Baltic Rim Economies

Bimonthly Review

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ISSUE NO. 3, 23 JUNE 2010

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The European Commission's Europe 2020 vision for research and innovation

By Máire Geoghegan-Quinn

Research and innovation are at the core of the EU's Europe 2020 strategy for a sustainable social market economy. We need a more dynamic Europe, where innovative firms want to do business, and where talented people want to live and work.

We must tackle the bottlenecks that prevent bright ideas from reaching the market. For example, the MP3 audio standard was developed in Europe but exploited commercially mostly by American and Japanese companies

This is not purely an economic issue. Research and innovation are also a key driver of social advances, for example in medicine, education and public administration.

So I have four main priorities for my mandate as Commissioner.

First, re-focus research and innovation policies on the "grand challenges" facing our society: climate change, energy security, food security, health and an ageing population.

Second, significantly increase overall public and private sector investment in research and development, towards the Europe 2020 target of 3% of GDP. The Commission is currently working to help Member States to set their own targets so that Europe as a whole can reach the 3%.

My third priority is to complete a single, unified European Research Area. For example, we need to remove the pension and social security obstacles which prevent researchers from moving freely between countries.

At a time when public finances are under such pressure, taxpayers rightly demand the maximum from every euro spent on research just as in other policy areas. Value for money on a European scale requires avoiding duplication of effort, notably by expanding the use of Joint Programming Initiatives where Member States pool resources. The first of these to get fully underway a couple of months ago is on Alzheimer's and neurodegenerative diseases.

My fourth priority is to simplify financial and administrative procedures for EU research funding, without compromising on scrutiny of how taxpayers' money is being spent.

The EU's Research Framework Programmes – the current one is the seventh, worth over € 50 billion over seven years - are a tried and tested way of getting results. But participants have to fill in too many forms, too often. This can discourage participation, especially by SMEs.

I set out at the end of April a series of improvements. Some can be put into practice rapidly as part of existing programmes. Some can only be implemented once the European Parliament and the Member States have approved the Commission's proposals to change the overall financial rules for EU funding programmes and how we ensure compliance with them.

None of these objectives can be achieved if we do not make the best use of Europe's biggest asset – its people and their talents. In particular, we need more women in science.

We also need to look beyond Europe, learn from others, cooperate with them and offer our expertise and our technological capacity to developing countries. I recently went to the US to meet the key research and innovation players in the Obama administration, which has set the same 3% target for R&D investment as we have set in the EU.

We increasingly cooperate with China and will have a strong presence at the Science and Technology Week at the Shanghai Expo in June. We run several partnership programmes with Africa as well, including on health issues.

I am currently working, with a Group of Commissioners that I chair, on preparing the European Research and Innovation Strategy that will be our blueprint for delivering results on the four priorities I set out above.

Developing Europe's R&D capacity will be a core feature of the Strategy. It will include measures for developing world-class research infrastructures: everything from polar research vessels and bio-banks to particle accelerators and very large telescopes.

But the Strategy will go well beyond research spending. It will give a vigorous push to reaching an agreement on an EU Patent. It will include measures to increase the public procurement of innovation.

Our Strategy will put a great deal of emphasis on finance. We need to ensure that innovative companies, especially high-growth SMEs, get easier access to funding. We will work harder on improving the cross-border provision of venture capital. We are working with the European Investment Bank to increase the loan finance available to support research and innovation.

Every EU Member State is behind what we are trying to do, because the crisis has changed the game. It has put research and innovation at the top of the political agenda, as the only way to deliver new sources of growth and sustainable jobs to replace those which have been lost.

Of course, this is particularly important in countries, including several in the Baltic region, where the crisis has hit jobs particularly hard. What is more, there are strong historical examples of best practice in the region, for example Finland's continued investment in knowledge during an acute crisis in the 1990s.

Indeed, many of the region's economies have a very strong research and innovation record. Finland and Sweden already exceed the overall EU target figure of 3% of GDP invested in research and Denmark is only marginally below it. It will now be important in their own interests and those of the rest of Europe to set and achieve even more ambitious targets under the Europe 2020 Strategy.

The new EU Member States in the Baltic region all have a rate of improvement in innovation performance above the EU average, even if inevitably there remains plenty of catching up to do.

The EU has recently agreed a regional cooperation initiative, BONUS, which brings together European and national research funding and aims to enhance the Baltic Sea region's research capacity, in order to promote more sustainable development

Cross-border cooperation on research and innovation in the Baltic is not limited to EU Member States alone. I am pleased to note the recent adoption of the Council of the Baltic Sea States' (CBSS) Joint Vision 2020, which lays a strong emphasis on issues linked to science and innovation. Of course, the European Commission is a key player in the CBSS and President Barroso addressed the summit in Vilnius where the Joint Vision was adopted.

These are a few examples of why the Baltic region can be seen as a microcosm of the challenges facing us and also of some of the right responses.

Sustainable recovery from the crisis depends on developing a culture of innovation in Europe. This will not happen overnight. But there is genuine political will at all levels and a huge scientific and entrepreneurial talent pool to draw on. I believe we can deliver results.

Máire Geoghegan-Quinn

Commissioner for Research, Innovation and Science

European Commission

R&D in Estonia – capacity building in progress

By Tõnis Lukas

With a population of 1,4 million, Estonia needs to balance between research and development (R&D) specialisation and educational coverage. Having its own language-based culture and higher education system creates a situation where one must balance between the national interests of maintaining coverage in all fields and creating an open internationally competitive R&D system and environment which is attractive for young talents, top researchers and entrepreneurs from all over the world. In a small open society we must have to consider our actions carefully and acknowledge that we cannot achieve the best results in all fields. In developing R&D capacities, countries equip themselves with strategies and policies to promote capacity building, ranging from prioritisation of specific target areas, adequate funding policies, human resource development, infrastructure investments and internationalization. In order to catch-up with the developed countries, Estonia also has to design and implement its R&D capacity building principles and polices.

Priorities

The Estonian Research and Development and Innovation Strategy „Knowledge-based Estonia" 2007-2013 determines priority fields which need special attention from the state such as biotechnology, ICT, material technology, energy technology, environmental protection and welfare services. Through the launch of national programmes, human as well as material resources have to be focused on these technologies and key areas, where success can be achieved in world level frontier research and which are important in establishing sustainable economic growth. For achieving this, priority areas and technologies of national R&D programmes have been given a preferred status also in other horizontal support measures.

R&D Funding

Estonia is the leading country in the European Union concerning the growth of R&D investments as the growth of total R&D expenditure (GERD) of Estonia has been in 2000-2008 on average 24 % per year. In 2008 the R&D intensity was 1,29% of GDP. The growth in private sector has been faster than in public sector - the share of BERD in GERD in 2000-2008 has grown from 22,5% to 43,2% as in 2000-2008 the total average growth of BERD was 35% per year. The strategy "Knowledge-based Estonia" includes an objective of R&D expenditure growth in Estonia, which is 1.9% in 2010 and 3% of GDP in 2014[1], while private sector R&D intensity in these years should be respectively 0.9% and 1.6%. Intensive growth of R&D investments clearly demonstrates that conditions for capacity building activities are good. But still in relation to general economic situation since 2008, the investment environment has deteriorated as well, which is why it is increasingly important for the state to support and facilitate innovation investments of enterprises. Added to this there are some risks of fast growth. For example how to manage and absorb effectively the growth and what is a right balance between different policy elements and financial instruments. On a long run the research system needs stability and sustainability, but during fast change no stability exists.

R&D Infrastructure development

Since 2006 Estonia has had more systematic approach towards R&D infrastructure development mainly through implementing EU Structural Funds. In order to set clear investment principles, the base of Estonia's R&D infrastructure policy was approved by the Government of the Republic in 2008. The main objectives of infrastructure policy are covering the investment shortage of 20 years; developing priorities of specific fields and ensuring efficient use of new or up-dated infrastructure. The modernising of general infrastructure of R&D institutions and universities was launched in 2008. Big R&D infrastructure investments for constructing and renovating buildings were funded and also modernising of research apparatus and equipment is on the agenda. Long-term infrastructure investments cannot be organised through one strategy period (i.e. 2007-2013). Due to this Estonia has started the process of roadmapping research infrastructures with a time horizon of 10–20 years. The Estonian roadmap is modelled after the example of Finland's research infrastructure roadmap. The Estonian roadmap lists 20 objects and 5 of them are listed also in ESFRI roadmap. First objects will be included in the investment plan to be approved by the government in 2010.

Development of human resources

In terms of capacity building in human resources, the key question for Estonia is how to move from brain drain to brain gain? Since 2008 Estonia has had a major growth in human factor support with the support of European Social Fund. Doctoral studies, mobility and internationalisation for Estonian Master and PhD students, young researchers and faculty members are funded through the programme "DoRa". In addition, conditions have been laid down for engaging PhD students from other countries to study in Estonia. Top researcher grants for 3-5 years are financed by Researchers Mobility Programme "Mobilitas". In order to increase the efficiency of doctoral studies in Estonia and to improve the quality of tutoring doctoral candidates 13 new doctoral schools were elected in 2009. Estonia has to make its efforts to reduce brain drain and recruit talented individuals at the same time.

Supporting excellence and internationalisation

In the period of 2001-2007, there were 10 centres of excellence and since 2008 there are 7 centres of excellence with the goal to support internationally high level research and development of Estonian R&D institutions and ensure its sustainability, and to create preconditions for strengthening cooperation and competitiveness capacity of Estonian research in the European Research Area. In terms of more intensive international co-operation it is important to develop existing links with traditional partners. Estonian researchers have traditionally very close links with Nordic region and Central-European countries. For example in FP6, the main partners for Estonian researchers were Germany, United Kingdom and France (Archimedes Foundation 2007). As Prof Jüri Allik has brought out, one potential factor behind the relative success of Estonian science could be partnership with scientifically more advanced countries, particularly with Sweden, Finland, and Germany. A considerable proportion of publications is prepared and published in co-authorship with colleagues from countries that are ahead of Estonia both in terms of the intensity and impact of research. Somewhat surprisingly Estonian science has the highest impact (7.87) compared to all other former Communist bloc countries (Allik 2008). Dedicated actions must be taken to further reinforce the excellence and creativity while taking advantage of the knowledge and knowhow existing in the leading research organisations of Europe.

Conclusion

The progress of Estonian capacity building activities is good, but it is too early to analyse the impact of all these policies. The best way to achieve national goals is to be an internationally competitive, active and trustworthy partner. Implementing our capacity building strategy creates trust and confidence which is needed for stabile research environment.

Tõnis Lukas

Minister of Education and Research

Estonia

Links:

Allik, Jüri (2008) „Quality of Estonian science estimated through bibliometric indicators (1997–2007)". Proceedings of the Estonian Academy of Sciences, 2008, 57, 4, 255–264.

Archimedes Foundation (2007) „Eesti osalemine 6. raamprogrammis", Tartu, Estonia.

[1] Due to economic crisis, the revised target of 3% will be reached by 2016.

The Baltic Sea – at the cross roads of politics and religion

By Mitro Repo

The Orthodox Church is known for its conservativeness and stability, even if the physical and societal world surrounding us is changing. The dogmas, the theological basis of the Church, were formed millennia ago, and have not really changed ever since. Even new emerging challenges have not been able to rock its foundation. The Church has also remained firm in its conservativeness as regard to "hot issues" discussed in other churches and in the society at large, such as gender equality, homosexuality and priests' right for political activity.

However, in spite of its obvious resistance to change, the Orthodox Church is not ignoring environmental issues and problems ever more present in our planet. The human responsibility in polluting and overexploiting water resources has become a matter of concern also within the Church during the last decencies. In this respect the Orthodox Church has taken proactive steps - I am happy and proud that the highest authority of the Orthodox Church, Patriarch Bartholomeus established the Religious and Scientific Committee[1] in 1994. To date, the Committee has hosted interdisciplinary and inter-religious symposia[2] to reflect the fate of the rivers and seas, and to force religious debate on the natural environment.

In June 2003, the 5th Symposium, organised under the patronage of the ecumenical Patriarch and HE Romano Prodi, then President of the European Commission, was devoted to the Baltic Sea under the title *The Baltic Sea – A Common Heritage, A Shared Responsibility*. The Symposium gathered together theologians, scientists, policy makers and environmentalists to promote dialogue between religion and science. In the conclusions of the Symposium it was stated that there is an important opportunity to expand the involvement of Church in the long-term efforts to protect and conserve the Baltic Sea. The social and environmental crisis shows that so far the Church has not been very successful in this task. Among the states around the Baltic, sharp socio-economic contrasts and unjustifiable inequality exist. The Symposium also paid attention that the ecological problem is not simply economic and technological; it is also spiritual and cultural. People need to change their attitudes towards the nature and stop overexploiting natural resources, in other words an act of repentance is required.

Also in the ecumenical context, the Christian Churches around the Baltic Sea have been active in protecting the Baltic Sea and nurturing cooperation. In this regard, in the early 1980's a network 'Theology in the Baltic Region', also known as Theobalt[3] was created. Its aim is to contribute to increasing knowledge, understanding and closeness among churches, individuals and countries in the Baltic region as well as safeguarding the environment, society, peace and basic Christian values.

Like the Religious and Scientific Committee under Patriarch Bartholomeus, Theobalt is organising conferences on various issues. One of the first conferences organised was dedicated to the Baltic Sea's state of health. Here as well, common Christian responsibility for the environment and to the Baltic Sea in particular was underlined.

Currently, as a MEP I have gained a new insight on the environmental issues and the ways how we humans can take our responsibility over the nature. Deteriorating processes can be changed and redirected if there is enough political will and determined actors. There are global and multinational instruments to tackle the environmental issues. I am following closely the political processes on how Baltic Sea issues are and have been handled in the Baltic Sea regional and European level.

Already for four decades the Baltic Sea Environment protection Commission, HELCOM, has coordinated countries' environmental management actions. EU regulations and directives, which have come into force during the previous Parliaments, force the countries to limit and control their deteriorating activities. Based on the initiative made by the European Parliament a few years ago, the EU is now launching the Baltic Sea Strategy which aims at making the Baltic Sea region as environmentally sustainable, prosperous, attractive and safe. Important components of the strategy are the Baltic Sea Region Programme, running until 2013, which aims at strengthening the development towards a sustainable, competitive and territorially integrated Baltic Sea region. Limiting environmental pollution is one of its priorities. The Parliament will soon be adopting a specific research programme, BONUS-169, which aims at promoting top science for the better management of the environmental issues of the Baltic Sea and use science to produce 'fit-for-purpose' ecosystem-based regulations, policies and management practices aimed at safeguarding the sustainable use of the ecosystem's goods and services.

I have always been, both in my previous capacity as priest as well as in my current position as politician, deeply concernd over the state of the Baltic Sea. I believe that cooperation is the key word as only by working together we are able to get results. Therefore it is of utmost importance to build up a mutual understanding and strengthen relations between different actors around the Baltic region - be it Churches, states, regional authorities or individuals.

Mitro Repo

MEP

European Parliament

[1] www.patriarchate.org/patriarch/the-green-patriarch
[2] http://www.rsesymposia.org/
[3] www.theobalt.eu

Estonia joins Euro zone

By Mart Laar

After the restoration of independence Estonia has been one of the most fast developing economies in the World. From the absolute collapse, hyperinflation and fall of production during the last years of communism Estonia was turned to modern and vivid economy, one of most free in Europe by the Economic Freedom Index and the most competitive among the new member states of the EU. From appr. 20% from average European GDP per capita in PPP in 1992 Estonia reached nearly 70% from it to 2008. During three years before the crises Estonian economy developed by 10% annually in average.

Such success had unfortunately its price. In such situation governments often tend to believe that high economic growth now continues endlessly, allowing government significantly raise its spending not even thinking, is such spending sustainable in the longer run. Fast growth of public sector salaries lead to overall growth for cost of labour, by nearly 20% annually. The bubble was also supported by the policy of government, which preferred high economic growth to financial stability. Thanks to this Estonia missed the opportunity to join euro zone soon in 2007. Thanks to the pressure of Estonian Bank government nevertheless decides not to use all surplus to the spending, but build at least some reserves. This was right decision, which created reserves, which helped afterwards to smoothen the financial impact of economic crises. In Latvia such reserves were not created, which pushed Latvia to the more serious crises compared to Estonia.

In 2008 the bubble in the World economy collapsed. Actually it was not miracle that it collapsed but rather that it stayed there so long. The Western economies were soon by decades spend more as they earned. Now they had to pay the price. The problems in the World economy hit Estonia very fast. The loss of markets decreased the economic growth, even as many still wanted to believe that Estonia will survive the crises without big difficulties. In this situation the government nevertheless decided to act. It was not easy decision as there was still lot of optimism on the situation. The Government decided to pass supplementary negative budget, cutting budget of 2008 by some billions EEK. With this Estonia avoided the fate of Latvia, where the monetary system and bigger banks just collapsed To save their currency from devaluation, Latvia turned for help to IMF and European Union, which took Latvia's under control. problems and dependence from IMF. Opposition fought actively against the cuts, but the cuts were made. Even more difficult situation developed with the draft budget of 2009. Looking on worsening prognoses government coalition decided before the last reading to cut it again, not going unfortunately enough far.

During the first months of 2009 the situation in economy worsened significantly. The GDP decreased, export fall – unemployment started to grow. The crises hit Estonia specially hard as Estonia as small and open economy was specially depending from the trade – when it collapsed, large part of economy followed. All together the GDP sank in 2009 by 14,5%, leading to the fast growth of unemployment, which reached nearly 15% to the end of year. Thanks to the weak demand the inflation decreased significantly, creating danger of serious deflation. All this lead to even faster fall of state revenues and budget was pushed seriously out of balance. Even as there were still some reserves available, government decided not to use them, but concentrate to the budget cuts and adjustments with the goal to keep budget deficit lower from 3%.

To minimize negative influence of cuts to economic activity, these were nearly not made on the area of investments, increasing efforts to take use all money from European structural founds. This demanded redirecting some founds and good cooperation with the European institutions, what was also achieved. Other area what was mostly not touched by the cuts was education and research and development. Their role in the budget actually increased during the crises. Most cuts were concentrated on government spending, including salaries, which were cut often more as 20%. Salaries of teachers, policemen and fire fighters were mostly saved from cuts. Several government social programs, which were planned to be introduced in 2009, were abolished or postponed. Pensions were not raised by 20% as planned, in the new labour law several privileges were cut, all planned tax cuts were postponed. To balance the budget, the VAT was raised by 2% and several exemptions abolished and excise taxes raised. These were painful decisions but gave result. All together the budget balance was adjusted nearly by 20%, which pushed budget deficit to 1,4% from GDP. Guaranteeing the sustainability of budget stability the pension age was also raised in 2009.

With this Estonia has fulfilled all Maastricht criteria. Estonia's inflation was on 1,9%, the government's debt Estonia was lowest in Europe and budget deficit under 3% as demanded by Maastricht criteria. Basing all these results first European Commission, then the European Parliament and just recently EU Financial Ministers supported the invitation of Estonia to the Euro zone from 1.January 2011. Estonia itself has passed necessary laws and regulations and is technically ready for move to the Euro zone.

This does not mean that the problems are over. Estonian unemployment has started to fall, but is still too high for sustainable development of the country. There is danger of the growth of inflation due to the higher energy prices. Estonian debt is low, but looking to the negative experience of some countries with Euro, there is a danger now to start to increase it. Till now Estonia has successfully avoided the debt trap, where by now many European countries have fallen. This policy must continue also in future. Estonia needs continuation of structural reforms, modernization of economy and more innovation, making Estonia more competitive in the World markets. Forecasts for GDP growth of Estonia stand on 0,9 in 2010 and 3,8 percent in 2011, which is still low to seriously decrease the unemployment.

In this context it is clear that the Euro would not bring paradise to Estonia, but it gives to Estonia powerful tool to move the country faster forward.

Mart Laar

Member of the Estonian Parliament

Estonia

The Baltic needs intensive measures

By Susanna Huovinen

The Baltic is the home sea for the peoples living around its shores. Now the home sea is in trouble. The condition of the Baltic is worryingly poor and it is one of the world's most polluted sea areas. States must commit themselves to more effective measures to protect the Baltic, because otherwise the situation is threatening to become worse year after year.

In June 2009 the Finnish Government gave the Eduskunta the report on the Baltic that the legislators had requested. The Environment Committee, which I chair, completed their deliberation of the report early this year and urged the Government to undertake intensive measures to protect the sea. Finland's inputs will not suffice on their own; other countries, too, must make their contributions. It is worrying from the perspective of the Baltic that at the recent ministerial conference of the Helsinki Commission, or HELCOM, in Moscow, some objectives were once again postponed until further into the future. That does not auger well for the Baltic.

The Baltic catchment area is home to nearly 85 million people and there is a lot of industry and agriculture in all of the countries around the sea. According to estimates, the nutrient load entering the Baltic has increased several-fold in the past hundred years. From the perspective of protecting the Baltic, the worst problem and the hardest to deal with is eutrophication; we have not had sufficient success in solving or even mitigating the problems associated with it. The heavy nutrient load due to anthropogenic activity throughout the Baltic catchment has led to large quantities of nitrogen and phosphorus being stored in the sea. The effects of eutrophication can be seen in increasing water cloudiness, slimy deposits on shorelines, a weakening of the oxygen situation on the sea bottom and more vigorous blooms of blue-green algae.

The effects of climate change can also be seen in the Baltic. The amount of winter precipitation is growing, and this increases rates of runoff into the sea. Also for that reason, there is a need for considerably more effective measures to stop the advance of eutrophication.

A major environmental risk in the Baltic and especially the Gulf of Finland is the growing amount of oil transports and the consequent danger of accidents and spills. It is estimated that the amount of oil being transported each year may be about 250 million tonnes by 2015. An oil disaster could at its worst destroy and alter the ecosystem of the sea for a long time. The impacts on living organisms, species diversity in the aquatic environment and even on Finland's national wealth could be extremely destructive.

Effective measures are needed also in agriculture. Throughout the Baltic area, an estimated 50 per cent of the total nutrient load and around 70 per cent of the nitrogen are caused by agriculture. Agriculture's share of the phosphorous load from Finland is estimated to be about 60 per cent and about 50 per cent of the nitrogen load. Especially from the perspective of the condition of the Archipelagic Sea and the coastline, agricultural runoff is a key eutrophying factor.

The nutrients entering the Baltic from communities and industry in Finland has been declining in recent decades, whereas the load originating in agriculture has hardly changed at all. Therefore it is obvious that without a clear reduction in the level of the load from agriculture, Finland will not be able to achieve the goals set for efforts to protect the Baltic.

The contributions of experts at formal hearings arranged by the Committee reinforced the conception that the ecological state of the Baltic is very serious. The most significant problems are associated with the nutrient load caused by agriculture and community wastewaters as well as the major risks of an accident that a growing volume of oil transports is causing. The Committee emphasised in its own submission that reducing emissions is absolutely essential throughout the Baltic catchment and in all sectors. National measures can affect especially the condition of the coast and international ones that of the open sea.

Although we were satisfied that the Baltic report was submitted and a large number of measures were compiled in it, our conclusion was nevertheless that the measures proposed are not enough on the whole to improve the condition of the Baltic. The timetable for measures, their evaluation and coordination must be considerably improved.

The Committee appended ten statements, which are binding on the Finnish Government, to its submission. We expect that the Government will raise the level of ambition and launch effective measures both here in Finland and in international contacts to help the sea. Only we residents of the riparian states can ensure that looking at photos or videos will not be the only way future generations can admire the Baltic. Our home sea needs our help now.

Susanna Huovinen

Representative
(Social Democrat)

Chair of the Environment Committee

Parliament of Finland

Broad parliamentary support for Baltic Sea Region initiatives

By Christina Gestrin

The Baltic Sea Region has great potential for further progress in economic development, social welfare and environmental protection. But to realize that potential and continue to benefit from the region's opportunities, we must also improve our ability to manage the strains brought on by development. It is a paramount task to find a sustainable balance between future economic growth and ecological care.

The Baltic Sea Parliamentary Conference (BSPC) was established in 1991 as a forum for political dialogue between parliamentarians from the Baltic Sea Region. BSPC gathers parliamentarians from 11 national parliaments, 11 regional parliaments and 5 parliamentary organizations around the Baltic Sea. The BSPC thus constitutes a unique and comprehensive parliamentary bridge between *all* the EU- and non-EU countries of the region.

BSPC is first and foremost a political body. Its primary mission is to raise awareness and opinion on topical issues in the Baltic Sea Region. It strives at promoting efforts to support a sustainable environmental, social and economic development of the Baltic Sea Region. Parliamentarians bring an added value to the process by listening to the grassroots; by raising awareness and building opinion; by driving political issues in their own parliaments; by exerting political pressure on governments to fulfill their commitments and obligations, and by acting as watchdogs to make sure they do; and by initiating and adopting budgetary allocations and - not least - legislation.

The 19th annual Conference in Mariehamn 29-31 August this year will tackle issues such as climate change and biodiversity, peace and security in the Baltic Sea region, integrated maritime policy, and trafficking.

BSPC is currently operating political working groups on integrated maritime policy and on civil security and trafficking. A BSPC working group serves as a kind of target-oriented and temporary political task force to elaborate joint political positions and recommendations on specific issues. BSPC has the clear ambition to synchronize its priorities and objectives with those of the corresponding organs at the CBSS, which, in BSPC's opinion, has a leading role in initiating and coordinating actions against the challenges of the Baltic Sea Region.

In recent years, a number of promising initiatives and programmes have been launched in and for the Baltic Sea Region. It is essential that they are transformed into practical deeds and results. The HELCOM Baltic Sea Action Plan has received the support from BSPC from day one as a central tool for restoring good ecological status of the Baltic Sea by 2021. Already at the Ministerial Meeting in Krakow in 2007, the HELCOM member states pledged to present National Implementation Plans at the Moscow Ministerial meeting in May 2010. It is regrettable that not all HELCOM member states were able to present Implementation Plans at the Moscow meeting. BSPC now expects that the remaining states will follow suit and present their Implementation Plans at the planned high-level meeting of HELCOM in early 2011.

The EU Baltic Sea Strategy is a step forward in the EU's perception and management of Baltic Sea Region issues, and BSPC took active part in the consultation process preceding the adoption of the strategy. However, the Strategy is an internal EU instrument. It is therefore essential that it is closely aligned with and conducted in the spirit of the Northern Dimension, which brings together both EU- and non-EU members as equal partners. No credible solution to any major challenge in the Region can be found if relevant stakeholders are excluded from cooperation. The desirability and modalities for inviting countries adjacent to the Baltic Sea Region to observe or take part in activities in the Region should also be considered.

The Baltic Sea States Summit in Helsinki in February 2010 is a fresh example of an initiative that aims at devising practical activities to restore and protect a healthy environment in the Baltic Sea Region. BSPC submitted a commitment to the Summit to provide political backing on the issue of safety of navigation and the creation of a joint ship reporting system for the whole Baltic Sea.

Action requires resources. Hence, it is very encouraging to hear international financial institutions claim that there is really no shortage of money for projects. What is lacking, however, is bankable projects, meaning coherent, realistic and viable projects to implement plans and programmes. Based on an initiative by parliamentarians of the region, the Nordic Investment Bank and the Nordic Environment Finance Corporation have launched a BSAP Trust Fund to support the development of bankable projects for the implementation of the HELCOM BSAP. This is an undertaking that should merit the full political and financial support from all the governments in the region. In any case, the present economic downturn must not be taken as an excuse for lowering environmental goals, cutting resources or delaying timetables for environmental work.

The Baltic Sea Region is bustling with actors and initiatives. The good news is that this provides a broad resource base and a battery of competencies. The bad news is that it entails a risk for duplication of efforts. A strengthened, more regular and practical dialogue between stakeholders could be instrumental in better defining their comparative advantages, respective roles and modes of cooperation in dealing with the challenges of the Region. This would augment both their individual and combined impact. Everyone must not do everything.

Many of the issues and challenges of the Baltic Sea Region are complex and have different repercussions for different countries. But just because there are diverging views on issues, a forum such as the BSPC is all the more important. It can provide an arena where differences can be openly aired and where a candid political debate can be held. That, in turn, is a necessary prerequisite for the pursuit of pragmatic approaches and compromises to tricky issues. In that sense, BSPC contributes to a transparent, democratic and rewarding political process, as well as to practical solutions, in the Baltic Sea Region.

Christina Gestrin

MP

Finland

Chairman of the Baltic Sea Parliamentary Conference (www.bspc.net)

We are linked not only by pragmatics

By Alexander Prokhorenko

In 1953 the city of Turku became the first sister-city of Leningrad. Since then our partnership has been actively developing in many spheres. Every two years there are alternating Days of Turku in Petersburg and Days of Petersburg in Turku. In 2006 a joint working group for cooperation between Saint Petersburg and Turku was created that identifies new "growth points" twice a year.

Our priorities and plans are documentally sustained: on June 8, 2008 Governor of Saint Petersburg V.I. Matvienko and Mayor of Turku M. Pukkinen signed the Agreement on Approval of the Program of trade-economic, scientific-technical and humanitarian cooperation for 2008-2011.

Both Turku and Saint Petersburg have the strategy of cluster development. We are aware of the great prospects in joint projects of maritime communities (the Maritime Council under the Government of Saint Petersburg, the Maritime Assembly and the Marine Museum Association).

The agenda of our immediate work includes the following areas:

- logistics of the Baltic Sea region, organization of carriage of goods by sea;
- issues of ecological safety and improved quality of the Baltic Sea water;
- cooperation in shipbuilding (first and foremost, under "Arctic Welding" project);
- renewable energy sources;
- university scientific exchange programs and projects on issues of protection of intellectual property rights;
- cooperation in the area of biodevelopments;
- stepping up of economic interaction of science parks;
- book publishing, replenishment of the electronic content of libraries and sharing experience of promotion of reading.

As a consequence, Turku companies have expressed their wish to take part in "Technical Fair", exhibition "Ecology of a Big City", "Building Week" as well as St. Petersburg International Innovation Forum and in the International Conference on Transport Ecology. Following the motor industry cluster the innovation industry has been declared a strategic area by the Government of Saint Petersburg. The volume of innovative products of Petersburg business increased 2.7 times in 2009 compared to 2008. The share of innovations in the total volume of dispatched products has grown to 6.5%. It should be remembered that until recently it was so microscopic that could not be calculated. This is where we see a point of reference of active cooperation with Turku.

We have had joint negotiations on starting regular flight connection between Petersburg and Turku and the decision on direct flights has been made.

Partnership always implies a single, open and operative information space. Therefore, in 2008 the Information Business Center of Saint Petersburg was officially opened in the Turku region (formerly the interaction proceeded through the Center of Turku Region Development and Petersburg "BIZCON" company). Mutual regular visits of journalists are both a good tradition and most interesting dialogue. The House of Finland started working in Saint Petersburg in October 2009 and a representative office of Turku is supposed to be opened on its basis.

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But we are linked not only by pragmatics but also by the great mutual interest in the culture sphere. The Turku People's University opened the information-educational center "Russian Museum: a Virtual Branch". Programs of the Finnish language studies and the Russian language preservation have been developed for Russian citizens living in Turku. Using modern multimedia possibilities teachers of Turku and Petersburg share their experience raising issues of cross-cultural educational environment in schools, strengthening of the tolerant outlook of young people.

Our partnership is on the threshold of a significant project of 2011: Turku will become the Cultural Capital city of Europe. Petersburg organizations of culture have actively participated in preparing the program of events of the Year.

For example, the Baltic International Festival Center is preparing "Theater Ark" project for the cultural capital city that will present Petersburg theater works and productions of Baltic countries. "Baltic House" is the main partner of the City Theater of Turku in the project of "New Baltic Drama 2011". Its best competition works will be offered to the residents and numerous guests of Turku in 2011. Of special interest is the joint project of Petersburg, Turku and Tallinn that will also be the Cultural Capital city of Europe in 2011.

The popular saying "a friend in need is a friend indeed" is more and more often interpreted by businessmen as "a partner is tried by a crisis". I am sure that economic, cultural and scientific-technical cooperation of Saint Petersburg and Turku will preserve the atmosphere of long-standing friendship and strengthen the business component despite the global crisis. By the way, the anti-crisis plan of the Government of Saint Petersburg has been pronounced the most effective among other regions of the Russian Federation due to its operational efficiency and open dialogue with foreign partners. Not a single large investor has left Petersburg market while the interest in integration has grown in the area of innovations and cluster policy.

Alexander Prokhorenko

Chairman of the Committee for External Relations

Saint Petersburg

Russia

Turku and St. Petersburg

By Armas Lahoniitty

Turku and St. Petersburg have been sister cities since 1953. It was a time when the Bolsheviks still ruled Russia and these agreements were formally established only after Moscow authorized the local decision-makers in St. Petersburg to sign them. This was also the first contractual relationship between the two cities.

Contacts developed over the decades that followed. These contacts took the form of the exchange of delegations and culture and youth groups. A lot of people who were involved in this work are still alive.

When the Soviet Union broke up, the cities began to seek new ways and new forms of interaction. The exchange of delegations was accompanied by efforts to achieve some long lasting results. This meant scientific cooperation, increased trade and other joint ventures. Especially tourism has been to this day a priority, which is natural. St. Petersburg is the former capital, which is reflected in the city's architecture, art collections, music, theater, etc. On the other hand, the Turku area is one of the oldest areas in Finland to be settled and the region also boasts many island tourism opportunities. Turku has also become a gateway for Russians who wish to travel by boat to Stockholm.

In the year 2010 and onwards, the deepening of economic and cultural cooperation is even more important, and also very possible. Between the two countries travel regulations and formalities should be reduced and sped up. The end of 2010 will see a new high-speed train connection from Helsinki to St. Petersburg, which will reduce the total time of travel between Turku and St. Petersburg to approximately five and a half hours. Also, obtaining a direct air link between Turku and St. Petersburg is now in sight for the first time after years of effort.

The Turku Region has a very strong concentration of metal and electronics industry and this creates a strong foundation for the possibility of cooperation with the Russians. Both St. Petersburg and Turku are major university, research and innovation cities. The two cities are both filled with such expertise and knowhow that the other country could and should utilize it for business and otherwise. The Turku region is home to a significant number of Russian people, whose skills in language could be used here. Also, St. Petersburg has the Consulate General of Finland and Turku has the Russian equivalent representation.

The amount of shopping tourists from Saint Petersburg is still negligible in Turku, as Helsinki and Kymi stop these groups. To develop this stream of tourists, shopping tourism must be combined with the other kinds of possibilities Turku provides, so the distance does not become an obstacle. It would be important to get the people who are on their way to Stockholm to stop by in Turku, so they could benefit from what this region has to offer and likewise Turku would benefit from the increased business.

The St. Petersburg Foundation has maintained The Finnish Cultural Institute in St. Petersburg since 1995. The Institute has now obtained new premises right in the center of St. Petersburg on the Bolshaja Konjushennaja Street. The Foundation has leased the building, which was finished in 1847, from the city of St. Petersburg, and which has now been completely renovated to a high class office building. In addition to the institute the building houses the offices of several regional development companies and Finnish government-financed organizations supporting export and cooperation in innovation. The most significant of these are Finnpro, The Finnish-Russian Chamber of Commerce, Helsinki Center and the offices of Turku, Jyväskylä and Mikkeli. The building will also house some businesses in the near future.

The Finland-house provides an excellent base for Turku and the entire Finland Proper in the heart of St. Petersburg. The house has an auditorium, conference facilities, a café and a sauna. A variety of conferences, exhibitions and meetings can be organized there. The Finland-house gives birth to a nexus for all things Finnish in St. Petersburg, and it serves to deepen Finnish and Russian cooperation and improve the promotion of practical issues.

Armas Lahoniitty

The Finnish St.Petersburg Foundation

acting councel

Former Lord Mayor of Turku

Finland

Natural cooperation takes a substantial effort to start

By Dmitriy Lisenkov

Russia and Finland are neighboring states with the common boarder of approximately 1,300 kilometers, common access to the sea and centuries of close interactions. Despite that natural closeness there is not much of joint success, which has been achieved by the two countries on the innovation front.

Supporting R&D activities and commercialization of their results are now important priorities in both our countries. Both Russia and Finland have state-backed nanotechnology initiatives and decided to conclude a memorandum of understanding on cooperation in the field of nanotechnology with an action plan for the upcoming year between the Ministry of Employment and the Economy of Finland and the Russian Corporation of Nanotechnologies ("RUSNANO"). This memorandum would allow both sides to test each other's real intentions regarding the cooperation ideas.

It has to be noted that RUSNANO was established in September 2007 by the Federal law to enable Russian Government policy in the field of nanotechnology. Currently the corporation manages over € 8 billion made available to it in the form of direct investment and loan guarantees by the state. To accomplish its tasks, RUSNANO co-invests in nanotechnology industry projects that have high commercial potential and/or social benefit. Early-stage investment by RUSNANO lowers the risk of its investment partners from the private sector. As of end of May 2010, 76 such projects were approved for funding for the total volume over € 6,5 billion (including RUSNANO's share of € 2,8 billion). These investments are intended to ensure that the annual output of the Russian nano-industry reaches around € 24 billion in 2015. In order to assist the Russian nanotechnology industry in entering the global market and strengthening its international links RUSNANO develops partnerships with the leading nanotechnology centers and investors worldwide.

The above-mentioned cooperation memorandum was signed during the First Nanotechnology International Forum in Moscow in December 2008. It was quite a natural step but at the same time it became the first of its kind. The purpose of the memorandum was not to announce any major initiative or joint project in the nanotechnology field. It has laid the legal ground for further steps and joint efforts in such areas of mutual concern as standardization and safety, intellectual property rights protection and foresights development, and, of course, co-funding innovation businesses in the field of nanotechnology and supporting their cross-boarder activities. In 2009, a number of mutual activities were performed both in Finland and Russia, including Nanotech Partnering Forum in Espoo, one of the leading innovation hubs in Finland. During that event some groups from the two countries met and started initial collaboration discussion. While RUSNANO and its partners succeeded in facilitating such discussions they kept learning about the possible issues along the way.

The official visit of the RUSNANO delegation took place in February 2009, when the top management of the corporation met with the Finnish political and business leaders in an attempt to understand the roots and the perspectives of the country's innovation system and to find the right partners. The best practices were learned to be applied in RUSNANO's activities.

Building wide technology cooperation is a long and difficult endeavor. Still, it starts with some practical steps. That is why in December 2009 the Industry Investment Ltd ("FII") and RUSNANO agreed to create a co-investment program. FII is a government-owned investment company which mission is to promote business, employment and economic growth through capital investment. The investments of FII amount to € 650 million to-date. FII and RUSNANO are very similar in its activities and both intend to actively help technology companies become major international players.

The actual co-investment agreement was signed in Lappeenranta, Finland on May 27, 2010 during the First EU-Russia Innovation Forum. The signing was done in the presence of Russia's Prime Minister Vladimir Putin and Finland's Prime Minister Matti Vanhanen.

The aim of the cooperation is to co-invest a total of € 50 million in rapidly growing nanotechnology companies operating in Finland and Russia, so that companies could also benefit from technologies developed in both countries. This cooperation is expected to become a first case of efficient technology transfer between the countries while creating wealth for stakeholders. Industry Investment and RUSNANO are evaluating possible target companies and will invest in them jointly and on equal terms. Both corporations have already reviewed together the deal flow and identified a number of interesting companies. The first joint investment can happen within the next six months. The investment program will last for up to three years. However, it is just a first step to test the deal flow of prospective nanotechnology companies for such cooperation. If it proves to be efficient and successful the parties pre-agreed to consider extending the program to set up a joint venture capital fund with the aim of investing in companies operating in both Russia and Finland.

The sides strongly believe that combining top-level Finnish know-how with extensive Russian expertise will produce globally competitive technologies. This co-investment program will also allow consolidating resources and experience in developing innovative companies thus opening new opportunities to enter global markets for Russian and Finnish technologies.

The Finnish-Russian cooperation can be a good example of the right approach to technology cooperation between EU countries and Russia. It is clear that more unified policies and joint support programs can bring a great benefit to the high-tech companies.

Dmitriy Lisenkov

Managing Director

RUSNANO

Russia

Science to the rescue of the Baltic Sea

By Markku Mattila and Laura Raaska

It has become clear that the role of science as a source of new knowledge has taken on increasing importance in meeting the grand challenges of a globalised world, such as global warming, dwindling supplies of energy, water and food security, ageing societies, public health, pandemics and security. The Academy of Finland feels the health of the Baltic Sea should be added to this list of challenges.

The European Union's Strategy for the Baltic Sea Region was adopted last year. The overall goals of the strategy are to make the Baltic Sea region an environmentally sustainable place, to enhance the region's prosperity, to improve the accessibility and attractiveness of the region, and to ensure safety and security throughout the region. The importance of science and research was strongly underlined as a basis for the implementation of the strategy.

Finland has a long tradition of Baltic Sea research, as do the other countries in the Baltic Sea region. Research programmes by the Academy of Finland, for instance, and various efforts by the EU have offered great opportunities and scope for versatile research collaboration. The Academy of Finland is committed to promoting research in the Baltic Sea region in the long term, and has consistently allocated funding to Baltic Sea research.

One of the foremost goals of the Academy, besides providing financial support, is to strengthen cooperation between all stakeholders in Baltic Sea research. This long-term commitment has, for example, led to the start of the international Baltic Sea research programme BONUS. One of the main goals of the BONUS programme is to enhance the collaboration and dialogue between end-users of research results and the research community.

We need dialogue

An understanding of the full importance of a dialogue between science and society has recently emerged in Europe. New approaches to coordinating and integrating national science funding and research programmes have been developed and new processes are in the pipeline. Baltic Sea research is a pioneering effort in this context. The European Research Area Board has recently published a strategic overview of research in Europe entitled *Preparing Europe for a New Renaissance*. One of the policy themes needed is a shared responsibility between science, policy-making and society, where public policy is based on evidence and underpinned by a 'new social contract' between science and society; a 'contract' that emphasises responsibility for action as well as freedom of thought.

The Baltic Sea Research Programme, BONUS, is a joint effort between eight EU Member States. The six-year preparation process that preceded the programme was coordinated by the Academy of Finland. Now, BONUS is about to receive a prominent status in Europe. On 29 October 2009, the EU Commission put forward a proposal for a decision by the European Parliament and the Council on participation in a joint Baltic Sea research and development programme, BONUS. Implementing the programme under Article 185 of the EC Treaty will secure long-term and substantial funding for the programme. The legislative proposal concerning BONUS has been through the co-decision procedure of the EU Parliament and the Council, and the final approval of the programme is expected from the Parliament in June 2010. The anticipated funding volume is EUR 100 million, of which half comes from the EU and half from the participating countries. All in all, it is a large-scale joint investment in Baltic Sea research. Russia has also been reserved an opportunity to participate in the calls opened through the programme.

BONUS tackles the most critical environmental issues

The focus of the Baltic Sea Research Programme is on the most critical environmental issues, such as eutrophication, pollution, climate change and maritime safety. Besides producing new knowledge, a key goal of the research programme is also to create forums between the science community and end-users of research results, to promote cutting-edge research in areas of strategic importance to the Baltic Sea, and to combine Baltic Sea research, researcher mobility and training.

As a whole, the programme will engage in research not only within the natural sciences, but also within social and economic effect mechanisms. The societal impact of the programme will be enhanced through intensive stakeholder involvement and cooperation with other relevant EU and national programmes.

The programme will be implemented in two phases: a strategic phase between 2010 and 2011, followed by an implementation phase between 2012 and 2016. The strategic phase will set the scene for the implementation by drafting the Strategic Research Agenda, setting up Stakeholder Consultation Platforms, and preparing implementation modalities. During the five-year implementation phase, at least three calls for proposals will be published with a view to funding projects that address the objectives of BONUS. These calls will be targeted at multi-partner and transnational cooperation, and they will include research, technological development, training and dissemination activities.

In addition to providing financial support, the Academy of Finland fosters cooperation between all stakeholders engaged in Baltic Sea research. Research may not always immediately provide clear solutions, but it creates a deep understanding of specific world phenomena. The BONUS Day, held in Helsinki on 9 February 2010, is a good example of activities aimed at stepping up stakeholder dialogue. The event brought together a total of 70 representatives of the academic community, governments and NGOs in the Baltic Sea Region to discuss new ways of using research as a basis for policy decisions, to enhance cross-sectoral communication and the values of the Baltic Sea. In particular, the focus was on maritime safety and the multitude of goods and services provided by the Baltic Sea ecosystem.

The message that was conveyed to heads of Baltic Sea countries and delivered a day after the BONUS Day at the Baltic Sea Action Summit emphasised the role of the Helsinki Commission (HELCOM) in implementing the EU Baltic Sea Strategy. The gist of the message was that the programme will provide an excellent opportunity for HELCOM to use relevant and up-to-date research results.

Markku Mattila
Professor, President

Laura Raaska
Adjunct Professor, Director

Academy of Finland

EU Strategy for the Baltic Sea Region and innovation policy

By Veli-Pekka Saarnivaara

EU strategy and action plan for the Baltic Sea region were approved and published in 2009. There are four pillars in the Baltic Sea Action Plan:

- Sustainable environmental policy
- Thriving regional economy
- Attractive region with functioning transportation services and
- Secure region.

All the targets are important and meaningful.

The implementation plan has 15 priority sectors and 80 Flagship-projects. One of the projects is "The Flagship-project on Research and Innovation, Clusters and SME networks". When executing this project it should be kept in mind that innovation policy can't be isolated from other policies; it means that all the four pillars of the EU Baltic Sea region strategy – environment, economy, transportation and security – can and should be affected by innovation policy.

It's really fine that the Baltic Sea region has a strategy to face the future challenges, solve the emerging problems and utilize the new opportunities. Unfortunately it isn't very clear how to implement the strategy to really reach the results wanted and needed. I'll try to give some examples to concretize the challenges.

The Baltic Sea is one of the most polluted waters in the world. It is a shame to the Baltic Sea countries and shows lack of political will and courage. We have structural funds (maybe others like CBC/ENPI, too) to build real incentives especially for agriculture to solve the problem but they have not been used properly.

Does this have something to do with innovation policy? Yes it does! If you want to create incentives for innovations, the most powerful mean is to affect the markets to change the demand and thus create motivation to find new solutions. This is something what has been underestimated in innovation policy. Of course common markets and free trade are important and a must but besides that we need strong incentives to change the behavior of the consumers or producers – in this case the main polluter of the Baltic Sea. On a wider scope market incentives can be used to create lead markets in relevant fields, for example in energy and environment.

The main topic of the Baltic Sea region strategy – of course – is cooperation. In the research, development and innovation (r&d&i) policy the flagship project is dealing for example with transnational clusters and networks of SME's. Co-operation and networking are important and becoming even more important in the near future because traditional national clusters have disintegrated and new global value networks have been established. These networks are changing and reorganizing themselves all the time. All the companies have to find and take their place in global value networks – as brand owner, system owner, service provider, component deliverer, resource supplier etc.

If you are not looking after global networks and trying to find the best partners globally, you will lose the game. Thus to build clusters which are not really global, and to look after partners which are not really the best ones globally, is not a wise strategy. Still you have good opportunities to find partners on a certain region - like on the Baltic Sea region – but the search and co-operation should not be limited on this region. It should be part of and integrated in global cooperation and networks.

It is also important to rethink what is the role of public actors when talking about clusters, which are mainly networks of private companies. I don't believe in the competence of public actors when trying to shape value networks. It is the core competence of companies in their specific fields. The public sector should create a good operational environment for companies and risk funding for innovations.

Networks of SME's sound a bit strange when talking about innovation policy. I'm sure that networks of SME's are relevant for example in trade promotion but in r&d&i we should, I think, to concentrate on value networks and build the r&d&i-cooperation also on them. It means that companies integrate business networks with innovation networks and build innovation cooperation on business partnerships.

Concerning big companies pure research networks are possible and also needed. They are able to invest in long term strategic pre-commercial research and they should build tight and intensive cooperation with universities and research institutes, like has happened for example in national technology programs and is happening in new "Strategic Centers for Science, Technology and Innovation" in Finland. This kind of cooperation should be global but we of course can have activities in Baltic Sea region to boost global networking as a part of it Baltic Sea region cooperation – but not pure Baltic or Nordic cooperation, neither in companies' innovation processes nor in academic research.

Today it is very popular to speak about user and customer driven innovation and to understand it totally wrong. You can't ask the customers or users what they want because they do not know what they could want – they can't realize the opportunities of new technologies. It would be better to talk about demand based or demand driven innovation. Demand based innovation means: you have a vision on future demand, understanding business concepts to answer the demand, strong will to create the demand, means to show the opportunities and ability to combine customers in the innovation process to test different solutions. This means co-creating value with customers and tapping knowledge from users. This is on the responsibility of private companies but also of public actors when developing public services. Public sector should have a role in building cooperation between companies and academia to make relevant strategic choices in public research, and it could have a role to organize and partly fund test beds and living labs for exploration as well as to renew public procurement practices for innovative procurement, but a more powerful task of administration and politicians is to affect the demand by regulation and incentives so that the societal targets will be reached – this is a part of the lead market idea which could be used in the Baltic Sea region.

Veli-Pekka Saarnivaara

Director General, CEO

Tekes – Finnish Funding Agency for Technology and Innovation

Finland

Creating the world's first global innovation hub chain: Technopolis is now operating in Finland, Russia and Estonia – and just getting warmed up

By Keith Silverang

Globalization has also brought with it the rise of international chains, networks and franchises. The world has its Ikeas, its Starbucks, its Hiltons and its Elixia fitness center chains. Like it or not, the world is getting smaller and more homogeneous. The Web has provided entrepreneurs and corporations with instant access to the global customer community – **if** you can get their attention amid the noise. Successful growth companies have understood that to master this universe you have to be the best in the world in your own niche, but to have sufficient scale and generate the big numbers – to be a true growth story - you need to operate internationally, preferably globally. That is the way of the New World we live in.

The real estate business is widely considered a local game. It is typically quite conservative and dominated by risk management issues. Given the events of the global financial meltdown and the capital intensiveness of the real estate sector, this is hardly surprising. It also does much to explain why very few authentic real estate chains have arisen outside of the hotel and retail sectors. This is particularly true of science and technology parks. Apart from office hotel chains the business is fragmented and dominated in Europe by municipally and university owned parks operating locally. Elsewhere in the world you will find significant privately owned parks as well, but rarely do they operate as a chain or even as a coordinated network.

Technopolis wants to be the game changer. We now have 15 campuses in 7 cities in Finland and Russia. We're in the process of acquiring our first Estonian campus in Tallinn. Our campuses are now operating as an authentic innovation environment chain with centralized chain and service concept development and management. Our vision is to become a European-wide chain over the next few years. After that the sky's the limit.

And why not?

We've already learned that the right combination of investment in the right kind of infrastructure and services for knowledge-intensive growth businesses and their partners can create the dynamics that make innovation ecosystems take off. It's not nearly enough to construct nice buildings. In fact, more often than not, public sector driven innovation centers and incubators are glass monuments that are expensive to build, even more expensive to operate and do not optimally enable the effective interaction of innovation players, not to mention their rapid expansion within a single campus. Technopolis' public sector partners, have learned that we can not only free up critical capital for them, but that by entrusting their strategic innovation assets to us they can be sure that we will invest continuously in more growth of the innovation hub and deploy services that most effectively support the attraction and expansion of growth companies.

I believe strongly that the formula for success is universal. Shared infrastructure services such as advanced ICT and video conferencing generate savings and productivity improvements that are appreciated anywhere. Our online and physical matchmaking services enable growth companies to find venture capital and reference customers from around the world. Technopolis has productized solutions that not only network agents within a single innovation hub, but also connect all of our innovation hubs to each other and to world class companies, financiers and partners around the globe.

St. Petersburg is a case in point. Even though the first 24,000 square meter phase of our 80,000 m2 park will not launch until next summer, we already have had a half dozen matchmaking events and have brought several high quality Russian start-ups into our international investor matchmaking system where they have received attention from international risk investors who didn't even know they existed before. Technopolis Pulkovo, with monthly matchmaking events, global fund raising solutions for local growth companies, world-class video conferencing solutions and a built-in community of domestic and international technology companies of all shapes and sizes will revolutionize the St. Pete innovation system, giving it access to the capital and corporate connections that it so desperately needs to begin reaching its tremendous potential.

Our joint venture in Tallinn will go further and faster because Technopolis Ulemiste City will have critical mass from the very beginning, with 60,000 m2 of high-quality modern office space and an excellent customer portfolio. Estonia is one of the most wired countries in the world and the birthplace of Skype has a proven capacity to generate world-class start-ups. Once Technopolis begins connecting them to its investor and customer networks things will start happening.

You can see where this will lead. The more innovation hubs we acquire, the better the value proposition is for both our clients and for their stakeholders. In the near future we will be able to offer international venture capitalists and corporations a one-stop-shop to meet the best Nordic, Russian and Baltic growth companies. For our tenants this means access to world class capital, customers and partners. As we become a European-wide player and then a global player we are creating a unique virtual and physical matchmaking market that will be very hard to match, never mind duplicate. It's easy to understand then why the European Investment Bank and the European Bank for Reconstruction and Development have been keen to finance our projects. We're not building technoparks to get a quick return. We're creating sustainable innovation ecosystems that give birth to and enhance the knowledge economy where ever we go.

It's this passion for entrepreneurship and innovation that separates Technopolis from conventional real estate companies, especially the listed ones. And it is this passion that we enable us to fulfill our mission to create the world's first and finest chain of innovation hubs.

Keith Silverang

CEO

Technopolis Plc

Finland

Is there a new Finnish Innovation System?

By N Tapani Saarinen

There is a long tradition and strong base in the Finnish Innovation System. Since the middle of the 1980s, the Finnish government claimed that Finland should be described as a country of knowledge and expertise. As a part of this task, the government was investing more money in R&D. But it was not only the government – the Finnish industry also took an active part. As a matter of fact, measuring the money spent on R&D compared to overall GDP, Finland has for long been among the three most enthusiastic countries in the world.

The founding of TEKES (the Finnish Funding Agency for Technology and Innovation) - one of the main financing instruments - took place in 1983 as a part of this development, and it has been financing Finnish innovations ever since. One decade later Ministry of Intern Affairs started the Centre Of Expertise Programme to help Regions in the need for innovation infrastructure. Afterwards, both decisions can be seen as excellent examples of innovation Policy and a manner of organizing cooperation between the universities and the industry.

The Centre of Expertise Programme claims to turn top-level expertise into new business and jobs. In the new phase of the Programme the definition is quite similar to the one that was written in 1994:

"*The Centre of Expertise Programme lays the ground for diverse innovation activities in which high-levelresearch is combined with technological, design and business competence. The programme is a tool for regional innovation, which contains ready-made operating models and networks for the national and international markets. The programme offers networks and services for companies, universities, universities of applied sciences and research institutions.*

The Centre of Expertise Programme reinforces innovation hubs that can be desirable partners for international networks. Through the programme, companies can receive competitive advantages through the meetings between different regions and sectors."

In both cases the State acts perfectly in its role in Triple Helix Model. Also in both cases the Finnish science parks and/or technology centres are important players as coordinators and catalysts.

Finnish government and politicians decided to aim at ensuring that the infrastructure for science, research and development is the best of the world. And that is true even today. The Government Programme of Prime Minister Matti Vanhanen´s second Cabinet says:

"The Government will boost resources for research and development with a view to increasing R&D funding to four per cent of GDP in the public and private sector. General university funding will be increased across the board and donations for scientific research will be made widely tax deductible. Within the scope of the centre's of excellence strategy, strategic centre's of expertise will becreated in collaboration with the private sector, as outlined by the Science and Technology Policy Council. The Government will help set up a leading international university in Finland."

The Finnish economy benefitted from the national innovation infrastructure during the recession that took place after the collapse of Soviet Union in the beginning of 1990´s. Target for the public funding created success. More than three quarters of the national innovation money was spent in IT and electronics. It created the success story of Nokia, but also a huge number of SMEs benefitting from this situation.

Now our economy is facing a similar situation and similar problems. A selection of governmental instruments - almost the same as in the 1990´s – is available to be used to help the companies in need. There is one exception: The National Strategic Centres for Science, Technology and Innovations (SHOKs).

The SHOKs – the new financing instrument – are a part of the national innovation policy with the aim to focus on certain important industrial areas. However, in the present economical situation it seems not to be a very successful definition of measures. Being controlled by the big industry the SHOKs do not enable the SMEs to join in their R&D programmes and projects fairly.

In the previous recession the SMEs could benefit substantially from the public resourcing, but today the situation is clearly different. The great majority of the innovation money goes to the bigger companies. And unfortunately in such industry, the future of which is crucially dependent of labour costs. This means, that there will be no additional boost to SMEs and no easy way out from the economical recession.

Recent evaluation report of the Finnish innovation system gives a slight warning for the funding of SHOKs:

"The panel is cautiously optimistic about the national Strategic Centre's for Science, Technology and Innovations (SHOKs) but suggests limiting public resources devoted to them. In the panel's view SHOKs are mostly about incrementally renewing larger incumbent companies in traditional industries."

At the same time one of the crucial players in Finnish innovation system, the universities, is in a transition state. There is a great disorder, if not a chaos, present. The academic production of new knowledge is at risk. Our university institution suffers from lack of money and acclimatization to a new situation.

The previous creates a great challenge for all players in the new innovation system. Already there are signs of internecine competition within organizations. Diminishing funding, increasing bureaucracy and regional requirements are not the best basis for cooperation and further discussions.

Finland has benefitted from a functional network of innovation actors for a long time. In the Triple Helix model everybody has had his natural position. What will happen next? Will there be a new national Innovation System ?

N Tapani Saarinen

Vice President,
Business Development

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Finland

Chinese innovation and it's significance for Finland

By Simo Karetie

China has made innovation a cornerstone of the country's future development and set herself a target to become an innovation oriented country by 2020. This requires an environment that enhances opportunities for innovation. OECD review of China's innovation policy came to a conclusion that reforms have created outstanding growth of economy. However, China will need to develop the framework conditions for innovation, including good corporate governance, effective IPR protection, adoption of international standards and a modern and pro-competitive regulatory regime to build a modern, high performance national, enterprise based innovation system.

China needs to further open its markets to foreign investment to obtain the full benefits of foreign technology. OECD foreign direct investment regulatory restrictiveness index for China is much higher (more restrictive) than OECD average, South Africa, Brazil, Russia or India. There is a growing foreign concern over some expressions of China's policies including Chinese competitive pressure, enforcement of IPR's, claims of forced technology transfer and the National Indigenous Innovation Policy.

From an international perspective the main goal is the integration of China into an increasingly global knowledge and innovation system. Domestic innovation capability will facilitate the integration of foreign-invested enterprises in the Chinese innovation system and contribute to better protection of intellectual property rights. China has enjoyed a massive inflow of outsourcing activities and foreign direct investment, bringing technology and knowledge to the country.

One of the OECD's conclusions is evident, China's emergence as a more innovation-based economy will lead to more vigorous competition as Chinese companies are entering the world market and strongly challenging other players. They have been effective in combining the Chinese advantages and opportunities provided by globalisation, including access to global market of goods, capital and technology. Business has also benefited of government incentives of various types are available ranging from land acquisition, raw materials and capital, export financing etc.

Chinese companies have been effective in their tactics, applying bottom of the pyramid strategies and targeting markets on the periphery, including Africa, developing Asia, Eastern Europe and Russia where regulatory and legal environment resembles that of China. At the same time concerns over China's investment behaviour in developing markets have been raised which stresses the importance of responsible business conduct and establishing a level playing field in export financing practices and other government incentives.

Chinese companies have focused on cost efficiency of production processes and developing market-based applications, integrating western technologies into production and developing those further. However, they still have some weaknesses compared to many western counterparts including shortage of sufficient knowledge and strength in base technology to develop entirely new technologies in the frontline of technology development. Also, they lack strong brands and proprietary technologies as well as business process know-how.

FDI can be categorized as seeking natural resources, product markets, strategic assets (advanced technology, brands and distribution channels), diversification or efficiency, or any of their combination. Innovation related FDI is mainly associated to acquisition of strategic assets.

To reduce their handicaps and finding strategic assets also Chinese companies are acquiring foreign companies and establishing subsidiaries to connect into technology development. Examples of this include Lenovo acquiring IBM pc's and Geely's recent acquisition of Volvo. As Chinese companies are upgrading their global competitiveness these acquisitions are expected to increase.

Chinese companies establish subsidiaries in centres of new technology to access knowledge, identify new technologies and cooperate with partners and customers. Huawei as an example has set up a R&D centre i.a. in Stockholm and Gothenburg. Business logic of these innovation out-posts is based on growth and internationalisation of companies and connecting to foreign technology and innovation centres.

Finnish companies have made significant contributions to innovation in China. They have benefited of the growth of Chinese market, talent pool and expertise. They have invested in manufacturing, in R&D and in knowledge intensive services. They are contributing to the fabric of Chinese economy through their own or JV facilities, via retail and distribution networks, logistic and supply chains, services and sales networks as well as via outsourcing and purchasing activities and bring added-value to economic growth, production, exports, employment, innovation and environmental sustainability.

Based on this experience and the strong tradition of mutually beneficial economic cooperation of the Finnish and Chinese economies there should be much more cross-border activities in trade, investment, research and development, which is crucially important for commercialization of innovations.

Finnish Ministry of the Employment and the Economy has recently announced that a Chinese Innovation Centre will be set up in Finland, aiming at supporting Finnish and Chinese companies in building mutual innovation and cooperation in the field of high technology to improve their competitiveness. It has also been reported that it will provide access abroad for Chinese high-tech companies and serve as an service organization for them and Chinese and public institutions.

International innovation networks are of particular importance in increasing our competitiveness, productivity and cost efficiency, including expanding business and university cooperation and further improving education and cooperation between universities. There can be found mutual benefits from this setting where Finland and China can build innovative capacity. In Finland competition is based on open market, equal treatment and a level playing field for all companies alike, an important prerequisite for business and economies to grow and develop. The innovation partnership must be supported by an innovation enabling business environment.

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Finland

International companies can boost Finland's innovation system

By Tuomo Airaksinen

Innovation activities and high-level know-how contribute to the Finnish economy and the welfare of the society in many ways. This is also acknowledged in national decision-making and objective setting, where investing in innovation is seen as a tool for addressing the different challenges facing Finnish society. The significance of innovation has become widely accepted in recent decades by different sectors of the society, to the extent that it is now possible to discuss innovation in terms of a common national strategy and mission.

Over the years, Finland's national innovation system has often been highly ranked in international comparisons and league tables. Indeed, Finland is today among the top countries globally in terms of R&D spending per capita. The Finnish government's budget for R&D in 2010 is EUR 2,055 million, while the share of public R&D funding of GDP is estimated to rise to 1.17 per cent. There are many commendable examples of cooperation between different organisations, and the public and private sectors, in the quest to fulfil national innovation objectives. Finland has focused on certain knowledge-intensive sectors, R&D activity, and has also created a business environment which is well regarded internationally. Finland's education system has also been honed to be the best in the world.

These are impressive achievements but there is also a lively ongoing debate in Finland on whether the national innovation system is fully delivering on its objectives. The policy report *Evaluation of the Finnish National Innovation System,* commissioned by Finland's Ministry of Employment and the Economy and published in October 2009, identified several important challenges faced by the current system. It argues that the Finnish taxpayers' money invested in public R&D and in the public support system is not creating enough high growth entrepreneurial firms.

The report also states that "Relative to its investments in R&D, Finland invests disproportionately less in the commercialization of the results." In other words, Finland is not fulfilling its potential to create more high growth firms that produce world-class goods and services for international markets. Other concerns raised in the report include the "low number of active private earliest-stage venture capital investors, the small absolute size of investments, and the limited competition and international experience among venture capital investors."

These are clearly important challenges that need to be addressed. Perhaps the greatest challenge facing Finland's innovation system is internationalisation, both in terms of research cooperation and in business itself. In the Finnish system it is mainly the large companies that operate internationally. Small and medium-sized companies, research institutes and the university sector are still too Finland-centred. The number of foreign companies and the scale of their operations in Finland are still fairly limited despite the excellent business environment available to them.

By its very nature, innovation activity is international. Research has shown a clear relationship between a country's level of globalisation and its innovativeness. It is the social dimension of globalisation that has the strongest correlation with innovation, for example in areas like the mobility of researchers and experts, the capacity to maintain international contacts, and the utilisation of internationally produced knowledge. In today's interconnected world, not even the biggest countries manage to go it alone and their innovation activities increasingly rely on knowledge produced elsewhere.

What the Finnish innovation system urgently needs is more international operators and more openness to competition. Reaching this objective requires the same spirit of cooperation and target orientation that has gone into the development of the country's R&D environment. The process can also be supported by different incentives like taxes and other traditional economic tools. Nevertheless, perhaps the most important factors towards changing the current situation are active cooperation and greater visibility on the international arena.

Finland's cooperation within the Baltic region and the other EU countries is natural and already has a long tradition. It is also worth remembering that most countries are wrestling with the very same challenges as Finland, so in many cases networking is essential and mutually beneficial from the perspective of all the parties. Securing Europe's competitiveness in relation to Asia and the United States is our joint challenge and opportunity.

There are many other countries that also share the strategy and objective of investing in high-level knowledge. The competition is tough but not impossible for Finland and other small economies. For example, Finnish companies and consumers are early adopters of emerging technologies, which makes Finland an ideal test bed for new solutions and technologies. Foreign-owned companies operating in Finland can also benefit from access to the latest research from the extensive cooperation between Finnish universities and the private sector.

As Finland starts reforming its national innovation system, it is crucial to recognise that international companies and business networks are key resources in this process. Vast amounts of knowledge, know-how and capital are channelled through these companies and any reforms will not succeed without their active engagement.

At the same time there should be an understanding that Finland's innovation system and business environment cannot be developed forever through more state resources and intervention. The system does not need of more taxpayers' money to make it work more effectively. Instead, the state should focus on establishing a well-functioning infrastructure and creating the most conducive environment possible for business and international cooperation. Finnish companies can and should establish their own international networks and attract funding from international sources, instead of relying too much on financial support from the state.

A report on financing growth entrepreneurship by Professor Vesa Puttonen from the Helsinki School of Economics, published in May 2010, identifies the lack of private capital and low level of internationalisation in the venture capital market as major blocks to the emergence of high growth innovation companies in Finland. Rather than increasing public funding or undertaking direct interventions, Puttonen recommends that the state promotes the internationalisation of the investment market.

More international investors, foreign companies and technical experts are required in Finland for its national innovation system to move forward. Finland also has a great deal to offer international companies. It is these mutual benefits that drive the work of Invest in Finland in communicating about the country's business opportunities and value as an investment location for international companies.

Tuomo Airaksinen

CEO

Invest in Finland

Finland

Invest in Finland

Invest in Finland is a government agency promoting foreign investments into Finland. It assists international companies in finding business opportunities in Finland and provides all the relevant information and guidance required to establish a business in Finland.

The University-Business Partnerships

By Lauri Lajunen

The knowledge-based economy is on the agenda around the world. At the same time, global change challenges both the private and public sectors to develop more economical, more efficient and more environmentally sustainable production methods, products and services. In this situation new innovations increasingly depend on observations and results achieved through scientific work. Therefore, it is quite logical that universities now occupy an increasingly important role and that they are faced with vast expectations and demands.

National innovation systems rely on universities, and politicians and businesses seek cooperation with them. Against this background it should come as no surprise that university reforms have taken place or are underway in countries like Austria, Germany, Denmark, Sweden and Finland. Japan, South Korea and China are also actively developing their universities. Goals for these reforms and development measures include the enhancement of the quality of research and teaching, and the increasing of universities social and economic impact.

There are versatile ways for universities and companies to cooperate. Diploma thesis work for companies, common research projects and programs, joint research an innovation centers, commissioned research, consultations, joint seminars, company experts as guest lecturers and donated professor's chairs are some of the forms of cooperation which most universities have been taking part in for years.

High quality research and up-to-date teaching make the foundation of a university's reputation. A university that can offer this will attract to its campus and vicinity, the research and development capacity of businesses simply because the platform for research cooperation is naturally there and the companies can easily recruit an educated work force. It is in the interest of companies to cooperate in research and offer diploma thesis projects and traineeships for the students. In the best of cases a win-win situation is created - both the company and the university will thrive, since a university greatly benefits from the surrounding strong and versatile business and service structures. On the other hand, the service structures and the companies need the university. Universities create innovations as a result of their research, which translates into new products, new businesses or better services. Thus, the social and economic impact of a university is two-fold.

One department cannot do everything possible under the sun and at the same time acquire a good international level of quality and efficacy. Devising a strategy requires making choices and setting clear goals. This entails taking into account changes in scientific knowledge and social relevance.

University of Oulu is a science community of 3,000 employees and 16,000 students. The university has a large scientific base of nine educational areas, which are organized in six faculties or schools (education, humanities, natural sciences, medicine, economics and business administration, and technology). The focus areas of research are information technology; biosciences and health; environment, natural resources and materials; and cultural identity. In addition, there are four development areas which are business studies and economics; research-based teacher education; mining and mineral engineering, and steel research. In these areas the university is a strong international scientific community and each of these fields has a great impact on the economic and cultural life of Northern Finland.

Competition introduces new challenges continually. To maintain an achieved position will be increasingly difficult, since everyone is investing in improving their performance. In addition to identifying your strengths and potentials it is necessary to recognize your weaknesses and threats and to deal with them.

The strengths of University of Oulu include multi-disciplinarity and a broad knowledge base of high international level in the fields of focus. The university networks closely with the surrounding society and it has advanced strategies and a structure for regional cooperation. Out-dated basic funding and the diminishing recruiting sphere due to decreasing number of population in Northern Finland are clearly threats. In order to be successful in research, education and in societal resource mission a university must have good human and financial resources and functional internal processes and structures. A university will maintain its competitive edge only if these processes and structures remain flexible and only if it offers its researchers and teachers a chance to develop and renew themselves. In addition to this, success necessitates good partners and allies both in Finland and in abroad. In the future, it is predominantly networks who compete and to belong to strong networks is part of success. It can be said that for a university to be successful it is not only the scientific development which counts, but also the needs of the surrounding society and the global developments.

When universities and businesses cooperate we need to keep in mind that a research university of high international standing cannot and should not become a research and development laboratory or gopher for the assignments of a company. The primary role of a university is the production and creation of new knowledge. A university will carry out research that businesses might need in five to 10 years time and which might not have a direct application at the moment. High quality research together with relevant teaching and ambition are our priorities.

Lauri Lajunen

Rector

The University of Oulu

Finland

Principles for a new-generation innovation policy

By Leonid Gokhberg

Today the Russian economy is facing long-term challenges, connected with the global rivalry and exhaustion of sources for growth of raw materials exports. These challenges have led to activation of S&T and innovation policies during the last decade. The shift towards innovation-based growth has been declared in Russia as the key objective of the state policy and the only possible development model. During recent years a number of strategic documents was adopted, which were aiming at public support to S&T, integration between science and universities, creation of organizational, legal and economic incentives for innovation, improvement of the IPR regulation, etc. Further policy agenda for innovation is being intensively discussed.

However, a specificity of the Russian situation lies in the resistance to change: the level of enterprises' innovation activity remains inadequately low in the period of economic growth as well as under the crisis pressure. Less than 10% of their overall population in industry are involved in technological innovation. Though even their interest in the "intellectual" end of the innovation processes, such as R&D or acquisition of IPR, is extremely low under the influence of certain reasons (often external to S&T, innovation and production activities). Acquisition of equipment, most frequently by exports, dominates expenditure on technological innovation (59% of the respective total), and this trend inevitably dooms industry to a catching-up trajectory.

In spite of the above-mentioned measures it is still challenging to manage legal, administrative, financial and other deficiencies fully. Structural misbalances and technological underdevelopment of the economy, low innovation capacities of companies, and insufficient output of the R&D sector make global positions of the country extremely vulnerable and inconsistent.

To a great deal, present problems and limitations in the Russian national innovation system (NIS) have systemic roots and must be tackled only within the framework of a comprehensive reform programme. Current problems can be best described as "the inflation of notions" in the Russian innovation policy.

Indeed, there already is a number of major policy instruments available, e.g. tax allowances for innovative companies, technoparks, special economic zones, etc. At the same time, there is a gap between the best international practices which those terms were generally derived from, on the one hand, and the real implementation of those instruments, on the other. This gap can be traced in different elements of NIS: technoparks mostly lease their premises; special economic zones have only fences, and even their construction is sometimes incomplete; tax exempts are avoided by many enterprises (especially those without strong legal services), as they beware of the risks related to tax enforcement, when if relevant expenses of a company are not recognized as "innovative", the consequences might be extremely severe. Therefore it is required to conduct the instruments' revision, assessment of their regulating impacts and comprehension of the policy mix.

The next issue is the lack of systemic approach in a basket of policy instruments. Existing separately, they are related neither in their aims, nor in implementation mechanisms or effects, and often contradict each other in terms of their impact. This can be considered a manifestation of fragmentation and miscoordination of state authorities — an internationally well-known process — when they set either too general goals, which are impossible to achieve by a single agency, or do not take into account the impact of their activities on reaching more global goals. It is time to shift from piecemeal strategies of specific agencies to a whole-of-the-government innovation policy model, including formation of a coordinated portfolio of innovation development institutions.

Innovation processes are restrained by the lack of companies and R&D organizations' long-term vision: planning horizons for the former are mostly limited to 3-5 years, while for the latter they do not usually exceed 1-3 years depending on the duration of publicly-funded projects. Poor cooperation between industry and academia is explained by the absence of desired external conditions for businesses and internal resources for long-term R&D investment in companies, whereas science cannot make ready-to-use technologies available for rapid implementation and returns to companies under tough market pressures. For the R&D sector, further consequences include its lagging behind companies' needs, particularly, those which are involved into global competition (not only in external markets, but in the Russian market as well), and technological competitors. Reduction of employment in R&D, ageing of researchers, deterioration of R&D fixed assets continues; as a result the quality of technology supply keeps slashing.

Central place in the policy mix should be occupied by the instruments supporting cooperative linkages between all actors: enterprises, state (at different levels), R&D organizations, universities, and international partners. The state traditionally plays a role of a major sponsor or a proprietor, while its function as a moderator of linkages in the NIS remains underdeveloped. Technological platforms can be a solution, but the governmental policy must become more flexible: as far as innovation projects move towards advanced stages of their life cycles, its function of direct funding should decrease, while that of risks reduction along with legal, organizational and networked support should increase. Training at all stages of the innovation cycle must be within state's priorities as well. In such case its intervention will be a "trigger" for long-term innovation projects, based on efficient linkages between key actors.

Success of technological platforms will indicate whether the institutions of the Russian economy and the state policy in particular are ready for transition to innovation-based growth de facto. But the capacity of making a breakthrough and stepping to the forefront in this area still remains under the question.

Leonid Gokhberg

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Russia

Trade relations between the Republic of Belarus and the Republic of Finland in progress

By Gennady Korolyonok

Globalization of the world economy inevitably leads to wider cooperation between countries with different levels of economic development, one of its most important directions being a more intensive international trade. The latter is able to create the country's positive image abroad.

Foreign trade is progressing rapidly. It is greatly facilitated by free trade economic communities of different types (EFTA, etc.), customs unions (EEC) and other units existing in the field of trade. Thus, they allowed some member states to abolish customs duties and remove quantitative limitations to free movement of goods, services, capital and labour. All these measures substantially speed up trade relations between countries.

A certain progress is evident in trade relations between Belarus and Finland, too.

In 1992 the governments of the Republic of Belarus and the Republic of Finland signed the Agreement on Trade and Economic Cooperation that helped mutually accord the most favored nation treatment in trade. Its essence consists of providing participants with tax privileges such as lower charges, duties and taxes, and priority access for their goods in both countries, etc. These resulted in much more intensive trade between our countries.

Table. Distribution of Exports and Imports between the Republic of Belarus and the Republic of Finland

Index	Year							
	2005		2006		2007		2008	
	US doll., mln	% to total import/ export volume	US doll., mln	% to total import/ export volume	US doll., mln	% to total import/ export volume	US doll., mln	% to total import/ export volume
Exports	30.7	0.34	28.3	0.25	37.6	0.29	11.6	0.53
Imports	51.2	0.92	75.9	0.97	102.9	1.06	172	1.28

** See statistical digest "Внешняя торговля Республики Беларусь" (Foreign Trade of the Republic of Belarus) – Minsk: 2009, p.69*

The dynamics of trade relations is characterized by the data in the Table.

The Table proves a certain positive tendency in the trade between the two countries. Thus, exports from the Republic of Belarus between 2005 and 2008 grew to 115.6 mln. US dollars, i.e. 3.8 times, and imports – to 172 mln. US dollars, i.e. 3.42 times.

Yet, the volume of trade between the two countries in absolute figures can hardly be considered satisfactory, in spite of the general positive tendency in developing trade relations. To compare, the ex-USSR countries and countries of the former Soviet block, thanks to their traditional trade connections have the following indices in 2008: Poland – export of goods reaching 1808.4 mln. US dollars, import 1155.2 mln. US dollars; Lithuania – 622.5 mln. And 234 mln., Latvia – 2184.2 mln. and 138 mln. US dollars respectively.

Bearing in mind its high level of development in ferrous and non-ferrous metallurgy, machine engineering, electronic, paper and wood processing industries as well as in other economic fields, Finland is an attractive trade partner for Belarus. We should note here that during the world economic crisis countries experience reduction in trade relations which necessitates searching new possibilities to expand the trade cooperation between the Republic of Belarus and Finland. It is the interest in closer trade and economic cooperation between the two countries that necessitates considering at the government level establishing trade missions, opening trade houses, developing the commodity distribution network to mutually promote products to the markets of the Republic of Belarus and Finland.

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Development of innovations in Kaliningrad Region - general characterization and overview of the perspectives

By Timur Gareev and Igor Denisov

In the previous issue of the Newsletter both national and international dimensions of current innovation policies of Russian Federation were analyzed (to compare, see, for example, expert evaluations in articles 485 and 495 [Bimonthly Review, 2: 2010]). The aim of this review is to discuss the specific reactions of Kaliningrad region economy to innovation stimuli.

In 2009 Russian Federation introduced a chapter on innovative activity of its regions into the National Innovation Report. However, the innovation policy as a whole still lacks adequate geographical dimension.

Russian Federation has always been – and still remains – a country with a diverse regional landscape, and each of its regions has its own understanding of how to build up and develop regional innovation systems. Recent federal initiatives suggest that the country is implementing the model of concentrated (polarized) development of national innovation system ('top-down' approach). To give an example, one might recall both priority funding of the traditional centers of science and research and large-scale investment projects supporting the development of new 'science cities', such as Skolkovo.

The regions are actively competing against each other to attract targeted 'innovation development' funds. In this competition, the advantage of Kaliningrad region is geopolitical and institutional (thanks to its special economic status), rather than a research and development one. In many ways Kaliningrad region is a unique location for innovation development. One of the main features of innovation development is the fully-functioning 'science-industry-government' network.

As to its *science*, the region has three public institutions of higher education – Immanuel Kant State University of Russia (IKSUR), Kaliningrad State Technical University and Baltic State Academy. In addition, there are 8 research institutes, 9 research and development enterprises, 27 small innovation firms, 36 innovation-active companies and a number of individual inventors and innovators. Geographically, the major innovation projects and organizations of the region are concentrated in the city of Kaliningrad, which is characteristic for the regional development as a whole – its economy is mostly centripetal. At the same time, two other towns in the region have been recently demonstrating significant innovation system development: Gurievsk, which is located just outside the city of Kaliningrad and thus further strengthens the innovations center, and Gusev, which has welcomed a number of innovation-active enterprises and created an industrial part, and through that was able to decentralize innovation activity of the region.

As for the infrastructure, apart from the specific ministries of the Government of Kaliningrad Region, the region also has 2 non-commercial partnership projects: *Kaliningrad Center for Innovation and Technology* and *Kaliningrad Technology Transfer Center*. Other organizations that have to be mentioned include the Chamber of Commerce of Kaliningrad Region, 'Baltica' Innovation and Technology Center, SME Support Foundation, "Innovation park" of IKSUR and others.

In the middle of 2009 Russian Federation adopted a Federal Law on the creation of firms with participation of universities and research institutes. As a result, several of the Kaliningrad higher educational establishments have already launched a number of pilot start-ups. FASIE, the Federal Foundation for Development of Innovative SMEs, is the main source of financial support for the innovative enterprises in the region. Several projects operating under the umbrella of the Foundation – *Start, Razvitiye, Pusk, Temp, and U.M.N.I.K.* – stimulate the creation of those innovation businesses, whose primary goal is to create and develop intellectual property (such as patents, working models or production prototypes). In the 5 years of its work the Foundation has helped to launch almost 40 start-ups in Kaliningrad area, 27 of which are still successfully running their operations. The turnover of the most successful of those enterprises is sufficient enough to allow those companies to self-finance participation in large-scale regional, national and international projects. In 2009 alone those companies were able to set up 5 interregional and 3 international innovation projects.

Since 2006 the region has seen a significant increase in the number of qualified healthcare, medical education and medical biotechnologies resident personnel. This is directly connected to the creation of a new medical school at Immanuel Kant State University of Russia.

The industry of the region tends to follow a number of stages in adopting new technologies – from copying to innovations. Innovations are, as a rule, first introduced in the spheres of economy with low market entry and export barriers. This is typical of IT, for example; and the Kaliningrad Region now has more than 20 successful IT companies that specialize in development of software for export and providing IT-solutions for businesses. In the region, however, there has also been created a number of start-ups operating on the basis of self-developed innovations. This situation accounts for a recent advance of locally-produced technologies to national and international markets. This is characteristic for agricultural technologies, processing of raw materials, food industry, professional equipment development, healthcare and biotechnology, IT-solutions for agriculture and housing and utility services.

To stimulate the development of large enterprises of Kaliningrad region there functions a Special Economic Zone regime. The role of the latter in the innovative development is debatable. On the one hand, the SEZ regime attracts direct foreign investments (and related technological solutions). On the other hand, the tax relief conditions are not geared towards supporting innovative businesses. Since 2006 more than 60 companies (with aggregated investment potential of about 1 billion EURO) have been added to the regional resident registry, but only 10% of the 47 economically-active residents utilize innovative approaches. At the same time, the SEZ residents account for at least 20% of permanent investments (with the use of the newest technologies). Moreover, SEZ has 18 active residents with 100% foreign capital, and they are responsible for at least one third of the total amount of investment funds. The industry of the region still bears relatively high transaction costs related to the financing of the development of new technologies.

Deterrents of the innovation development in Kaliningrad region include structural limitations of venture financing, various substitution practices (e.g. demand for innovations is substituted with import), as well as lack of developed interregional and international cooperation and technology exchange networks.

The success of international business innovation cooperation is further deterred by the weakness of innovative infrastructure and relatively low capacity of telecommunication networks. To a degree, the development of international cooperation between regional R&D centers that have experience in critical technologies is also hindered by certain institutional requirements (for instance, but the requirements of export control).

The perspectives of international cooperation in innovation and research lie in the implementation of two interrelated schemes. The first concerns the development of various tools of technology transfer within the cooperation network. *Gate2RuBIN* (Gate to Russian Business Innovation Networks) project, launched in 2008 on the basis of the *Enterprise European Network* (EEN), can be given as an example. The second – and the most attractive for Kaliningrad region of the two – is the creation of open, transparent mutually beneficial international cooperation in the Baltic Sea area. Both schemes should be prioritized in such projects as *Neighborhood*, and within the framework of other systemic international mechanisms.

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Branding the university - why and how?

By Pirjo Vuokko

In Finland, recent years in the university sector have been the years of mergers. These mergers have also raised questions concerning the names and visual images of the new, post-merger universities. However, more significant is that discussions on university branding are now more than ever in the air. This is not just because of the mergers, but because competition is more and more present also in the university life. Universities compete for the favour of different stakeholders, i.e. financiers, donors, potential and present students and personnel, media, and academic and business partners. These stakeholders make their decisions concerning the university based on their own knowledge, beliefs, values and criteria. This is where image, reputation and brand count: they have an impact on people's decisions.

What is then a brand and what does branding mean? In brief, two concepts are integral to branding: promise and value added. If a university really is a brand, it has an appealing promise to its stakeholders, and through its activities it offers value added, i.e. something unique and important for them. Promise does not mean promising just about anything that might inspire and tempt stakeholders. Instead, promise should concern issues that are characteristic to your university, i.e. things that make you you. This is important as the promises should be fulfilled, as well.

What really creates strong stakeholder relationships is the university's uniqueness. This does not necessarily mean that your curriculum is completely different compared to the others'. Uniqueness can also be based on how, where, when or with whom the university acts. The university can have, for example, its own solutions or ways of operating, it can offer its services through special channels, or it can offer its programmes to specific audiences. Of course, the people working within and with the university count as well. Whatever this uniqueness is for any individual university, it is important to strengthen, not weaken, the academic identity of the university through it. That is also what stakeholders wish for the universities to do. Therefore, two things are needed: point-of-parity (issues that make you a credible university, so that you are considered as a relevant choice) and point-of-difference (benefits that make you the best possible choice).

A few months ago I asked some business managers (who are important stakeholders for our business school) what kind of university offers most value added to them and their company. What they expected most from the university is success in research and education. They also valued a good university image, and competence to create and nurture long-term corporate links. When I asked the same question from the School's management and unit directors, the answers were much the same: high quality research, education and corporate relations were emphasised. These are also the three missions defined for Finnish universities. Therefore, university branding really means strengthening the academic identity and special features of a university.

Although branding processes usually involve lively and even passionate discussions over university name, logo or the visual image in general, these issues are but a small part of branding, and not even central to it. Brands cannot be built in an office or on paper. University is a brand, if the people relevant and important for it see it that way. It is important that the organisation itself recognises and defines its brand identity (how do you see yourselves), defines its target image (how do you wish to be regarded) and creates its brand strategy (how do you aim to achieve the target image, i.e. 'your brand'). Following these processes, the university may have such a position in its stakeholders' minds that it could be called truly a 'Brand'.

However, does this process bring value also to the university? Branding is said to be an investment. Therefore, it is relevant to speak about return on investment in this case, as well. Strong position, i.e. brand is an immaterial property or asset to the university (according to e.g. Interbrand's estimation, world's top brand companies may have greater immaterial than material property). It has an impact on the university's performance, makes its communications more effective, and makes it easier to create new relationships. Through branding, the university may emerge as a credible choice – or even the first choice. Being a strong brand may be like "lubrication oil" to the university's intentions and processes.

The meaning of branding is not only visible in relation to external stakeholders. What is also important is how it impacts the internal stakeholders, and how they, in part, have an impact on branding. Branding is not handled through printed plans, organisational changes, or external communications. Brands should be lived and experienced within the organisation. Living the brand means that the university personnel has such pride and passion for their work that it makes it possible to fulfil the university's unique promise. This should be reflected in leadership. If you wish to create a brand, you should have your leadership in line with the intended image, and all the university personnel should be informed, committed, and supported. Branding is everybody's process – or otherwise it is nobody's.

Branding is usually connected conceptually and in practice to marketing, marketing communications and image building, i.e. the organisation's way of telling about itself. However, it is not just the amount and volume of voice that counts. If you don't have relevant messages to your audience, volume or repetitions don't help to produce the intended impact. Therefore, it is important to know your audience. Branding processes require also listening to the stakeholders. If you wish to be strongly and positively in your stakeholders' minds, first you have to know what is already there: what they know and how they feel about you, and what kind of needs, values and expectations they have that match with the university's interests. Building a brand means being genuinely and continuously interested in the stakeholders. Therefore, more than just sending more messages towards the audience branding means expanding the ways to ask and receive messages from the audience. This way the university learns how to be a relevant and unique partner to its stakeholders.

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Finland

Estonia and the EU – political innovation and the quest for independence

By Jaak Treiman and Liisa Välikangas

The most recent financial crisis has ignited discussion about the European Union's viability. As the EU struggles to build confidence in the economies of some of its Southern member states concerns have been voiced that national sovereignty is a barrier to necessary corrective actions and that a failure to take effective action will emasculate the EU. The proposed EU right to inspect national budgets for their level of indebtedness is given as one example of sovereignty as a barrier – a supranational organization assuming a function traditionally in the exclusive domain of national government.

Estonia, and some other members of the former Soviet empire in the Baltic Rim, offers a counterpoint to any discussion about sovereignty and the EU. Also offered is a different perspective on how other issues facing the EU can be addressed. In 2004 Estonia joined the European Union precisely because it wanted to preserve its sovereignty, maintain its independence and enhance the well being of its population. It was willing to relinquish traditional indicia of sovereignty in order to do so.

In democracies the focal point of all national and supranational policies and activities is, or at least should be, the right to make free choices. Independence and sovereignty and policies that impact these concepts should be thought of in that context. Estonia, which throughout much of its history has lacked these privileges, is a helpful starting-point.

Since the 13th Century Estonians have been vassals to Danes, Swedes, Germans and Russians. Eventually, in 1918, freedom was secured and an independent state formed only to be lost as a consequence of World War II. Following fifty years of totalitarian governance that had no place for personal choice, Estonians regained their freedom and their country in 1991.

With its history of vassalage the Estonian national consciousness is sensitive to the possibility of foreign invaders – a sensitivity whetted by its Soviet occupation. Its journey through that occupation, rarely told by others, is well remembered by Estonians.

Secret protocols to the Molotov-Ribbentrop Pact of 1939 assigned Estonia to the Soviet "sphere of influence." The entry of Soviet troops into Estonia shortly thereafter marked the end of personal freedom and national independence and the start of another foreign occupation. Mock elections followed and a new, handpicked Estonian Parliament with Soviet soldiers nevertheless stationed inside Parliament's chambers and tanks outside "protecting" the parliamentarians but with turrets pointing toward the Parliament building, voted to become part of the USSR. Estonians had lost their independence and sovereignty.

Lacking a means for peacefully expressing their convictions, members of Estonia's Forest Brothers began to wage guerilla warfare against the Soviets. Their activity ceased in 1956, when the crushing of the Hungarian Revolution also crushed all hope for Western support. Their bylaws described them as a "voluntary, secret, and armed organization of national resistance" whose goal was "to fight for the honor and independence of Estonia" and to instill "faith in the restoration of Estonian independent statehood." They were "to act with responsibility and courage, without fear of giving my life for a better future for Estonia." The bylaws did not address what that "better future" would or should consist of.

It should be remembered that mass, random deportations, executions, losses incurred through war, and the flight of refugees between 1939 and 1944 resulted in an approximately 18 percent depletion of Estonia's pre Molotov-Ribbentrop population of 1.1 million. Between the end of World War II and 1949 Moscow sent a large influx of approximately 145,000 Russian workers to live in Estonia. More Russian and other Slavic immigration occurred in later years.

By 1989 Estonia's Estonian population had dropped from 94 percent to 61 percent. While loss of independence and sovereignty had not meant a loss of nationality, Estonians saw the infusion of non-Estonians, combined with other Soviet policies, as an attempt to obliterate Estonian nationality – its language, traditions and ethnicity. Combined with loss of independence and sovereignty Estonia and Estonians would become nothing more than a piece of history.

Economically Moscow sought to establish an industrial base of heavy industry and tied Estonia firmly into the centralized structure of its all-union economy. Loosely analogous to the British colonial system, the "center", i.e. the Russian Republic through its state organs, controlled the economy and the other republics, including Estonia, produced goods and agricultural products for the benefit of the center. Thus the freedom to choose one's toil and to benefit from it was compromised.

Although economically better off than most of the other republics Estonians' chaffed at the strictures of totalitarian rule and the deprivations and inefficiencies of the Soviet centralized economy. They recalled that before World War II Finland and Estonia roughly shared economic parity. Parity became disparity. The Soviet system provided fertile background for Estonia's independence leaders when they obtained a copy of Nobel laureate Milton Friedman's book, *Free to Choose.* For a people who rarely had the right to exercise choice, the book offered inspiration and a blueprint.

Either consciously or unconsciously, Estonians did not seek independence for the sake of independence. What they sought was, as the Forest Brothers said, a "better future". Independence was merely the best way to secure both their personal freedoms and their economic goals.

In 1991 World War II finally ended for Estonia, the "Singing Revolution" was complete and independence was again secured. The newly formed, democratically elected Estonian government began to reintegrate Estonia into international society and decided what economic and social policies the once-again independent country would follow.

Estonia quickly assumed membership in the United Nations and its various sub organs. Listening to its Eastern neighbor's continued growls, NATO membership was also deemed a priority, not only for its promise of collective security but also for the psychological deterrence it offered. Privatization, early issuance of its own currency and an unabashedly free market orientation were Estonia's economic mantras.

In an innovative political move, Estonians looked to insure their independence and sovereignty by voluntarily relinquishing some of the traditional indicia of independence and sovereignty. Estonia sought EU membership and continues its efforts to enter the eurozone. Interestingly, while externally the EU often sees itself as a vehicle for projecting a grander, worldwide European political influence and internally is focused on economic growth, for small nation-states such as Estonia the EU is a vehicle for independence and freedom from outside tyranny.

Even as their development of a state that thrives economically and politically continues, Estonia is an example of agility and determination rising from the burdens of history to pursue liberty that the EU should emulate. Totalitarian regimes continue to pose challenges to democracy, economically and politically. The EU has concentrated on economics. Baltic Rim countries such as Estonia can provide a reminder that the case for political innovation that enhances the environment for political liberty can - and needs to - be sustained.

Innovation in democratic governance that goes beyond labels and catch phrases is sorely needed to counter the intransigence of bureaucracies and mentally aging societies looking back rather than forward, looking at enhancing old age pensions rather than enhancing the ability of the next generation to make its choices. Traditional models on which economic growth has been built, whether models of sovereignty or models of competition, will be challenged, as raw growth yields to strategic renewal and ecologically sustainable life styles.

Contrary to current headlines, the need for economic innovation may not be as dire as the need for innovation in matters of political governance, governance that enhances fundamental freedoms and provides an alternative to non-democratic yet economically powerful regimes. The European Union, with its incessant calls for growth to be delivered by its corporations and startups, should focus on remembering what its ultimate *raison d'être* is, ensuring the liberties of the people. It should proceed to innovate its own operating principles and procedures, remembering that its policies are ultimately a matter of choice for its people to make. In that quest, Baltic Rim countries can provide a ready and competent ground for experimentation in successful political governance.

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Rosnano and Skolkovo are Russia's best innovation promoting measures, but they are not enough to modernise Russia as a whole

By Kari Liuhto

No money today – no honey tomorrow

Russia spends only 1% of its GDP to research and development (R&D), which is a low figure even compared to China. In monetary terms, Russia's R&D spending is critically small, just about USD 20 billion annually. China invests 4 times more than Russia into its R&D.

Russia has put more emphasis on R&D by founding Rosnano, a major state-owned nanotechnology corporation, in 2007. Rosnano is a mega project in Russia's nano-modernisation. The corporation has close to 100 nanotechnology projects with total investments amounting to USD 8 billion, including USD 3.5 billion investments from Rosnano.

Besides the state investments, Russia needs to seduce the private sector, including foreign organisations, to invest more in R&D. Currently, Russian industry accounts for less than 30% in the country's R&D spending, whereas industry covers around 55-78% of R&D spending in the EU, the USA, China and Japan. This gives indisputable evidence that Russia's R&D is, at the moment, too state-run to form an effective, flexible, and sustainable innovation system. (*See Table 1 at the end of the article)*

Skolkovo: more special than others?

The World Bank survey ranks Russia's knowledge economy in 60th place out of 146 countries studied. Russia performs extremely poorly in terms of the Economic Incentive Regime, describing Russia's tariff and non-tariff barriers, regulatory quality, and rule of law. As Russia's business environment is harsh in general, it is no wonder why Russia has founded several types of special administrative areas since the collapse of the USSR. (*See Table 2 at the end of the article)*

Russia has around 100 science towns, techno parks and special economic zones. So far, the results of these privileged administrative areas have been extremely modest. Despite their less than encouraging experience, the Russian leadership has decided to found another science town, Skolkovo, to become Russia's Silicon Valley.

The recent public discussion around Skolkovo leads one to assume that the Russian leadership has learnt from earlier mistakes related to special zones, and hence, it grants Skolkovo sufficient administrative privileges i.e. tax holidays, a right to import technology from abroad without tariffs, and the freedom to operate outside the Russian bureaucracy. Even if considerable administrative privileges aid in designing a globally competitive innovation oasis inside Russia, the organisational skills of the leadership of Skolkovo Innovation City ultimately determine the success of this special zone.

Industrial catch up requires foreign firms

Skoda would obviously have bankrupted without their collaboration with Volkswagen. The Skoda story gives a valuable lesson to Russia's modernisers i.e. it takes far too long for Russian industries to catch up with their Western counterparts alone, and therefore, Russia should do more in attracting leading foreign firms to invest in Russia.

The inward FDI stock-GDP ratio in Russia is around 12.7%, whereas in the Czech Republic it is 52.7%. The difference of 40 percentage points really makes a difference in the future modernisation of these countries. The share of the FDI in the Russian GDP is absolutely too low to cause a major technology transfer to Russia, particularly when one keeps in mind that at least a fifth of Russia's inward FDI stock is Russian by origin.

According to the Foreign Investment Advisory Council, administrative barriers and other characteristics related to the administration are the main difficulties for foreign firms operating in Russia. (*See Chart 1 at the end of the article)*

The only way for Russia to attract foreign investment is to create more a competitive (less bureaucratic) business environment and to promote industrial co-operation with foreign firms. Russia has already carried out successful collaboration in the automobile industry, but closer co-operation is needed in other fields of heavy machine building, such as aviation and shipbuilding. To put it differently, Russia does not only need innovations geerating growth in the long-term but industrial co-operation generating wellbeing at the moment.

Russia's modernisation should not be regarded as a project with a fixed period but rather a comprehensive non-stop process all over the Russian businesses. Even if Rosnano and Skolkovo are, by far, the best shots in Russia's current modernisation arsenal, they clearly are not enough, and therefore, the Russian leadership should mobilise the whole Russian enterprise population to invest more in research and development. I am afraid that the activitisation of the enterprise population cannot be done dministratively but rather through more intensive competition.

Therefore, Russia needs to intensify its efforts: 1) in supporting privatisation (re-privatising the assets dropped into state hands in the aftermath of the global financial crisis), 2) creating innovation-oriented entrepreneurship (eliminating bureaucratic procedures and dramatically reducing the number of bureaucrats), 3) improving the functioning of the legislative system (making judges financially and politically independent), 4) improving investment climate (liberating the law on strategic sectors passed two years ago), and 5) promoting the internationalisation of Russia's knowledge-intensive organisations (encouraging Rosnano to establish repesentative offices abroad and financing the internationalisation of Russia's innovation firms).

To end, the EU-Russia Partnership for Modernisation is currently the main political framework to develop the EU-Russia relations in the field of innovation co-operation. This initiative should fast result in concrete actions. One of the concrete actions could be the establishment of the common EU-Russia Innovation Centre in Finland.

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Table 1

Country	R&D expenditure (USD billion)	Share of R&D expenditure in GDP (per cent)	Share of industry in R&D expenditure (per cent)	Number of researchers (1000)
USA	398	2.8	67	1 426
EU27	264	1.8	55	1 448
Germany *	72	2.5	68	291
Finland	7	3.5	68	41
Japan *	148	3.4	78	710
China *	102	1.4	70	1 423
Russia	23	1.0	29	451

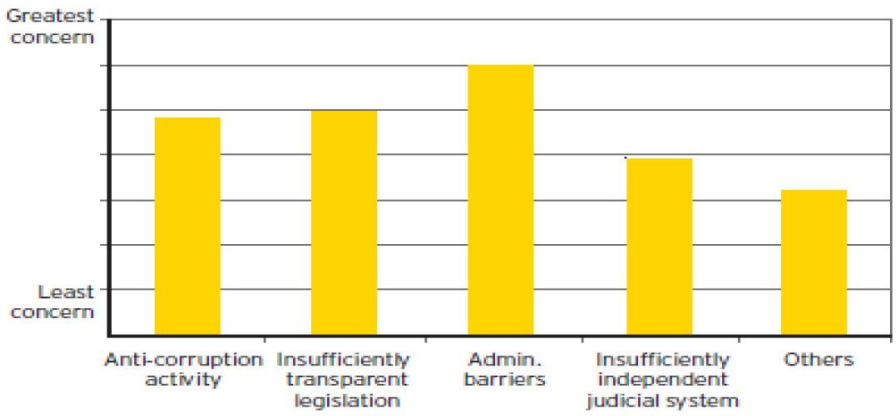
Source: OECD, Main Science and Technology Indicators 2009-2. * data of 2007

Table 2

Rank / country	Knowledge Economy Index	Economic Incentive Regime	Innovation	Education	ICT
1. Denmark	9.52	9.61	9.49	9.78	9.21
3. Finland	9.37	9.31	9.67	9.77	8.73
9. USA	9.02	9.04	9.47	8.74	8.83
12. Germany	8.96	9.06	8.94	8.36	9.47
20. Japan	8.42	7.81	9.22	8.67	8.00
60. Russia	5.55	1.76	6.88	7.19	6.38
81. China	4.47	3.90	5.44	4.20	4.33

Source: World Bank, Knowledge Economy Index, 2009.

Chart 1



Source: FIAC, Foreign Direct Investment in Russia 2008.

The EU-Russia modernisation partnership

By Fraser Cameron

At the end of May, EU and Russian leaders agreed at their summit in Rostov on the Don to work together on a 'modernisation partnership.' Behind the fine words of the summit communiqué, however, there are significant differences about what each side means by 'modernisation'. The situation is even more complicated because there are divisions within the Russian elite as the extent to which modernisation should touch the political system as opposed to economic reform. Igor Yurgens, the head of the Institute for Contemporary Development, a think tank close to President Medvedev, has outlined proposals for a comprehensive reform of Russian society. Those close to Prime Minister Putin prefer a more limited agenda, essentially seeking to make the current economic system work more efficiently.

The European Commission has put forward its own views on what the modernisation partnership should cover. Top of the list is the rule of law. This also reflects the concerns of President Medvedev who has repeatedly drawn attention to the problems of 'legal nihilism' in Russia. The absence of the rule of law not only hampers the development of a modern, civil society but also discourages Western investment in Russia. Russian leaders acknowledge the importance of attracting FDI to help the modernisation process but business leaders are hesitant to invest there without improved legal certainty and a fair dispute settlement mechanism. Guarantees concerning property rights are also essential.

The EU, largely through its support for programmes run by the Council of Europe, already makes some limited contribution to the strengthening of the rule of law in Russia. The EU could also assist Russia in drafting legislation providing for the safeguard of foreign investments. But the main push must come from Russia itself. Change has to start at the top and rhetoric must be followed by action. Many believe that the release of Mikhail Khodorkovsky, the imprisoned former boss of Yukos, would be a good signal of changed attitudes Fair and effective implementation of the laws is essential. Russia should give priority to the reduction and simplification of legislation affecting business activities.

Russian GDP and exports are highly dependent on energy resources. The Russian leadership has acknowledged the importance of diversifying the economy and increasing its trade. But Russia has given contradictory signals about its willingness and commitment to join the WTO and introduced a number of protectionist measures, especially non-tariff barriers, during the past twelve months. To reassure the EU and other international partners, Russia needs to give a categorical assurance regarding its commitment to join the WTO as soon as possible.

One area where both sides should see added value by working together is green technology. Russia lags way behind the EU in environmental standards and is one of the worse polluters when it comes to CO2 emissions. Helping Russia achieve greater energy efficiency would be a real win-win development. Such a move would tie in with closer cooperation in science and research where Russia is strong in a number of fields. The EU should increase funding for cooperation in science and research and facilitate Russian involvement in EU programmes. This should be linked to the modernisation partnership.

Another area where Russia could draw on EU experience is regional development. There are huge inequalities between the regions in Russia, a problem compounded by the many 'mono-cities' (dependent on one – usually out-dated – industry). Russia would also benefit from EU experience and technology in the renewal of its outdated infrastructure.

Such an ambitious agenda requires much more trust between both sides than is apparent today, especially after Moscow's military adventures in the Caucasus. There needs to be a vast increase in people to people contacts – students, different professions, journalists, lawyers, etc. Russia is keen to see the abolition of visas for visiting the EU. This is a fine objective but it would have a better chance of success if Moscow stopped making EU businessmen register every time they visit a separate region in Russia.

Finally, there should be a new EU budget line for EU-Russia relations with a specific focus on the modernisation partnership. If Russia is serious about modernisation – and there are serious doubts about the political will – then it should recognise that the only real source of outside assistance is the EU.

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Can Saint-Petersburg meet the challenge of innovation age?

By Oleg N. Misko and Sergei F. Sutyrin

One could sensible argue that transition of Russian society from its current natural resource based pattern of economic development towards "innovation-based" one constitutes top priority of Federal authorities. There are several Presidential Decrees as well as other basic documents (Federal Laws and Federal Programme) legally supporting abovementioned priority. Existing regional legislation specifies general goal to different aspects of innovation policy.

Traditionally being one of leading national scientific centers St.Petersburg logically enough strives for a status of "Russian innovation capital". Special comprehensive programme of innovation policy measures for the city has been elaborated in 2007 in order to promote respective changes. It includes infrastructural development; measures aimed at facilitation of contacts between Rosnano (State Corporation in charge of allocation of financial resources for innovations) and both individuals and legal entities applying for respective funding; provision of information support. Within the framework of the latter Second St.Petersburg International Innovation Forum took place on 30.09-03.10.2009 with a total sum of signed contracts equaled to more than 1 billion RUR (about 26 million euro[1]).

At the first glance all that might look impressive. At the same time real significance of so far achieved results appears to be pretty modest. In particular, this sum would be sufficient to construct just about 5 km of roads in St.Petersburg. As for existing infrastructure, at the moment it includes 12 information-consulting centers; one (!) business incubator; approved project of "special economic innovation zone" with assigned land plot; small number of other projects at the stage of design.

What about future prospects? In order to assess them properly at least two points should be taken under consideration. First of all, economy of innovations (as well as any other type of economy) should be based upon sufficient *resources.* In our case the key role belongs to human capital. Generally speaking St.Petersburg has certain competitive advantages in this field. Namely they are higher than national average educational level of labour force and well-developed network of universities (currently 101 both government and non-government entities of higher education) and research institutes (95 entities) with substantial stock of innovation projects potentially able to be introduced into industrial production.

At the same time, existing potential is clearly underutilized. According to the official statistics in 2009 for each 100 people employed by industry there were 20 people involved in various forms of R&D. In spite of this impressive ratio total value of all R&D contracts implemented in the city equaled to less than 7% of industrial production. One could sensible argue that real innovation component of these 7% hardly exceeds one third, that is about 2% of total industrial production.

Secondly, without an appropriate *system of governance* chances to succeed in transition under discussion are really pretty low. Traditionally Russian industrial sector and R&D one operated almost totally independent from each other. The former tried to buy technologies and new high-tech equipment mainly from abroad. The latter also preferred to focus rather on foreign customers than on domestic enterprises. The main idea behind establishment of State Corporation Rosnano was precisely to bridge this gap.

At the level of St.Petersburg above-mentioned comprehensive programme is the only official document, which defines trends and guidelines in development of regional "innovation-based economy". Meanwhile in its current form the programme has several obvious drawbacks. First of all, key economic indicators it is based upon are too general, partly irrelevant and open to serious distortions. In particular, number one in the list – GRP per capita – doesn't reflect any direct results or factors of "innovation-based economy". Both "value of dispatched innovative output" and its "share in total dispatched output" (second and third in the list) might include large or even very large components which have nothing to do with innovations per se. Unfortunately, regional statistical abstracts do not provide any information on definitions and methods used for respective calculations.

Secondly, neither general principles of the programme's no its criteria and indicators correspond properly with that of Rosnano. The latter focuses primarily on two indicators – total number of the companies established with its assistance and overall value of investments (loans and state guaranties as well as contribution in statutory funds of established companies). Under the circumstances probability of a certain conflict between two sets of goals is pretty high.

As for Rosnano taken as such, current performance of the corporation provides substantial ground for criticism. It might be challenged for its failure to create sufficient innovation incentives. Instead, in many cases it provokes elaboration of corruption schemes to receive budget financing for the projects often regardless of their innovative content. In addition, SMEs are doomed to be discriminated in their attempts to get support. It is both easier and better for Rosnano to finance one large project than several small ones. More than that, according to official site of the Corporation it invests only in the projects with expected annual sales after 5 years of their implementation exceeding 6.4 million euro.

Taking all this under consideration one could hardly feel optimistic regarding the prospects of St.Petersburg programme to be properly fulfilled by 2011. Data provided in Comprehensive programme of innovation policy shows next quantitative objectives to be reached by 2011: GRP per capita – 11.6 thousand euro (6.3), value of dispatched innovative output – 2238.2 million euro (604.9), share of dispatched innovative output in total dispatched output – 10.3% (2.0), technological innovations – 581.5 million euro (33.3), number of elaborated advanced production technologies – 97 units (169), number of issued patents – 2585 (n.a.), number of employees in R&D – 111,0 thousand persons (44.7)[2].

To sum up, in order Russia in general, St.Petersburg in particular could adequately meet challenges of innovation era serious adjustments in the governance of the process are needed both at the federal and regional levels. Without these adjustments Russian quest for "innovation-based" economy is most probably doomed to share destiny of many previous officially declared campaigns.

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[1] 1 euro=39,04RUR (22.04.2010); the same exchange rate is used through the whole article.

[2] Data in brackets shows the 2008 statistics.
Source: Calculated on the basis of Petrostat, Goskomstat, www.spbinno.ru

The EU and Russia already have what it takes to succeed

By Hiski Haukkala

Innovations and becoming an innovative information society seems to be the buzzword currently in Russia. Perhaps the most eloquent proponent of the approach has been the President Dmitri Medvedev who tirelessly in his recent speeches has spurred Russia to engage itself in a radical overhaul of its economy and society. The starting gun in this respect was his long article "Forward Russia!", published on the web-pages of gazeta.ru in September 2009.

This debate has gathered momentum in recent months. Another important catalyst for the debate was the Moscow-based Institute for Contemporary Development (INSOR) report "Russia in the 21st century: vision for the future" on Russia's future choices in early 2010. In the report a group of Russian intellectuals fleshed out a vision for an open and liberal Russia that would eventually become fully integrated into the main Euro-Atlantic structures, NATO and possibly even the EU included.

This is not the place to discuss the realism of these ideas. The main point is that as a result of these inputs, the Russians are now engaged in a lively domestic debate concerning the prospects of Russia's modernization. In addition to seeking to embrace innovations in the abstract, the Russians are now asking themselves what it actually means in the here and now. This is also forcing them to take a long hard look into the mirror and to concede that they do not particularly like what they see: Russia is seen as lagging behind the rest of the world. In President Medvedev's words, Russia suffers from endemic corruption and backwardness and these are key things that need to be rectified if Russia is to become a modern and successful state in the 21st century.

These debates and intentions are of course highly welcome. In a certain sense, Russia has squandered its first two post-Soviet decades. Although many of the old structures have been dismantled, new industries and new competitiveness have failed to materialize. Now it seems that Russia has set its sights to rectify this shortcoming. The choice is overdue but a correct one. It is also going to be difficult, as the gap between Russia and the rest of the world, including Russia's reliance on the primary sector for economic growth, has only increased during the 2000s.

The domestic debate in Russia has already had an impact also on the country's relations with other actors. When it comes to the EU−Russia relationship the key word now is Partnership for Modernization, or P4M. The concept was launched by the President of the European Commission Jose Manuel Barroso at the EU−Russia Summit in Stockholm in November 2009. The initiative has been received with some enthusiasm on the Russian side. The recent EU−Russia Summit in Rostov on Don in June further endorsed the idea.

On the one hand, the P4M is to be welcomed. In recent years the EU−Russia relationship has been characterized by mutual indifference; it reminds of a strategic partnership adrift. During the recent period of better U.S.−Russian ties this feature has become more striking: The U.S. and Russia have been able to agree on a new START treaty while the negotiations for a new post-PCA agreement have shown only limited progress (to be sure, the new EU−Russia agreement is much more ambitious and wider that the new START). Yet if the new P4M results in improved atmosphere between the EU and Russia and helps the two to concentrate their minds on actual substance then it is to be welcomed.

But on the other hand the P4M concept raises some questions as well. As was already mentioned, the EU and Russia already have another on-going process: the negotiations for a new post-PCA agreement. Nine rounds of talks have been conducted but the process has been fraught with difficulties mainly due to Russia's unclear stance concerning the WTO membership which for the EU is a sine qua non for a deeper economic engagement with Russia. In this respect it would be unfortunate if the P4M concept further diverted energies from the negotiation process or the actual task of bringing Russia's economy closer to Europe.

In the final analysis, the EU and Russia do not really need a new Partnership for Modernization. In fact, it would not be a disaster if they failed to complete a new post-PCA agreement, either. The current PCA is still based on a vision that is sound – Russia's integration and close political cooperation with Europe. What is more, the two parties already engaged themselves five years ago in a detailed exercise to create Four Common Spaces for cooperation and joint road maps to guide their implementation– another useful instrument that seems to be in danger of falling to the wayside.

In this respect it would be unfortunate if the parties invested their best energies into yet another protracted process. There is no need to re-invent the wheel as all the necessary ingredients to succeed are already in place. What is required is determined and persistent implementation to reach these goals. Admittedly, that will be an exercise where the devil may reside not only in the details but all along the way.

At the end of the day the issue boils down to Russia's own choices. Encouragingly, the debate is now there in Russia. Russians are once again pondering the future, which was not the case just a few years ago. So a chance to reinvigorate also EU−Russian relations exists. But no one can ram it down the Russians' throats. The decision can only come from and be made by the Russians themselves.

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The writing reflects personal views and do not necessarily represent the official Finnish position

Assessing the prospects of Russia's modernization

By Igor Torbakov

"Modernization" appears to be the most important catchword in Moscow these days – similar to glasnost and perestroika twenty five years back. However, the mixed – if not outright confusing – signals concerning Russia's societal transformation coming from the country's top echelons of power suggest that the prospects of Russian reform are dim.

There seems to be a consensus among analysts that the Kremlin started making noises about the need of a thorough modernization of Russia's economic system having been seriously alarmed by the impact of the global crisis. No wonder – as the world-wide economic downturn has hit Russia particularly hard: by the end of 2008 Russia looked more like a fragile and unstable petro-state rather than a mighty energy superpower as its rulers chose to cast it during the pre-crisis "fat years" of the sky-rocketing fuel prices.

It was these new drastic economic circumstances that prompted some forward-looking economists and liberal-minded members of Russian political class to ponder the best possible ways out of the crisis situation – whereby the ad hoc anti-crisis measures would be combined with the comprehensive modernization strategy. Out of that intellectual milieu came President Dmitry Medvedev's now famous essay "Go, Russia!" which some commentators labeled as Russia's "modernization manifesto."

Remarkably, though, Medvedev's piece clearly reflected – in both what it did say about the Russian situation and what it ignored – the formidable obstacles that any thorough transformation of Russia's socio-economic system is likely to be faced with.

Analyzing the current state of Russia's economy, Medvedev did admit in no uncertain terms that the "emperor has no clothes" – Russia's outdated resource-based economic model, he said, is unsustainable and should be replaced by the modern knowledge-based innovative economic system. Missing from his analysis, however, are two key aspects – 1) the discussion of how the resource-based economy feeds the rent-based social system and authoritarian political regime and 2) the idea that there is a vital link between successful economic modernization and the reform of key state institutions.

I would argue that it is precisely the so-called "resource curse" that makes Russia a country that is particularly difficult to "modernize."

As some perceptive analysts have long argued, already since the 1970s, that is, even before the collapse of the Soviet Union, a new and troubling trend has been on the rise whereby the country came to be increasingly dependent on the export of natural resources. The proceeds from the trade in commodities have in no way been connected with either the labor productivity or the country's general economic development. This trend appears to have reached its pinnacle during the so-called "Putin decade" which was blessed with the super-high prices for hydrocarbons – a fact that is reflected in the Kremlin's pet concept of "Russia as an energy superpower."

This same "Putin decade," however, has clearly demonstrated that the political risks of the resource-based economy are too high as one of its most debilitating results is the degradation of most social institutions. Russia's current political regime – the proverbial *vertical of power* – with its rubber-stamp parliament, phony party system, subservient judiciary and controlled media is intimately interconnected with Russia's economic resource-based model resting, as it is, on three main foundations: rent-seeking, corruption, and monopoly.

Symptomatically, the global crisis seems to have made the resource-based nature of the Russian economy even more pronounced. As some commentators note, most measures adopted by the Russian government in 2009 led to the aggravation of the "resource curse" – Russia's extracting industries have found themselves in even more privileged situation than they were in prior to the global slump.

So we appear to be witnessing the classic case of a vicious circle: the abundance of "cheap money" originating in the oil and gas sector spawns corruption, rent redistribution and patronage networks eventually leading to the degeneration of social institutions – which are vital to the progressive development of other (non-resource-based) industries.

Now, the big question of course is this: are there within Russia's political class the forces which are capable to act as the agents of change? So far, the answer to this question is unclear. There are two reasons why Russian elite seems reluctant to initiate a comprehensive transformation of the country's socio-economic system.

First, Russia's current leaders belong to the generation who lived through the collapse of the Soviet Union. Although they might be ignorant of Alexis de Tocqueville's famous dictum that the "worst times for a bad regime come when it makes attempt to improve itself," but the experience of the erratic reforms of the late 1980s that led to the disintegration of the great state undoubtedly left an indelible mark in their psyche. Second, the Russian rulers presiding over the current authoritarian regime are perfectly aware that any modernization that would encompass the wholesale reform of the state will eventually bring about their own redundancy – like other authoritarian modernizers before them they will have to leave the political stage.

On the other hand, though, the most perceptive members of Russia's political class seem to understand that the only alternative to the country's modernization is its further degradation and geopolitical marginalization.

The mixed signals coming from the Kremlin appear to reflect the confusion of Russia's leaders about the tough choices they are currently facing.

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Progress of the Special Economic Zones in North-West Russia

By Stanislav Tkachenko and Dmitry Tkachenko

Plans for establishing Special Economic Zones (SEZ) in the USSR were first announced in the mid-1980s. Already at that time the consensus had emerged that the most efficient location for these zones was in the border regions – in Belorussia and the Baltic Republics. But the discussion on the level of experts and government officials didn't produce than any clear results. During the last years of the USSR, the initiative for development of SEZ projects moved to the regional level, with "Vyborg" SEZ in Leningrad Oblast as one of forerunners. After the disintegration of the USSR, the development of the full-scale legal basis for SEZ has finally begun.

Federal legislation of SEZs

Legislation on SEZs in Russia today consists of:

- The Federal Law of 22.07.2005 № 116-FL (as of 31.01.2008) "On Special Economic Zones". This Law gives a definition of "Special Economic Zones", lists the four types of these zones, describes the types of economic activities residents are allowed to engage in, and defines the legal procedure to establish and manage these zones.
- Regulations of the federal Government and the Ministry of Economic development. These documents (about 60 overall) define incidental issues of Russian SEZ's performance.
- The Edict of the President of the Russian Federation in July 2005, № 885 «On the Federal Agency's Management of Special Economic Zones" (FAMSEZ). The Agency has received the power to establish and manage Special Economic Zones.

In 2006 the Government of Russia has set up the Joint Stock Company "Special Economic Zones" and on January 26, 2010 banker Igor Kosov was appointed as its CEO. On November 5, 2009, Presidential Edict № 110 revoked the FAMSEZ and divided its functions and project funding between the Department on Special Economic Zones, the Ministry of Economic Development and the Joint Stock Company "Special Economic Zones"

There are altogether 17 SEZs today in Russia. Investing rather significant federal resources into them, Russian authorities have the following priorities:

1. assistance in diversification of the national economy;
2. development of the manufacturing industry;
3. engineering design and production of high-tech goods;
4. modernization of transport and logistic infrastructure;
5. contribution to modernization via creation of growing points of technological growth.

SEZs in North-Western Russia

North-Western federal district (11 regions including St. Petersburg and Kaliningrad) is characterized by a high level of economic development, skilled labour, and strategic location vis-à-vis the European Union – Russia's most important economic partner. As we have mentioned, the very first SEZ has been opened in the Kaliningrad oblast since 1990, even if its economic development was unstable. The zone has experienced a rebirth in 2005, simultaneously with the replacement of the previous generation of Kaliningrad regional elites, who were closely connected to the military establishment. New governor Georgy Boos is a "heavy-weight" politician, serving prior to his governorship as Deputy Chairman of the State Duma and Minister of Taxation. On January 10, 2006 the Federal Law № 16-FL "On economic zone in Kaliningrad region" was adopted. It provides the regional administration and residents of the SEZ with badly needed standardization and accountability of legal and administrative regimes.

The creation of the SEZ in St.Petersburg was approved on December 21, 2005 by the Regulation of the Federal Governmental № 780 "On creation of special economic zone of the innovational type in St. Petersburg". The Special Agreement "On creation of special economic zone of the innovational type on the territory of St. Petersburg" was signed on January 18, 2006 between the Government of Russia and the Administration of St. Petersburg. This SEZ is divided in two sections: 1) "Noydorf" (Strelna suburb of St.Petersburg) – 19 ha, and 2) "Novoorlovsky forest park" in northern St.Petersburg – 110 ha. The SEZ will start its full-scale functioning in late 2010-early 2011, with RUR 9 billion of public (federal and regional) investments put into infrastructure and more than 30 already registered residents. Specializations of the St. Petersburg SEZ include the following: instrument-making; health-related technologies; electronics; means of communication and IT-technologies.

In addition, on February 3, 2007 a Special Economic Zone for tourism and recreation at the Zelenograd district of Kaliningrad oblast has been approved. Its territory is 67 square kilometers, and its funding from the federal and regional budgets amounts to about RUR 2 billion, as well as private investments totaling up to RUR 6 billion.

Nowadays only one of three SEZs in NW Russia (Kaliningrad) may be considered as functioning well with significant inbound investments and positive impact on the regional economy. There are 63 residents in the Kaliningrad SEZ with gross accumulated investments of RUR 41,5 billion. Until now RUR 21,4 billion was used for new construction, RUR 1,5 billion was put into reconstruction of already existing industrial/logistic infrastructure and, finally, RUR 17,6 billion was utilized in fixed capital and new technologies. The largest number of residents is in the manufacturing sector (34), with the construction sector in second place (16) and transport and communication companies in third place (13). In January 2010, 45 of 63 residents had already started their business, with total shipment and production of rendered services at RUR 27,7 billion in 2009. There are 5,500 employees at the SEZ businesses, and 80 % of the production of the SEZ in Kaliningrad goes to the Russian market.

The problems which the Kaliningrad zone is facing, are: 1) the long distance from the SEZ to receptive markets of Moscow and St. Petersburg; 2) the complete dependence of residential companies on imported raw materials and assembling parts; 3) the lack of the federal government's strategic vision on long-term socio-economic development of the Kaliningrad oblast.

There are even fewer results to be considered in St.Petersburg: there are plans to start first production at the "Noydorf" section of the SEZ in late summer of 2010. And there is not a single resident in the Zelenograd tourist and recreational SEZ in Kaliningrad at this point.

Challenges

The following challenges face SEZs in Russia today:

1) *High threshold for inbound investments into SEZ* required for residents to receive official status (just recently it was decreased from €10 million to €3 million).
2) *Shortage of experts in the management of the SEZ and professional personnel for registered enterprises.*
3) *Long periods of infrastructure's construction by regional authorities*.
4) *Bureaucratic hurdles*, which prevent many businesses from entering SEZs and starting their operations.

In September 2009 President Dmitry Medvedev of Russia has announced his "modernization" strategy. At the center of it is the construction of Skolkovo – an ultra-modern research and technological complex next to Moscow - a Russian analogue of the Silicon Valley. The status of Skolkovo in some respects is close to a traditional SEZ. But since Skolkovo is a testing ground for Russia's attempts to convince other regions of the country to attract both modern technologies and leading international specialists – further optimization of SEZ legislation and practice of its implementation is considered today as the strategic priority.

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The bumps in Russia's innovation chase

By Valtteri Kaartemo and Kari Liuhto

In 2005, four new technology-innovative special economic zones (SEZs) were set up in order to facilitate Russia's transformation from a resource-based economy to a more innovative system. It is acknowledged that SEZs are necessary but not sufficient instruments for the modernisation process in Russia. This acknowledgment refers to the foreseeable bumps ahead in the Russian innovation chase.

The purpose of the SEZs must be linked with the aims of the modernisation process. Modernisation should not be considered as a government programme but as a constant activity in everyday life. Major changes occur only when there is a real need to change i.e. free and fair competition is the only way to force the companies to constantly improve their practices. Common wisdom says that without competition there cannot be competitiveness. Therefore, Russia should abolish the obstacles to free competition, including the privileges of oligarchs.

Without the participation of the world's leading innovation companies, Russia's innovation reform will remain a political exercise. The Skoda case shows that international brand co-operation creates consumer confidence and success stories. Without international brand co-operation, it will take decades before "Made in Russia" stands for high quality. Without foreign participation, Russian natural resources will run out before innovation reform brings tangible changes to the Russian GDP.

Should the Russian innovation reform lean on the military-industrial complex, the participation of leading foreign companies in Russia's innovation reform will remain modest and Western countries will implicitly restrict the inflow of Western high-tech to Russia i.e. the era of the neo-CoCom policy will commence.

Russia's bureaucracy causes enormous inertia, and Russia's novel ideas at the top of society do not materialise at regional level without breaking the passive change resistance forces of the regional administration. The training of regional elites and the nomination of the new change forces is the only way to transform reform at the federal level to reach regional levels. Without corruption-free regional elites, any current reform is doomed to be a superficial administrative exercise.

The impact of the zones must be dispersed throughout the rest of the economy to have a wider influence on the modernisation process. Alone, the SEZs do not provide anything. It is the effective use of these instruments, which may have impact. The innovation activity of the state-run corporations (Rosnano and Russian Technologies) and major private corporations is a necessary but not a sufficient condition to cause major reform in Russia. Therefore, the mobilisation of the private sectors' R&D expenditure, particularly among SMEs, is key in modernising Russia's natural resource-based economy. In this context, one should bear in mind that companies are not interested in economic modernisation but achieving their own goals. Currently, the private sector (including major private corporations) accounts for only 20–25% of the R&D expenditure in Russia.

The concentration on high-tech innovations is a risky innovation policy, since the development costs and possibility of failure is higher than that of low- and medium-tech innovations. Moreover, low- and medium-tech innovations' spill-over effects often occur faster than that of high-tech. The high political value of high-tech innovations may thus realise itself too late. Therefore, Russia's innovation policy should not only build on high-technology but on the products and services in which wide population of Russian companies have existing advantages.

Moreover, in order to enhance the process, the SEZs need to contain the "specialty factor", which means that the zones must differ in characteristics from the rest of the economy. We claim that SEZs in Russia are not special enough to result in a major FDI inflow to Russia, which is a prerequisite for economic modernisation. The SEZs should either offer more benefits to foreign investors or the SEZs should be abolished. No matter which alternative is chosen, the major policy measures should be directed to improving the immaterial property rights and functioning of the legal system i.e. the improvement of the general investment climate.

Russia's innovation reform, with the aforementioned bumps, can be compared to car racing. Rosnano, Russian Technologies and innovation-financing institutions are fuel for the car engine, which is formed mainly by the Russian SMEs and large corporations. The research institutions and academia provide the headlights to see a bit further ahead. The political leadership forming the driving team (the driver and the navigator) should have a consensus on the direction they want to steer their vehicle. The driving team can avoid the bumps and the road blocks ahead created by bureaucracy only by studying the route in advance. However, the driving tandem cannot influence the speed of the competing teams. Unlawful measures result in disqualification and loss of permission to participate in the global race. The Russian population monitors the developments from the back seat, and possibly changes the driving tandem, if they do not show acceptable results rapidly enough. Even if the future of Russia's modernisation is everything but certain, one cannot win without participating in the race. Fortunately, President Medvedev's team has realised this, which gives Russia a chance to succeed.

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Big projects as a stimulus for innovation development in Russia

By Irina Dezhina

During the last several years there is an ongoing discussion concerning the measures and approaches to stimulate innovation development in Russia. Should the country put its major effort in development of breakthrough innovations or should it support imitations (through purchase of foreign equipment and technologies, licenses, know-how, etc.)? Breakthrough innovations are usually seen in the form of "big projects" – in a way, this is a Soviet legacy when big projects were considered as a measure to keep independence, defense capability and such. Still, counting on "technological breakthrough" is the prevailing approach in government policy at the present time.

Moreover, big projects are playing a growing role in recent innovation policy. These are creation of nanotechnology network, establishment of national research and federal universities, large initiatives to attract best foreign scholars to Russia, and, finally, the project to build an "innovation city" in the Moscow region, at Skolkovo.

In February 2010 President D.Medvedev announced the intention to create a modern science-technological complex aimed at development and commercialization of new technologies, in five areas that he earlier announced as all-country priorities: energy efficiency, information technologies, telecommunications, biotechnologies, and nuclear technologies. According to the President, this should become an absolutely competitive project, and this is how it differs from everything that was done so far. In another words, the government has admitted that all previous measures in the innovation area were not globally competitive.

Since the very beginning this was and continues to be a purely "governmental" project – because its concept, location and other basic questions were discussed in a narrow circle of government officials with very limited representation of some largest companies. Regional leaders were not included in the discussion.

Initially it was announced that the place where the new city should be located, will be selected based on such criteria as the level of infrastructure development as well as its accessibility. Therefore regions meeting such criteria (for example, Tomsk, Novosibirsk, St.-Petersburg, Obninsk, Dubna, Zelenograd and some others) were ready to compete to become a new innovation city ("innograd"). However later it was announced that the winner is Skolkovo – a location that evidently does not satisfy all of the announced requirements.

It may be assumed, that in the government there were two competing concepts. According to the first one, it is crucial to build a new city in an empty space because it is easier to start from scratch in order to bring new culture, technologies, and "people without past". The competing approach is that the city should be based in an already well-developed place where government previously made large investments in infrastructure – for example, in one of the four currently existing technical-innovation zones. Indeed, it is better to try to build something new and avoid any bad legacy; but is it possible to find people "without past"? Also, the "ideal model" of Skolkovo was seen as replication of the U.S. Silicon valley. However American specialists admit that it is impossible "to build" Silicon Valley but rather there should be made an attempt to create conditions favorable for its natural appearance. As it is widely known, the phenomenon of Silicon Valley was not widely repeated even within the United States.

The final choice was for building all new infrastructures which, once again, may be interpreted as a failure of previous government projects to created innovation environment in the country. But if so, why there was no hindsight, why were not the mistakes and omissions made in the past evaluated?

The selection of the place was followed by unprecedented government decisions concerning establishment of privileged economic conditions within the borders of a new city. The package of new legal initiatives should be presented to the members of the State Duma by the end of the second quarter of 2010. The new measures include but are not limited, to:

1. Introduction of diverse system of tax exemptions and privileges.
2. Development of simplified rules of technical regulations.
3. Introduction of special sanitary regulations and norms of fire safety.
4. Facilitation of coordination with different authorities, and creation of brand new "user-friendly" subdivisions of such government agencies as the Ministry of Interior, Federal Migration Service, Federal Tax Service, Federal Customs Service, Federal Patent Office and some others.
5. Creation of brand new R&D centers – at least two in each Presidential priority areas, modeled from the U.S. experience.
6. Special conditions to attract foreign specialists to work in Skolkovo, based on the changes in visa system and migratory legislation.

Meanwhile the volume of investments in the creation of Skolkovo is not defined yet, partly because not all deals are negotiated. For example, under discussion is the participation of the Massachusetts Institute of Technology in the establishment of an R&D center and in the formation of a new technical university that will be located in the territory of Skolkovo.

It is expected that the first outcomes will be visible not earlier then in 2015. Even though the overall hopes are very high, the very process of this project's birth and the first steps of its realization have revealed problematic areas and pitfalls of the government innovation policy. First, the decision-making process may be called situational when at the beginning and the end choices are made on the basis of political considerations rather then economically justified criteria.

Second, there is a certain degree of idealization of foreign experience. Foreign approaches are often seen as perfect models, and the wider context in which they are working is not counted. The measures themselves are not viewed critically, in their evolution. In the final analysis this leads to disappointment because the adopted measures do not work correctly in the Russian environment. Third, there is a dramatic lack of monitoring and evaluation of previous initiatives; hindsight is unfashionable; only foresight is developing.

When there are resources, political will and a thought-out strategy for realization of a big project, then the chances for success are rather high. However all previous Russian history of big projects shows that some of the important components are always lacking. The Skolkovo project may become a success if it will manage to create a persuasive set of measures, which, in turn, will provide an insight in how all government structures should work in order to create an innovative environment – not in the selected city but in the country as a whole.

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Developing the Russian innovation system – potential for increased cooperation with Finland

By Kaisa-Kerttu Peltola

Russia has a lot of largely unused innovation potential and the country has a relatively large science base and a well developed education system in science and technology. One of the positive characteristics which should also be better utilised is the large potential market and resources for innovative activities in Russia. Indicators of innovation activity, however, reveal an imbalance between the public resources allocated to knowledge creation and the innovation outputs. This imbalance as well as the limited role of the private-sector in R&D, are some of the major challenges of the Russian innovation system.

Russia's innovation system is still in the phase of transition resulting in problems such as the lack of cooperation and coordination of different organisations in the innovation system and undeveloped intermediary system which have had a negative effect for instance on commercialisation of innovations. Supporting cooperation on national and international levels should therefore also be emphasised in the Russian innovation policies.

Although Russia has made progress in the development of innovation policy, policies have been largely based on a research-centered ideology and have not been able to repair the weaknesses in the innovation system. Russian science and technology policy has a strong focus on the R&D which has not been responding to the demands of the market. More support for market oriented innovation development and commercialisation of innovations, by means of development for instance public-private partnerships, would be needed, in order to make the innovation process in Russia more effective.

An important challenge of the Russian innovation policy is to encourage a stronger participation of the Russian business sector in the innovation process, as the lack of commitment by the business sector is a major weakness in the Russian innovation system. Integration in international markets and attracting more foreign direct investment in technology intensive sectors should also be emphasised in the Russian innovation policy in order to promote technology transfer and accelerate technical progress. Russia has a lot of potential in certain leading research and innovation industries. However, the efficient use of vast natural resources on the international market is a challenge for Russia's technology intensive industries as well as its ability to commercialise research findings into marketable products.

Attraction of foreign investment and foreign presence is important for Russian innovation system and learning from foreign experience is growing but it is not yet a standard activity of responsible government ministries. Although Russian companies have already entered into partnerships with foreign companies in various ways in order to get access to the latest technology as well as managerial and marketing experience and Russian research organisations have been active in mobilising foreign support and research contracts, this development should be further supported and developed in the government policy level.

Despite the problems of the Russian innovation system it also provides foreign actors with opportunities to expand their operations and benefit from the developing opportunities. Considering potential for increasing cooperation between the Finnish and Russian innovation systems opportunities for benchmarking and mutual benefits can be found. One of the strengths of the Finnish innovation system is a well developed network of intermediary institutions providing innovation support and expertise, set up to help Finnish businesses, universities and other providers of knowledge to use different services at different stages of the innovation process. Collaboration between the private and public sector in Finland is also strong. On the other hand, the relatively small size of the country can be considered a weakness as the domestic market for innovations and R&D is quite small.

Russia, on the other hand, provides with a large potential market and resources for innovative activities. As pointed out earlier Russia still has transitioning innovation system where market oriented actors coexist with Soviet-style organisations and mechanisms. The different strengths and weaknesses, however, create many opportunities for mutual learning and cooperation between Finland and Russia. Finnish actors can benefit from the opportunities of the market potential nearby and the knowledge and experience of the Finnish as well as other foreign actors can have a positive effect on the development of the Russian innovation system.

Increasing the efficiency of the Russian innovation environment is, in other words, also in the interests of Finnish organisations as it offers new opportunities for innovative activities. The cooperation and creation of networks with different levels of the national innovation systems involved in the innovation development including the public sector organisations is a precondition for the cooperation. Policies enhancing the cooperation between Finnish and Russian innovation organisations are needed, especially cooperation within concrete projects with mutual benefits should be further supported by governments on both sides.

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Commercialisation of innovations requires co-operation and networks

By Leena Aarikka-Stenroos and Birgitta Sandberg

Innovations have been acknowledged to be critical to the long-term survival of many firms and vital for the future prosperity of various regions. However, developing and marketing innovations are known to be very demanding tasks. Challenges in development are related to technological uncertainty. It is widely acknowledged that R&D co-operation provides access to complementary technological knowledge and, hence, helps in managing uncertainties related to technology. However, overcoming the technological challenges is not enough to turn invention into innovation, i.e. to make it succeed commercially. Commercialising an invention also requires coping with considerable market uncertainty, which stems from the novel features of new products. Customers, distributors, partners and other actors in the business environment may find it hard to accept a new product. In these situations traditional marketing tools tend to be of limited use.

However, co-operation and networking may help a firm to overcome the challenges inherent in the commercialisation of innovations. Marketing resources gained through network relations may be an effective way of decreasing marketing costs and of communicating multifaceted benefits that prospective users may otherwise fail to understand. Small firms in particular may lack financial and competence resources, and the legitimacy that enables them to reach potential customers. Thus, relations in commercialisation networks can facilitate diffusion and adoption, and provide manifold complementary resources. Various actors with diverse resources contribute commercialisation tasks such as customer education, distribution, marketing communication, and credibility building. Innovating firms thus need to develop relationships with critical parties in order to establish a supportive commercialisation context.

When an innovating firm moves from development to commercialisation its network relations change radically. It is however challenging to create relations between actors who have not co-operated before. In fact, the existing relations and resources of actors in the development network can be extremely valuable in enabling change in commercialisation in terms of building trust, credibility and commitment. Therefore, we suggest that commercialisation activities should start during the development phase and managers should already then purposefully create relations with diverse actors that are either of direct use in commercialisation or that have relations with other relevant actors. Hence, the key actors would be committed to the innovation before the commercialisation begins.

The innovating firm needs to forge relations not only with users but also with leading partners such as distributors, complementaries and opinion leaders, whose contribution to market creation is crucial. In the optimal situation networking for commercialisation combines the complementary resources of service and product providers in different kinds of related industries and profit and non-profit organisations. Actor dissimilarity and the multidimensional structure of the network foster commercialisation because different actors carrying out different tasks are more likely to complement each other. It has been earlier acknowledged that the development of innovations benefits from co-operation across industry borders and combinations of knowledge from different branches. However, we argue that such a radical combination of resources might also benefit the commercialisation. For example, Finnish Nordic Walking Poles were successfully commercialised in the co-operation of Exel Ltd (innovating firm), various non-profit organisations, and sports institutions.

Nevertheless, we acknowledge that actor diversity and dissimilarity tends to complicate the manageability of the network. Actors are committed to commercialisation only if it fits in with their activities, strategy and business model. Potential partners need clear resource trade-offs as motivators to integrate resources, especially if they do not see the co-operation as strategic. Trust building is increasingly important in innovations because the emerging business ideas are vague and the goals, roles and activities are blurred, and co-operation may easily turn into competition

To sum up, commercialisation of an innovation does not need to be a battle of an individual innovating firm, but it can be taken care by a group of organisations. Co-operation may be challenging but we argue that even more challenging it is to try to pave the road to the new innovation alone.

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Systemic innovation thinking as a tool for breakthrough innovations

By Jari Kaivo-oja

We need more dynamic innovation policy.[1] The idea of systemic innovation is not new. It was presented by Fuller (1928) in the context of the Dymaxion house case in the U.S.[2] The Dymazion was revolutionary housing innovation, which was never entering the U.S. housing markets. Fuller's big systemic innovation for the industry has yet to be realized. Companies need to redefine how to work together.

Why? Companies and corporations had lack of systemic innovation competences. However, today many companies and corporations have new competences to implement systemic innovations and cross barriers of systemic innovations. Most systemic innovations, like the Dymaxion house, fail to diffuse in the industries and services even though many can offer demonstrable benefits in terms of time, cost, quality and/or safety issues. Those that survive suffer from poor adoption even though some innovative solutions have proven to add significant, measurable value added to companies.

Recent data and research findings show that systemic innovations diffuse slowly in project-based and service industries. Slow diffusion rate of systemic innovations is an alarming issue for European companies. Industrial research in the U.S. shows clearly that systemic innovations diffuse more slowly than incremental innovations. Expanding our understanding of systemic innovation thinking is critical as companies, corporations and industries, which continue to evolve into project-based forms of organization. For companies it is challenging that systemic innovations diffuse more slowly than incremental innovations in project-based industries. Diffusion speed and operations of systemic innovations should be managed in a better way in SMEs and in the corporate world. Systemic innovation thinking requires multiple companies to change in a coordinated fashion. Critical subsystems are databases, engines and interfaces.[3]

Systemic innovation requires also combination corporate foresight research, corporate planning and organizational change management. It is also obvious that networking and partnership strategies must be connected to systemic innovation thinking of SMEs and corporations.[4] Big projects are won by the strategic company alliances. Linear thinking of traditional supply chain management is not right way to manage systemic innovations. We need increasing use of enterprise resource (both material and immaterial) planning, service design thinking and the prefabrication of product/service component systems. There must be also a very strong link between foresight and change management in order to promote more efficient systemic innovation processes. Talk is cheap, action matters more in the systemic innovation management.

How to promote systemic innovations? It is possible to list some critical issues which have impacts on the speed of systemic innovation. The following issues are important ones[5]:

(1) Decrease *the span (number of specialist firms) of the systemic innovation process*. This makes managing issues more ease.
(2) If the systemic innovation impacts multiple experts/specialists on your project, project managers *must create a dialogue forum that develops mutual trust for those firms impacted*. They should also encourage regular meetings and discussions between impacted companies and even possibly require project team members to work in the same work space. Information sharing matters in a systemic innovation process.
(3) Project managers *must know where systemic interdependencies lay* in the project in order to understand how a systemic innovation can be adopted over the course of multiple projects (a systemic innovation program). If interdependence is significant, project managers must pay careful attention to managing the other constructs identified in this research.
(4) If the systemic innovation impacts the process of multiple specialists on the project, *project managers should choose just one contractor from each specialist group and work with them on several projects*. Over time, as inter-organizational routines are able to form, project managers can then begin to introduce new contractors to the bidding shortlist for each specialist firm type.

Systemic innovations are highly non-linear and it derives from evolving working practices, project collaborations and problem-solving routines. Systemic innovations are also driven by EU and government regulations, client demand trends and skills supply. Systemic innovations take place between companies, consultants and clients. Systemic innovations do not necessary happen in the R&D labs, but they take place in between organizational boundaries, also in non-conventional settings.

For Baltic Rim economies systemic innovation thinking is one big challenge. Innovation co-operation and companies of BER-countries could get many benefits from systemic innovation co-operation. Baltic Rim company alliances are needed to increase competitiveness in the global markets

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[1] Inkinen, S. & Kaivo-oja, J. (2009) *Understanding Innovation Dynamics. Aspects of Creative Processes, Foresight Strategies, Innovation Media and Innovation Ecosystems.* eBook 9/2009. Finland Futures Research Centre. Turku School of Economics. Turku.
[2] Fuller, R.B. (1928). *4-D timelock*. Cambridge, MA: Harvard Society for Contemporary Art. Harvard.
[3] Roberts, E.B. (2002) *Innovation. Driving Product, Process, and Market Change.* MITSloan Management Review. Cambridge: The Jossey-Bass. p. 279..
[4] Kaivo-oja, Jari (2009) Integrating Innovation and Foresight Research Activities. Key Models and Challenges in Non-Technical and Non-economic Innovation Actions. In Steffen Roth (ed.) *Non-technological and Non-economic Innovation. Contributions to a Theory of Robust Innovation.* Peter Lang AG. Bern, Berlin, Bruxelles, Frankfurt am Main, New York and Wien. Printed in Germany, 195-125.
[5] Taylor, J.E. & Levitt, R.E. (undated) *Understanding and managing systemic innovation in project-based industries.* Working paper, Stanford University. Stanford.

Does the European Union overprotect intellectual property?

By Tuomas Mylly

The establishing of the European Communities overlapped with the final stages of the industrial society paradigm. Innovation, too, became recognised as being important for economic growth in the course of the industrial revolution. Yet intellectual property (IP) assumed a marginal and defensive role in early Community law. Like property in general, it was nationally protected. Nationally defined IP formed a legally constituted monopoly or a protectionist impediment for the realisation of the basic Community freedoms and the objectives of Community competition law alike.

Community harmonisation of IP law started relatively late, in 1989 in the form of the First Trademark Directive. After this, the expansion of the Community dimension of IP law has been noteworthy. Now national legislation in the field of IP law *not* originating from the European Union (EU) law has become minimal. The EU Courts give annually several important decisions interpreting IP law, having effects throughout the Union. Although the member state regulation of IP will not abruptly vanish, the most important legislative and interpretive decisions are now made on the EU-level.

More recently, the Commission has called free movement of knowledge and innovation a "*fifth freedom*" in the single market. Whereas the single market was "*originally conceived for an economy reliant on primary products and manufactured goods*", now the single market "*can be a platform to stimulate innovation in Europe*" (*A Single Market for 21st Century Europe*, 2007). The Commission further states that "*Europe requires strong industrial property rights to protect its innovations and remain competitive in the global knowledge-based economy*" (*An Industrial Property Rights Strategy for Europe*, 2008). This raises the question: does the information society imply an automatic and simple logic whereby information is now recognised as the key input and commodity in the global economy, hence requiring ever-stronger protection?

In the following, the development of the IP dimension in the EU will be divided into three phases: *the common market phase*, *the reconciliation phase* and *the proprietarian phase*.

The common market phase is characterised by negative integration and the perception of IP rights as nationally defined restraints of internal trade and competition. The territorial nature of IP rights was thus considered as antagonistic to the integration objectives of the Community. This phase, lasting from late 1950s to late 1980s, is characterised by the active application to IP rights of the free movement and competition rules. The Court was the central actor in shaping the status of IP rights. Legislative initiatives outside IP's competition law interface failed. The Community Patent Convention represents an unsuccessful attempt of this phase to introduce a European system of protection.

The reconciliation phase lasted from the late 1980s until mid 1990s. This period essentially relaxed the traditional common market and competition objectives and accommodated them with the emerging positive integration: legislative measures harmonising domestic IP protection. The phase coincides with the ambitious internal market -programme and the general relaxation of the EU Court's case law in the area of free movement of goods and state-based restrictions of competition. The Trademark and Software Copyright Directives sought to accommodate competition-related interests with the objectives of protection.

The proprietarian phase is characterised by legislative activities emphasising the protection of investments in the form of strong protection (databases and copyright), easily obtainable rights (designs) and protectionism insulating the Union market from external price competition. The protection of other interests, be it competition, fundamental rights or cultural interests, is left for other laws. The genesis of the era coincides with the coming into force of the TRIPS Agreement in 1996. The Commission Green Papers of that time elevated innovation and information creation to central policy objectives of the Community. The case law of the EU Courts from this period is not consistent. In the area of copyright the basic premise has been the establishment of a "*high level of protection*".With regard to trademarks, the EU Courts have better internalised competition-related concerns in their interpretations.

There are multiple reasons underlying the proprietarian ethos. The EU is not insulated from the intensification of international trade and global competition. Innovation-based comparative advantage and growth have emerged as the new fundamental policy objectives of the EU, as expressions of techno-nationalistic spirit on EU-level. Social costs imposed by IP rights do not seem to exist, but a simple logic of "*strengthened protection – more innovation*" prevails. It should also be noted that the US courts have instruments that are more flexible at their disposable to balance the rights of the IP owners with public interests. These include the *misuse* and *fair use* doctrines, among others. More recently, the US courts have sought to counter-balance the excesses of proprietarian IP laws and pre-existing interpretations.

The EU's aims have been broadened from the economic domain to cover a broader range of values. The aims of the EU now include respect for human dignity, liberty, democracy, equality, the rule of law and respect for human rights. EU law now also comprises a developed system of fundamental rights protection. Its economic model is supposed to be based on "*social market economy*", implying the presence of a strong social dimension. Such fundamental changes in the underlying objectives of the EU enable challenging the "*strong industrial property rights*" -ethos from within EU law. Each ideological phase contains the seeds of its decline. There are now some weak signs of a possibility of a re-evaluation of the current trend. Yet the time is not ripe yet to pronounce the emergence of a fourth phase in EU's IP protection.

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Main peculiarities of the Russian intellectual property legislation

By Igor Nevzorov

A combination of certain principles inherited from the Soviet times and set of legal concepts adopted from the Western law, the Russian intellectual property legislation currently is one of the most unusual and complicated laws in the modern world.

Now, as opposed to the legislative structure in most European countries, most of IP rules in Russia are codified. IP codification enacted since January 2008 is a continuation of a Soviet tradition where all IP regulations were combined into one code (the 1964 Civil Code).

The main distinction of the Russian IP regulation is the priority of the so called "imperative rules" of the Russian legislation over any other regulations contained in foreign law. It is directly established[1] that, despite of any foreign rules regarding intellectual property, the effect, volume, restrictions on and allowed use of IP in Russia are governed by the Russian Civil Code. Thus, any use or transfer of IP in contravention of Russian law will be deemed in Russia as illegal, null and void.

Russian "imperative rules" contain a number of specific provisions and requirements differing from those provided by Western intellectual property regulations. Among them the following are to be underlined:

- *Obligatory state registration of trademarks, service marks and patented items in regard to the Russian territory*. Where obligatory registration has not been completed, the IP is deemed as not legally existing in Russia. Therefore, companies generally have no legal protection and have no possibility to pay royalties for the use of such IP if it has not been properly registered.

- *Obligatory confidentiality protection procedures in regard to know-how.* Under Russian law, know-how is a separate item of intellectual property which comes into existence only after the company completes certain formalities to ensure the protection of the know-how (e.g., marking all know-how carriers with confidentiality labels, adopting internal policies to protect confidentiality, restricting access to the confidential information, etc.). If such measures have not been taken, the company will have no recourse if the confidential information is disclosed, and it will not be able to transfer (license) the information as know-how (rights to use know-how).

- *Obligatory state registration of IP transfer (license) agreements in regard to trademarks, service marks, patented items.* An agreement concerning registered IP (trademark, service mark, patented item) will be valid in Russia only after it is properly registered with the relevant intellectual property agency (Rospatent). If an agreement is concluded but not registered, it is deemed as having no legal effect in Russia.

- *Each IP license agreement should contain all "essential provisions"* directly stipulated in Russian law (e.g., subject of the agreement specifying the item of IP to be transferred or licensed, ways and area of allowed use of the IP). Otherwise, the agreement will be deemed as not concluded and having no legal effect.

- *Future IP may not be transferred or licensed*. The Russian law says that only the existing IP may be transferred or licensed. Therefore, if contracting parties intend to transfer (license) IP to be created in the future (but currently can't be precisely specified in an agreement since it has not yet come into existence), the agreement will be deemed as not concluded and having no legal effect.

The above issues and peculiarities are important not only from the legal perspective (in regard to the possibility of IP rights protection in Russia), but also from the tax perspective. Where IP will is not deemed to be existing in Russia, or license agreement does not meet the requirements provided in the Russian law, there is a risk that the tax authorities may claim the expenses (e.g., royalties) incurred by one of the parties to the license agreement as economically unjustified or not documented. This may affect the company's income tax calculation in Russia so that the amount of income tax will be increased.

In regard to IP benefits provided under the Russian law but probably not available under the legislation of foreign countries, it is necessary to mention the following:

- Russian law provides a shorter (3 year) term for cancellation of trademarks due to non-use. Where a company does not use its trademark (e.g. in regard to certain registered classes of goods) over 3 consecutive years, the trademark registration may be fully or partially terminated at the request of any interested party,
- Russian law provides for a possibility to cancel a third party trademark if it was registered in an act of "unfair competition", i.e. if a company registers a trademark similar or identical to the logo of a competitor (even if such logo is not a registered trademark), then such registration may be deemed "unfair", and the trademark will be cancelled,
- Under the Russian law a company "automatically" has an exclusive right to use IP created by its employees as part of their employment duties. It will be sufficient for the company to prove that the author is its employee and was instructed by the company to create the IP.
- Russian law stipulates the possibility to patent in Russia feed and beverage recipes (e.g., bread, beer, etc.). Other companies will be allowed to use the same recipe only if proper consent is given by the patent owner or under a license agreement.
- Under the Russian law, IP may be used by third parties not only under license agreements concluded with the IP owner, but also based on unilateral authorization given by the owner (clause 1229 of the Civil Code of the Russian Federation).

The above peculiarities are specific to the Russian IP legislation. We assume that the Russian IP law will continue developing to become more Western-oriented and more consistent with current European IP regulation. However, the current requirements of the Russian IP law should be strictly adhered to by all foreign companies seeking to establish or expand their business in Russia.

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[1] Clause 1231 of the Civil Code of the Russian Federation

The perfect storm

By Mika Aaltonen and Michael Loescher

INTRODUCTION

The perfect storm of events puts Finland in the center of new world transit lanes, for better or for worse. The melting of the Arctic sea ice will make global circumnavigation possible, the discovery of vast, proven reserves in the Arctic, north of Finland and Russia and north of Canada, will mean gas and oil pipelines become possible through Finland. The development of a modern, high-technology TransEurasian railway from St. Petersburg to Vladivostok and eastern China, creates a high-speed roll-on, roll-off containerized sea/land passage from Finland to the 3,9 billion people in central, southern and eastern Asia at very low logistics costs.

The described developments place Finland in a unique position economically, politically and socially. The question is, can Finland step up to the detailed planning necessary to move into the future. Studying technology is one thing: but *what we describe here is a seismic event, with Finland at the center*. Redrawing the map of the world hasn't been done since 1492. We believe it is within Finland's power-- over the next 20 years-- to find an entirely new and self-supporting future with a thriving economy. The central obstacle, we predict, will be well-meaning inertia. It is difficult for a small country to see the strategic crossroads in which time and chance have placed it.

A TRANSITION IN THE WORLD COMMUNICATION LANES

Melting of the Arctic Ice Cap

In the first quarter of the 21st Century, a confluence of three otherwise unrelated developments is set to reposition Finland so that it lays precisely astride the largest communications and logistics lanes on the globe.

The first of these developments is the relentless melting of the Arctic Ice Cap, which is variously estimated to proceed at a pace so that by 2020, circumpolar navigation of the globe will be possible year-round without icebreakers. This will mean that many types of goods can be moved to and from Finland to North America, South America, East Asia, and Australia at perhaps 60 percent of the cost of today's transit. From a Finnish point of shipment to the Arctic, either an easterly or a westerly Arctic transit, exiting by way of the Bering Straits opens up into the Pacific, which in turn leads to East Asia and, on the North American continent, the four principal rail lines that cross America.

Petroleum and gas reserves in the Arctic

Into this tumult we may throw the second development, which is the discovery and quantification of vast petroleum and gas reserves in the Arctic. The estimates of the new deposits are, at least, 90 billion barrels of oil (bbo), 1,670 trillion cubic feet of natural gas (tcf) and 44 billion barrels of natural gas liquids. This is roughly 40 percent of the now known world petroleum resources. If we add Canadian oil sands-- 175 bbo-- to the new Arctic discoveries, it is clear than the compass heading for the world's future petroleum energy resources points due north from everywhere.

The most direct route for Arctic oil and gas (and Swedish iron ore) is to create a short high-technology sealand bridge from either Tromsa or from the southern shore of Porsangen Fjord or Varangerfjorden to Kemi or Oulu on the Gulf of Botnia. Such a route would transform Finland's economy, creating an entirely new commercial ecology for the west coast of Finland.

The Modernization of the Trans-Siberian Railway

The third development is the decision by the Russian government to continue the modernization of the Trans-Siberian Railway, which from St. Petersburg connects Europe to Vladivostok and the East China seaports. The Trans-Siberian Railway is presently a Russian Federal Corporation, but the government has declared its intent to take the company public and the present collapse in the Russian economy almost certainly will require external capital. The first high-speed containerized freight moved from Moscow to Berlin last year. There are also many subordinate routes in development, the longest of which is the route through western China from her seaports (proceeding quickly with strong Chinese government backing.) Two other lines linking the Indian subcontinent and Indochina, respectively, have more significant funding and construction hurdles.

A SKETCH OF STRATEGIC IMPLICATIONS

Almost all analysts agree that sometime during the decade from 2020-2030, these two vast communications lanes will reach sufficient maturity to create, in effect, three intersecting flows of transit, centered on the Arctic, and spinning into the transcontinental rail systems of Asia and North America. Finland, of course, is at the center of two key points-- presenting both abundant opportunities and challenges. Cheap labor and cheap transportation lower the already low (relative to Europe) cost of China's supply-side logistics. Obviously, new markets for Europe in Asia, in the Americas and Australasia become much more accessible than they are now. Precision manufacturing seems closer to our reach when logistics costs are down and markets are, therefore, relatively, closer. The shipping industry, slowed because of the global financial crisis, will be forced to change. Much of the planned containerized shipping, tanking, and bulk carrier tonnage on the draft board today is for new ship types that can transit the smaller Panama Canal and Suez, which in turn are both planned to be widened and deepened at huge expense. Neither fits into the dynamics we illustrate below.

In effect, the northern hemisphere would become a kind of commercial "Pangaea", an economic super-continent linked by sophisticated rail/sea lanes.

With the described developments a large amount of strategic implications follow. Simply put, our concern is for the agility and analytical base of the Finnish Innovation System, which is heading into perfect storm over the next 20 years. How we weather that storm will determine the future of Finland, and more widely of the Baltic Sea region countries.

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NATO, Russia, and the future of the European security system

By Christopher S. Chivvis

A central deficiency of the European security system today, as a growing number of scholars have come to recognize, is that it isolates Russia, and thus hampers our ability to address effectively the most pressing challenges that Europe and America face, whether on arms control, Iran, weak states, Al Qaeda, or a host of other issues.

On the structural level, a Russia that was better integrated into the European security system would share in Europe's economic and political stability and thus have greater reason to support it.

On the state level, integration would promote Russia's domestic modernization, strengthen its governing institutions, encourage a more democratic political culture, and thus reduce some of the main tensions in European security today.

On the geopolitical level, a Russia firmly anchored in the West would help ensure that new regional institutions such as the Central Asian "Collective Security Treaty Organization" (CSTO) harmonize with NATO rather than compete with it.

The challenge today is how best to accomplish this integration.

One route would be that proposed by Russian President Dimiti Medvedev: establish a new organization to govern pan-European security. This proposal has the merit of showing that at least some forces in Russia have grasped the danger that continued isolation poses for Russia and are genuinely interested in positive change. Indeed, the proposal could be indicative of a broader shift in Russian foreign policy toward greater cooperation with the west, as proposed in a recently leaked Russian Foreign Ministry report.

The United States has been reluctant to embrace the idea of a new security treaty, however, for obvious reasons -- most notably the concern that Russia's main objective in this proposal is to undermine NATO's unity.

Although it is possible to imagine certain preconditions to discussion of a new European security organization that might benefit the United States and its allies -- for example, requiring as a prerequisite for negotiation public statements by all sides that borders in Europe will remain inviolable -- these discussion, even if they did take place, would probably lead nowhere.

What are the other options?

One alternative that has been raised in both Germany and the United States is to offer Russia membership in NATO.

The basic argument is that because NATO is the premier security institution in Europe, it is impossible to talk seriously about integrating Russia into the European security architecture without seriously considering Russian membership in the Alliance.

The logic is sound, but the idea is clearly too fraught to be realistic. First, rather than lessening tensions between Russia and its neighbors, Russian membership in NATO could easily increase those tensions, simply importing them into the Alliance. Second, the process of bringing Russia into the Alliance would be so immense that it would require an extraordinary act of American leadership. The United States is not at all ready to expend the political capital that this task would require. Third, even if it were feasible to bring Russia in, Russian membership would raise serious questions about Article V: Would Russian membership involve a commitment to defend Russia's border with China? Is this credible? How would this be viewed in China itself?

In short, the idea of enlarging NATO to Russia is too far-fetched for the foreseeable future, and probably beyond that.

But it is still true that NATO must be at the center of any serious effort to integrate Russia into the European security system. Hence, the best option is rejuvenation and reform of the NATO-Russia Council.

The NATO-Russia Council was sharply criticized on account of its failure to operate during the 2008 Russia-Georgia war. This failure, however, was more demonstrative of the limits of institutions in general than of the NATO-Russia Council in particular. No institution can work if its states do not want it to. Any institution that seeks to integrate Russia into the European system will run precisely the same risk.

The current reset of U.S.-Russia relations, however, opens the door to a new era in which a rejuvenated NATO-Russia Council, reformed and far more ambitious than the Council of the past, could become a viable option.

If properly handled, a rejuvenated NATO-Russia Council would give Russia a respectable forum in which to express legitimate concerns about the evolution of European security, while forcing Russia to play a more constructive role in debates over issues of common concern. It could become the central location for consultations on issues ranging from counter-terrorism cooperation, to missile defense, to nuclear arms control. Indeed, it is difficult to see how missile defense can be discussed effectively with both NATO and Russia, as has been proposed by the United States, without the NATO-Russia Council.

Rejuvenating the NATO-Russia council will not be easy, of course, especially since there are indications that Russia has no intention of doing so. Reform could moreover be derailed by an excessive focus on procedural details, even though these matter. Rather, reform will have to focus on substantive issues of concern to Russia, the United States, and Europe in the field of security, and thus serve as a means of ensuring that in their "reset" the United States and Russia account for the valid interests NATO's European members, and vice-versa.

Ultimately, the successful integration of Russia into the European security system is highly desirable, but not apt to work unless NATO plays a central role. Developing that role would be a boon to all members of the alliance, not to mention in Russia's own best interest.

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EU? Baltic Sea Region? Finland? Helsinki? There are many to choose from, but which one will succeed?

By Tatu Laurila

The past two decades have been the stage for some profound economic and political shifts worldwide. The comparison of the true competitive edge of continents, countries and regions has become increasingly difficult and volatile – some estimations have obviously been overly pessimistic and others grossly optimistic.

In our own continent, the pace of the development in the old Eastern Bloc countries surprised and challenged the old Western European countries in the 1990's. We Finns have to openly admit that our neighbor and friend Estonia has been a forerunner in, for example, planning and rolling out public e-services. This is just one concrete example of the future driven dynamism of the newer EU member countries.

On a global level, China keeps exceeding all estimates and expectations, when it comes to growth rates and the country's importance as a global economic powerhouse. It is no longer just the world's factory, as most leading multinational companies have already adapted a China strategy that is market driven. Cost reduction might have been the driver for former strategies when many Finnish manufacturers started moving their production into China some ten years ago.

Today, Finnish companies start R&D centers in the most advanced megacities in China to answer the needs of the growing Chinese market demands. While Western economies reported negative or zero growth in the preceding two to three years, the Chinese have taken over and ever better position in the global economic competition. A relatively new dimension in the Chinese economic expansion is their active – some might say even aggressive – role as an outbound investor abroad. For China the first priority targets have been natural resources that are located in other developing countries.

The source of new opportunities is between our ears

The new wave of Chinese investments will be brand and knowledge driven. This is something that opens a totally different view from receiver's point of view. Natural resources can be acquired once and that's about it. Brand and knowledge assets are much more rooted in the original soil and ecosystem of the original idea and in most cases it is necessary to build up a continued strategy that is based on the country or region of its origin. For example, can you imagine Volvo leaving Sweden altogether and becoming a fully Chinese car? My feeling is that it will base its future on the assets it has built for its best customer segments, but diversify to satisfy the growing needs of the expanding Chinese markets.

Innovation, especially knowledge-driven innovation, as an investment driver is even more lucrative than brands. Our leading innovation companies are already located in the innovation hotspots on all continents. Northern EU should play an active role when the growing number of Chinese hi-tech companies start to "go abroad" as the official Chinese policy encourages. Finland and Helsinki are taking this challenge to heart and have decided invest in it long-term.

Finland is in the crossroads of the East and West and well positioned on the globe when it comes to air routes from Europe to China, has some unique competitive advantages. Golden Bridge – a Chinese innovation center will start in Helsinki region in the very near future. This China specific business and innovation service platform aims at helping Chinese companies to identify and realize knowledge driven opportunities in Finland, in the Northern Europe and in Russia. There is already evidence that this offering is relevant for Chinese companies and I believe that this platform will become an economically important investment driver for us in the long run.

New horizons and new perspectives

Investment promotion in China is a challenge for a small country like Finland and its capital region Helsinki. I think that no other small European country will find it any easier. This raises a question of usable meta-region level brand and offerings when suffering from the poor resolution brought forth by long distances. This is one of the reasons Greater Helsinki Promotion, along with the City of Helsinki and 10 Baltic Sea Region capital regions, is involved in BaltMetPromo, a pilot project rigged at finding out if the region could market itself as a single brand. Through three pilot programs in the fields of Investments, Talent and Travel, we're joining hoping to prove, that marketing and promotion can be done together for the benefit of all, without a sum zero game.

It remains to be seen if we will find our strength in a geographical context or something more promotional like the old Hansa was at the time of its global trade dominance. In either case, we should embrace new opportunities, new methods and new friends as we build a more sustainable world.

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Russia's medium-term growth prospects still uncertain

By Iikka Korhonen

In 2009 Russia's gross domestic product decreased by 7.9%. Therefore, Russia's GDP decline was the largest among G20 countries. In the area of former Soviet Union many countries like Ukraine and Latvia experienced even larger GDP drops, but this is of course not much of a comfort for Russians. Russia's economy bottomed out during the summer of 2009 as the most immediate effects of the global financial crisis dissipated, but recovery has been very uneven. In the following I assess the current situation in the Russian economy and growth prospects in the medium run.

While the overall GDP registered clear quarter-on-quarter growth in the last two quarters of 2009, level of economic activity is still well below that attained in year 2008. Rosstat, the Russian statistical agency, has announced that in the first quarter of 2010 gross domestic product increased 2.9% year-on-year, which was a disappointment to many observers. For example, Russia's Ministry of Economy had just a few weeks earlier assessed that GDP grew 4.5% in the first quarter. Even if the first quarter GDP numbers are later revised slightly upwards, it is clear that Russian growth is currently quite anemic.

Among Russia's main economic sectors, it is the manufacturing industry which has fared the best in the recent times. In the first four months of 2010 volume of industrial production was up 6.9% year-on-year. Retail sales are up, but only barely, and construction activity is still contracting, some 18 months after the global financial crisis broke out. Month-on-month numbers indicate that overall investments are already growing, however.

Russia's slow recovery can be attributed to many factors. Despite the fact that higher oil prices have given Russia higher exports revenues, global capital flows remain quite subdued. Russia's foreign currency reserves have climbed to approximately $450 billion, while they were some $380 billion in the spring of 2009. At the same time, Russian companies and especially banks have not increased their foreign indebtedness. As much of the Russian lending boom in 2004-2008 was financed by channeling funds borrowed from aboard, Russian banks' unwillingness or inability to increase their borrowing means that bank lending increases only marginally.

It is likely that Russian investments will truly recover only when bank lending increases and companies' assessment of future business prospects improves. The current uncertainty in global financial markets has decreased investors' appetite for risk, which will also curtail Russian banks' access to funds. Furthermore, concerns over sovereign debt have reduced bond issuance the world over. In May 2010 the world-wide issuance of private sector bonds was only one third of the amount issued in April. Many large Russian companies have organized most of their financing from international markets, and if the current illiquidity persists, they may face constraints on their financing. Generally these large Russian companies operate in the raw material sectors, and they may be just too large for the Russian banking sector. This illustrates the dependence of the Russian economy on the outside world. Even though the Russian government is still practically debt-free, the same does not apply to the Russian economy more generally.

In 2010 and 2011 Russia will register relatively robust GDP growth numbers, and cumulative growth will be approximately 10%. However, this only means that the Russian GDP will reach its 2008 level at the end of 2011. Also in this sense Russia is far from unique, however. Most OECD countries face similar "lost years", and for many of them the pre-crisis GDP level will be reached only in 2012 or even later. In this sense the effects of the recent crisis are less severe for Russia.

Where will the Russian growth come from? This year and also in 2011 much of the recovery is about bouncing back from the deep recession in the first half of 2009. As domestic demand slowly recovers on the back of global growth, Russian companies will start thinking about investment opportunities. However, in many sectors – like office and commercial real estate – the existing stock is more than enough for a while. And, as previously mentioned, availability of financing may hamper investment activities. Therefore private consumption will be the main driver of economy for a while, as there is also strong pressure to get public expenditures under control. With its current production structure, increasing export volumes will be very difficult for Russia.

In 2010-2011 Russia's growth will surpass many OECD countries' growth rates, but economy will really take off only when Russian investments start to increase. This requires strong recovery also in the global economy, and more risk appetite in the international capital markets, which illustrates Russia's dependence on the outside world.

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Russia - two years after the crisis

By Ivan Korolev

Up to now it looks like Russia survived the world crisis more or less smoothly despite a 9 percent decrease of GDP and surge of unemployment in 2009. The government managed to avoid a significant drop of the average personal income. In fact, it increased pensions substantially, and launched a far-reaching reform of health system. Anti-crisis measures helped the banking system to overcome the crisis – no major bank crashed. Financial grants were channeled to large industrial enterprises, infrastructure projects, and agriculture.

In 2009 the Federal Government budget revenues were decreased by 29 percent. Nevertheless the budget expenditure was increased by 27% mostly on social aims. It has been done thanks to the money which the government accumulated in previous years. Besides an increase in oil and metals prices at the world markets has also helped. Russian international financial position continues to improve. In March-April 2010 foreign exchange reserves were increasing by 5-6 billion dollars every week. Nominal rate of Rouble was slowly restoring up to the pre-crisis level. During the last two years taxes remained practically stable. Nationalization of private companies was used on a very small scale, especially in comparison with practices of majority of the industrial countries.

A relatively favorable international financial position of Russia has strengthened its worldwide political influence, especially in the post-Soviet area. Russia agreed to cut gas prices to Ukraine by 30 percent in exchange for a long term extension of the Russian navy's lease in Sevastopol. In parallel Russia promised to invest in the city of Sevastopol where the Russian Black Sea navy is based. The deal also includes contracts for Russian companies to build two nuclear reactors in Ukraine. Besides a merger of GASPROM and Ukrainian NAFTAGAS was offered. At the same time prospects for economic cooperation with developed and developing countries have somewhat improved. Ambitious gas transport projects with West European countries are now being more intensively realized than before the crisis. Nuclear energy projects with Brazil, Argentine, Venezuela, Turkey and Italy were preliminarily agreed upon. The new START Treaty signed between the USA and Russia as an important step towards a more secure world may prove to be beneficial for further development of Russian international business.

For sure, the medal has underside as well. Illusions of economic stabilization may be dangerous. The worst case scenario would be for Russian leaders to overestimate the current role of the country in the world. Systemic problems of the Russian economy have not disappeared. These problems are well known: resource-based economic structure, backlog in labor productivity and competitiveness, low energy-efficiency, high inflation, weakness of financial system, numerous depressed regions, corruption etc.

During the crisis new trouble-spots have become acute: high indebtedness of private enterprises and their desire to evade taxes, budget deficits at federal, regional and municipal levels, the growth of shadow economy, high unemployment especially in small towns and rural areas.

According to ***Russian Economic Barometer*** surveys, a share of industrial enterprises with relatively normal financial position fell from 78 percent in 2007 to 50 percent in 2009. At the same time credit terms for non-financial sector dramatically aggravated. For many enterprises bank credits are not accessible even now. In 2009 consolidated budget ran an unprecedented deficit of 2,4 trillion Roubles or 5,9 percent of GDP. Budget deficit forecasts for 2010 – 6 percent of GDP. Official figures place shadow economy at 20-25 percent of GDP. Independent estimates - up to 40 percent. Official unemployment rate in Russia now stands at 8,2 percent, an increase of about 2,5 percent from the onset of the economic crisis in 2008. A discrepancy in unemployment between regions is enormous: from 1 percent in Moscow to 30-50 percent in some of the Northern Caucasian Republics.

But in general the shock of the crisis was not strong enough to stimulate radical political and economic reforms to solve these problems step by step.

In the midterm perspective Russia is currently facing more obstacles to growth than it did before the crisis. Its dependence on world oil prices has increased. So have risks for the future economic development.

In 2010 Russia resumed growth. But recovery will be slow and long one. Economy is expected to reach pre-crisis level only in the second half of 2012. Manufacturing sectors, especially consumers goods production as well as construction industry (which suffered most seriously during and as result of the crisis) are likely to grow even slower than GDP in general.

Modernization of the Russian economy requires WTO membership of the country. The trade body's rules would stimulate foreign direct investment, make domestic business environment more stable and transparent, and open new opportunities for small and medium companies. Stricter rule-based economic policy would benefit not only Russian consumers (this is absolutely evident for everybody), but also many Russian producers who suffer from monopolistic structure of domestic economy. It is in the interests of Russia to join WTO before a Common market with Kazakhstan and Belarus is created. It would mean a return to the previous modus vivendi of conducting negotiations based on individual admission to the WTO.

Profound cooperation with Western countries in all areas is crucial to making Russian economy able to respond to future shocks. Russia's interests in transforming international trade and financial systems coincide with the positions of G-7 to a much greater extent than with those of our partners at the exotic BRIC Group – a club which includes countries with absolutely different economic cultures and history, different economic and political problems and prospects.

That's why Russia's self-identification as a part of European civilization is an important precondition for next generation of structural reforms which would make Russia more open, friendly and prosperous.

The post-crisis environment gives chances for such reforms. But just chances.

Ivan Korolev

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Raising Germany's awareness of the Baltic Sea region

By Andreas Klein and Catja Gaebel

Germany has always been an integral part of the Baltic Sea region, not only geographically, but also culturally, economically and politically. At its northern federal states Schleswig-Holstein and Mecklenburg-Vorpommern Germany has a 2247km long coastline to the Baltic Sea, thus making it an abutting nation on one of the most dynamic economic regions within the European Union. Currently, about 10 per cent of the German exports go to the countries of the Baltic Sea region.

Since the glorious times of the Hanseatic League, Hamburg is the central port of Germany - reloading point for goods from the North Sea to the Baltic Sea and vice versa. Today, the port of Hamburg has grown beyond its role as Germany's gateway to the world; moreover, it forms the world's gateway to mainland Europe, and above all to Central and Southeastern Europe, Scandinavia, and the Baltic region. All this underlines the significance of the Baltic Sea region to Germany's foreign and economic relations, for business, trade and cultural exchange.

A variety of Baltic Sea multilateral agreements have been made which the Federal Republic of Germany has joined directly or as a member state of the EU. Marine environmental protection is the most regulated area, while co-operation in the area of science is currently in its development still expandable. Furthermore, there are numerous bilateral agreements between Germany and the other Baltic Sea states. These agreements do not reflect the actual intensity of cooperation exactly since the cooperation is often regulated through multilateral agreements, particularly EU agreements.

Nevertheless, one should have in mind that only a small part of Germany is actually bordering the Baltic Sea. The western German federal states North Rhine Westphalia and Rhineland Palatine or the southern federal states Baden-Wurttemberg and Bavaria see their political and economic interests rather in the Rhine or the Danube region. Moreover, the federal government in Berlin was always skeptical towards an intermediate level between the national and European level, thus opposing the institutionalization of regionalization.

Since the EU enlargement in 2004 with the Baltic Sea states Poland, Estonia, Latvia and Lithuania joining the EU, thus making the Baltic Sea EU's inland sea, this skepticism gave way to a rather pragmatic approach concerning this region. In a joint declaration of the CDU/CSU and the SPD Parliamentary fraction in May 2009 both parties supported the Baltic Sea Strategy of the EU. The German Bundestag welcomed this European initiative bringing the Baltic Sea region into the focus of the EU. Furthermore, Germany is expecting from the strategy a better coordination and concentration of already existing initiatives in the region on governmental and non-governmental level as well as within the European commission and between the national Parliaments. Having in mind the geographic borders of Germany, the German government as well as the German Bundestag are expecting the Baltic Sea region to become a model for similar initiatives in other regions in Europe, like the Danube region or the Adriatic region where Germany also has political and economic interests.

A particular challenge for a successful Baltic Sea policy is the cooperation with the Russian Federation. Currently, Russia is a member at the Baltic Sea Council, in the Helsinki Commission and other intergovernmental institutions of the region like the Northern dimension. The Northern dimension in particular– including the Barents Sea, the Arctic Sea, Iceland, Norway, the oblast Kaliningrad and north western Russia - offers a platform for cooperation between the EU, its member states and the Northern European non-EU countries. The Baltic Sea marks the connecting centre of those regional approaches and political strategies.

Above all, the German Bundestag supports the successful implementation of the EU Baltic Sea strategy especially in the improvement of the environmental situation of the highly polluted Baltic Sea, as well as in the development of transportation and energy routes between the abutting countries. Norway and Russia should be included in this dialogue as well in order to reach the highest level of coordination and cooperation in the region.

In a report commissioned by the German Konrad Adenauer Foundation professor Esko Antola from the University of Turku comes to the conclusion that Germany's (and Poland's) commitment to the region is indispensable for the successful implementation of the Baltic Sea strategy. According to Antola enhancing the attraction of the Baltic Sea to Germany's political decision makers is a key issue for the region, its integration and its having a strong voice in Europe. Therefore, despite the joint declaration of the two biggest groups in the German Bundestag, CDU/CSU and SPD, raising Germany's awareness of the region and strengthening the commitment of Germany beyond the already involved northern federal states Schleswig-Holstein, Mecklenburg-Vorpommern and the city of Hamburg remain paramount for the promotion of the region. The May 2009 declaration of the German Bundestag to engage more actively with the region as well as the recent visits of the newly appointed Minister of Foreign Affairs, Guido Westerwelle and Secretary of State Cornelia Pieper to the Baltic States give reason to expect a greater attention to the region within German politics in the years to come.

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Nordic co-operation - fading to oblivion or resurrection through regionalism?

By Maria-Elena Cowell

Bring politics back to politics, many say, and many a candidate claims upon electoral campaigns.

Despite the current unpopularity of politics – or what is generally understood by it – it is actually the lack of politics and oversupply of pragmatic management that seems to generate problems. One problem of depolitization is a lack of general interest and public debate, another is the want of ambition in goal-setting and, eventually, decision-making. The non-existence of political agenda with competing ideas and differing standpoints can be seen to have a stabilizing effect; rightly so. But stability can easily lead to inertia and stagnation. Lack of politics often imply lack of inspiration and spirit: the driving forces of change in society. When decision-making is stripped off all values and visions – alternative choices – and downgraded to simple administration, few dare question existing practices or the sense of everything. "Art of the possible" becomes a mere convention.

This is, unfortunately, manifest in the Nordic co-operation. If Nordic co-operation continues in its current form – that of conformity - its true potential is, sadly, lost.

It has been 50 years since the signing of the Helsinki Treaty; the agreement that marked the foundation of Nordic co-operation. It is quite legitimate to ask whether that Treaty needs an update to the 21st century, and most would agree on the need of reform. But as in any institutions, fear prevails over reformism: such an opening could be hazardous to the *status quo;* financially speaking even fatal to some operations or units.

At the risk of repetition of clichés I would like to paraphrase Jean Monnet: Nothing is possible without people; nothing is lasting without institutions. The Nordic Council and the Nordic Council of Ministers have as institutions sustained enormous changes in their environment. The world looks different now, and its fundamental changes must affect the Nordic co-operation as well.

Some may claim that the Nordic co-operation has lost its relevance, not least thanks to the successful European integration which 15 years ago embraced even Finland and Sweden. Global perspective – the rise of China, India and Brazil, for instance – seems to validate the argument. But we may neglect underlying megatrends and their effects. Macro-regions are quickly developing within the enlarged Union. The Baltic Sea Strategy is a piloting example, and there are more in the pipeline: the Danube, the Alps, the Black Sea, the Mediterranean... Beyond the borders of the EU, the Arctic areas are rising in importance both in terms of commerce and security.

What is peculiar is that Nordic co-operation enjoys large popular support. In opinion polls, e.g., the one conducted by the Finnish Business and Policy Forum EVA in 2008, it has rated higher than the EU, but, paradoxically, the responsibilities that citizens would like to submit to the Nordic co-operation – cross-border fight against crime for instance – are not within the scope of NC activities. There is, in other words, a clear discrepancy between the expectations of citizens and the operational mandate of of the Nordic Council (Hvad er viktigt i Norden? Opinionsundersøgelse 2008. www.norden.org/pub/ovrigt/statistik/sk/ANP2008752.pdf) One would feel tempted to draw the conclusion that the Nordic citizens are more prepared to deepen the Nordic process of integration than their leaders.

Swedish historian Gunnar Wetterberg, former diplomat and well-known societal debator, caused some commotion when, in an article published in *Dagens Nyheter*, he proposed a full-fledged federal state comprising the Nordic countries. According to him – and it cannot be denied – the integration at the Nordic level was left halfway; the EU has since taken over and set an example of integration dynamics. Whether or not a new Kalmar Union would make sense or be advisable in the first place, the argument remains valid. The Nordic States could have gone much further. For Wetterberg, history offers clear examples of successful confederations between nations far more different from each other than the five Nordic nations: France, Germany and Italy, to name but a few. Lacking an acute necessity, as in times of military crisis, an adequate incentive could be found in the economy of scale: together the five Nordic countries' economies would rate among the biggest ten in the world. It would secure a seat at the G20 table at least, but the true added value would not only be of a political, but of a financial nature.

What should be done with these established institutions now? It is refreshing to play with the idea of a nasty quick fix: all down with dynamite, adjustment to a state of zero institutions, and then, after a long and profound re-evaluation gazing at the hole in the ground, the building of new ones out of today's needs and wishes. Instead of perpetual compromises, the lowest common denominators, or feeble cosmetic changes – a true new beginning, the reconstruction of the Nordic co-operation. What an invigorating thought!

Unfortunately such explosive – political unanimity – is unlikely to be found. So we need to tackle the second best option of slow, step-by-step reform, because after all, moving at some direction represents dynamism compared to a standstill. The world has not stopped turning, and we people with our man-made institutions shall move along.

Nordic co-operation could be raised on another level through the same kind of functional integration such as characterized the early European process of integration. By enlarging the thematic agenda to the hardest core of politics, security, defence, economy, and fiscal policies, then political ambitions also would return; as would the spirit.

Not aiming higher is just an excuse for not doing much at all.

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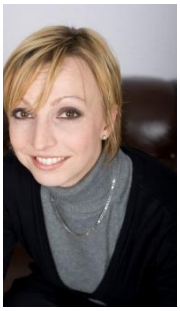

Comprehensive coordination of environmental monitoring is necessary for ecosystem-based management of coastal and marine areas

By Anne Erkkilä

Why is environmental data so substantial to the management of coastal and marine areas?

Environmental management and protection measures in the coastal areas and shallow seas are challenged by the cumulative consequences of multilayered and multi-scaled environmental threats and the uncertainty about the ecosystem responses. This has led to requirements for more effective and holistic environmental management. For example, the European Union (EU) has adopted an ecosystem approach framework as a general policy. This is reflected e.g. in the Water Framework Directive and Marine Strategy Framework Directive. The latter apply the ecosystem approach to open sea areas. The HELCOM Baltic Sea Action Plan seeks to implement an ecosystem approach to the integrated management of human activities to support the sustainable use of ecosystem goods and services.

Holistic environmental management requires comprehensive information on changes in the status of ecosystems. As a consequence, the role of environmental monitoring as the primary source of information on the environmental effects of both natural change and anthropogenic activities is becoming more emphasized. Most of the information supporting the management of coastal and marine areas is produced by regularly conducted environmental monitoring programmes.

Spatial and temporal representativeness of monitoring data is crucial for management and planning activities

The repetitive measurement of variables i.e. the gathering of field data forms the core of environmental monitoring. Global and regional environmental problems have increased the need for information on the status of the environment and its changes on a large scale. At the same time, the growing public and political awareness of environmental issues has increased the need for local and small scale information. Environmental monitoring is thus challenged by contradictory requirements, such as cost-effectiveness versus adequate and spatially comprehensive data production.

In a complex and extensive coastal environment, the production of spatially and temporally representative information on environment is a challenging task. For example, in the geographically complex and extensive coastal areas of southwest Finland, no single method of data gathering can produce a spatially and temporally comprehensive description of the environmental status and changes. The information value of any single *in situ* measurement is relatively low, unless the data can be connected spatially and/or temporally to ambient environmental conditions and past measurements performed at the same location.

By increasing the frequency of *in situ* sampling and broadening the time frame of the monitoring, the better temporal representativeness of data is achieved. These adjustments would apply exceptionally well to the monitoring of water quality and phytoplankton dynamics. In practice, the frequency of field sampling efforts is constrained by resource limitations. The water quality sampling would benefit from the wider use of high-frequency automated sampling devices (e.g. buoys) as well as sondes and on-board flow-through systems, which allow more rapid sampling at several stations. Even if the accuracy of the observations was lower than that of laboratory measurements and despite the potential problems on vertical and spatial representativeness, the measurements would be valuable for spatial modelling. Also remotely sensed data is valuable for monitoring since it provides a synoptic view over extensive areas and contributes to the interpretation of field data. Extensive operational satellite observing systems for the Baltic Sea have been developed for operative monitoring (see www.environment.fi/syke/remotesensing).

Comprehensive coordination of the environmental data gathering is the key to a cost-effective monitoring regime which supports the holistic ecosystem-based management

A holistic approach to the gathering and management of environmental data fits the ecosystem-based management regimes. It requires the comprehensive consideration of the various components of coastal and marine systems and their spatial and temporal interaction. This can be effectively facilitated by an approach that considers the coastal region as a geographical entity, with diverse interacting processes on a multitude of spatial scales.

Comprehensive regional coordination of monitoring activities is important in order to increase the cost-effectiveness of information production. In practice, this requires the increased coordination of sampling design, field work efforts, the use of remote sensing, spatio-temporal modelling and other procedures to improve the usability of the environmental monitoring data. The efforts on national level call for cooperative action between a number of specialist and interest groups, and the corresponding financing bodies. It is also important to choose the monitored topics and their variables so that it becomes possible to achieve a good cost-benefit ratio considering the short and long-term uses of the collected data.

The integration of field sampling, remote sensing and modelling techniques enhance our understanding of the coastal and marine environment in the Baltic Sea. Integrative actions are increasingly required as the implementation of the EU directives at national level also demand a holistic approach to monitoring systems. This creates an opportunity to develop a more cost-efficient, multi-purpose and scientifically robust monitoring regimes that effectively support the management of coastal and marine areas.

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In search of a narrative

By Hardo Pajula

Three Baltic countries and Poland have proved themselves adept players at convergence game. When the international credit crisis blew the half-time whistle in 2007-08, Estonia's standard of living – measured by PPP euros per capita – had advanced from roughly two fifths of EU average in 1997 to two thirds. While the progress made by other three countries was somewhat less pronounced, all of them shared the broad outlines of the catch-up driven growth. Perhaps even more importantly, all countries had undergone a deep social transformation of becoming liberal democracies.

The exceptionally speedy convergence was set in motion by the return of the four to their natural habitat from which they had been cut off for decades. Consequently, massive pent-up reserve of mutually beneficial transaction between the Old and New Europe pushed structural changes, communal transformation and – as a result – lifted living standards.

The still unfolding crisis need not mean more than just a brief interlude in this long-run process of equalisation of per capita income levels. On the other hand, however, convergence is rather different from gravitation – there is nothing automatic or inevitable about it. In fact, as the sorrow example of East Germany implies, there is a threat that once low-hanging fruits have been picked, convergence may stall or even lapse into divergence. Given a huge potential of the Baltic Rim region, this would be a deplorable as well as avoidable outcome.

Starting from potential, Baltic Sea is surrounded by nine countries whose combined population and output are approximately 47m and $1200bn respectively (in the case three biggest countries, we have counted only the populations and corresponding output of their maritime provinces). Interestingly enough, these figures are both population- and outputwise on par with South-Korea. Thus what we have here is the twelfth largest economy in the world at the margin of Europe consisting of some the wealthiest countries right next to still relatively poor neighbours – if there ever was an ideal playground for convergence, this one must come rather close to it.

However, the potential is yet to be exploited and this requires among other things imagination and … a good story capable of inspiring and uniting the nations sitting around this inner lake of Europe. While the visible iron curtain may have fallen already more twenty years ago, its mental counterpart has predictably proven a much more tenacious animal. It suffices only to glimpse at the CNBC chart of European capital markets – it's all darkness to the east of Oder-Neisse. More relevantly to the topic at hand, in this region the invisible wall runs from Virolahti over Kronstadt, Narva to Aluksne ja Demene and then again along Nemunas, Šešupe and Liepona back towards the Baltic Sea and manifests itself on the one hand in the queues of lorries stretching to up to 30km and, on the other hand, vastly diverging interpretations of recent history in the minds of Russians and their former communist satellites. It is not too bold to argue that *if* the visible and invisible aspects of this wall could somehow be lowered, broken through or – let alone – eliminated, the whole region would receive a development stimulus whose significance and magnitude could very well match the one given by the breakthrough of the Baltic countries and Poland to the sea.

Needless to say, it is a tall order. For the last two decades all four countries have rushed towards European and Transatlantic structures with the overreaching purpose of setting themselves apart from Russia. Given the traumatic experience of having been subjected to the one of the most oppressive regimes in history, it was really an imperative of survival. However, now that all of us are members of the EU and the NATO and Estonia is likely to join the eurozone on top that, this period of history has perhaps run its course and the gradually unfolding drama around public finances will soon set new priorities on policymakers' agendas.

At the risk of the hyperbole one could perhaps argue that the post-communist countries of the Rim have indulged in their independence – from the viewpoint of psychology of deprivation hardly a surprising outcome – by nourishing an almost complete paraphernalia of statehood. As the credit crisis now grinds its way through the public books, the smaller countries will soon find out that the service of self-governance that they are rendering to themselves is just far too costly to uphold and that there are substantial economies scale to be reaped from both broader and deeper intergovernmental cooperation.

Herein lie two major challenges for the coming decades: how to design more cost-effective regional structures of public governance? and how to devise a mutually beneficial and – crucially – more relaxed framework for engaging Russia into region's economic development? It does not take a degree in political science to realise that desirable steps in either direction will require far reaching changes in the mental universe of all nations involved. In particular, it will demand abandoning some of the most cherished ideas about themselves – or, in other words, changing old narratives with new and more constructive ones.

There are two fundamental stories behind the current set-up in the Baltic Rim – and for the rest of Central and Eastern Europe for that matter: one is about the national romanticism of the 19th century and the other is about the World War II. The first one is of course the primary agent behind the post World War I political map of Europe, whereas the national liberation movements of 1980s and 1990s can in turn be viewed as attempts to go back to pre-1939 era. The other is the pivotal part of Russian mindset and a source of bitter disagreements between it and its immediate Western neighbours. While anyone underestimates the durability of these two myths at his own peril, it is equally clear that the challenges of the post-credit-bubble world call for more helpful narratives.

Fortunately, the very region itself offers a tale which has almost all the desired elements: cosmopolitanism, commercialism, an astute mixture of autonomy and political unity plus the inclusion of Russia. Hanseatic League – an economic alliance of trading cities stretched from Novgorod to London during the Late Middle Ages and early modern period – has left an imprint on psyche of all nations caught up in it. First of all, Old Danish and Old Swedish were heavily influenced by *Mittleniederdeutsch* – the *lingua franca* of the League. Second, the broadly similar architecture of the cities around the sea speaks of essential similarities of mental landscape.

Surely this story has to be twisted a bit to make it meet the bonding purposes at hand, for *Hanse* was a predominantly German affair and its projection to the present ethnical and political map of Northern Europe could be wrought with dangers of its own. Then again, if it suggests that there is more to Russia than just Ivan Terrible and Stalin, it would be a good start on its own.

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Enterprise´s social responsibility

By Harri Melin

We have read many stories about modern Russian capitalism. One of the lessons has been that a lot of companies have adopted a new policy is social issues. During the socialist times companies were responsible for basic social services like kindergartens, local transport and housing. Today these services do not any more belong to enterprises. Local government is supposed to be responsible for them.

Social scientists at the University of Tampere have followed social change in Russian Karelia for several years. One of our places of interest has been the city of Kondopoga. Kondopoga is a paper mill community about 40 km north of Petrozavodsk. The city has about 35 000 inhabitants. The paper mill was established in the year 1923. First managers of the factory were Finns, who moved to construct socialism after October revolution. Later they became victims of Stalin´s purges.

Today Kondopoga is one of the biggest paper mill companies in Russia, with 6 000 employees. It is well know by its former CEO since Vitaly.A. Federmesser, who created a very special managerial strategy. Joint Stock Company Kondopoga is established in the year 1992. Controlling block of shares is owned by the employees, top managers having the strategic ownership. The company is operating not only in paper production but has also its own cargo port, a power station, ceramic brick factory (est. 1995), rainbow trout farm and large scale farm production (milk, poultry, pigs) and own shops in the city.

In Karelia Kondopoga is a rich but divided city. In the core there is the paper mill and its employees. They pay more than 90% of all local taxes. The second layer is made by local people not working for the mill. They make a kind of semi-periphery. Immigrants from Caucasus are located in the periphery

What comes to social services Kondopoga mill has not followed the new pattern of transforming social services to the local government. During the past 20 years the company has made a lot of investments into the local community. It has mostly been responsible for basic infrastructure such as roads and electricity. However this is not rare, many companies do the same. But the company has built an ice palace, a palace of arts, palace of creativity, two swimming pool. All these institutions are operating with free of charge or with nominal prises for the workers and their children. It invites specialists to lecture and train juniors e.g. in ice hockey and swimming.

The company is also offering educational support for the children of its employees. It has its own vocational school, which has study programmes for paper mill specialists. It sends students to St Petersburg universities and pays all the costs. There is also a grant programme. It has repaired several local school buildings and takes care of the maintenance of these buildings.

The company supports young families. As a result of new policies the birth rate in Kondopoga is increasing. What has been done? Young mothers who are working in the factory have three years maternity leave with full wages. The paper mill owns several kindergartens. It also helps young families with their housing problems. The mill has its own housing loan programme for the workers.

The support goes not only for children and young families but for pensioners too. The mill pays higher pensions than in the average in Karelia. The pensioners have a right for cheap health care and for cheap cultural services. There are special celebrations for former workers and they receive special gift boxes for Christmas.

For the workers, the mill offers excellent health care services. It has built new buildings, which are equipped with newest technical device. These buildings include general policlinic, heart policlinic, dentist services and a preventive recreation centre. It is worth mentioning that professors from the university of Petrozavodsk take make study trips to Kondopoga. Workers have permanent health control and the fees for health care are nominal. All these institutions have hired highly qualified specialists to work for them.

Kondopoga paper mill takes its social responsibilities seriously. If we interpret sociologically what has been said above, there are a couple of remarks. Fist with the active social policy the company is creating social integration and strong commitment. The company is showing that it cares for the workers, so workers should be loyal towards the company. Secondly we can say that all this is also about social control. If one wants to work at the paper mill (s)he should behave in a proper way. Thirdly the company has a very strong power position in relation to local government.

This far the Kondopoga paper mill has been a success story for both the company and its workers. However times they are changing. Former CEO Vitaly Federmesser died two years ago. In the circumstances of economic crisis and increasing competition new management is forced to reconsider the company policies. During last months the mill has gradually started to transfer its social objects, such as sport complex, ice palace, hotel and cultural centres to self-financing units. The mill have been responsible for kindergartens but recently it has transferred practically all of them to the possession of city administration. Compared with other Karelian paper mill companies Kondopoga has paid lower wages to its employees. Now it seems that the wage level is increasing but at the same time social benefits are decreasing. It is interesting to see what will happen in the future.

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Business in the Baltic Sea Region - future perspective

By Jarkko Heinonen

Measured in various ways, the Baltic Sea economic area provides companies with a good operating environment with plenty of growth potential. The countries in the region do very well in global competitiveness and welfare rankings. Apart from the effects of the current financial crisis, the region's economy has also grown vigorously. The significance of the Baltic Sea region is shown by it constituting the fifth largest economic area in the world.

An apt way to describe the business world is to say that "the only constant is change". During the last 10–20 years the business structure in the Baltic Sea region has changed substantially through various mergers, ceased production, establishment of operations in the region, and business growth. The recent past shows that the developments in global economy may significantly alter the industrial structure at regional level. The loss of companies or even whole branches of industry is a natural part of economic development. It only becomes a problem if the capacity for economic renewal is poor. The capacity for renewal, on the other hand, requires new product and production innovations as well as SMEs that are able and willing to grow. I myself would parallel a great deal of the capacity for economic renewal with the opportunities provided by the economic area for the growth and development of SMEs.

An essential structural problem facing the Baltic Sea economic area is that it is mainly comprised of rather small economies. This creates at least three problems in terms of market efficiency.

The domestic market, vitally important for small companies, provides very limited potential for growth. Thus a company aiming at growth must at a very early stage, often with insufficient resources, also invest in developing its international business operations.

Another problem comes from small domestic markets often causing market segmentation that may result in poor competitive pressure. Lack of competitive pressure, on the other hand, weakens the development of a company's international competitiveness.

The third problem is that the so-called critical mass of business and production operations often remains inadequate. Various studies have shown that the development of new product and production innovations are substantially enhanced by a sufficiently large and versatile sectoral cluster being formed in the area. Moreover, empirical studies in economics have revealed that business operations tend to concentrate geographically. Operations are preferably located in areas with other companies already operating in the sector. If the cluster structures formed in the Baltic Sea region are insufficient, our region will lose some of its attraction as a business location. This creates a risk that the concentration of production may lead to the relocation of production and R&D outside the Baltic Sea economic area.

A well-functioning single market of the EU would be an excellent solution to the structural problem of the Baltic Sea economic area. Unfortunately, the common market area is far from being as functional as needed. In fact, the Baltic Sea region should be a forerunner in the European Union and through regional co-operation build even better functioning common markets within the Baltic Sea region that now exist in the EU. It is important to aim high, meaning in practice that crossing national borders should not add to the bureaucracy concerning trade in any way.

An additional challenge facing the Baltic Sea countries is the shift in the focus of the global market towards Asia. This is mainly due to an increase in the overall production in the global economy, and thereby not treating anyone unfairly. The population of China corresponds to 20 per cent of the population of the entire world. At least in principle, free trade will lead to the convergence of economies. Hence China should also eventually answer for 20 per cent of global production. Currently 8 per cent of global industrial production originates in China, and consequently the big markets can be expected to continue to grow significantly.

A problem is created by the fact that while the focal point of the global economy used to be situated practically right next to us, it is now geographically much farther away. To maintain the competitiveness of the Baltic Sea region, we must also be able to operate in the growing Asian market from where we stand. This brings many additional challenges to SMEs. We have already seen that large enterprises have been very successful in establishing operations in the new growing markets, whereas for SMEs the task has clearly been more demanding. Thus it would certainly be beneficial e.g. to find ways to reinforce the cluster structures and thereby allow SMEs to have an easier access to the markets that are geographically distant.

I strongly believe that through closer co-operation the Baltic Sea region will be able to maintain its competitive position. However, in part, my optimism about closer co-operation is quite simply based on the fact that it is something we must achieve. We are very closely interconnected in terms of the development of our welfare, and we know it. Therefore also the means for building a genuine common market, a common cluster policy, and a common innovation environment will be found.

In terms of business structure I believe that the development will lead to bigger companies and an increasing number of companies operating in the entire Baltic Sea region. A great deal of the growth is enabled by company acquisitions which help build an operating network covering the whole region. As a market area the Baltic Sea region will become increasingly integrated also in terms of service production, and at the same time the competitive pressure between companies will increase and the segmentation of the market into different national markets will decrease. All this is possible because, for various reasons, not least because of the long common history, the Baltic Sea countries still comprise the most convenient area for co-operation between companies.

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Increasing tourism in the Baltic Sea Region

By Saara-Sofia Sutela and Antti Koskinen

Tourism plays an important role in the socio-economic and political development of countries. It contributes to cultural exchange and is often instrumental in a positive evolution of international relations. Tourism is one of the fastest growing industries and even though there are no mass tourism locations, in general the Baltic Sea Region (BSR) is attracting a growing number of visitors.

History, culture, nature and good infrastructure are the main elements that attract tourists in the area. Mainly this tourism is either domestic or from the very neighboring countries. Main concentrations are the capitals and the German coast. The biggest potentiality might not only be in attracting tourists from outside the BSR, but in *increasing tourism flows between the countries surrounding the Baltic Sea*. Overall the BSR as a whole should be seen as an inviting tourist attraction. This requires governmental cooperation.

At the moment there exist lots of tourism organizations and actors in the BSR area. They are supporting and promoting different activities and causes in the area and a number of them also grant financial support. However, the various stakeholders in tourism are not working together. The knowledge of projects, ventures and marketing operation are kept national instead of openly sharing and spreading information. The tourism between the countries of BSR should be increased more jointly.

Even though there already are many different kinds of organizations trying to increase the tourism in the area, the region would need organization concentrating on especially on the marketing of *BSR as an area*. The existing organizations could be utilized so that this would not necessarily require much special funding. The information concerning the area, its countries and different attractions should be collected under one database, which would then be promoted in all BSR countries. Currently it is time consuming trying to find information of the area as one. On **a joint website** places and events could be presented according to tourist interests (themes such as "natural wonders", "medieval architecture" etc.), instead of dividing them simply by countries. The concentration could be more on tourists from within the BSR, whereas existing websites are mainly oriented on tourism from outside the region.

Also **travel agency services and package trips** within the BSR could be offered centrally. Classical travel agency solutions are easy to combine into a mutual website. At the moment there are no travel agencies specializing in the BSR. Different kinds of packages would improve the image of the whole area. BSR consists of several countries with different traditions and different cultural heritage and one of the competitive advantages of the region is that it has many interesting attractions close to each other. Services of travel agencies are especially useful for older generations as the agency takes care of most practical arrangements. Besides classical package holidays a BSR agency could provide thematic trips such as "Festivals of the Baltic states", "Thousand lakes by bike" or "Historical castle architecture".

In terms of tourism focused on specific topics or themes, an important example is the various music festivals held within the BSR. One idea would be to introduce an annual BSR festival held alternately in different cities of BSR. Performers from each country could be introduced, being an easy way to get a grasp of cultures from all over the BSR. Organizing this kind of event in a different country every year would profit all countries involved. The festival could also have more than music to offer: examples of traditional and playful sport competitions from the BSR, such as popular "wife carrying" and sauna championships, could take place during the event.

A marketing solution to younger generations could be a "BSR **Combined Travel Pass**". For a long time interrail train tickets have been a popular way for especially young people to travel in Europe. The possibilities of interrail could be widened further to a combined train, ferry and bus ticket which enables the passenger to travel within the BSR for a reasonable price. Some of the best places to travel to in the BSR are not accessible by train, therefore buses and ferries would enable the ideal way to connect the Baltic Sea countries. This would be a golden opportunity for travelers to really travel off the beaten path and visit destinations that they have never even heard of. Marketing wise, the importance of sustainable development and **environmental friendly tourism**, found as one of the key elements of increasing tourism in the area, could this way be brought into a wider concentration. Saving the Baltic Sea as a shared goal should link the Baltic States together also from the tourism perspective.

Communication, co-operation and marketing are vital parts in successful development of the tourism within the BSR. One of the biggest challenges in inter-Baltic sea tourism is the enormous difference in incomes between countries. These differences naturally have a great influence on the prices of consumer products and services and it needs to be considered when developing tourism between the BSR countries. Increasing tourism in the area would not only provide economical growth, but also strengthen the identity of the region. As tourism services are provided mainly by small and medium sized companies, it is important to note the role of governments in the success of tourism industry. Could foreign ministries from BSR countries be involved as ministries of tourism too? All in all, the Baltic Sea Region would need a stronger brand as one attractive area.

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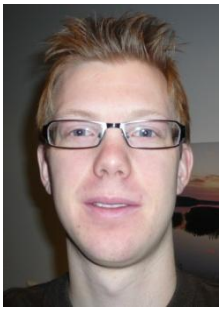

Unconventional gas - is there a quite revolution and what does it mean for the Russian energy policy?

By Andrey Shadurskiy

There is nothing new of unconventional gas: the first commercial gas well was dug in a shale play in Fredonia, NY back in 1821. Some four decades later, the Drake well started the epoch of conventional gas and only the oil crises of the 1970s made the USA turn back to the abundant local resources. The generous "Section 29" tax credit available for unconventional gas producers from 1980 to 1992/2002 had laid the foundation for what was dubbed "the quiet energy revolution" by Tony Hayward, BP's CEO. Neither the final conference paper of the US Energy Policy Act of 2003, nor the finally adopted US Energy Policy Act of 2005 stipulated any tax credits for this industry any more, reflecting its maturity in one playing field with the conventional gas. The dynamics of the latest five years have proven, the decision-makers were right.

Although shale gas is the most vocal now, it is worth keeping in mind two other basic unconventional gas types: tight sands and coalbed methane. In fact, it was the coalbed methane accounting for the most of the rise in unconventional gas production in the USA under the "Section 29" tax credit in 1980-90s. Taking coalbed methane (CBM) into account is crucial for an analysis of the implications of rising unconventional gas production for the Russian energy policy: not only because of looming Chinese CBM production, but also due to Gazprom's close interest in Russian CBM reserves: it will be not only developing its own expertise in this field, but will try to acquire American one and lobby for a Russian kind of "Section 29" provision that may be even more generous than the original one.

Although the issue of unconventional gas is one of the most topical in energy policy research and media space now, it is still necessary to see if there is any "revolution" at all. Looking at the poor performance of the US pioneering unconventional gas companies last year due to low gas prices, one might wonder if we are now leaving the euphoric stage and entering stagnation in the sector – the latest decision of the Chesapeake to curb investment in gas drilling and go for oil could be a distinctive sign. US gas prices have been falling since the peak of monthly average of 11.42$/tmc in June 2008 and were recorded at the lowest level of 4.44$/tmc since 2002 in December 2009. The oversupply originating from the unconventional gas industry brings the prices to the level when profitability of this production becomes marginable. "Devouring its own children", the process may be resembling the revolution in the US, but one has to analyze to what extent we may project in on other regional markets and the international market. The answer will lie in the latest developments of the market that is designed to bind what used to be separate regional natural gas markets – that is international LNG market.

Whereas the US market LNG contracts are linked to the Henry Hub price and are rather flexible, allowing to divert the cargoes if there is better price in other markets, most of the international LNG contracts are still long-term and are often linked to crude oil price like the pipeline gas ones. Qatar, the largest LNG producer in the world, estimated a volume of some 5.5 mtpy or 10% of its US exports diverted from the US to mostly Asian markets in 2009. Even if that amount would be diverted to the European markets, that would be less than 0,1% of the European LNG imports from Qatar. In total, all the US LNG imports are less than 20% of the European and LNG accounts only for 15% of European gas imports. 5.5 mtpy of diverted US imports would then equal to 0,002% of total European natural gas imports – hardly a game-changer. Despite that, the US gas market developments are important in the sense they will be pushing both European and Asian markets for a more flexible side and we already see it in the re-negotiation of the Gazprom's long-term contracts, when some 15% of the contracted gas volume becomes unbound of the oil prices and linked to a spot market, with simultaneous facilitating of take-or-pay rules. Although there may be doubts about the real influence of the LNG flows diverted from the US market to the European, one should carefully assess the ideas of turning some LNG capacities that are under construction in the USA now into the exporting ones, instead of importing as they were initially meant to be.

The prospects of unconventional gas in Europe are still too unclear, with a failed Hungarian MOL project and other, particularly Polish, that are due to testify later this year. The environmental dimension of the unconventional gas production – be it consequences of hydraulic fractioning in case of shale gas or de-watering in the CBM production will have a much bigger footprint in Europe than in the USA. Not only any "Halliburton loophole" is unlikely to pass unnoticed in Europe, but also such indirect issues as an intensified lorry traffic will be vigorously opposed by local communities. Shall any unconventional gas production be possible in these circumstances in Europe, it will have a price tag incomparable to the US one. In any case, European unconventional gas production will not be the game changer for another decade or even two. It would be a mistake to think of unconventional gas as a panacea for the problem of the European energy security. A full-fledged European gas market and strong infrastructure coupled with the growing LNG imports will be a much wiser option to pursue.

The European direction of the Russian energy policy may however be greatly influenced from the opposite side of the continent. A scant report of the latest Gazprom and CNPC negotiations on 13th of May over a prospective Russian gas prices does however clearly point at the reason for an obvious failure of the talks: CNPC was pushing for lower prices pointing at the regional market developments and own perspectives of unconventional gas production. The certified CBM resources in China are about 200 bcm and the current production rate is only 2 bcm, with a target of 20-30 bcm in 2020[1]. Coupled with the conventional LNG imports from the Middle East and unconventional from Australia it will help China double the modest share of 4% of natural gas in total consumption in this decade. Abundant LNG supply (there are three operating re-gasification plants now, four under construction and two more are planned) China gains a very strong negotiations position against the costly Russian Eastern Gas program. That would mean that not only the US market is now shut for the Russian exports (recent Gazprom contracts are of symbolic scale), but also the Chinese market – gravely undermining the whole idea of export diversification and as result bounding Russia even closer to Europe. In this case it will be much more rational for Russia to develop more flexible LNG exporting capacities in the Far East than opt for cross-border pipelines.

Another rational Russia's response to what is rather an unconventional gas-invoked evolution than revolution, would be re-considering planned investment projects. New market conditions make feasibility of Shtokman project highly dubious: the target US market will be unlikely to welcome LNG with an expected high price tag, the Asian and European markets will be both saturated with much cheaper Middle Eastern LNG. The outlook for the project may be even dimmer if Gazprom succeeds in the Russian CBM production, because in the middle term it might be comparable with Arctic deep-water gas production in terms of costs and benefits. An investment-hungry enormous Yamal project is the most important for Gazprom now and it deserves foremost attention at the cost of less obvious ones.

Last but hardly the least, the rise of the unconventional gas and emergence of the LNG market give Russia another very strong signal of necessity to re-think the internal energy policy. To stand up to the surging competition Russia will have but to greatly improve the efficiency of the energy industry and gas industry in particular. Oil producers, flaring associated gas and independent gas producers, constrained with the current TPA gas infrastructure regime could add substantially to the gas production, answering the domestic demand that is destined to grow and allowing to catch up with other gas-exporting countries, which are more and more vocal in the markets. After all, there is enormous potential for energy-saving in Russia and it still looks to be a missing element for a perfect combination of the EU-Russia energy dialogue: the EU will not allow Russia to take a greater share in its energy imports, but a much more positive and beneficial cooperation field lies in front of us, rather untouched. For the sake of launching intensive cooperation in this field, one may well continue coining the ongoing unconventional gas developments "a revolution".

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[1] http://www.reuters.com/article/idUSTOE63F03H20100507

On energy dependence and service security

By Bo Österlund

In the global data society of the 21 st century a message is sent to the recipient by pushing a button. Even monetary transactions are exercised in a fraction of a second by means of connections based on the same principle. Commodity orders via Internet can be accomplished in a few seconds. The materialization of the processes described above, i.e. the delivery of goods to the recipient or passenger conveyance from one place to another always requires a physical item of transportation and the availability of the energy form needed for such activity. Sea transports are the most profitable means of conveyance as for the cost/efficiency, and in certain cases even the only possible.

Sea traffic has through history been a very intriguing, legendary, and challenging source of livelihood. Ever since the first cargoes were transported overseas in order to earn money more than 5000 years ago, shipping has held a place in the front rank of development, and, invariably, as one of the medalists. More than 90 per cent of global trade is today carried on by sea despite the recession. According to the statistics of the year 2008 more than 8 150 million metric tons of cargo were transported by sea.

The 27 member states of the European Union maintain a traffic net comprising 1200 commercial ports along a coast of appr.100000 kilometers. About 90 per cent of the EU27 trade to third countries and more than 40 per cent of the trade between the EU countries is carried on via these harbors.

The share of crude oil of the total amount of goods transported is as much as 2800 million metric tons, i.e. more than 35 per cent. This corresponds to a production of 56 million bbl crude oil per day through a simple calculation conversion. The world consumes 250 liters of oil per second, 24 hours a day, and 365 days a year. Roughly 50 per cent of the global oil production is today transported by sea.

At the beginning of March this year, 72 years had passed since the onset of commercial crude oil production in Saudi Arabia. The prerequisites of the production had in fact been created as early as in 1859, when Edwin Drake from Texas with his salt water drill hit at the depth of 20 meter an oil vein which gushed forth barrels of “black gold”

Oil has become the high and mighty factor of our market economy. Oil provides energy but stands also for power, money, welfare, conflicts, and war. The political tugs of war of last century were settled by the availability of oil. In the battlefields of the First World War oil replaced horsepower and the coal-operated steam engines. It is said that Winston Churchill, after a well slept night, made a decision which was crucial as for the outcome of the naval war: The British navy proceeded from coal to oil, even if there were many who thought that the process from using domestic coal to importing oil from the Persian Gulf and becoming dependent on that was not well-argumented as far as energy security was concerned. American oil covered more than 80 per cent of the needs of the Western Powers during the war. According to certain suggestions American oil became a factor of crucial importance even for the Second World War with the exhaustion of German and Japanese oil resources. Hitler battled for an access to the oilfields in the Caucasus and the Middle East, and Japan made the attack against the American naval base at Pearl Harbor only after the strangulation of Japan’s oil supplies by the United States.

Getting through the consequences of the Second World War and the subsequent reconstruction work became possible when the economy of Western Europe began to use oil as a propellant. By 1972 the oil consumption of the world had grown fifteen fold from the pre-war level.

Without shipping half of the population of the world would starve, and the other half would freeze’ is a statement still current among marine experts, and it seems to hold good even today. Furthermore, this may be augmented by adding that world the would stop without fuel transports. The Swedish Professor Olof Wärneryd who works as a cultural geographer in Lund points out that at the beginning of last century people moved, on an average, 500 meters per day, at present, in the 21st century this distance has grown into 50 kilometers.

The significance of the above statement seems to increase with the growing difficulties or at least hardships in acquiring the natural resources available. According to an American research we people consume, at this very moment, more than 1,2 times what the earth yields. If we all consumed proportionally as much as the Americans do, we would need the production of five earths to meet our needs.

In the last 15 years, our global consumption has grown considerably more than 20 per cent. Our oil consumption is estimated to have grown as much as two percentage points annually for the last 50 years.

The commercial shipping routes crisscrossing on the earth are compelled to pass through several narrow straits of critical energy security.

According to the statistics of the year 2008, 16-17 million barrels per day (bbl/d), equaling to appr. 850 million metric tons of oil per year (1million bbl/d equals to 50 million metric tons annually) were transported via the narrow Strait of Hormuz (slightly more than 30 kilometer in width).This amount equals to the total quantity of cargo transported annually in the Baltic. In terms of vessels this means about 15 average-sized ocean tankers per day. Most of the oil travelling through the strait is transported to Asia, the United States, and Western Europe. As much as 75 per cent of the crude oil needed by Japan goes via this strait.

The Strait of Malacca joins the Indian Ocean, the South China Sea and the Pacific Ocean. It provides the shortest route from the oilfields of the Persian Gulf to the big consumers China and Japan. The most populous countries in the world, Indonesia and China lie in its sphere of influence. According to the statistics of the year 2008, 15 million bbl/d of crude oil travelled via the Strait of Malacca. This amount equals to more than 40 per cent of the total volume of oil cargoes transported by sea in the world.

Approximately 4,5 million bbl/d are transported via the Suez Canal linking the Red Sea and the Mediterranean. Roughly 3000 oil tankers pass the canal annually, i.e. slightly less than 10 tankers a day. The strait of Bab-el-Mandeb makes a strategic link between the Horn of Africa and the Middle East and connects the Mediterranean and the Indian Ocean. Roughly 3,3 million bbl/d of crude oil are transported through the strait to Europe, the United States and Asia. Most of the oil transports (2,2 million bbl/d) head for the Mediterranean. More than 16 000 vessels sail in the Gulf of Aden opening at the southern tip of the straits. This number includes also the coastal fishing fleet. The density of traffic has certainly contributed to the increasing number of criminal gangs, and the region is one of the focal points of Somalia pirates today.

The Straits of Bosporus which separate Europe from Asia are a significant crude oil traffic route from The Black Sea. The narrowest point of the strait is less than 800 m in width and represents one of the most difficult navigable routes for tankers of more than 200 meters in length, there are about 5500 such tankers per year transporting more than 2,5 million bbl/d of crude oil coming from Russian oilfields. The amount transferred through the straits has been slightly diminishing in recent years. The reduction in transportation seems to have been shifted to the Baltic.

Only slightly more than 0,5 million bbl/d of crude oil is transported through the Panama Canal linking the Pacific Ocean and the Caribbean Sea. Passing through the canal is possible for vessels of no more than 80 000 Dwt. open sea tankers do, unfortunately, seldom meet these dimensions. Due to these physical restrictions the oil imported to the United States is no more transported through the canal.

The insurance costs for the cargoes trafficking through strategic straits and regions exposed to piracy have gone up. In 2008 the insurance premium for a cargo through the Strait of Hormuz or the Strait of Bab-el-Mandeb was 500 US dollars per voyage but since the beginning of 2009 it rose twentyfold up to 20 000 US dollars. The insurance premium for transport through the Strait of Malacca has risen fiftyfold in the same space of time.

In addition to the rising premiums of insurance even the durations of voyages have been prolonged in consequence to the attempts to evade the pirate region of the Gulf of Aden. The voyage from Europe (Rotterdam) to the Persian Gulf via the Cape of Good Hope prolongs the journey more than 3500 nautical miles. This implies an extension of time with about a fortnight. With sailing around Africa it is not possible to make all the voyages demanded annually in view of the remunerativeness of transportation activities. This means that more than 20 per cent of all traffic would remain unmade.

Piracy and its prevention have also resulted in rising prices of oil products. Additional pirate expense' is perceptible, even tangible for every Nordic consumer. The crises raging in the world have global effects on the whole national economy. As a result of tanker hijacked by pirates the fuel prices tend to rise at least in the countries which are dependent on imported oil. Experts in oil business estimate that political risks are responsible for about 10 US dollars in barrel prices. Stock market adventures are responsible for another 10 dollars in the barrel price, and so is the exceptional rise in the demand for oil. This means that almost 40 per cent of the current barrel price of 75,3 US dollars at the moment (March 2010) consists of mere opinions or expectations. The dependence mechanism of energy is a very complicated network with far-reaching arms.

In shaping "total image of oil" in the world (deposits, consumption, sufficiency, demand and supply, transportation in pipelines or tankers overseas), the essence is based on the share of oil in the energy consumption of the world.

The share of crude oil takes more than 35 per cent of our total energy consumption according to British Petroleum Statistical Review of World Energy 2009. At the end of the year 2008 the global demand was expected to be on the level of 85 million bbl/d. The International Energy Agency (IEA) has estimated that this demand will reach the level of 94,4 million bbl/d by 2015, and the level of one hundred million barrels (106,4 ,million i.e. + 24 per cent) by 2030.

Globally 70 % of oil is used on trafficking, operating or conveying. The high proportion of the transport section of the total consumption is, according to experts as based on statistical data of 2009, likely to be due to the fact that compensating energy solutions are not yet available, at least not sufficiently. Even an electric car must be charged with electricity produced with some other energy.

According to "The Guardian" the oil consumption of the world has decreased only twice during the last 28 years: in 1998 and in 2008. Compensating energy forms seem, so far, to have had a merely marginal influence.

When comparing this amount of consumption in view of, say, mechanized warfare we come to the conclusion that the consumption of fuel for one American soldier has risen as much as 175 per cent since the days of the Vietnamese War. Today, an American soldier consumes even 22 gallons (more than 80 liters) of fuel a day; at this fuel consumption I could drive my own car, for instance, more than 900 kilometers.

A general estimate of total (global) oil resources has, for the top ten oil producer countries, been assessed to be roughly 1243 billion barrels, which, with expected amounts of consumption, will suffice for the next 54 years, at least.

According to the BP statistics of 2009, the crude oil consumption of the US is roughly 19,5 million bbl/d. Eight million bbl/d of this amount is produced in the home country, and the rest (11 million bbl/d) is imported chiefly from Canada, Saudi-Arabia, Venezuela, Nigeria, Mexico, Iraq, Angola, and Algeria. Despite its net import the US is also capable of exporting oil, and of using more than one million bbl/d as a tool of policy.

In 2008 the EU27 consumed, according to its own statistics, more than 14,4 million bbl/d which includes its own production (more than 3,2 million bbl/d; 15 per cent of this quantity is yielded by he Danish North Sea oil deposits). Thus, EU27 is compelled to import more than 11 million bbl/d of its total consumption. According to IEA´s "Energy Policies Review" the most important export countries are the following: Russia 29 per cent, the Middle East 19 percent, Norway 14 per cent, northern Africa 12 per cent, and others 24 per cent.

In the "oil image" of the EU27 the oil of the North Sea has for a long time maintained a share of roughly 50 per cent which, however, has been decreasing ever since the first years of the 21st century. In 2006, the percentage was already as low as 37 per cent. The share of Russian oil has risen correspondingly, and will soon transgress the level of 30 per cent. The North Sea oil production is expected to descend further to 2,7 million bbl/d by the year 2020, and in the 2030s it will be as low as one million bbl/d. The estimated reduction of the production will thus be greater than 15 per cent. As for structure, the "oil image" of the EU27 has also changed in a revolutionizing manner ever since the end of the 1990s. The consumption of diesel fuel has surpassed the consumption of petroleum and heavy combustible oil. The refining ratio of these liquid fuels has resulted in the EU27 importing diesel and exporting petroleum. A crude oil barrel of 159 liters is refined into less than 40 litres of diesel and more than 70 liters of petroleum. In 2005, 110 metric tons of petroleum were consumed, and 43 metric tons were exported while 36 million metric tons of diesel had to be imported.

India, Japan, and China depend on the net import of oil. It is true that China itself produces slightly less than 3,4 million bbl/d (roughly 50 per cent) of its total consumption

but the joint import of the three countries is, however, more than 9 million bbl/d.

According to the review of 2008 of "Oil and Gas Journal" the crude oil production of Russia approaches the level of 10 million bbl/d; in 2008 it was already as massive as 9,8 million bbl/d (oil products excluded). The net export of Russia for the same year was roughly 7 million bbl/d (equaling to 350 million metric tons annually). The export consists of roughly 4,4 million bbl/d of crude oil and 2 million bbl/d of other oil products. In other words, Russia exports more than 70 per cent of its crude oil production, and only 30 per cent is refined in the home country. The refinery capacity and the high transport costs as well as defects in the infrastructure may account for this disparity.

Roughly 1,3 million bbl/d were exported via the Druzhba pipeline crossing Central Europe to Belarus, the Ukraine, Germany, Poland, and other European consumers such as Hungary, Slovakia, and the Czech Republic. The same amount (roughly 1,3 million bbl/d) were exported via Primorsk, the flagship of Russia´s export at the upper end of the Gulf of Finland, near St Petersburg. Approximately 900 000 bbl/d were exported via Black Sea ports. An amount of 450 000 bbl/d is also transported by rail or other than state-owned transit pipelines. This export includes also the 400 000 metric tons of crude oil transported to Finland by rail.

Of the oil conveyed through the BPS(Baltic Pipeline Systems) pipeline via Belarus 25 per cent is directed into consumption in the home country and 75 per cent to European consumers, chiefly in the coastal countries of the Baltic Sea. Russia sells this oil to Belarus for a special price, and exempt from taxes. Belarus re-exports 75 per cent of the imported oil, which amount is liable to taxation. Last year Belarus was allowed to import 20 million metric tons of crude oil, and as much as 14,5 million metric tons were re-exported to Europe.

When building an image of the dependence on imported oil for the Baltic countries, the starting-point should be domestic consumption and refinery facilities in the home country.

According to the statistics of the year 2008, a total of 354 000 bbl/d (17,7 million metric tons annually) of crude oil is consumed in Sweden. The import from Russia covers 35 per cent of what is needed, i.e. 125 000 bbl/d. The North Sea oil produced by Denmark and Norway continues to cover more than 50 % per cent while the share of Britain remains as low as a few per cents. On the basis of sufficiency estimates for the North Sea oil, Sweden is compelled to look to other, compensating sources in the years to come. Accosting Russia seems to be the easiest solution but simultaneous changes in energy dependence and its mutual relationships should be taken into consideration. Thanks to its five oil refineries Sweden is a net exporter: even this certainly provides one solution to correct the disparity between petroleum and diesel in Europe.

More than 90 per cent of Swedish export trade is transported by sea, in other words considerably more than what holds good of Finland. When surveying the structural pattern of foreign trade, it is also worth remembering that only less than 5 per cent of direct imports to Sweden head for harbors east of the meridian passing through Karlskrona on the coast of the Baltic. Consequently, the interests of safeguarding the Swedish foreign trade are focused on the Danish Straits and The Sound. Thus it seems rather intricate to find an immediate common regional interest shared by Finland and Sweden. On the other hand, there are common interests to be found in coastal traffic and in safeguarding distribution traffic.

According to the above statistics, Germany consumes 2,91 million bbl/d (145 million metric tons annually) of crude oil. The import from Russia covers 35 per cent of the oil demand, i.e. slightly more than one million bbl/d. Last year the oil import from Russia increased 2.9 per cent while the import from OPEC countries decreased more than 10 per cent. The significance of Russia as well as its share of energy seems to increase in the Baltic region even without the gas pipeline.

The total crude oil consumption in Poland is 502 000 bbl/d. The import from Russia covers as much as 95 per cent (21 million metric tons annually), a humble share of 5 per cent is produced in the home country.

The Baltic countries are almost entirely dependent on imported oil from Russia which covers almost 100 per cent in all the three countries. As for oil products, Estonia and Latvia are dependent on imports from abroad because of the total absence of refining capacity of their own.

In Finland, the average crude oil consumption is approximately 223 000 bbl/d, i.e. less than 12 million metric tons annually. The oil coming from Primorsk in Russia covers roughly 75 per cent of our demands. Annually the oil export via Primorsk is 74 million metric tons; 16 per cent of this amount is transported to Finnish oil harbors and 62 per cent to the Netherlands. One fourth of our oil comes from Denmark, Norway, and England but their share will diminish considerably during the next 20 years. As for oil products, Finland is a net exporter.

On the basis of the first publicized preliminary data concerning the volume of our foreign trade in 2009 it can be established that the quantity of our imported energy has remained almost unchanged despite the considerable curtailment in the total volume of our sea transportation (from 102 million in 2008 to 82,6 million metric tons in 2009). This means that our energy imports comprising oil, oil products, and coal cover today more than 25 per cent of the volume of our sea transportation. The compensation of this quantity with renewable alternative energy solutions seems to lie rather remote in the future, at least if we are to believe the expert estimates of BP or The Guardian. And why wouldn´t we?

The oil production of Iran (roughly 2,5 million bbl/d, which for the time being is still "without master" i.e. without any long-time delivery contracts, will influence the "oil image" of the world and the energy relationships of the Great Powers. If and when the availability of oil will fluctuate not to mention oil frugality,the countries dependent on oil import should ensure or at least draw up their negotiating positions required to safeguard their energy security in the oil market.

Summing up the main points of the text above:

1. In 2007 almost 90 per cent of Russian crude oil (350 million metric tons) was exported via the Baltic Sea (31 per cent), via the "Druzhba"pipeline (27 per cent), or via the Black Sea (28 per cent).

2. In 2007 more than 25 per cent (more than 2,5 million bbl/d) was pumped from Russian oil wells which by then had supplied more than 60 per cent of their exploitable resources.

3. More than 50 per cent of Russian crude oil exports are transported via the Baltic or to the Baltic countries.

4. Since the year 2000 oil transportations in the Baltic Sea have increased tenfold.

5. One third of the Russian oil exports are transported either via Primorsk by tankers (74 million metric tons) or by rail to Tallinn (20 million metric tons) and from there by sea to other destinations in the world.

6. While the North Sea crude oil production appears to decrease, an equivalent increase is perceptible in Russia; in a few years the amount shipped via Ust-Luga (Luga-joen suu) has increased by 50 million metric tons annually.

7.The "Central-European exit strategy" of Russia which aims at directing the export routes of oil and also gas via more secure waterways or through more trustworthy countries, will, when materialized, increase the tanker traffic in the Baltic Sea.

8. It is estimated that by the year 2020 the Baltic countries will have increased their exports by 46 per cent from the level of 2008 (820 million metric tons), and their imports by 36 per cent. Domestic transport activity is expected to rise as much as 54 per cent.

9. In future, the role and presence of the Russian Baltic Navy will be accentuated to safeguard the energy routes of the country; obvious signals of this have already been perceived. In November last year, along with the new doctrine Medvedev signed a law determining "the operative use of the Russian force of arms outside the borders of the country". The project (called "Mistral") of acquiring a helicopter carrier for the Russian Navy was surely accelerated by the energy co-operation with France; in planning the stationing of this type of vessels and their range of operation the security of energy routes plays a remarkable role.

10. Will France and Germany. two other associates in the pipeline enterprise, intensify the presence of their navies in the Baltic Sea (Germany even in the northern part of the Baltic), and what will be the role of the NATO naval base in Estonia?

11. The presence of foreign armed forces and their authority of action in the economic zone of a Baltic coastal state may rouse questions attached to or even inherent in our security policy.

12. The gas pipeline "Nord Stream" on the bottom of the Baltic Sea and its exploitation for data communications may open also other adjunct applications of the gas pipeline.

13. The exit strategy of decreasing energy dependence on imported oil by using other new energy solutions will involve, in the long run, development of focal points. A pessimist or a realist will, however, assess the possibilities of development from the American point of view. Alternative solutions have been worked out there for more than 3o years with massive developmental resources, yet with no conspicuous results.

14. The dwindling oil deposits of the North Sea and the growing Russian influence in the Baltic region will require greater devotion to the infrastructure of the oil export of the region to meet the requirements of today.

In the public energy debate in the morning program on TV at the end of February there was a mutual understanding in theory of the need of building seven nuclear plants to compensate the whole of our oil import, another four nuclear plants to compensate earth gas, and still another three nuclear plants to compensate our increased coal import. The compensation of fossil energy sources lies behind an extremely long development work of several decades even if the project today is purely theoretical. In Finland we keep talking and arguing about the need of building one more nuclear plant.

The Chinese proverb "if we don´t change our direction, we will end up where we are heading for" is still relevant and suggests ideas to safeguard our service certainty and thus to develop our energy security.

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Main sources:

1. International Energy Agency, IEA Energy Policies Review "The European Union ", 2008
2. International Energy Outlook, 2009
3. Study on Oil Refining and Oil Markets, Prepared for European Commission, January 2008
4. Russia Energy Data, Statistics and Analysis, Oil, Gas, Electricity, Coal, EIA, May 2008

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