the 2000s, and professional fishery in the northern parts of the Baltic Sea especially is facing major challenges. To an ever increasing extent, the industry is forced to consider its very existence and the values that make the foundations of professional fishery.

Producing fish for consumer markets in a sustainable fashion has become the operative idea of professional fishery. A production chain committed to quality provides fish for the market for foodstuff and other purposes. Today's fishery also plays an important role in taking care of the environment; fishing is the only functional activity which removes significant amounts of phosphorus from the Baltic Sea.

The conditions of the fish stocks in the Baltic Sea are generally good, with a few exceptions. The good news is that the stocks of cod have taken a positive turn during the last few years. The herring stock in the Bothnian Bay remains one of the strongest fish stocks in the EU.

Professional fishery depends on strong fish stocks and on a good condition of the waters. For a good reason, some concern is felt as regards the state of the Baltic Sea. From the fishery's point of view it is utterly important that all the Baltic countries take prompt and decisive measures to restore the state of the Baltic. Some positive development has been noticed, but the progress is all too slow. Many parties seem to regard eutrophication as the major problem, but from the fishery's and the fish consumers' point of view the retention of various contaminants in the organisms and fish in the Baltic is a greater concern.

The operational environment as well as the society around professional fishery has changed quickly. This holds true for the environment and the social setting as well as the structure of the business and the market.

Society has become more protection-oriented and at least partly alienated from nature. The position of organizations concerned with conservation and recreational fishing has also become stronger in the political decision-making process. At the same time, the political weight of the primary production has diminished. For professional fishery, this has led to a narrower political elbow room, and it can be seen in the everyday life of many individual fishermen.

The Baltic Sea has become a more and more important point of interest for other user groups as well, and this leads to a concrete and physical reduction in the operation area of professional fishery. The recreational use of the sea and the sea shores, the increasing sea traffic, and especially the off-shore building are good examples of this. New fairways, the installing of cables and pipes at the bottom of the Baltic and the extraction of gravel, as well as the new and growing activity in establishing off-shore wind farms, they all reduce the operational area of professional fishery. Fishery is being chased away, area by area.

Fish is popular food today. However, a great change has taken place in the fish market; in Finland, an ever greater part of fish consumption is made of imported or farmed fish. Only seven per cent of our total fish consumption is made of natural fish caught by professional fishery. Farmed fish is an easy and economical product for

both the consumer and especially for the trade. As a starting point, natural fish produced in small units has an awkward competitive position in the modern chain-controlled retail.

Professional fishery has tried to adapt to the new situation in a number of different ways. In Finland, open sea fishery means trawling Baltic herring and Baltic sprat. The survival strategy adopted has been one of improving the efficiency: larger and more powerful vessels have been acquired to be able to move greater quantities of fish at a time. At the same time fishery has been concentrated to an increasingly smaller number of vessels. This strategy is not unfamiliar in other industries, such as agriculture, for example. Open sea fishery operates on the terms of the global market, and the activity is to a great extent businesslike. Traditionally, fishing has been family-centered: the fishing activities have involved the whole family, and the business has been passed on from father to son. The acquisition of greater units has demanded capital and the base of the activity has changed to companies.

In Finland, the last few years have seen a great deal of discussion, both inside and outside the business, about the changeover of fishing companies to foreign owners. At present a significant part of the Finnish open sea fleet is under actual foreign ownership and decision. The development has been a sore spot for the traditional business, but there seems to be no way back. The foreign owners have had more capital available, and the capital has been attracted by good Finnish quotas. On the other hand, the situation has created the elderly Finnish professional fishermen an opportunity to free them from the business.

The situation of coastal fishery is dramatically different from that of open sea fishery. Coastal fishery has not had the opportunity to use the same survival strategy. Coastal fishery is largely dependent on the home market, and as fishermen they are a heterogeneous group. On the one hand there are fishermen pursuing a businesslike enterprise, but on the other there are actors who have fishing as a hobby or a way of life. The percentage of pensioners is also great. This all makes the effective directing of any legislative or financial support measures difficult.

The number of coastal fishermen has been reduced by a third in the 2000s. According to a query in 2009, the negative trend will continue, and the distribution of age-classes explains a great deal. The average age of a fisherman is 52 years, and new coastal fishermen are not in sight to replace the ones planning to retire. As a fisherman retires, a multitude of know-how is lost, along with a significant part of culture that has been part of coastal life for centuries.

The reasons for the development above lie in the low profitability of the business. It has not been attractive enough in the eyes of the young. There are several reasons for the low profitability. The drastic growth in the populations of seals and cormorants in the Baltic Sea during the last 10–15 years has had a dramatic effect on the prerequisites of coastal fishery. The trap and catch losses diminish the economic return, and in the political

decision-making the fisherman has had to give way to the seals and the cormorants. The views on the effect of the seals and the cormorants on the fish stocks are different, but there are suggestions that the effects are significant. Recent developments in trap design have protected some part of coastal fishery, but perhaps too much has already been lost. Professional fishery has also had trouble acquiring fishing waters and fishing rights. The regional political dispute as to who can catch salmon and where it can be caught, has also contributed – in the form of tightening fishing restrictions - to the diminishing number of coastal fishermen.

The consumers, however, want to buy natural fish from their own country. The strong trend of favoring local food may well prove to be one possibility for the fishery to move ahead. The consumer pressure may be the only way to convince the politicians that professional fishery still has a function in modern society. Perhaps there is, after all, good cause to make an effort to cherish the small remaining craft of professional fishermen, working along the coast and archipelago of the Baltic Sea.

The EU is reforming her common fisheries policy. Eloquent rhetoric on protecting and supporting coastal

fishery especially has as yet remained empty phrases. The coming year will prove whether the EU has a real inclination to improve the situation of coastal fishery. Several matters can, nevertheless, be influenced by national action as well, but that presupposes political will and courage.

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## Intellectual entrepreneurship as a way to innovation economy

By Irina Sennikova

In May 2011 Latvia celebrated the 20th anniversary of its independence. Twenty years have passed since Latvia began its transition from a command to market economy. Within a relatively short time the foundations for a market economy have been laid and macroeconomic preconditions for economic growth created. Reforms conducted to transform the economy resulted in the fact that for several years Latvia was considered to be one of the fastest growing economies in Europe with an average 7% of annual growth. Accession to EU in May 2004 came as recognition of the achievements of the national economy and proved that the chosen way of development was right for the development of the country. Although Latvia, as many other countries, was badly hit by global economic crisis and is now suffering the consequences of global economic slowdown, the transition process which the country went through cannot be overestimated as it allowed the country to obtain its due place in European economic landscape. Currently Latvia is planning its development strategy in line with EU priorities set in Europe 2020 strategy, which expressed economic growth in three key words: smart, sustainable, and inclusive. Smart growth envisages developing the economy based on knowledge and innovation. By 2030 Latvia has to develop into a country with innovative and ecoefficient economy where intellectual and creative potential transforms into economic benefit. Strategic document Latvia 2030 says that in order to change intellectual and creative potential of a person into growth of innovative, energy efficient and competitive economy, the economic model must change. It is stressed that initiative and environment supporting entrepreneurship, support for the creation and commercialisation of new ideas, knowledge transfer and user-directed research come into the centre of attention. Here comes the question what new models can be offered in order to bring the country to a new level of development. Intellectual entrepreneurship can be one of the possible solutions, which I define as of capitalisation of knowledge in innovative environment. The underlying thought under the definition is that knowledge generation and creation of new intellectual capital are only possible when constant innovation is taking place, when, as soon as knowledge turns into information, new knowledge needs to be generated and commercialised so that the company stays competitive.

Looking back at the transition process in Latvia it can be said that the change from a socialist to a capitalist economy has been a traumatic experience in Latvia, where managers in the large state enterprises have found it difficult to adapt to the new competitive environment. They were unable to use effectively either their existing productive resources or their established economic relationships. As a result many established companies went into liquidation whereas some others were saved only by state intervention.

At the same time, although state enterprises have struggled, other sources of economic activity have emerged. Individual entrepreneurs who have been able to adapt to the new era have formed companies, generally with low levels of capital investment. This has occurred in various industry sectors, including manufacturing, retail, education, information technologies, etc. Many of the individuals are professionally or scientifically qualified, but

do not necessarily have any formal management education or experience. They have created companies not as a result of restructuring processes, but based on their intellectual abilities, previous experience, and intuitive understanding of economics and entrepreneurship. This gave rise to a research conducted by RISEBA (Riga International School of Economics and Business Administration), which tried to understand the reasons of success of these people. The research showed that there are many things that bring together two seemingly distant worlds - the one of intellectualism and the one of entrepreneurialism. True entrepreneurs, the same as intellectuals have a wide range of interests, which leads to a specific thinking process, develops creativity, innovation and heightened intuition. Both intellectuals and entrepreneurs can think critically of what they are doing and are never satisfied with the achieved, they are always in a development phase. Being driven by the result they wish to accomplish, they search for optimum solutions and are capable of making decisions in non-standard situations. Surprisingly, intellectuals feel themselves quite comfortably in entrepreneurial arena. With their thinking and analytic abilities it is easier to understand business logic. Diverse knowledge and communicability gives possibility to communicate with wider constituencies and be interesting for different people. It also provides a common language with professionals, which helps build trust and understanding within organisations. While being in business they see many intellectual challenges, which make their minds constantly work and does not allow to give up. They are able to innovate in non-innovative industries and search for non-standard decisions in standard spheres of entrepreneurship which requires lots of creativity. In a modern world intellectuals are perceived as a business engine and creators of new knowledge.

Therefore, it can be concluded that entrepreneurship provides not less, if not more, intellectual challenges and does not tend to become boring for relentless intellectual minds. Therefore, intellectuals should go to business, as they bring such things as harmony, inspiration, creativity and image thinking to it, thus making it better and more beautiful (if you can say so about business). Besides, intellectuals contribute to the core of business as well, as they bring business as such, make more competent decisions and foster higher quality of management.

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## Future of North-South connections – about transportation, but not only transportation

By Erik Terk and Jüri Sakkeus

The countries on the Eastern shore of the Baltic Sea have made during the past twenty-odd years rapid progress in their integration into the world economy, especially the economy of the European Union. Yet this integration has not been equally rapid in all prospective directions. For example, the economies of Estonia and Latvia have very closely integrated into the Nordic economies, while their relations with Germany and Poland, which were several times stronger than those with the Nordic countries during the pre-war period, have developed quite slowly. It can be generally argued that the ties of the so-called border states of the EU “Eastern rim” with central Europe have suffered due to the inadequate land transport connections. For the same reason the mutual integration of the region's countries has been hindered to some extent. Relations between Estonia and Finland serve as the sole exception here as the absence of land link has been compensated by the rapidly developing maritime traffic. The North-South transport link is topical not merely from the aspect of better connections between the Baltic and central European states; it is also an important premise for intensifying the economic relations between the three Baltic states and Finland and an extensive geographical area from Ravenna in Italy to Odessa in Ukraine and further on to the large and growing market of Turkey. This direction has started to attract considerable interest among the economic circles of the aforementioned countries.

The situation in the region can significantly change with the construction of a direct European-gauge rail link from Tallinn to Warsaw. This project, the Rail Baltic, has recently undergone a feasibility study and has found support among the leading politicians of the region as well as the European Commission. It seems that even Latvia is overcoming its initial pessimism regarding the project. Finland's premier Jyrki Katainen recently expressed his unequivocal support to the project by welcoming the decision of the Baltic states' premiers to create a joint enterprise for the realisation of the Rail Baltic project. Katainen emphasised that the project is highly important for the improvement of the competitiveness of Finland's economy.

The new railway would be electric and have two tracks. It would carry both passengers and cargo, allowing passenger trains to travel from Tallinn to Warsaw within roughly six hours and freight trains to reach the Polish border from Tallinn in ten hours.

The 728-kilometre route of Rail Baltic would preferably run to the Polish border along the trajectory Tallinn-Pärnu-Riga-Panevezys-Kaunas.

The realisation of the project will take clearly more than ten years, while the assessment of its impact requires operating with an idea of economic and social conditions in twenty or more years and the latter could significantly differ from those currently considered as normal. The extrapolation into the future of the existing trends and relations could therefore be quite risky. The demand for transport, including different modes of transport could be driven in the future by new factors different from the current ones, while the completed new transport corridors could create additional economic and social effects, which were initially viewed as insignificant. Improved transport

connections or e.g. handling new flows of transit will change the relations and structure of economy and will contribute to economic growth; the changing economy, incl. the emergence of new businesses and improving standards of living in turn will initiate additional or different demand for transport. We shall attempt in the following text to present some viewpoints and considerations about which factors and changes should be taken into account. These positions were formed predominantly during the realisation of two projects: the cooperation of Estonian, Latvian and Lithuanian experts while building the Baltic states' integration scenarios (*Baltic Way(s) of Human Development: Twenty Years On*) and the *H-T Transplan* project, financed by the European Commission and addressing the planning and transport connections of the Helsinki and Tallinn metropolitan areas. During the realisation of these projects a series of partly interrelated problems with greater geo-economic significance cropped up, which provide a broader view of the issues concerning the Rail Baltic construction and the general development of a transport corridor linking the countries to the East of the Baltic Sea. The most important of these issues were:

- the volume, type and impact on Rail Baltic of the Finland-related flow of cargo;
- the share of long-range (further than the next country) travels in Rail Baltic passenger traffic portfolio;
- the change of cargo flow structure in the traffic within the Baltic Sea region, incl. the changes caused by the convergence of the former post-socialist economies with the so-called old EU countries;
- further development of the three Baltic states' economies, its forms and impact on demand for transport;
- the impact of the development of integration of Helsinki and Tallinn metropolitan regions, the emergence of a twin city, on future demand for transport;
- the impact of potential processes in the functioning of the EU on the likelihood of supporting major transport-related infrastructure projects;
- the potential of mutual strengthening of North-South and East-West (predominantly related to Russia) transport flows;
- the change of ratio between various modes of transport, incl. due to ecological demands and restrictions;
- the effect of geo-economic changes (especially the ascent of East Asia) on the increasing of Europe-related flows of cargo;
- the emergence of new international transit corridors, which could be related to the region under observation;
- likely changes of the dynamics and pattern of the people's mobility; their effect on the demand for passenger transport.

It is not possible to provide definite answers to a large share of the above questions, but it is possible to attempt to foresee the most likely trends of developments and their interrelation. The *H-T Transplan* project included the building of four possible scenarios for the analysing of the

changes of the transport situation and the related effects dependent on the potential growth rate of international economy, the ability of the EU to support major infrastructure projects in the future and the ability and motivation of the region under observation to operate proactively and to coordinate activities. The initial analysis of the scenarios shows that in case of continued normal growth of the international economy and retained/strengthened strategic capability of the EU it is possible to foresee continued integration of the EU's Eastern edge countries as well as significant increase of transport volumes and the continued important role of the transport and logistics sector as an economic growth engine. The conclusion is based primarily on the following positions:

- Rail Baltic becomes not merely a rail link between the three Baltic states and Central Europe, but will probably handle a rather large cargo flow related to Finland;
- The two important components of this cargo flow are, first, Finland's increasing trade with Latvia, Lithuania and central Europe (possibly also with the Southeastern direction) and, secondly, the East Asian cargo flow from the Arctic Ocean, which will at least partly move southward across Finland;
- While at present it is maritime transport, which primarily suffers from the stricter norms concerning sulphur pollution, it can be presumed in the longer run that ecological criteria applied to all modes of transport will continue the already existing policy of driving the transport from the roads to railways and to the sea. This will mean the continued competitiveness of logistics schemes based on the combination of maritime and rail traffic.
- The mobility of the people will increase with the rising of the living standards, the mobility pattern will become more diverse;
- The Helsinki-Tallinn integration will increase; the emergence of the twin city will significantly boost the need for transport. It is possible that in the further future this will lead to the construction of a Helsinki-Tallinn tunnel;
- The North-South and East-West transport corridors would not compete in the longer perspective, but will mutually strengthen each other. Fast rail link to the core of Europe will create premises for logistics and distribution centres, which can handle the movement of cargoes not only in the North-South, but also in the East-West direction. There will be better opportunities for providing warehousing and value adding services to enterprises in Northwestern Russia in handling their products moving to Europe.
- Estonia, Latvia and Lithuania will gradually turn into an increasingly integrated economic space, where international firms, largely based on the Nordic capital, can specialise and cooperate. This will be related, among other factors, to the increasing cargo volumes;
- In case of increasing cost of aviation fuel the Rail Baltic can successfully compete with air traffic in longer distances;

- Although a large share of the present intra-industrial trade between Finland and the Baltic states would disappear with the reduction of the wage gap and other price gaps of production input, it would be replaced by a new type of intra-industrial trade, based largely on balanced cooperation, both concerning manufactured goods and services. The "less distant" Central Europe, thanks to good rail connections, will increase the market of the firms operating in the Baltic states (and Finland), their competitiveness in the value chain of goods and services for the European market will improve. This will accelerate the modernisation of the structure of goods being produced in the Baltic states.

Well functioning transport connections both for passenger and cargo transport are a vital premise for trade and the development of closer forms of integration. The transport projects of the Eastern Baltic countries like the Rail Baltica, Via Baltica, the construction of large port terminals, incl. for handling transcontinental cargoes, etc, will presume good international cooperation and the EU support, but their realisation is a significant factor in bridging the development gap between the new EU member countries and the Nordic countries so as to contribute to the development of the entire Baltic Sea region.

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# How to select international distribution channels for business software products?

By Esa Sallinen

## Internationalization of the Finnish software industry

The total size of the Finnish software industry grew by 5 percent in 2010 to approximately 3.2 billion euros. Roughly 45 percent of the software firms received some international revenue, but only one fifth generated over 20 percent of their total revenue from international markets. About 40 percent of the firms with no international revenue were planning to internationalize.

Yet, improvements on the internationalization front are required because the foundations for the global competitiveness are in good shape, and the small domestic market does not provide enough potential for growth. Finland has a skillful workforce, a good international reputation, technological know-how, and an abundance of small flourishing software firms with substantial growth potential. In developing industry-specific software, Finland is one of the most competent countries in the world. The software industry in Finland has been characterized as the most probable growing ground for the 'next Nokia', and the country as the second most favorable environment for the development of software businesses after the U.S.

Although large software product firms and some game companies typically receive the most media coverage, small and medium-sized firms, which serve the business and public sector customers, are more typical in Finland. Unfortunately, the business models of these firms do not internationalize as easily as the ones based on standardized consumer software. Furthermore, business-to-business software firms tend to be technologically-oriented and lack marketing skills, especially in an international context.

Selecting suitable channels for sales, promotion and delivery is one of the key areas of improvement for the internationalization of Finnish software firms. These are the most critical functions in distributing software to foreign countries.

## What are the characteristics specific to business software products?

A thorough understanding of the characteristics of a particular software product is the starting point for distribution arrangements. The intangibility enables online delivery and provides many opportunities, but the knowledge and service characteristics of business software products often complicate the distribution.

Firstly, core software usually cannot be delivered unchanged to all customers, but requires some modifications. Often business software products have to be localized to foreign conditions or customized to meet the needs of different industries or individual customers. Moreover, the implementation projects of business software often take time, and intensive after-sales services are frequently required. Often a software product only forms the core of the total customer offering which includes a wide variety of services, as well.

Secondly, software is always based on knowledge, which may be technical or functional knowledge about software itself or about the business processes of customer industries. Possessing such information may be required during the sales process and the service delivery (e.g., consulting, installation, support).

## How to consider these characteristics when selecting international distribution channels?

No universal solution to channel selections exists, even though the characteristics are known. In the early stages of internationalization, online deliveries directly from the headquarters are often sufficient as they can be mostly conducted online. Sales can be operated from the headquarters or can be contracted out to foreign sales partners. At some point however, if the sales volume in a particular market grows enough, a shift to channels that are locally present and provide the delivery of services will become an issue. The presence in foreign markets can be achieved by

establishing foreign units, alone or together with partners, or by cooperating with independent intermediaries.

The Internet can be utilized as the main channel of promotion and delivery, but sales negotiations usually require a sit-down with the customer, as the software product is only one part of the negotiable solution and the price may be quite high. The Internet is more suitable sales channel for highly standardized software.

The extent to which the aforementioned characteristics occur in a certain software product partially determines which channel arrangements would be most suitable. In general, high service- and knowledge requirements favor integrated channels. Simple and standardized products with low service content, as well as general applications used across various industries can be more easily distributed through independent intermediaries.

This is due to the fact that transferring software-related knowledge to outside entities can be a demanding task. It may become too costly to carry out, particularly in the case of highly complex and firm-specific knowledge. Intermediaries that are able to absorb such knowledge at a reasonable cost may be hard to find. If taking care of the distribution requires both, knowledge on the processes of a specific industry and technical competence, then finding suitable intermediaries becomes especially problematic. If appropriate intermediaries can be found, tighter cooperation is needed than in cases of simple software products.

High service requirements may call for physical presence in foreign markets. Often software and service deliveries do not require physical interaction and can be conducted via electronic interfaces, but if the quick delivery of service is crucial and the market is distant, a service provider should locate at least in a nearby time zone. If the necessary services are complex to deliver, they often complicate the use of intermediaries. For example, a complicated installation process may discourage the producer from using intermediaries and the intermediaries from distributing the software. However, if the delivery can be supplemented with value-adding services, this can become a source of extra revenues and thus an incentive for intermediaries.

Some customer industries are extremely global, whereas others apply mostly local standards, which affect the level of localization required. The need for extensive localization favors the use of foreign partners because they possess first-hand knowledge on local conditions.

It is strongly recommended to take into account the specific characteristics of a particular business software product when selecting international distribution channels. By carefully evaluating the characteristics of its software product, a producer can avoid extra costs and lost opportunities caused by unsuitable channel selections.

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