

### ISSUE NO.6, 17 DECEMBER 2010

#### EXPERT ARTICLES:

<b>Egemen Bağış:</b> <i>The future of Europe and Turkey on the basis of the report of the EU reflection group</i>	Page 1
<b>Dainius Kreivys:</b> <i>Post-crisis Lithuania – lessons and recovery</i>	Page 2
<b>Hannu Takkula and Vesa Kangaslahti:</b> <i>Education in times of recession and at the age of innovation</i>	Page 4
<b>Igor Yurgens:</b> <i>Russia's modernization – a progress report</i>	Page 5
<b>Jaakko Iloniemi:</b> <i>Modernization of Russia</i>	Page 6
<b>Alexander V. Khoroshilov:</b> <i>ICT competence and HRD in public administration sector of Russian Federation</i>	Page 7
<b>Seppo Honkapohja:</b> <i>Economic prospects for Russia and its implications for the Baltic Rim region after the global crisis</i>	Page 8
<b>Gennady G. Melikiyan:</b> <i>Russian banking sector after global financial crisis</i>	Page 9
<b>Stefan Widomski:</b> <i>How to develop civic society in Eastern Europe? From an academic institute to a civic think tank. The example of activity of the Polish Gdańsk Institute for Market Economics.</i>	Page 11
<b>Niklas Mannfolk:</b> <i>Quo vadis, Evropa? – A look at the future of European energy production</i>	Page 12
<b>Cay Sevón:</b> <i>Turku 2011 European Capital of Culture in local and regional development</i>	Page 13
<b>F.V. Karmazinov:</b> <i>Best practices to improve water quality in the Gulf of Finland as exemplified by Vodokanal of St. Petersburg</i>	Page 14
<b>Maija Saijonmaa and Karl-Johan Lehtinen:</b> <i>NEFCO's role in improving the environmental status of the Baltic Sea</i>	Page 15
<b>Juhani Tervala:</b> <i>Minimising close calls with intelligent transport systems</i>	Page 16
<b>Matti Aaltonen:</b> <i>Safe shipping – the result of concerted effort</i>	Page 17
<b>Pekka Laaksonen:</b> <i>The biggest threat for the Gulf of Finland – oil catastrophe</i>	Page 18
<b>Tommi Kivilaakso:</b> <i>Changes in the Finnish-Russian border traffic and customs cooperation</i>	Page 19
<b>Katri Pynnöniemi:</b> <i>What makes modernization a political project?</i>	Page 20
<b>Einari Kisel:</b> <i>Decisive years in creation of the Baltic power market</i>	Page 21
<b>Antero Jännes:</b> <i>Gas around the Baltic Sea</i>	Page 22
<b>Matti Hilli:</b> <i>Renewable energy markets in Baltic Sea region from a perspective of a bioenergy company</i>	Page 23

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### ISSUE NO.6, 17 DECEMBER 2010

#### EXPERT ARTICLES CONTINUED:

<b>Pami Aalto:</b> <i>How will Russia cope in the emerging new energy agenda?</i>	Page 24
<b>Joseph Dutton:</b> <i>The Shale Gale – perfect storm or flitting breeze?</i>	Page 25
<b>H Kalervo Väänänen:</b> <i>University of Eastern Finland, an example of Finnish university reform</i>	Page 26
<b>Antti Valle and Pirjo Kutinlahti:</b> <i>Baltic Sea Region – a globally recognised innovation hub</i>	Page 27
<b>Ilya Romanovich Shegelman:</b> <i>University in innovative space region</i>	Page 28
<b>Kai Savolainen:</b> <i>Assuring safe use of engineered nanomaterials and nanotechnologies – a challenge for the future or today?</i>	Page 29
<b>Alexey Prazdnichnykh and Kari Liuhto:</b> <i>The Russian CEOs analyse the innovation activity of their company</i>	Page 30
<b>Jarosław Ćwiek-Karpowicz:</b> <i>Partnership for modernisation – incentive to revise the EU-Russia relations</i>	Page 31
<b>Pasi Malinen:</b> <i>Universities' innovation and entrepreneurship activities at cross-roads in Baltic Sea Region – case Pskov</i>	Page 32
<b>Jari Lähteenmäki and Jarkko Heinonen:</b> <i>Finland should dare to take initiative – the strategy for the Baltic Sea region needs to be concretized</i>	Page 33
<b>Juha Stenholm:</b> <i>Way out of the crisis – privatization of Russian federal property</i>	Page 34
<b>Sergey Stefanishin, Alexey Skvortsov and Yulia Tsykalo:</b> <i>Game rules for foreign investments in strategic companies in Russia</i>	Page 35
<b>Heli Pellikka:</b> <i>Combining the requirements of Russian Accounting Principles and IFRS – challenge for many international companies</i>	Page 36
<b>Krista Taipale:</b> <i>It has been a year since the implementation of the EU Strategy for the Baltic Sea Region started – how is the situation today?</i>	Page 37
<b>Aku Alanen:</b> <i>Large towns dominant in the economy of culture in Finland</i>	Page 38
<b>Marcus Svedberg:</b> <i>Herd mentality</i>	Page 39
<b>Irina Novikova:</b> <i>Gender equality in Latvia – achievements and challenges</i>	Page 40
<b>Keir Giles:</b> <i>Russian military transformation – work in progress</i>	Page 41
<b>Dominik P. Jankowski and Barbara Kirejczyk:</b> <i>Baltic Sea sustained stability vs. Black Sea geopolitical struggle myth or reality?</i>	Page 42
<b>Marat Terterov:</b> <i>Bringing Russia into NATO – a Trojan horse in the making</i>	Page 44
<b>Bo Österlund:</b> <i>On security management and precautions on municipal level</i>	Page 45

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# The future of Europe and Turkey on the basis of the report of the EU reflection group

By Egemen Bağış

The independent working group established by the European Council of December 2007, comprising 12 prominent Europeans from diverse backgrounds, namely the "EU Reflection Group" issued their report entitled "European Project 2030, The Threats and Opportunities" in May 2010. The Report identified the challenges the Union may encounter in the long term, together with the measures to be adopted to address those challenges.

The analysis of the current situation with forecasts for the future in case the necessary measures are not adopted are striking. For the firm believers of the European project the findings of the Report are not very encouraging; since the Report identifies numerous challenges that Europe has to face with within the next two decades. The Report is a wake-up call for Europe. It draws attention to the danger of marginalisation of Europe in the international arena.

Fortunately however, EU is capable of transforming itself and finding solutions to the problems outlined in the Report ranging from becoming a stronger and credible global actor to securing energy supplies and routes, from remedying the unfavorable demographic trends to combating illegal immigration and organized crime, from dealing with the climate change to remaining as one of the leading global economic players.

In that regard, the Report underlines the importance of the EU enlargement as an element to overcome those challenges and maximize the opportunities in favor of a more peaceful, secure, prosperous Europe contributing to a more stable, fair and secure global order.

For many, the major value of the EU is its being a reference point that brings prosperity and peace for its citizens, an alternative model in respect to traditional inter-state relations and a transnational community of law. EU must become a hub by using inclusive and transformative strategies, which have been used successfully in the previous enlargements. Enlargement remains the most effective foreign policy tool for the EU.

In order to attain its objectives, Europe should play a more assertive role in the international arena. However, to achieve this, EU must always be open to new members and must assess each candidate country on its own merits and its progress as regards compliance with membership criteria. The Union should show that it is a credible actor which remains faithful to its commitments towards all the candidate countries. In fact, this is what is meant by "true limits of Europe".

The Report of the Reflection Group agrees that the boundaries of the Union can only be drawn by objective criteria, reflecting compliance with EU values, norms and standards, rather than by subjective elements.

I would like to point out that a value-based Union is the Union that Turkey wishes to join, since the same values are also embraced by the Turkish people. Once it becomes a member, Turkey will be a driving force to promote those values both within and beyond the Union.

Reminding the EU leaders the principle of *pacta sunt servanda*, the Report suggests the continuation of the negotiation process with Turkey. In the Report, it has been emphasized that the commitment given to Turkey and other official candidate countries must be honored and accession negotiations must be continued accordingly.

Turkey is one of the few countries which the Report refers to by name. This can only be construed as an indicator of the significance of Turkey both for the EU and also for the world in general, in political, economic, cultural and social terms.

The Report states it implicitly; but let me say it explicitly: Turkey is one of the essential keys to Europe's future and the solution to its current and future problems. Turkey will be the driving force for shaping the policies in order to tackle the challenges of the next decades for the Union due to its significant traits, such as its size, geographical location, economic and political strength, dynamic societal structure, cultural and historical characteristics, active foreign policy and strategic outlook. It has become one of the world's most dynamic and resilient economies and also one of the most influential and credible countries in regional and global politics.

The EU accession process definitely has its share in this transformation. For Turkey, the accession process has always been an incentive for political, economic, social and legal reforms. The accession process is considered as the most important modernisation project of Turkey since the founding of the Republic. In that context, Turkey's objective of membership to the European Union stems from our aspiration for the modernization and transformation of our country.

We want to realize this transformation to provide the highest standards in every field for our citizens. I have no doubt that Turkey, a senior member of all European organizations, will successfully accomplish its EU membership process.

Turkey wants to make the most out of the accession process. Indeed, the challenges and difficulties of Turkey's road to accession require patience, hard work and devotion from both sides. It certainly requires dedication and hard work on the part of Turkey. It, however, also requires sincere commitment, fairness and adherence to the principle of *pacta sunt servanda* from the EU side as emphasized in the Reflection Group Report.

EU member states have taken unanimous decisions in 1999 when declaring the official candidacy status of Turkey, in December 2004 when taking the decision to start the accession negotiations and in October 2005 for the actual opening of the negotiations. Turkey is a country destined to join the European Union at the end of the accession process.

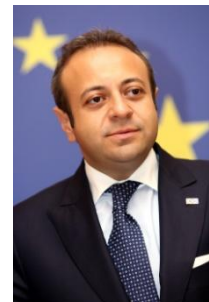
We do not ask any favors from the European Union. What we expect from the European Union is to be fair and have an objective vision. We are committed to continuing this process as long as it is kept on a realistic and fair basis.

This process is an opportunity for both sides; for Turkey it is an opportunity to use its immense dynamics for the transformation of the country and for the EU it is an opportunity to improve its political and economic power in a more complex global system. Accession might be a difficult process but it is also an irreversible process at the end of which both Turkey and EU will win.

Egemen Bağış

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## Post-crisis Lithuania – lessons and recovery

By Dainius Kreivys

**Global financial crisis has changed the course of the Lithuanian economy. It has been a massive challenge but also a possibility to revise and restructure the country's competitiveness turning course from low value added economy to high value added services and goods.**

International financial crisis and new prospects for the future has changed economic policy setting rules in many countries. Policy changes have been caused by the changes in economic life.

The global financial crisis has made its' devastating job in terms of both the developed and the emerging economies.

Contagion from financial and insurance industries in the US and EU was transmitted to significant reduction in consumption, manufacturing, lending and international trade volumes. The tiny Baltic economies – Estonia, Latvia and Lithuania - could not avoid these negative effects due to significant reduction in exports. While in the pre-crisis period they demonstrated high capacity to borrow, invest, build and consume, during the crisis their task was to rebuild their competitiveness and learn to consume less.

The current Government of Lithuania took office in December 2008 when the crisis was looming and the GDP acquired „freefall“ speed. The government, chaired by Andrius Kubilius, faced very difficult tasks to be implemented: drastic public and social spending cuts, tax raises and structural reforms in the education and health system. Hard decisions that many European countries will be forced to take in 2011.

### Why we succeeded to recover

Back to the beginning of 2009, while the Ministry of Finance had to master cash flows in public finance trying to reduce deficits, the Ministry of Economy had to unfurl a parachute for a free fall of the economy and manage it successfully.

Economic stimulus package was like a parachute necessary to avoid hard economy landing. Expanding of business financing facilities, export and investments, improving business environment, using EU structural funds more efficiently were the main managing straps in this parachute.

Expanding of business financing facilities was extremely important in the situation when the banks started to withdraw money from enterprises and could not let companies finish their investment projects. High Interest rates were disincentive to borrow. Therefore, a decision was made to raise funds from external resources (excluding Lithuanian banks) and lend them to business at a reasonable price. State guarantees were issued in order to compensate interests charged for loans. More than 1/6 of all enterprises used economic stimulus package facilities which allowed them survive, save jobs and reputation.

### Building fundamentals for export and investments

Building fundamentals for export expansion and investments attraction are also extremely important. Firstly, tiny economies like Lithuania should rely on export because domestic demand is very limited. Secondly, attracting of foreign investments is one of the key issues in improving competitiveness, economic life and increasing welfare.

A government agency LDA was restructured into 2 institutions. „Enterprise Lithuania“ was established to help

companies to increase exports. Agency „Invest Lithuania“ devotes its resources to attract foreign direct investments.

Powerful financial and non-financial measures were introduced to increase exports. Testing competitiveness of products and services, assistance in preparing export plans, strategic analysis, finding of new foreign partners are among non financial measures, focused to increase exports. These measures coincided with the strong will of exporting companies to find new markets and helped to increase exports in the second half of 2009 and avoid harder landing. Export became the driving force of the economy and so it remains in 2010.

The government efforts to attract foreign investors by improving business environment, creating specific financial packages for investors, suggesting pool of qualified labour force are the most important ones.

FDIMarkets.com data shows that Lithuania has attracted 28 foreign investors that invested LTL 3,5 billion and created jobs for 3500 employees. Barclays and SEB established IT centers, Western Union invested in financial service center, IBM decided to create global research center. These are just several names that lie behind solid FDI figures. Such results during the crisis period are the best examples that impressed other foreign investors we are dealing with at the moment.

### Out of bureaucratic frames

Improving of business environment was one of the key items in the crisis management agenda. Although there were many debates at the institution level, more than 50 significant proposals that help business to save time and money became official laws and rules. Simplified establishment of a new enterprise and license issue, easier tax paying procedures are just several of the proposals that were implemented. These actions let companies „to breath“ more easier and raised Lithuania in World Bank „Doing business 2010“ rating by three positions.

Public finance consolidation – out of the comfort zone now in order to be back in future

The leading role in deficit cutting competition among the EU countries with 12 % of GDP fiscal consolidation in 2009 brought clear benefits. First, there was no need to turn to international financial institutions and lose economic policy control. Second, we could borrow in international financial markets. Third, our determination to reduce public spending considerably reduced our borrowing costs, country risk premium and interbank rates.

Strategic objective of the medium-term policy is further public finances consolidation and essential improvement of the situation in the areas that can ensure economic breakthrough. Within the framework of the Convergence Programme Lithuania sets general government deficit targets: for 2010 – 8.1 % of GDP, for 2011 – 5.8 % of GDP, for 2012 – 3 % of GDP. The Government plans to balance the state budget and decrease borrowing significantly. Lithuania also expects to introduce euro in 2010.

### The way we are moving forward

Being more industrial yard (export of goods comprises 80% of total exports) at the moment we, like other economies in the Central and Eastern Europe, also try to address problems of how to reduce energy and commodity prices and their impact on competitiveness.

Increasing employment and entrepreneurship are also drivers of faster growth. However, the small size in economic terms does not prevent Lithuania from being the most dynamic country in the Baltic Sea Region and active in EU policy setting rules in post-crisis growth agenda.

For the last couple of years we have been observing interesting tendencies in global economy. We can clearly see that the global market is becoming more and more segmented and specialised in certain fields. For many years, we have known China as the world's biggest industrial yard. India, the world's most increasing influential economy, is gaining a position of a huge service hub.

Similarly, Central Europe has been known as Europe's industrial yard, while Northern European countries differentiated themselves as service economies.

Services currently make only 15% of cross-border trade, so there is huge potential for developing service yards all throughout Europe. The global crisis the world faced two years ago brought massive cost cutting and optimization in all the companies of the world.

Global enterprises were forced to examine their expenditures and find ways to optimize them. This led to looking for possibilities to outsource operations at attractive costs, however, not compromising on provided quality or competences. Lithuania is the country that wants to derive maximum benefits from this.

Lithuania is a part of the Baltic-Nordic region, which is renowned for its outstanding achievements in high value added services and innovations. Being part of this region has naturally set us a strategic goal to become the Baltic-Nordic Service Hub by 2015. It is not the goods, it is the knowledge we are going to export.

Our country is ready to provide services, like B2B, Medical or logistic services. Why services? The answer is simple. First of all, because of the competences and talents the Lithuanians have. Lithuanians are among the EU's most educated people. They are the country's greatest "gold and oil". Talents are the first to be mentioned among other

reasons when investors like Barclays, IBM or Western Union talk about their decision making. Just a few facts:

- 40 percent of the population have higher education
- 90 percent speak at least one foreign language
- 50 percent speak two foreign languages
- 40 percent of talent comes from science and technology

The second reason why Lithuania is becoming an attractive location for investors is our well developed infrastructure. We are the world's 2nd and Europe's first with fiber broadband penetration and have well developed high-speed wireless broadband services, including 4G.

Europe's densest network of public Internet access points. 3 integrated science, studies and business centres – the so called knowledge triangles – are under development with the commitment and dedicated support of the Lithuanian Government

Lithuania is also aiming to significantly increase the export of medical services, especially in cardiovascular, oncology and odontology fields.

These advantages make Baltic-Nordic service hub not a vision, but an action plan already set in motion.

*Dainius Kreivys*

*Minister*

*Ministry of Economy*

*Lithuania*





## Education in times of recession and at the age of innovation

By Hannu Takkula and Vesa Kangaslahti

The latest recession has been severe for the European economy as well as the rest of the world. The lives of many European citizens have been affected in ways that have been impossible to foresee. The scale of problems has been vast, even in countries long perceived as being stable. Job or budget-related cuts have been among the saddest and most visible indicators that 'times' are not good. The unemployment rate, especially among the young, is another example of a statistic that frequently catches the eye. For every positive sign indicating movement towards recovery there has been a number of worrying revelations, including those emerging recently from Ireland, Portugal, Greece and Spain.

One does not need to read much beyond the titles of various strategy and policy documents coming from Brussels to conclude that *innovation* is widely perceived as 'the way' out of bad times. Innovation seems to be, quite simply, the central solution to Europe's future success. It is the key to new "smart, sustainable and inclusive" growth, and to anything from better industrial policy to employment opportunities; from tackling climate change to improving energy efficiency or European research output. New, innovative financial instruments have also been discussed, designed and developed.

Since we are arguably in the midst of the most difficult economic times in over 50 years, in this short article we want to briefly consider an angle less discussed; a perspective we believe should be more widely debated in times of recession. Rahm Emanuel, U.S. President Obama's former Chief-of-Staff, famously commented upon entering office that "you never want a serious crisis go to waste". We do not intend to be that ruthless, but we do aim to highlight the idea of being a little more creative while much destruction is taking place -- as Joseph Schumpeter wrote some 70 years ago. For Schumpeter, the innovative input of entrepreneurs was key to sustainable economic growth, even were the value of established institutions that had enjoyed a degree of monopoly (due to existing technological, regulatory or economic models) to be eroded in the process. Hence Schumpeter's much quoted idea: "the gale of creative destruction". While one could argue that the destruction we are currently experiencing has been precisely due to the (overly) greedy, entrepreneurial behavior of financiers, bankers and real estate developers alike, we believe that new models and ways of thinking are needed. After all, a rather famous scientist once claimed that no problem can be solved from the same level of consciousness that created it.

When looking ahead and planning for recovery, one should not underestimate the importance of economists, statisticians and various financial professionals. Budget planning and financial "package"-related issues have been dominating the news in recent months, and the odds are that they will keep on doing so for some time to come. Much hard work and many innovations are also required in this area. For instance, some financial institutions have designed schemes in which their senior staff will be compensated over performance periods of several years, and in cases of mismanagement, they may even have to repay the organization. Another good example comes from the actions of George Soros, the businessman and philanthropist, who last year donated millions to establish the Institute for New Economic Thinking, dedicated to the idea of solving inadequacies within our current economic system by offering grants and scholarships for researchers.

Research and innovation involve an element of healthy risk-taking, which is also common to entrepreneurship. Although it may sound contradictory given the times, in some ways decision-makers must become more entrepreneurial and have the courage not to cut back too much on essentials, and not to over-emphasize risk-averse action. Warren Buffett, who has pledged to donate much of his wealth to the Bill and Melinda Gates Foundation (which is dedicated to bringing innovations in health, development, and learning to the global community) has said of the foundation, "if we

succeed all the time, we are failing" - referring to the foundation's risk taking capabilities and simultaneously sending a clear signal for what type of research gets funded. As the European Commission is taking steps towards building an "Innovation Union", it is vital to listen to the unified front of European universities, scientists, and research / funding agencies, who claim that too much EU research funding is currently complex and bureaucratic due to overly strict financial regulations. It is no surprise, therefore, that the President of the Finnish Academy recently called for simplification of the financial and administrative provisions related to European funding instruments. He, as do others in the field, would also like to see the research budget for the next EU Framework Programme increased.

Ideas for recovery generated by those of us more involved in education and related policy areas are often viewed as being less important. Nevertheless, we must keep on promoting our ideals. We must remind decision-makers all over Europe to keep on viewing budgets for education, culture and research, not as costs, but as investments in the future. We must encourage others to view the world beyond the next election, or beyond the next financial 'quarter', and urge politicians and other leaders to genuinely consider the long-term. Gillian Tett, an anthropologist writing for the *Financial Times*, recently argued that the beauty behind the work of economists, statisticians or number-crunchers is that they produce data, reports and strategies that appear delightfully accurate, and as such, hard to argue against. Yet very few economists were able to predict the current crisis. Herein, we believe, lies the key point often forgotten: in education, as in research (or innovation activities), when a project of some kind is initiated, it is easy to calculate costs in advance, but extremely difficult - if not impossible - to quantify its *results* in advance. Nevertheless, most people would agree that an individual's education greatly influences her / his future life opportunities and is therefore one of the most crucial factors for any society. Most people would equally agree that advances in science have changed our lives for the better. We must also remind ourselves, as the United Kingdom Royal Society's report does, that "we cannot predict this century's counterparts of quantum theory, the double-helix and the computer - nor where the next generation of innovators will be trained and inspired."

For those of us who are more involved, on a daily basis, in less easily quantified policy areas, it remains our responsibility to remind others of the importance of making investments into the future. Even in times of necessary fiscal austerity, funding for education, research and related policy areas that are certain to help our societies recover, must be continued and perhaps even increased. This requires political vision that goes well beyond the next several election cycles.

Over the years Finland has been an excellent example of a nation which has invested in education and research. The rewards Finland has reaped in recent years owe much to decisions made ten, twenty or thirty years ago. In fact, it was in the midst of the recession in the early 90's that Finland last devised a bold innovation strategy; this strategy transformed the nation technologically and has since been admired the world over. The question is: what will the EU, Finland included, do now that we are yet again in the midst of difficult times?

There is no doubt that these are complex issues. Although it would perhaps be safer to live and operate -- politically as well as otherwise -- in better economic times, downturns in the economy force us to prioritize and rethink the future.

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## Russia's modernization – a progress report

By Igor Yurgens

For contemporary Russia, the necessity of modernization has long been a topic of discussion. However, no consensus has been reached yet with regard to the tempo, breadth, means and methods of this modernization.

A year ago 'vertical' modernization was launched in the economic sectors determined to have the greatest innovation potential for Russia. At that time, the following key priorities were declared: energy efficiency, nuclear and space technology, medicine and pharmaceuticals, and information technologies.

Since then Russian authorities have on numerous occasions indicated an understanding of the fact that such focused and regulated modernization is not sufficient to achieve the far-reaching goals set out before the state. Real renewal of the economy can only be achieved through 'horizontal' modernization: a 'rebooting' of regulatory institutions, improvement of economic conditions across the board and total 'de-bureaucratization'.

Both among experts and in society at large there is growing recognition of the fact that a third level of modernization is also necessary. All efforts, even the most inclusive and targeted measures, aimed at renewing the economy will be impotent if not accompanied by a similar all-encompassing and targeted renewal of public and state institutions. Horizontal modernization must develop in an environment of general and integrated modernization of the political culture and social relations, accompanied by a renewal of society and the individuals of this society in accordance to the demands of the contemporary world.

The implementation of information and communication technologies (ICT – which figures as one of the short-listed priorities mentioned above) is a key link capable of lifting Russia's modernization to qualitatively higher levels. It has long been understood that the use of ICT in government, the social sphere and business implies not only the automation of certain functions and process but also the radical reconstruction of the institutions themselves on a new technological foundation. The end result of the implementation of ICT is not the number of computers or programs but rather the new quality of the provision of state and social services, the development of new forms of democracy and innovative ways of doing business.

Furthermore, the realities of an information society represent an important component of the modernization environment. This environment, which serves as a guarantee for the creation of a societal foundation for modernization, allows people to get a sense of what modernization entails and to assess the potential advantages stemming from it.

Both global and Russian experience shows that truly widespread results can only be achieved with the participation of the state, as one of the initiators and regulators of ICT assimilation processes.

There are plenty of examples in Russia of truly effective work in the implementation of ICT, both at the ministerial level and in the regions. However, due to insufficient intergovernmental coordination, a lack of cooperation between regions in the preparation and realization of local projects, the dearth of opportunities for experts to influence state bodies as well as bureaucratic sabotage, examples of ineffective ICT implementation are predominant.

The 'digital rift' between Russia's regions remains. According to the recently published Index of Information Society Preparedness of Russian Regions indicates that the number of computers per person in the outsider-region (Chechnya) lags behind the leader (Chukotka) by more than 40-fold. As it turns out the digital rift also remains critically high in local government (the provision of personal computers in local government offices is three times higher in the Murmansk region than in the

Kemerovo region), in business (the share of businesses using the Internet to accept orders in Moscow, St. Petersburg and the Vladimir region has reached 30% – which is double the EU average, while in Kalmykia only 3% of businesses use the Internet for such purposes), and in society in general (in Chukotka there are 87 computers for every 100 households while in the Trans-Baikal region there are only 19 per 100 households; more than 50% of households in the Russian capital and oil and gas regions of Northern Russia have Internet access while only 5.8% in the Smolensk region, 2.5% in Tuva and 0.2% in Ingushetia have Internet access).

In order change this situation, coordinate state efforts in this area and provide a substantial impulse, two years ago President Dmitry Medvedev signed an decree creating the Presidential Council for Development of Information Society, a sort of higher body for the implementation of information technologies, bringing together the heads of government ministries and departments and leading Russian experts in this field.

In the relatively short period of its existence, the council's efforts have already produced real results. Russia now has a consolidated IT budget in which expenses at various levels of government are tallied. New regional strategies today are much better developed and more serious than the amateurish attempts of the past. The 'Council Factor' has made a substantial contribution to the implementation of unified information systems in medicine and education.

In late September the Information Society Program for 2011-2020 was approved. This state program includes six core focus areas: e-government, improvement of the quality of life and conditions for business, overcoming digital inequality, information security, development of the ICT market, and preservation of cultural heritage. In terms of quantifying the results of this program's implementation, specific targets have been set: the transfer of all state services to an electronic format; the provision of 85% of the population with Internet access at 50 Mb per second; and increasing the share of ICT in the GDP by 2-2.5 times.

The Law on Organization of State and Municipal Services has come into effect. This law for the first time in Russian practice introduces the term "state and municipal services in an electronic format". The legislation foresees the use of such an instrument as a universal electronic card. This card will have federal electronic applications, allowing for identification of the user and access to state services in the system of state medical insurance and pension program, as well as an electronic bank application, as a part of the national payment system.

Will the strong impulse of state efforts to facilitate the implementation of information and communication technologies in Russia continue in the future? Of course, to a certain degree this impulse has a certain "human factor". However, I believe that regardless of who is personally advocating these modernization efforts, this process, at one speed or another, is sure to continue.

*Igor Yurgens*

*Chairman of the Management Board*

*The Institute of Contemporary Development*

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## Modernization of Russia

By Jaakko Iloniemi

The theme – modernization of Russia – is not new. Many of Russia's leaders have had that aim and some of them have been successful in their endeavors. In some cases the method has been to emulate other socially and economically more advanced countries. During the years of Communist rule there was much faith in finding a specific, different Russian form of modernization. Today, modernization is once again the watchword that is repeated in most major political speeches.

What is exactly meant by modernization in the present context is less than clear. Some of the Russian leaders would like to confine it to the economy while others, including President Dmitri Medvedev, see modernization as a wider task. In a recent speech he has emphasized strongly that modernization has also a social and an educational dimension.

It is obvious that in Russia the phenomenon known as "resource scourge" is part of the problem. The sustained, high price of energy, notably gas and oil, has made it easy for the government to replenish its coffers. The recent developments with decreasing demand for natural gas and an increasing awareness of the finality of oil resources have convinced the government that the days of a resource based economy cannot last forever.

A matter of political choice has been the question should the economy be modernized by entrepreneurs themselves accepting the free play of market forces or should that process take place under strict government management. Some sort of combination of these two methods seems to be more likely than either or. However, the main strategic decisions will be made centrally.

The ongoing campaign to modernize the Russian economy and the society has its origins in the article that President Medvedev published in September 2009 called "Go Russia". In the strongest of words he condemned "centuries of corruption" and "paternalistic attitudes". He did acknowledge that "...an innovative economy cannot be established immediately. It is a culture based on humanistic values", he observed. All in all in that speech he showed that he was aware of the many dimensions of a truly modernized society and the complexity of its workings.

The developments since September 2009 show that the issue of modernization is still very much part of the policies of President Medvedev and Prime Minister Putin. Some concrete steps are about to be taken to implement the announced policies. One of them is the plan to create a "Russian silicon valley" in Skolkovo, nearby Moscow.

President Medvedev has said that he is well aware of the fact that the Californian Silicon valley cannot be copied. He says that "Skolkovo should turn into a certain system, which attracts people...and this cannot be reached through decree". A number of major international companies have indicated their interest to locate their facilities in Skolkovo. Such co-operation has been very much the desire of the Russian leadership. Much attention has been given to co-operation with the European Union and, in particular, with Germany. Germany has been traditionally the Western society that has much to offer to Russia. Chancellor Angela Merkel has already indicated that her government is prepared to cooperate. No wonder because German enterprises are keenly interested in exporting machinery and instruments to the emerging new industries in Russia.

In spite of the participation of the private sector, Skolkovo is still a top-down form of modernizing Russia. As president Medvedev very correctly pointed out modernization cannot be

reached by decree, since it is "a culture based on humanistic values." Among such humanistic values is also the rule of law. Most Russians agree that this is a very weak point in their plans. As long as matters, such as intellectual property, or physical investments are not well protected, Western participation in projects of modernization will be half-hearted, at best.

Some observers say that China has succeeded without creating a society based on the rule of law and it prospers without democracy. Therefore it would be a fallacy to believe that these characteristics are a necessity. The beginnings of the Chinese process of modernization are, however, radically different from the Russian case. In the case of China the modernization has been introduced by adapting the economy to co-operate with foreign enterprises by manufacturing products developed elsewhere. Indigenous Chinese products are only now entering the world market. To absorb know-how and business practices from others has been the stepping stone in the Chinese transformation. In Russia their effort is to make a quantum-leap from an extracting economy into a high-tech economy, a leap that is extremely demanding.

No wonder that there are many skeptics who are pessimistic about the likelihood of the chosen approach. They maintain – as does the Russian born Nobel laureate Andre Geim that "this charge requires several generations". It is going to progress very slowly and swim through trickles", he says. There are plenty of others who, while endorsing the goals of the policy, have serious doubts about the way it is executed. Some 2200 Russian scientists have written a letter to President Medvedev saying that his plan for economic innovation is doomed if Russia fails to attract foreign students and teachers into science.

Here is another important difference between the Russian and the Chinese way of modernization. China has benefited enormously from the contribution made by the tens of millions of Chinese living abroad and dedicating their capital and their skills to the Chinese process of transformation. Russia has no similar source to draw upon. China has also been very open in attracting foreign expertise to their institutes of research and higher education. The Russian scientists are aware of this component in the Chinese success story.

It is much too early to tell what the prospects are for a successful modernization of the Russian economy and the society as a whole. If matters such as lack of rule of law and corruption are not weeded out, the prospects are not too good. If truly representative government and full civil rights are not guaranteed the prospects for success are likely to be modest. If the Russian leadership believes in its own clearly stated goals, these things are going to be put right. The earlier the better!

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# ICT competence and HRD in public administration sector of Russian Federation

By Alexander V. Khoroshilov

The first decade of the 21-th Century has defined finally a main trend in the world community development – a creation of Knowledge Society. The most of the current economic and social forces of human society are mobilized around knowledge intensive fields including education. Today the corresponding “hottest” terms besides globalization are: ICT, knowledge, social responsibility, competitiveness, employability, intellectualization of economy, educational, social and industrial innovations and, of course, competencies. And the most popular prefix is “e-“. The same time despite the ubiquitous ICT and “e-“ intrusion a human factor priority become the main feature of Knowledge Society because only a Human being is the principal carrier, generator and user of knowledge.

The dynamics of Knowledge Society development depends from many factors but one of the critical is the level of its key competencies – professional (or “hard” relates to a concrete field of the activity of a worker or a servant), social (or “soft” relates to intercultural and multilingual communications, tolerance, conflict and stress management, self presentation techniques, psychological stability and etc.) and ICT (or “hard-soft” related to a wide range of digital and informational knowledge and skills) ones. As in any developing society professional and social competencies are very important but in Knowledge Society an ICT competency are the most critical. Moreover in Knowledge Society namely the ICT competency serves as a general base for creation and development of other competencies and at the same time as a chain between professional and social ones bridging them and providing a sustainable synergetic effect. So that in many countries multiple research and development activities and projects concerned with ICT competency Knowledge Society key competencies successfully have been accomplished during last years. As a result there are a number of ICT competency models exist but there are no universal Knowledge Society ICT competency model oriented to civil servants which can be applied to a public administration sector of any country directly without a corresponded adaptation.

Furthermore the lack of such kind of universal Knowledge Society ICT competency model jointly with their traditional “technological” inertness and “innovation” passivity of civil servants is one of the main barriers for an effective e-government development which leads to a “competency difference” and a “digital divide” between real sectors of economy and social sphere from the one side and public administration sector from the other one. And this is a real big and actual problem of a global level for many countries walking on the road towards a Knowledge Society including Russian Federation. In the same time even under these circumstances a number of regular training, retraining and in-service training courses take place in the public administration sector of Russian Federation under requirements of the corresponded Russian legislation for government civil service. However all of them are not based on any approved Knowledge Society key competencies model. Of course there are a several ICT competency model prototypes oriented to civil servants exist in Russian Federation but it is a very hard to find a corresponding effective technological tool kit supported all processes for creation, development and evaluation of Knowledge Society key competencies in public administration sector including official assessment procedures.

One of the possible ways to tackling these issues is connected with a possibility to use in public administration sector the basic components of the Human Resources Development theory and practical experience of its implementation in business area and social sphere.

It well known that nowadays both large multi-national companies as well as national and local companies employ a multitude of training staff. Besides, various training organisations employ numerous consultants in the field of training and development.

Many of these organisations realise that the current economic conditions require rapid learning. In order to prevent to be out of business soon, organisations analyse their corporate strategies and learn from their previous mistakes. Organisational learning never had that sense of urgency before.

Contemporary organisations in business and industry implement their ideas on learning via competence management and competence development. This is a strategy that enables vertical and horizontal alignments of corporate policy processes and instruments. This alignment is necessary for establishing effective and efficient learning and training practices. In this context the concept of Human Resources Development plays a major role.

Human Resources Development (HRD) means the process of changing an organisation, stakeholders outside it, groups inside it, and people employed by it, through planned learning and training so they possess the knowledge and skills needed in the future.

The basics of HRD consist of three components: (a) Training - for performance improvement, (b) Education - for career development, and (c) Development - for organisational change. In other words: it is recognised that HRD plays a crucial position in all sectors of business and industry where it is closely linked to strategic organisational and personnel policy in terms of corporate vision, mission, and management. In this context HRD strongly focuses on creating facilities and frameworks for training and organisational development in companies and organisations, being learning organisations. Next to individual competence development and career development, this will lead to organisational effectiveness and efficiency, influencing positively all levels of the corporate setting.

The most of these principles can be adapted and applied for the public administration sector of Russian Federation and jointly with an application of elaborated prototypes of ICT competence models and corresponded HRD technological tool kits should foster Russian government civil servants to improve their competencies corresponded to requirements of Knowledge Society.

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# Economic prospects for Russia and its implications for the Baltic Rim region after the global crisis

By Seppo Honkapohja

The financial crisis that started in August 2007 in the Western world led in 2008-2009 to a major recession in the real economy in the Baltic Rim countries. Gross National Product fell in these countries, with Poland standing out as the exception. The deepest declines happened in Latvia, Lithuania and Estonia, where GDP fell 14 to 18 percent from business-cycle peak to trough. The recession was also severe in the other countries of the region.

Luckily, the recession was relatively short-lived and the recovery process started during 2009. The macroeconomic outlook for the advanced Baltic Rim countries, i.e., Denmark, Finland, Germany and Sweden is one of positive economic growth. Forecasts for the individual countries vary from 1.5 to 3.5 percent in the next few years according to the IMF. For the other Baltic Rim countries growth is forecasted to be somewhat faster, but the rate of growth is likely to be slower than before the global crisis. However, the Baltic rim economies are likely to have somewhat faster growth than the rest of Europe, for example see IMF World Economic Outlook.

It is of particular interest to consider economic prospects of Russia for the coming years and its significance for the other Baltic rim countries. Russia is a big country, so that it has important potential for the other economies in the Baltic region. The Russian market as destination of exports from other countries is a major dimension of this potential. In the period 2000-2008 exports to Russia indeed grew fast before the current crisis. This growth was especially pronounced for the Baltic countries Estonia, Latvia and Lithuania and also for Finland. Growth of exports to Russia was also significant for Poland, Germany and Sweden even if it was not so fast and the share of the latter exports is noticeably smaller than in the first group of countries. Exports to Russia do not play a large role for the Danish economy. In 2008-2009 the exports to Russia of all these countries fell significantly. This decline has now ended and some growth is now visible.

It should be noted that despite the growth mentioned above, the exports of Baltic rim countries to Russia have somewhat lost their share in total imports to Russia. Currently, the Baltic rim share is about twenty eight percent of total exports to Russia. In contrast, imports to Russia from other EU countries have raised their share somewhat and currently this share is about twenty six percent of total exports to Russia, which is only a little bit lower than the corresponding share for the Baltic rim countries. Moreover, China has become the biggest importer to Russia in 2010. Clearly, the Russian market is competitive and success there requires considerable efforts.

While trade of goods and services is perhaps the most important economic activity between different economies, it is not the sole form of economic relationships. Mobility of productive factors, movement of capital and establishment of business from one country to another in particular, are increasingly important in the modern globalized world. I now consider the role of foreign direct investments (FDI) in the Baltic rim countries.

A typical feature of FDI is that advanced market economies are net exporters of capital whereas emerging economies are importers of foreign capital. This feature is largely borne out in the data for the Baltic rim countries. Denmark, Germany and Sweden have indeed been net exporters of capital for most of the years 2000-2008, though there are some exceptions especially in the early part of the period. For Finland the picture is not clear-cut as it was a net exporter of capital in 2000-2001 and again for 2008, but an importer in the other years. Looking at Poland and the Baltic countries, these countries indeed conform to the expected patterns as all of them had sizeable capital imports in the years 2000-2008. For Russia the net flow of capital has largely been close to zero, though in the period 2006-2008 it was a net importer of capital. However, the numbers are small and also gross flows of foreign direct investments have also been relatively small even if they have increased in the most recent years.

Capital investment is a central element in the economic growth process. If one looks at investment rates in the Baltic rim countries, a first and anticipated feature is that investment rates tend to be lower in advanced economies than in emerging countries. Investment rates in Denmark, Finland, Germany and Sweden are mostly under but near twenty percent of GDP. Looking at the other Baltic rim economies, Estonia, Latvia and Lithuania stand out from the data. Their investment rates were mostly above twenty percent in the period 2000-2009 and, moreover, these rates were strongly increasing until 2008. In Poland the investment rate has fluctuated between eighteen to twenty four percent of GDP.

In Russia the investment rate has mostly been below twenty percent, though it increased to about 21-22 percent in the upswing in 2007-2008. The rate appears to be somewhat below those in countries that are at comparable stage of economic development. It should be added that investment in Russia is strongly oriented to the energy and state controlled sectors. Though a closer examination would be worth doing, it can be argued from the preceding data that the Russia has scope to broaden other sectors in its economy and probably this kind of activity has significant economic potential for the future.

Finally, I want to examine the business environments in the Baltic rim economies using the 2009 and 2010 Doing Business Reports from the World Bank. This survey covers 183 countries globally. Looking first at the overall rankings, it can be seen that the advanced economies Denmark, Finland, Germany and Sweden do rather well in the rankings. This is unsurprising. More interesting is the fact that the Baltic countries Estonia, Latvia and Lithuania do nearly as well as the advanced countries and in particular they are not far behind Germany in this respect. All these countries are among the best 30 out of the 183 countries in the reports. The results also show that Poland and Russia have clearly less favorable business environments, as Poland is ranked at place 72 and Russia at places 118 and 120 out of the 183 countries.

Different aspects of the business environment are behind the overall scores. I will not go into full details, but it can be noted that in most dimensions the advanced economies and the Baltic countries do reasonably well in the rankings. There are a few exceptions, notably in aspects of employing workers and to some extent in investor protection. Looking at Poland and Russia, difficulties for business seem to be in starting businesses, in dealing with construction permits, and in payment of taxes.

My discussion suggests that the Baltic Rim region has clear potential to improve both trade among the countries in the rim and also mobility of capital and business activities. The countries will need to think through their strategies for growth and prosperity. Making use of the European internal market and also of the possibilities for trade among the neighboring countries are evidently main ways forward for the Baltic rim countries that are members of the European Union. For Russia the choices seem to be more challenging. The recent focus on modernization and innovation activity is clearly a possible way forward. R&D spending in Russia has been in the range from one to one and half percent of GDP, which is already a reasonable level, but a large part of this is public innovation. More generally, improvements that facilitate the market economy and creation of better conditions for private business would probably be conducive for economic growth.

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# Russian banking sector after global financial crisis

By Gennady G. Melikiyan

1. The situation in Russia is gradually stabilising after the severe and drawn-out crisis that hit its economy in the second half of 2008 and during 2009. It applies to the banking sector and to the economy as a whole.

Specifically, in the first nine months of this year Russia's GDP grew by 3.6% (preliminary data) compared to the same period of last year. In 2009, GDP had contracted by 7.9% year on year. Industrial output increased by 8.9% in the first nine months of this year, power, gas and water consumption rise by 8.5%.

This year also saw some improvements in the population's living standards. In the first nine months of 2010, real disposable monetary incomes grew 4.8% compared to the same period of last year. Retail trade turnover expanded by 4.4% in January-September 2010 compared with the same period of 2009. The public propensity for saving has increased noticeably, while consumer demand remains low.

2. The Russian banking sector grew rapidly in the 2000s. Its key performance indicators, such as capital, assets, and credit increased at an annual rate of 35-55% in nominal terms. The high growth rates were accompanied by significant qualitative changes in the banking system, largely owing to the establishment of a deposit insurance system and the selection of banks for participation in this system in 2004-2006. As a result, the ownership structure of banks has become more transparent. Banks have paid special attention to risk assessment and risks management. The role and effectiveness of internal controls have increased, and the quality of corporate governance has improved. However, the banking sector's rapid growth, especially in lending, inevitably raised concerns over the accumulation of risks.

On the eve of the crisis, Russian banks had virtually no toxic assets such as financial derivatives, including those connected with mortgage loans. Moreover, mortgage loans accounted for less than 4% of total banking sector assets. Therefore, many Russian and foreign analysts and policymakers believed that the crisis would leave Russia unaffected. This was not the case. Starting from August-September 2008, the crisis unfolded in Russia, mainly under the influence of adverse externalities.

As global financial turmoil gathered pace, the prices of oil and other major Russian export commodities plummeted. This not only led to a fall in budget revenue and oil company profits, but also affected the entire economy. The financial situations of many companies deteriorated, unemployment increased, and incomes of most population groups fell. On the whole, solvent demand in the economy declined.

The global crisis made it increasingly difficult for Russian banks and companies to borrow abroad at a time when they greatly needed foreign loans - firstly because they had accumulated large debts (by the middle of 2008, Russian banks' debts to foreign creditors had reached about \$200 billion, while the non-financial sector's debt stood at nearly \$300 billion). Secondly, most borrowers hoped to be able to refinance outstanding debts. The opportunity to do it in Russia was very limited especially concerning sources of long-term money. That is why many companies-debtors came across severe difficulties.

The abrupt change in the direction of capital flow had a strong impact on the situation in Russia. While in the pre-crisis period Russia registered a large inflow of capital (2007 for example, saw a net inflow of capital of \$81.2 billion), in

the autumn of 2008 the situation changed dramatically. In the fourth quarter of that year alone, the net outflow of capital from Russia totalled \$130.6 billion. This created a lack of liquidity on the domestic market, and even certain systemically important banks defaulted on their obligations. As a result, the crisis of confidence paralysed the interbank market, and banks started to close limits for other banks. Even banks with liquidity reserves stopped lending for fear of losing money, and this further exacerbated the liquidity deficiency.

Admittedly, there were internal factors that contributed to the turbulence in Russia. The most prominent among these were the low level of diversification of the Russian economy, its orientation towards energy and commodity exports, the shortage of internal sources of long-term funding, and the relative weakness of the banking system in terms of its scale, capitalisation, and availability of funds to meet the needs of the economy.

3. To rescue the financial system and banking sector, the Russian Government and Bank of Russia carried out a series of anti-crisis measures through a government aid package, which included:

- expanding significantly the refinancing of banks, especially by the Bank of Russia;
- providing financial assistance to help banks boost their capital by extending subordinated loans to them;
- rehabilitating systemically important banks in distress;
- temporary changes in banking regulation - in particular, concerning requirements for reserves under restructured loans and for participation in the deposit insurance system.

These measures made it possible to mitigate the shock caused by the crisis, not only for banks, but also for corporate borrowers. Funds allocated by the Government and Bank of Russia helped to overcome the liquidity shortage on the market, and to a significant extent provided a substitute for foreign loans made inaccessible by the crisis. For example, on July 1 2008, funds raised from the Bank of Russia accounted for 0.3% of total liabilities of the banking sector; on December 1 2008 their share was 10%; and on February 1 2009 it reached 15%, of which more than a half were unsecured loans.

To maintain the stability of the banking sector, 20 systemically important banks were rehabilitated, and their ownership structure was changed.

Nevertheless, the crisis dealt a heavy blow on Russian banks. Firstly, it led to a significant deterioration of the quality of bank loan portfolios. For example, at the height of the crisis, growth in overdue debts (measured according to Russian accounting standards) and bad loans reached 20% in certain months. Bad loans are those assigned to the worst quality categories 4 and 5.

Banks had to increase provisions for problem loans, and this had a negative impact on their returns and capital, and made it increasingly difficult for them to extend loans and conduct other active operations.

Analysis of the situation in banks that were unsound, rehabilitated or had their licences revoked during the crisis showed that the principal cause of financial instability were high risk concentration associated with the owners of banks and related parties.

4. Beginning from March 2010, after a brief period of stagnation, the situation began to change for the better. In the second and third quarters, banking sector assets grew by 8.3%, and loans extended to non-financial organisations

increased by 9.7%. The period of significant decline in lending to households, which lasted throughout 2009, came to an end. In the second and third quarters, loans to households increased by 9.5%, whereas in the same period of last year they contracted by 6.5%. The share of overdue debt in the total banking sector loan portfolio remained virtually unchanged at 5.4-5.6%, in September-October it even shrank to 5.1-5.2%. The share of bad loans in the total loan portfolio in the third quarter stabilised at 9.2%.

Despite some progress, bad loans remain a serious problem for the Russian banking sector, although certain improvements have been made in this area. In the past few months of this year, the value of loan loss provisions has entirely covered the value of banking sector bad debt and this has allowed banks to stop building up loss provisions and lessened the pressure of high-risk loans on banks' returns. As a result, profit made by the banking sector in the first nine months of this year was 12 times higher than its profit in the same period of last year. Calculations show that the Russian banking sector's profits in 2010 will come close to the pre-crisis level.

It should be noted here that while banks' profits are increasing significantly, there remains a large proportion of loss-making banks, estimated at more than 10% of the total number of credit institutions, which shows that Russian banks differ considerably in terms of their financial standing. Some of these loss-making banks are unlikely to resolve their financial problems and face bankruptcy. There is therefore cause to believe that the number of credit institutions in Russia will decrease in the near future as a result of the growing number of mergers, acquisitions, and licence revocations.

5. The average banking sector capital adequacy ratio is high today, standing at 19%, whereas the required ratio is 10%. However, banks differ significantly in terms of capital adequacy ratio. The highest capital adequacy ratios are generally registered in banks with a government interest, which received significant capital injections during the crisis, and certain small regional banks that offer a narrow range of banking services. However, a number of large private banks have small reserves in terms of capital adequacy ratio. Some of these have limited opportunities for expanding active operations, particularly lending, as they lack spare funds and have a relatively large proportion of bad debt in their loan portfolios. The problem of capital and its adequacy

therefore remains a focus of attention both for owners and managers of banks and for supervisors.

6. The banking sector's gradual recovery from the recession allowed the authorities to wind down anti-crisis measures and return to normal regulation of the banking business. On July 1 2010, the Bank of Russia cancelled the reduced provisioning requirements for restructured loans. The government has stopped extending subordinated loans in order to boost the capitalisation of banks. As there was no longer a systemic threat to the banking sector, it has now been over a year since any banks became candidates for rehabilitation with the help of government funds.

Bank's need for refinancing by the Bank of Russia has decreased significantly since crisis. At present, funds raised by banks from the Bank of Russia account for about 1.5% of banking sector liabilities. The practice of extending unsecured loans is being gradually wound down, and next year this anti-crisis instrument will not be used at all. In addition, the volume of other refinancing instruments is being reduced.

7. We support the principal proposals for upgrading banking regulation put forward by the IMF, Basel Committee on Banking Supervision, Financial Stability Board, and other international organisations. At the same time, we believe that it is important to assess carefully the extent of these measures. Proposals aimed at tightening regulation must not impede the development of the banks. This is especially important for emerging economies, whose banking systems cannot yet fully meet the needs of the economy. We will therefore aim for a balanced approach to regulation and supervision of the banking sector, to ensure its financial stability while at the same time stimulating its development in the interests of the economy and the public.

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# How to develop civic society in Eastern Europe? From an academic institute to a civic think tank. The example of activity of the Polish Gdańsk Institute for Market Economics.

By Stefan Widomski

Contemporary media use many communication channels: press, television, internet portals. The myriad of messages makes us think we know everything that is happening in the world. This is just an illusion. The media distort information, reducing their message only to events, in most cases sensational ones. The knowledge about other countries and problems their inhabitants face is often completely inadequate to the issues that matter to a given society.

The limitations often result from media representatives or correspondents not being able to get to places where something really important is happening or to meet people who make important contributions to a given society's development.

As conscious consumers of media transmissions, we can look beyond the media message, add information, and create an image (though only a very limited one) of what is going on around us, but the image becomes very rapidly blurred and inadequate the further we are from the place, event or person about which we receive information.

An example of activities about which one can hardly hear in the media and which, according to this writer, are a considerable contribution to mobilizing broad circles of the public to determine the desired and possible model of their own society and state is the Gdańsk Institute for Market Economics, operating in Poland, which Institute has only its registered office in the city of Gdańsk, while its operations cover the whole country.

For 20 years now, this unconventional civic think tank has been mobilizing people with different ideological and political beliefs and with different views on the direction for Poland's economy to participate in its activities. The forum for exchanging ideas is the seminars and congresses GIFME organizes and its publications.

Although the main goal of the institute's activity is the matters pervading the Polish society, the very participation in its activities is an excellent lesson showing how a civil society can function.

In the 20 years of its existence, the Gdańsk Institute for Market Economics has gone a very interesting path of development, which reflects not only Poland's changing economic and social situation, but also changing perception of current issues and development problems.

The institute was created in Gdańsk, by people actively involved in opposition, and its roots can be traced back to the University of Gdańsk, "Solidarity" movement in the 1980s and the circle of Gdańsk liberals. The direct initiative to establish the Institute (which was formed as a foundation in December 1989) came from the current President of the Institute, Jan Szomburg, Ph. D., and from Janusz Lewandowski, the current EU commissioner for budgets. Originally, the Institute was meant to be a non-public, independent academic and research institute. As its history showed, the assumptions concerning the scope and subjects in which the Institute operated were constantly adjusted.

At the beginning, the Institute looked for answers to the question how to determine the strategy of ownership transformations in economies termed as socialist ones. As Jan Szomburg later described, it was a search for an answer to an anecdotal question formulated later: "How to make eggs from scrambled eggs?" This led to a search for answers to the following questions: what socio-economic system and what regulatory framework will best serve Poland, how to privatize the economy so that dynamic business actors appear and a real market with real prices emerges? At that time, the Institute presented the opinion that the crucial thing was a system based on private ownership and the market, that it would be a kind of engine driving the whole development.

In later activities of the Institute, the understanding of what was the most important thing for Poland at the given time changed radically. Greater weight started to be attached to issues of steering, that is, issues of current public and economic policy, social policy and budget policy. This field of interest remains valid until now.

The experiences of nearly twenty years of transformations and modernization changes were the grounds for reflections that the

system alone, that is, the rules of the game, and the current socio-economic policy are unable to effectively stimulate complex processes of modernization and development. A completely new field of interest appeared: the cultural foundations of development. The basis for the new direction in thinking was the conviction that institutions and regulations do not hang in the air, but in a certain cultural environment, and depending on that environment their operation can have positive just as well as negative results. Indiscriminate transfers of institutions and regulations from one cultural environment to another might result in their distorted and unintended functioning.

A further step on the path of development of the Institute's activities was the new idea that scientific knowledge and experts' opinions, however useful and necessary, are not sufficient for correct formulation of diagnoses and conclusions concerning socio-economic policies. An idea appeared that one should also consider the opinions, interests and preferences of various actors from the sphere of public policy. For the Institute this meant going beyond quantitatively measurable results of surveys, various kinds of statistics and reports. It also meant the need to organize channels for multilateral communication and flow of information and opinions from various circles.

Upon initiative of GIFME, in cooperation with economists, academics and outstanding individuals interested in raising the quality of public life in Poland, the Polish Civic Forum was formed.

This is a long-term civic project formed, because of its open character, for all those interested in development of civic initiatives. The basic goals of the project include: 1/stimulating *modernization and development reflections*, with the aim of jointly shaping the future of Poland; 2/ fostering Poles' *community spirit* and *enhancing social capital* in Poland; 3/ improving the quality of the market of ideas, emotions and visions and of the conception of public debate, information exchange beyond the limits of debate between experts or politicians

As mentioned above, GIFMR started as a non-public academic and research institute to develop, in the subsequent years of its existence, a vision of a think tank based on the knowledge of experts and addressing its "products" to policymakers, i.e. those responsible for Poland's socio-economic policy.

According to the Institute's representatives themselves, as well as their collaborators, the Institute has become a multi-function organization whose activities combine academic research, recommendations concerning socio-economic policy and organization of public debates. The President calls the Institute headed by him simply a "civic think-tank".

In its activities, the Institute strives to create bonds through the meetings, discussions, seminars and congresses it organizes, so that they are used more often to look for what brings together and unites in action various actors of the socio-political and economic scenes. This is also about building a Polish collective "self", which itself will signify the existence of a civic society.

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## Quo vadis, Evropa? – A look at the future of European energy production

By Niklas Mannfolk

Currently the scientists claiming that climate change exists seem to be prevailing over the sceptics, as they seem to have more plausible scientific data to back up their arguments. Be that as it may, the fact remains that energy consumption and production as we know it has to change. The Earth does not contain unlimited amounts of fossil fuels, which means that we, in the future, will run out of oil and gas.

Reports from the EU Commission note that some 54% of the EU's energy supplies come from imports. Most of those imports consist of Russian oil and gas. Imported uranium which is used in the production of nuclear power is not included in this figure. In other words, the EU is heavily dependent on Russia for energy. As the incident in January 2009 showed, Russia is not afraid to use this dependency for its own good. The European Commission has tried to stay neutral concerning this issue, as the main problem is opacity rather than political mischief. Especially in the Ukraine-Russia energy relations, where the disputes have been resurfacing since 2005, there are many links in the supply chain which are far from transparent - hence the uncertainty. My claim, however, is that Russia is equally, if not more, dependent on the EU for trade purposes, which combined with the above makes for an interesting political setting.

Russia and the EU have now come to an agreement concerning Russia's entry into the World Trade Organisation. Word has it that the Russians could join as early as 2011. Talks concerning the gradual reduction of timber tariffs after Russia's entry are also underway, although any parties expecting an overnight solution risk being sorely disappointed. An interesting fact is that without the now possible WTO membership, Russia would fall on very hard times indeed if and when their reserves of oil and gas run out. Some of the more enthusiastic experts have set the ultimatum as close as 20 years from now.

Despite Russia's continuous attempts to enter the Organisation since 1993, the recent customs union agreement with Kazakhstan and Belarus temporarily gave the impression that Russia is no longer interested in a WTO membership. Recent events speak of a different reality. The fact remains that once its reserves of energy run out, Russia's trade to the West becomes extremely vulnerable, if not non-existent. Very few Russian-made products today make it out onto the western market, and while the Kazakhstan – Belarus -agreement tried to ease the pressure, the trade volumes are far too low to make a significant difference. While Russia does look for new markets both in Asia and Africa, trade there has not emerged as a significant saviour either.

The EU needs to concentrate on becoming self-sufficient in energy rather than relying on imported energy. Renewable energy such as sun, wind, water and wave are the way to go in the future, but as long as those forms are insufficient for providing energy for heavy industry as well as basic housing, the Union needs to find alternative sources. An increasing number of member states have come to realise that, despite the unsolved issues concerning end-storage, nuclear power is a competitive and long-term way of producing electricity without affecting the climate. While it is true that the uranium used today is imported from outside the EU, the financial cost of these imports is relatively low, and the EU has the industrial capacity to carry out every other aspect of the production of nuclear power.

Furthermore, both the Commission and member states consider nuclear energy as contributing positively to the energy security in the case of supply disruptions or energy crisis because of the small volume of uranium ore involved and the possibility of storage.

In 2008, Europe agreed on a forward-looking political agenda to achieve its core energy objectives of sustainability, competitiveness and security of supply. The Commission has proposed a wide-ranging energy package which commits to reducing greenhouse gas emissions and increasing energy efficiency by 20 % by 2020, as well as increasing the share of renewable energy to 20 % of final energy consumption. To meet these goals, around 200 Billion Euro will be invested in gas pipelines and power grids. It is estimated that only part of this will come from the private sector, leaving a financial gap of 100 Billion Euro. What effect this decision ultimately will have on Europe's future business opportunities in a global economy where the USA and China refuse to comply with similar objectives, remains to be seen.

Internally the EU already does plenty for what the press terms 'energy solidarity', i.e. a future consensus on energy security issues. Unfortunately, the recession that hit the Union in the summer of 2008 has put a strain on the union's economy, making fiscal solidarity in energy issues complicated, as the Union currently focuses its financial efforts on aiding the various failing EMU-nations. On the other hand, the issue is definitely not only a financial matter. The fact remains that certain member states have openly decreed energy suppliers to divert all imports in order to supply only their respective countries, rather than the entire EU.

So how do we solve the problem of imported, politically risky energy? Instead of oil and gas from Russia, the EU should look for sustainable energy from alternate sources, such as Africa. Instead of non-earmarked development aid, both parties would benefit from direct investments into the energy sector. Introduction of solar panels into the sun-abused areas of Sahara, are an excellent alternative. While energy produced in Africa is also imported energy, the political risk is far lower. Added benefits are not only the renewability of the sources, but also the positive effect the investments will have on the target countries. The negative issue here is that the EU may already be too late for such a solution, as China already has bought vast expanses of African farmland for causes yet to be revealed.

My conclusion is that the EU should reallocate the planned pipeline investments into R&D of sustainable solutions energy technology, most of which today is inefficient. Those solutions should then be applied not only internally in the EU, but also in developing areas outside the Union. While this research is underway, I still maintain that the EU would benefit environmentally, politically and economically from shifting its energy production from oil and gas to nuclear power.

Niklas Mannfolk

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# Turku 2011 European Capital of Culture in local and regional development

By Cay Sevón

The European Capital of Culture (ECoC) initiative celebrated its 25 years in March 2010 in Brussels. The event demonstrated the importance that the Union assigns to the ECoC. The first European Cities of Culture, in 1985 Athens, followed by Florence, already by their image signalled World Cultural Heritage. They did not need any boost, but aspired recognition of their excellence in culture. The first European Cities of Culture actions where therefore built on existing events. They were summer festivals, with an extra touch of internationality.

Since, the concept has undergone a metamorphosis. It is the highlight of the Union's cultural policy. The success – or the identified failure – of the ECoC is a European business.

The present directive on the ECoC is in force until 2020. The decisions on which countries will have the title are made for 2019 and the cities are chosen up to 2015. Preparations are under way in the Commission to prepare for the time from 2020 and on.

The programme of the ECoC is the core of the year. It is supported by various measures. The ECoC, according to the directive, should be designed to bring the peoples of Europe together. It is considered that the title, as its best, has a remarkable cultural and socio-economic impact. The programme should be specially designed for the year. It is not a collection of events that take place regularly, independently of the title of ECoC. It is also not the running activities of existing cultural institutions. The directive explicitly states that the programme shall be forward-looking, without neglecting the history of the city, it shall be innovative, with an emphasis on contemporary cultural forms. Its European dimension must be marked, as well in themes, as in involving both local and European artists. All in all: the programme shall express cultural dynamism; it must be inclusive and sustainable.

In late 2007, the EU Cultural Ministers' Council nominated Turku in Finland and Tallinn in Estonia as European Capitals of Culture in 2011. For the first time, two cities with close ties and natural common interests were assigned to be ECoC the same year. It is logical that the two cities have several common cultural projects for the year, as well as cooperation in tourism marketing, communication, and exchange of experiences.

The programme of Turku 2011 is in place. It is constructed of some 150 productions, which means thousands of events and activities. Most productions stem from an open call for proposals in 2008. With a few exceptions, all productions are outsources to judicial persons. Some major events are produced by the Foundation Turku 2011, founded by the city of Turku to organise the ECoC programme, its communication and marketing, and long-term national and international activities in relation to the ECoC year.

If Turku 2011 is characterised in a few words, these might read: Culture means well-being. Culture nurtures the soul and the body of the individual, strengthens communities and enforces the economy of the city and the region. The 2011 programme and support activities go deep into the workings of the local community: the cultural, municipal, private and the third sector. Culture in Turku 2011 is every-where and everyday. It engages the senior citizens' housing, the kindergartens and schools, the prisons and hospitals – and surely the music halls, the theatre stages, the universities and the business premises.

At its best, the ECoC is a vehicle of change. The cultural year changed Glasgow profoundly in 1990, from run-down former industrial city to a Mecca for congresses and cultural events. In Weimar 1999, tourism rose by over fifty percent and stabilised on a plus twenty percent level. Lille 2004 is still alive as long-term strategies. Liverpool 2008 claims to have been able to redo the Glasgow experience. Many others profess success, as some are modest or even self-critical. The informal network of ECoC and the external evaluations commissioned by the EU are a valuable resource for the ECoC to come.

A central criterion for measuring the success of an ECoC is, obviously, the long-term effects of the year. So what are Turku's ambitions as to the heritage of 2011? We believe that the Turku

2011 programme, its cultural and research projects will be remembered especially for the strong emphasis on the connection between culture and well-being. There are some sixty explicit wellness projects. But Turku 2011 stands for well-being as a whole. This will be one of the best practices that Turku will forward to Europe.

Wellness takes many forms in Turku 2011. Some 5400 tickets to cultural productions are reserved to be distributed by the municipal health care centres. A professorship uniting well-being and culture has been established at Turku University. The Foundation Turku 2011 offers accompanying service for handicapped to and from cultural events. The Association of Handicapped in Finland produces a Euro-pean festival of handicapped people's arts, etc.

The deep interaction between science and the arts should be another heritage. The programme includes a dozen research projects, plus an external evaluation programme, led by Turku University and spanning from 2009 to 2016. The research projects, except the evaluation, have a development function in relation to the programme's cultural projects. The researchers bring their insights and methods into the arts and cultural work, and both sides gain.

A third factor where Turku 2011 hopes to excel is means to the creative economy in the city and the region. The Turku 2011 Foundation has a support team for cultural producers. The aim is to strengthen the professional skills of producers and thereby enhance their business opportunities. One major re-search and development project studies the existing infrastructure for creative industries in the Turku region, and proposes development measures. The sixteen corporate partners of Turku 2011 network with artists and producers. Last but not least: a huge red brick building, former machine workshop of the State Railways, will be transformed into Logomo, a centre for creative economy.

In 2011, Logomo will host year-long exhibitions and major performances. The venue will be one of the key attractions and experiences of Turku 2011 and will thereby get a flying start. Logomo is open to visitors daily from January 16th to December 18th, 2011. Logomo is owned by a private construction company, but the city has decided to go in as a minority owner.

Turku has, separately and in several cases together with Tallinn, already received unprecedented inter-national media attention. The media spending focus of the Foundation is on the Baltic Sea Rim. With the assistance of the Finnish Foreign Ministry, promotional events take place all over Europe. The corporate partners are vital in marketing, besides other close cooperation.

The majority of the Turku 2011 Foundation's Board is nominated by the City, among these the Mayor. Other nominators are Ministries (Education & Culture, Foreign Affairs, Employment & the Economy); the Arts Council of Finland; the Confederation of Finnish Industries; and the Regional Council of South West Finland.

The Finnish Government and the City of Turku finance the ECoC year by 18 mill. euros each. Corporate cooperation stands for some 2,5 mill., the EU Melina Mercouri prize is 1,5 mill. euros. It is estimated that the outcome of the year will amount to some 50 mill. euros, including the self-financing of the projects. This is obviously the greatest investment for decades in Finland in a singular cultural non-infrastructure initiative.

Cay Sevón

Dr. Soc.Sc., CEO

Turku 2011 Foundation

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# Best practices to improve water quality in the Gulf of Finland as exemplified by Vodokanal of St. Petersburg

By F.V. Karmazinov

St. Petersburg by its population is the biggest city of the Baltic region. And in its work "Vodokanal of St. Petersburg" takes into account not only the interests of the city and its residents, but also the entire Baltic Sea region. This, above all, is about the ecology of the Baltic Sea. And this issue is directly related to the quality of wastewater treatment.

Until 1978, all wastewater of then still Leningrad - about 3.2 million cubic meters per day - was discharged into the Neva River and other urban water bodies without treatment. At that time there was a theory that such a full-flowing river as Neva can deal with any contamination. But over time it became apparent - the ability of the Neva to cleanse itself is not infinite. And in 1978 in Leningrad was launched the first stage of the Central Wastewater Treatment Plant. That allowed treating about 27 percent of all wastewater.

In 2010, about 92 percent of the wastewater is treated in St. Petersburg. Moreover, the treatment process includes sludge utilization - Vodokanal has three sludge incineration plants.

To achieve such a result, "Vodokanal of St. Petersburg", with the support of foreign (and above all - Finnish) partners did a great job.

Today St. Petersburg has 20 wastewater treatment plants. The biggest of them are Central Wastewater Treatment Plant, Northern Wastewater Treatment Plant and South-West Wastewater Treatment Plant (SWWTP).

A new phase in the struggle for the purity of the Baltic Sea began with the launch of the South-West Wastewater Treatment Plant. And not only due to the fact that SWWTP is one of the most modern Wastewater Treatment Plant in Europe. The very construction of this facility was unique international project, in which were used 15 sources of financing, including - funds of the five major international lending institutions. During the construction of the South-West Wastewater Treatment Plant for the first time in Russia was used the mechanism of public-private partnership.

Launch of SWWTP took place in 2005, and the opening of new facility was attended by presidents of Russia and Finland, as well as Prime Minister of Sweden.

At the same time began a large-scale work of Vodokanal with its Finnish colleagues for the implementation of technology of deep removal of nitrogen and phosphorus - nutrients responsible for eutrophication (bloom of blue-green algae) of the Baltic Sea, at St. Petersburg's wastewater treatment plants. This is necessary to implement the requirements of the Helsinki Commission for the Baltic Sea Marine Environment Protection (HELCOM) and connected with the international obligations of Russia as a country that signed the Helsinki Convention.

However, when the main now working treatment facilities were designed, no one in our country thought much about the need to remove nitrogen and phosphorus from wastewater. Cleaning technology involved two main components - mechanical and biological treatment. This combination did not allow deep removal of nitrogen and phosphorus. To reach a new level of wastewater treatment, "Vodokanal of St. Petersburg" has begun to integrate chemical and biological treatment of wastewater, which combines advanced nutrients removal by biological treatment and chemical precipitation of phosphorus.

As a result, today most of our wastewater treatment plants operate in accordance with the requirements of HELCOM. In 2011 Vodokanal plans to implement new, more stringent recommendations: the phosphorus content in treated wastewater - not more than 0.5 mg/l. By the way, at a number of wastewater treatment plants of St. Petersburg - in particular, SWWTP - these figures were achieved in 2009.

In 2011-2012, Vodokanal, with the support of the Government of St. Petersburg and foreign partners (Nordic Environment Finance Corporation NEFCO, Northern Dimension Environmental Partnership, and Ministry of the Environment of Finland) will

reconstruct small wastewater treatment plants, including the improvement of existing technologies for nutrients removal.

Work of Vodokanal at the sphere of wastewater treatment has been highly appreciated by our foreign colleagues. So, in August 2010 at the first meeting of the "Baltic Sea Friends Club", held in Helsinki, the Finnish representatives of environmental organizations have noted that in the Baltic Sea in summer was much less of the blue-green algae. And this, according to Finnish experts, is directly connected with the efforts being made in St. Petersburg for wastewater treatment.

More than that - our experience in the implementation of technologies for the nitrogen and phosphorus removal from wastewater is extremely interesting for Vodokanals from other Russian cities. Therefore, in my opinion, we can mention creating of a kind of Russian-Finnish school for deep nutrients removal.

Providing wastewater treatment in accordance with international standards, Vodokanal, supported by the Governments of St. Petersburg and Russia, today is providing another large-scale and very important to the health of the Baltic Sea project - "Neva Untreated Wastewater Discharge Closure Project".

The most important element of this project is to complete construction of the main sewerage collector of the northern part of St. Petersburg. On this collector we gradually switch the remaining direct discharges of wastewater, which is than channeled to the Northern WWTP.

The constructed collector is unique and has no analogues in the world. This is a range of complex engineering structures: two main tunnels with a diameter of 4 m and a length of 12.2 km, laid under the ground at a depth of 40-90 meters, dozens of shafts of different diameters; kilometers of microtunnels, modern equipment, allowing adjusting of the speed of wastewater.

The first stage of the collector was launched by Vodokanal in 2008 allowing treatment of 88% of wastewater of St. Petersburg. The second - in 2009, and despite the global financial crisis, we managed to keep the pace of work. What's more - namely in 2009, an agreement with the Nordic Investment Bank, European Bank for Reconstruction and Development and European Investment Bank was reached to allocate loans for Vodokanal worth 60 million EURO in the framework of the "Neva Untreated Wastewater Discharge Closure Project". I would especially like to note that, taking into account an impeccable credit reputation of Vodokanal, banks have decided to provide loans without any additional guarantees from St. Petersburg.

Another "portion" of switching to the collector will be held at the end of 2010, and at the end of 2011 all planned direct discharges will be switched. This will enable us to provide treatment of 95% of all wastewater of St. Petersburg that is certainly a good result for the megalopolis.

However, Vodokanal does not intend to dwell on this: in 2015 we plan to bring wastewater treatment to the level of 98%, and by 2020, once the issue with the treatment of rain and melted snow water will be solved, to get close to 100%.

As a result, the Baltic Sea will become cleaner.

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# NEFCO's role in improving the environmental status of the Baltic Sea

By Maija Saijonmaa and Karl-Johan Lehtinen

NEFCO's role in the protection of the Baltic Sea has, since its establishment, been that of an investor financing environmentally cost-efficient projects that have positive effects on the Baltic Sea. Since its inception, NEFCO has financed over 350 small and medium-sized projects in different sectors that include chemicals, minerals and metals, food and engineering, agriculture, water treatment, power utilities, municipal services, waste management, nuclear remediation, environmental management and environmental equipment manufacturing.

A key role for NEFCO over these years has been to act as a "think tank" for developing new ideas and concepts and supporting new innovative technologies to protect the Baltic Sea.

In general, NEFCO's activities focus on cost-effectiveness in reducing emissions. To assess the cost-effectiveness of projects, NEFCO uses a Unit Abatement Cost (UAC) approach that compares the projects' abatement costs against the Nordic shadow prices to the estimated average costs in the Nordic countries to achieve the same results. In comparison to the projects that NEFCO finances, it has been estimated that to achieve the same environmental results of reducing phosphorus, nitrogen and BOD emissions in the Nordic countries would have been 7-8 times higher than in the countries where NEFCO operates.

An example of a unique approach initiated by NEFCO to achieve the set goals to reduce eutrophication of the Baltic Sea is the concept of nutrient quota and credits trading. The current legislation and measures will fall far short of achieving the defined 'ecological objectives' to reduce eutrophication in the Baltic Sea that were laid out in the Baltic Sea Action Plan (BSAP) by HELCOM and the EU in 2005. Finland's target under the BSAP is to reduce phosphorous discharges by 150 tonnes and nitrogen discharges by 1200 tonnes by 2016. Without additional measures, the nutrient discharges may even increase in the Baltic States largely as a result of the recovery of agricultural activities in the Baltic States, particularly in Poland and Russia. A high variability in the abatement costs across the Baltic Sea states supports the idea of gaining feasible results by nutrient trading.

In 2009, NEFCO together with its sister organisation, the Nordic Investment Bank (NIB) established the Baltic Sea Action Plan (BSAP) Fund to help implement the above-mentioned 'ecological objectives' as defined by HELCOM.

The Fund provides grants for technical projects that support the implementation of the HELCOM objectives. To date one of the most promising projects implemented under the BSAP fund has been a feasibility study for a chicken manure pyrolysis project. Under this process, chicken manure from large scale hen and egg-producers in the south-western parts of Russia is converted to commercial products such as bio-oil, biogas and bio-char. This process ensures that 350 tonnes of phosphorus discharges a year do not end up in the Baltic Sea but are, instead, converted to 20 000 tonnes of tradable biochar and 16 000 tons of bio oil.

Another interesting concept that NEFCO has been involved in is the oxidation of Baltic Sea deep water- a promising approach for the protection of the polluted sea. There have, however, been fears that the deep water salinity could be affected and have an effect on cod spawning. The Baltic Sea deep water contains about 350 000 tonnes of dissolved phosphorus that cannot be ignored if the proper ecological condition of the sea is to be restored.

Recently there has been heated discussion over the Finnish Government's decree 542/2003, which compels rural households to install waste water treatment systems. According to some estimates this would cost 4.3 million € to remove a tonne of phosphorus discharges.

NEFCO has proposed a more cost-efficient way to reduce the same amount of phosphorus by removing non-commercial fish from the Baltic Sea. With a phosphorus content of 0.5 % per kg, the removal of 10 000 tonnes of non-commercial fish would result in a reduction of 50 tonnes of phosphorus at an estimated cost of 4 million euros- assuming a price of 40 € cents per kg fish and a cost of 2 million € to set up a biogas plant. Assuming that around 30 000

tonnes of non-commercial fish can be caught per year, is comparable to 90 % efficiency in cleaning rural household wastewater in two years at a cost of 12 million euros. There are, however, still many unanswered questions about how the removal of such fish could be undertaken in a rational way, and if enough fish of this kind can be caught sustainably from one year to the next.

Apart from the direct initiatives to protect the Baltic Sea, NEFCO has also been active in creating innovative climate financing instruments to mitigate the effects of global climate change more efficiently. In 2003 NEFCO established its first carbon fund, the Testing Ground Facility (TGF) to invest in greenhouse gas emission reduction projects in the Baltic States, Russia and Ukraine. Globally, TGF was the second carbon fund to be established. In 2008, a new fund, the NEFCO Carbon Fund (NeCF), was established to widen the investment area and also include post-2012 carbon credit investments, even though the post-2012 climate policies are still to date quite uncertain. Today Nordic governments and private companies in the Nordic countries have invested around 105 million to NeCF.

In 2010, together with its sister organisation, the Nordic Development Fund, NEFCO also set up two new facilities to provide technical assistance grants and specific guarantees on climate projects.

NEFCO's operational philosophy has always been that it is better to find an acceptable solution and keep the wheel rolling than look for the perfect results. In general, it can be said that NEFCO's role is to take a constructive and wide approach and to act as an innovative financial promoter for new technologies suitable for protecting the Baltic Sea.

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NEFCO

Finland

NEFCO is an international financial institution, which was established by the five Nordic countries in 1990. The corporation mainly finances investments and projects in Russia, Ukraine, Estonia, Latvia, Lithuania and Belarus, in order to generate positive environmental effects for the Nordic region. NEFCO prioritizes projects that reduce the release of climate gases and thus improve the ecological status of the Baltic Sea and also reduce the release of toxic pollutants.

## Minimising close calls with intelligent transport systems

By Juhani Tervala

Close-call situations occur when control measures are left until the last minute or technical readiness fails. In both cases the culprit is the general attitude towards safety. It is human to expect others to react first, unless an action plan has been prepared for coping with threaten-ing situations. There have been attempts to remedy this by regulations (Rules of the Road at Sea, the ISM Code) and by means of technical requirements, supervised by the flag and port state authorities. The International Safety Management System requires internal reporting of the shipping company concerning close-call incidents. But there are no rules concerning the reporting or the registration of reports of incidents to the authorities and these are seldom voluntarily made.

Working on the navigating bridge can be compared to any kind of on-call or control work. The risks are also similar, arising from the monotony of the work. Attention can easily slacken for a moment and sudden changes in the situation sneak up on those on duty. One could call these dangerous situations, but the definition close-call situations gives a more accurate picture. Characteristic of such situations is their latency. Corrective measures are postponed to the last minute, as long as there seems to be the slightest possibility that nothing needs to be done quite yet. When the situation has passed it is often played down or simply forgotten. Close-call situations are not always as great a risk as it seems, since people respond differently, owing to their capability to solve problems and react accurately.

It is difficult for an outsider to respond to these threats. The need for change is easily neglected by stating that nothing happened or that it was an overreaction. Close calls on vessels are usually caused by dangerous work combinations and work cultures, neglected technical readiness and maintenance and a lack of know-how. The consequences are then seen in the rapidly changing traffic situations. Seemingly simple situations can quickly accelerate into potentially dangerous situations and accidents.

The vessel and its crew are not always to blame. In shipping there are many situations where the impact of external influences on the vessel and its course is considerable. The attitude of the shipping company towards the vessel's operation, its equipment or the environment has the greatest impact on the occurrence of human error and close-call incidents. It greatly influences the crew's attitude towards safety matters in general.

During piloting, when there is an outsider on board, adequate cooperation and working methods are crucial to ensure safety. In icebreaking the vessel is subject both to the forces of nature and those of another vessel. The risks can only be avoided by education, experience and good cooperation between the different parties.

Increasing traffic volumes bring new threats, involving challenges which are difficult to meet. The coastal states have awoken only during the last few years to the need of handling complex traffic situations and improving traffic safety by means of vessel traffic services (VTS). The procedures, technical possibilities of vessel traffic services and the know-how of the personnel play an important part in the management of the increasingly complex traffic situation in our coastal waters.

### Intelligent solutions

Sea routes with confirmed depth information i.e. the marked traffic lanes are a great aid to navigators. Confirmed electronic depth information constitutes an essential part in the use of the vessels' ECDIS System (Electronic Chart Display and Information System). This system is an excellent tool for navigators as it provides planning and checking of the route in advance and facilitates navigation. It is notable that the communication between the control centres of the different countries is emerging as a significant factor for lessening the navigators' reporting load. The reporting itself is not what is most important here, but safe navigation of the ship. Unnecessary reporting can be avoided and access to relevant information improved by employing intelligent transport systems.

Intelligent transport solutions are in a key position when safe and smooth maritime traffic is being developed. For a long time the restrictions of data transmission hindered an efficient communication between the vessel and the coast earth stations, until satellite connections provided a solution. Still, it is good to remember that efficient data connections will not be available everywhere, now or in the future.

In the coming decade the European Commission will invest in several maritime projects to promote safe and smooth maritime traffic. It will, among other things, develop the utilisation of electronic information and the information technology potential between the shipping industry and the authorities. An optimization of transports will lessen their environmental impact and increase their safety. Less internal market formalities improve the traffic flow. In the future it should be possible to submit all the reports required by the authorities from the same place via a user interface. That would require not only a functioning electronic infrastructure but also changes in the operations of the authorities.

### The two-way communication for tanker safety reduces the risk of accidents

One way of assisting vessels at sea is to utilise and check their route plans when they are in the reporting or VTS area. This is done by transferring the electronic route plan of the vessel to the VTS System to be utilised by the VTS. Then the VTS operator, in the acknowledgement, informs the vessel about any perceived deviation from the route plan and asks the vessel's master to check the plan. Simultaneously the vessel receives an information pack, according to its choice from the portal, about the traffic situation and other matters related to navigation, such as information about ports, berths, the availability of tug or piloting services, icebreaker assistance and waypoints recommended by them. Significant benefits can be achieved through cooperation between vessels and the VTS Centre, as compared to the present system of communicating through speech when reporting, as the operations can be automatized and the risk of misunderstandings minimised. The vessel and its master will remain an independent entity also in the future, while these procedures facilitate navigation in difficult areas.

The tanker safety project can be implemented more extensively only when the legal aspects and responsibilities have been clarified. The main rule is that the shipmaster is responsible for navigation and the route plan. Vessel traffic services make automatic monitoring of vessel movements possible, whereby deviations can quickly be detected. The system enables a prompt reaction when any undesirable deviation has been detected. The best results are achieved through voluntary cooperation. The aim is to achieve more efficient communication by an automation of operations. The system yet needs to be approved by the IMO. There is also reason to check up other similar projects and initiate cooperation with them.

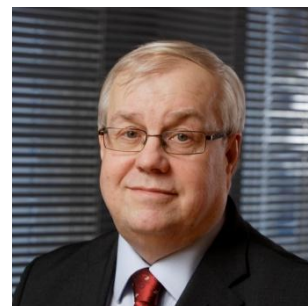
Vessel traffic services are a normal part of shipping, and it is possible to extract something new out of them that would benefit all parties. Transport safety and smooth traffic are two sides of the same coin. These aims can be achieved by utilising the potential of the intelligent transport systems, whereby disturbances can be minimised.

Juhani Tervala

Director General

The Finnish Transport Agency

Finland



## Safe shipping – the result of concerted effort

By Matti Aaltonen

In all maritime safety work it is a question of cooperation between the actors of the maritime community i.e. the maritime authorities and the mariners. Together they are steering the free-domin of the seas in a safer direction in a controlled way, by formulating common rules. The duty of the authorities is to protect the functions of society in the capacity of a flag, port or coastal state. The measures are not always in harmony with commercial goals. Therefore the duty of the authorities is also to supervise that the common regulations are implemented and to be prepared to intervene when something goes amiss. In accidents often more than one risk scenario is realised.

The work that is done to promote maritime safety aims at ensuring the continuity of the functions of society, providing reliable maritime transports and protecting the marine environment. The international maritime organisation IMO implements these global goals under the wings of the United Nations. Due to the international nature of promoting maritime safety, the work re-quires perseverance and it progresses one step at a time. However, the results are far-reaching. Measures and decisions must be planned and assessed over a long period of time. A decision by the IMO, for example, takes a minimum of two years with all its preparations.

### Maritime safety work is done in many different fields

Maritime safety includes several sectors such as safeguarding of human life, cargo, vessels, transports and the environment. Above all, safety requires anticipation. By ship safety is meant the seaworthiness of the vessel or its technical condition and the qualifications and competence of the crew. By measures directed at these, the vessel's safe navigation can be ensured.

Environmental safety measures, again, concern both the operative and technical use of the vessel. These measures are designed to prevent oil spills. By employing maritime safety measures the authorities strive to enhance safe navigation.

Planning and effectuating a satellite positioning system, establishing of new vessel traffic services, hydrographic surveys and building of fairways are important long-term socioeconomic activities. Maritime safety requires commitment to a common international goal as well as resolution. The credibility of the measures also demands continuous impact assessment.

### Vessel Traffic Services can diminish the risk of accidents

The risk of accidents is brought down for example by Vessel Traffic Services (VTS), building requirements for vessels and winter navigation restrictions. Developing joint traffic monitoring measures for the EU countries and the Baltic coastal states is the main objective of the decade, which calls for a continuous assessment of the impact of these measures.

Routing measures include directing of traffic to certain routes. The international maritime organisation IMO has, on the initiative of the coastal states, established several traffic separation schemes in different sea areas to improve transport and environmental safety. The importance of routeing at sea is comparable to that of motorway markings on land. These confirmedly safe sea routes can be recommendatory, but navigation in them is strictly regulated. The Rules of the Roads at Sea lay down how one must navigate in these traffic lanes. It is incumbent on the coastal states to supervise that routeing is observed. For that purpose vessel traffic control and monitoring systems have been established both in territorial and international waters to ensure safe navigation and to prevent damage caused by vessels to the marine environment.

VTS are based on uniform procedures, appropriate technology and above all a skillful personnel. In territorial waters the operations are normally regulated by the state's legislation, whereby the measures can be made mandatory. The measures are directed at the vessel traffic, but often also at individual vessels. By employing these measures traffic congestion and incidents, such as deviations from the route, can be avoided, navigation assistance given when necessary and above all information submitted about the traffic situation and conditions in the VTS area.

In international waters the IMO authorises the reporting systems. These systems collect information about the vessels and it is also possible to pass information through these channels. This has been done in the GOFREP System in the Gulf of Finland with good results. Contacts by mariners and suggested improvements testify that there is a demand. The greatest challenges lie in improving cooperation in winter navigation, where all situations are exceptional and vessels move close to one another. In winter conditions cooperation between vessels, icebreakers and the VTS is the only way to ensure safe navigation.

### Room for development in icebreaking cooperation in the Baltic Sea

All the ports in Finland are icebound every winter. This requires a functioning infrastructure so that the transports the economy demands can be ensured all year round. Finnish and Swedish icebreakers have been involved in regional cooperation for a long time. Icebreaking is part of the infrastructure and efficient shipping in the northern regions. The icebreaking operations have been coordinated by the IBNet information system for fifteen years. It assists in optimising the operations of the icebreakers and in accurately positioning the vessels requiring assistance. The Baltic winter navigation website Baltice.org provides winter navigation guidelines with contact information, a checklist of measures and real-time ice charts.

Icebreaking cooperation should also be developed with Russia and Estonia to ensure safety in the Gulf of Finland. The growing traffic volumes, especially in the Russian ports, call for winter navigation cooperation. Ice conditions are always challenging for large tankers; they need all the assistance they can get.

Shipping as well as maritime safety evolves. The greatest challenges now and in the future concern the attitudes towards safety. Monitoring helps, but real maritime safety rests on us, on the professional pride of each maritime actor and mariner. Professional pride springs from expertise and sharing it with others. By safeguarding maritime expertise, maritime safety can be ensured.

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# The biggest threat for the Gulf of Finland – oil catastrophe

By Pekka Laaksonen

Volumes of ship traffic in the Baltic Sea are continuously increasing. This is especially true in the Gulf of Finland. Over the last few years, especially the volume of oil traffic has increased considerably. In 2009, about 150 million tons of oil were carried in the Gulf of Finland, and the amount is estimated to increase to 200–250 million tons by 2013. Today, 7 % of the daily oil transportations in the world take place in the Gulf of Finland.

Growing traffic volumes equals growing risk of oil disaster. Small accidents occur in the Gulf of Finland every year, but major oil catastrophes have so far been avoided. Especially high-speed vessels that operate between Helsinki and Tallinn cause a big risk when crossing the sea lanes of slowly turning tankers. In the worstcase scenario, an oil disaster taking place in the Gulf of Finland with its dense traffic would destroy the ecosystem of the sea and sea shores for decades. Therefore, in order to prevent large-scale oil disasters, it is essential to prevent oil damage by investing in maritime safety.

One example of a high-risk situation took place in February 2007 when a Greek tanker *Propontis* grounded near Suursaari due to a navigation error. The ship was carrying 100,000 tons of crude oil but thanks to the double hull, no oil was spilled to the sea. If the personnel at the Vessel Traffic Service Center monitoring GOFREP (Gulf of Finland Reporting) had been aware of *Propontis*'s erroneous route plan, they would have noticed the mistake. They could have then offered the vessel a corrected route plan, and the grounding would have been avoided. In maritime traffic the vessels make their route plans independently, and they are not obliged to send it to a third party for checking. The fact that route plans don't require a "second opinion" and only remain known to the bridge, poses a serious safety challenge.

John Nurminen Foundation consulted a number of maritime traffic experts to see how the risk of a major oil catastrophe could be decreased effectively. All parties involved agreed that proactive vessel traffic guidance requiring route plans from the vessels to GOFREP would be the most effective way. This was a starting point, when the Tanker Safety project was started in October 2009. The project is implemented in close cooperation with key actors in seafaring with the aim to renew navigation methods and vessel traffic control and to make the operation on the bridge easier by creating a new two-way ENSI (Enhanced Navigation Support Information) navigation service.

ENSI service enhances bidirectional exchange of information. Ships send their route plans to the service before they leave port. ENSI system checks the route. After that up-to-date and route-specific information on weather, ice, traffic, the port of destination and disturbances is available to vessels through ENSI portal. It is also possible to use and order various support services through ENSI portal. The system supervises the ship's route and Vessel Traffic Service intervenes, if any deviations from the plan are detected. It also informs the ship of unexpected risk factors.

According to experts, the adoption of the ENSI service will increase vessel traffic safety in the Gulf of Finland. The systems currently in use do not provide sufficient information on the vessel's intended movements to the GOFREP to enable proactive vessel traffic control. A service that focuses on prevention - instead of reacting only after a catastrophe has occurred - is essential for the protection of the environment. It is also thousands of times cheaper to prevent than repair the damage. In

addition, the service enables oil tankers to optimise their schedules, and thereby shorten waiting times at ports, which creates savings.

ENSI service creates the preconditions for a novel approach to vessel traffic control. Route plan checking is important new measure to ensure maritime safety and exchange of information between the vessel and the on-shore official, opens up new opportunities for effective communication. When the basics for the exchange of information are in place, the ENSI service can be employed to develop an unlimited number of new services benefiting seamen and to expand the operating method to an international level.

ENSI portal is currently being planned, and the introduction of the service is intended to take place in stages so that ENSI would be preliminarily available in the Gulf of Finland during 2013. At that point the vessels will be able to send their route plans to GOFREP, and will get route-specific navigation information in return.

The Tanker Safety project is an example of a concrete project that combines the interests of the public and the private sector as well as those of the service users. The main partner in the Tanker Safety project is the Finnish Transport Agency. Other important partners are Transport Safety Agency and Neste Oil. Neste Oil has piloted the ENSI service on their tankers. Cooperation will be expanded to cover major oil companies, shipping companies and GOFREP authorities during year 2011.

All the partners in Tanker Safety project cover the costs of their own participation. This means that the Finnish Transport Agency pays for the functionality for GOFREP in Helsinki Traffic. Investments in St. Petersburg Traffic and Tallinn Traffic are similarly expected to be paid by local authorities. ENSI functionality for oil tankers requires Internet connection and minor ECDIS system modification. Modification costs are included in R & D costs of the ECDIS system providers.

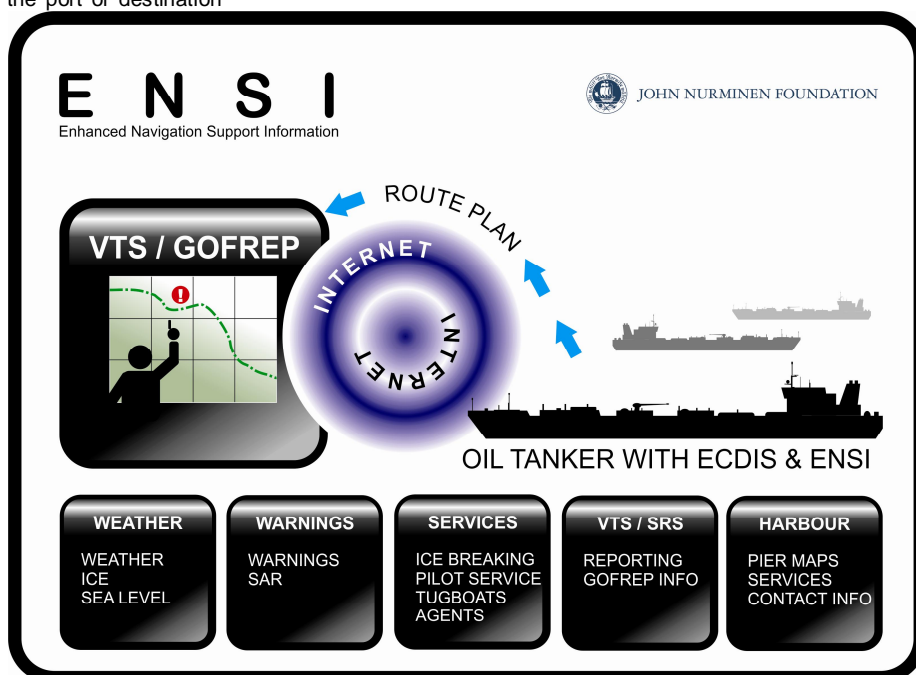
Maritime traffic traditions are centuries old and hence are not easily changed. Therefore, voluntariness and cooperation are the most successful means to implement new ways of action.

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# Changes in the Finnish-Russian border traffic and customs cooperation

By Tommi Kivilaakso

The most significant recent change in the traffic between Finland and Russia has been the drastic decline of heavy goods traffic in 2009 due to the global economic crisis. The number of trucks crossing the border came down by - 45 per cent and the amount of goods carried by them decreased by more than a half in the previous year. The sharpness of the change was further emphasized by the fact that the traffic volumes at Finland's eastern border were record high in the year 2008.

## Less trucks, more passenger vehicles?

However, the steep fall only concerned commercial goods transports, transit traffic via Finland, and Finland's own exports to Russia. Instead, the number of passenger cars and travellers crossing the Finnish-Russian border were not significantly affected by the recession. The passenger traffic has been growing continuously, this year by about + 10-11 per cent. As to the goods traffic, the number of trucks has also gone up by + 10 per cent and the quantity in tonnes and the value of the consignments has increased as much as by + 16 per cent from the previous year. However, the initial situation in the goods traffic is much worse than in the passenger traffic due to the low volumes in 2009.

In the past decade, Finland has suffered from long truck queues that extended from the eastern border deep into inland. The traffic jams at the border were caused by the strong growth of the traffic volumes, the insufficient border and road infrastructures, the outdated customs procedures as well as the deficiencies in the activities of the Russian customs and other numerous border authorities.

At its peak, more than one third of Russia's total exports were transported via Finnish border-crossing points, compared to approximately one fourth at the moment. The route via Finland to Russia was by far the most popular in the transports of certain goods categories, such as new passenger cars.

## More direct container delivery, better Russian own logistical capacity

Right now, experts think that the kind congestions that have been seen in the freight traffic at the Russian border in the last 5-6 years will not be experienced again. A number of new import warehouses have been built in Russia in the past years. Therefore, the need of intermediate storage of transit goods in Finnish terminals has decreased. As regards imports to Russia, the goods are these days to a larger extent transported in containers directly to Russian ports or through Finnish and Baltic ports. The capacity of Russia's own Baltic ports is also increasing while a new port is being constructed in Ust-Luga at the bottom of the Gulf of Finland. The port including parking areas for transit cars has already been opened.

## Maybe shorter truck queues, but the smooth flow of border traffic must be ensured

Although Russia has strengthened its logistical capacity and started to favour its own transport routes, we need to prepare for an increase of traffic at the border between Finland and Russia. This need depends on the fact that Russia has an extensive foreign trade market and a growth potential that has been piling up during the economic crisis. The decrease of transit traffic will be compensated by the growth and diversification of already considerable bilateral trade between Finland and Russia, which will be reflected, in particular, in that the imports from Russia will consist more on semi-finished and refined products instead of raw materials and bulk goods.

## Better border infrastructure and facilitation

The foreseeable increase in trade and traffic at the Finnish-Russian border, as well as at all other Russian borders with the EU, requires better border-station and road infrastructure capacities on both

sides of the border as well as facilitation and reduction of border crossing formalities and trade barriers. Russia's national legislation and customs union legislation as well as the practices of its authorities must be made compatible with EU provisions. Furthermore, the project involving electronic transfer of customs clearance data that has been initiated with Russia must be continued.

Improving the border infrastructure is urgent right now due to the strong growth of the passenger traffic. The question of visa freedom comes up more and more often in the EU-Russia dialogue, and it can be anticipated to become a reality at the end of this decade at the latest. The border-crossing procedures of passenger traffic must be separated from those of heavy traffic due to capacity and safety reasons and in order to ensure smooth flow of traffic

## EU Customs Strategy

The development areas referred to above are included in the EU Customs Strategy based on the Partnership and Cooperation Agreement (PCA) between the EU and Russia. The progress of Russia's WTO accession process is believed to play an important role in the implementation of the EU Customs Strategy. Russia's customs union with Belarus and Kazakhstan may not, after all, delay or slow down its accession to the World Trade Organisation.

In the future, there will hopefully be heavy traffic operators that have been granted a special AEO reliability status and that will thus be allowed a faster and simplified border-crossing through fast-lanes. This must be taken into account in the construction of border-crossing stations also on the Finnish side. These authorized logistics operators should electronically and according to a compatible concept submit complete customs clearance data to the customs authorities of both countries prior to arriving at the border.

Russia should join the European EC-EFTA Convention on a common transit procedure, which would enable the current laborious paper-based TIR Carnet procedure to be fully replaced by an electronic transit declaration. The Customs Union of Russia, Belarus and Kazakhstan should not prevent Russia from joining the Convention. Therefore, Russia should simplify its requirements for data on customs transit goods, for example with regard to the customs value of goods, and to create a security system administered by the Russian customs service.

## Russias own Customs development concept

A radical national development programme has been launched in Russia, with the aim to transfer the final customs clearance to the vicinity of the national border. In that case, customs transit to inland terminals would not often be necessary and the goods could be transported freely to the importers' own warehouses. When implementing this reform, Russian Customs should ensure sufficient customs service at the border area and not only close down customs terminals in inland areas and in big cities. The smooth flow of border-crossing traffic must not suffer due to this concept. The prerequisite for this reform is also the advance submission of electronic customs clearance data, possibly even directly across the border from the export country.

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# What makes modernization a political project?

By Katri Pynnöniemi

The roots of the current discussion on economic modernization in Russia have two very different branches. On the one hand, the discussion delves deep into the history of economic and political reforms in Russia. On the other hand, the debate rests on the very surface of daily policy-making and is driven by the internal dynamics of elite bargaining in Russia. As noted by Mark Leonard in his recent article, what is at stake here is nothing less than the remodelling of Russia's political-economic system ("What does Russia think?" *Prospect*, November 2010, 53).

In terms of the historical roots, today's call for diversification was in the 1920s and 1930s a campaign for industrialization. If we delve even further back into history, we will find Peter the Great's period of modernization, as well as Westernizers and Slavophiles arguing about Russia's relations with Europe. President Medvedev's description of Russia's economy as "primitive" and "humiliating" echoes these earlier debates. What is at stake in diversification is first and foremost Russia's prestige as a great power. Although oil and gas will provide substantial leverage for the country in its dealings with Europe and in world affairs at large, it is quite clear that without diversification the country will be in a weaker position than it may accept. But making Russia an exporter rather than an importer of advanced technologies requires it to adopt and adapt current international practices. This demands not only activation of the country's human potential, a challenging task given the scale of inertia and mistrust in the society, but also resolving the inherent problems in the current political system.

Reservations expressed towards President Medvedev's campaign for modernization stem from the understanding that far from acting as a catalyst for economic development, the Russian administrative regime is the major stumbling block on the road to a more 'innovative' and modern Russia. The crux of the criticism expressed by the liberal economists and opposition activists is that the inefficiency of the state bureaucracy, corruption and the scale of social inertia should be subject to more complex manoeuvres than politicians simply declaring them the "bad habits" of the people. In other words, thoroughgoing political reforms, strengthening the basic institutions of democracy and market economy are required to put things right.

The authorities respond to this criticism by arguing that economic modernization must start immediately, notwithstanding the existing constraints placed on it. But leaving the issue at that is not an option either, stresses Anatoly Chubais, CEO of the Russian Corporation of Nanotechnologies, RUSNANO. What he means is that economic modernization should not become the end point of the reforms. In fact, disagreement on 'how to go forward' is the key bone of contention between different factions aligning behind Putin and Medvedev.

The political elite is frustrated over the lack of 'bottom-up' demand for 'innovations' or 'modernization'. "Nobody is against [modernization], but nobody needs it either", said Chubais, encapsulating the general atmosphere (Finam.ru 14.9.2010 and Hangesblatt 29.10.2010). It is this sceptical attitude among politicians, regional authorities and the general public towards the government-initiated action plans that stand in the way of Russia's modernization, he concludes. The argument is a rather familiar one, blaming the inefficient bureaucracy and, more generally, the low level of trust in Russian society and distrust towards politics in particular, for faults in the campaign for Russia's 'technological modernization'.

Although Chubais does not go as far as to voice it openly, he seems to be pinning his hopes on the 'revolutionary vanguard' driving the change. The task here is to win over the bureaucracy and mobilize it for the consolidation of the country's democratic institutions as well as the "creative forces" of innovation. Bearing in mind this change, Gleb Pavlovsky has recently proclaimed stability as "the value of the last decade" and the establishment of the Medvedev-Putin tandem as "the final point of the plebiscital epoch

of Russia" (*Russian Democracy: from sustainability to renovation*, Yaroslavl Global Policy Forum, September 9-10, 2010). This may be an overstatement, but it nevertheless reveals how fractured the power vertical has become. Thus, the discussion on 'modernization' and 'innovation' should be viewed in the framework of the intensifying struggle within the elites on the eve of the presidential elections in 2012.

Indeed, some analysts have argued that what we are actually witnessing is the rearrangement of the rent management system originally put into place by Putin. Economists Glifford Gaddy and Barry Ickes write that the main motive for advocating the diversification of the Russian economy is that it is a way to "justify various schemes for rent distribution". In other words, the debate on modernization is a debate "by and among rent-seekers" (G. Gaddy and B. Ickes "Russia after the Global Financial Crisis", *Eurasian Geography and Economics*, Vol. 51, No.3. 2010, 292). The continuation of the rent distribution system in a new form reduces Russia's opportunities to diversify, that is, to change the country's economic structure to conform to the requirements of a post-industrial, innovation-based economy.

As a weak signal of the intensifying struggle between the political elites, in March 2010 Prime Minister Putin became head of the Government Commission on High Technology and Innovation (previously known as the Government Council on Nanotechnology). With its new powers, the Commission oversees the development of the scientific-technical complex and the innovation system and makes decisions that executive agencies (ministries, government agencies, and so on) are obliged to follow. What was thus created was a parallel structure to that of Medvedev's Commission on the Modernization and Technological Development of Russia's Economy. The mandate of the Government Commission is defined broadly enough to include practically everything Medvedev's Commission is about to do.

Since its establishment in May 2009, the Presidential Commission has been instrumental in channelling the public debate on modernization and, more concretely perhaps, the presidential instructions (*poritseniya*) directed at the government and the respective ministries. On closer inspection, the Commission's work shows that concrete instructions given by the president relate to the pharmaceutical industry, energy efficiency, actions aimed at enhancing the technology trade with foreign countries, and the building of the Skolkovo innovation city. The extent to which presidential instructions are actually implemented is rather modest by and large. This has prompted several counter-actions by the president, ranging from the public reprimand of responsible bureaucrats to a recent proposal to clarify the status of the presidential instructions, which are a mere formality nowadays.

It speaks volumes about Russia's transformation that we have on-line access to the discussions taking place during the Presidential Commission meetings. But it would be naive to think that relatively open access to information would guarantee its transparency. Instead, the above-mentioned two organs (and other similar structures) function primarily as venues for reshuffling the rents related to, and generated by, the 'campaign for modernization'. It is in this sense that the debate on modernization is the very battleground for Russia's future model of development.

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## Decisive years in creation of the Baltic power market

By Einari Kisel

The dream of having an operational common Nordic-Baltic power market has been discussed close to 20 years by now. There have also been very cautious steps taken to start up the power market in the Baltic States, but until recently these steps have only represented the market opening on paper – in reality the consumer choice has been very limited.

In terms of volume the Baltic power market is probably the smallest power market in the world. The annual consumption in all Baltic States altogether is around 22 TWh. Just for a comparison: the volume of Finnish power market is around 90 TWh, and it is just a part of the Nordic Power market with annual consumption over 400 TWh. It also means, that the potential Baltic market players are also very small compared to the competitors in the neighbouring markets.

In the same time, the Baltic power market is becoming to be the most interconnected power market in the world. When the second power cable between Estonia and Finland, and the power link between Lithuania and Sweden will be materialised, then the total interconnection capacity of the Baltic States would enable to import more than 100% of the power needs from neighbouring states. This fact would also mean that there will be an unprecedented impact from the competitors from neighbouring markets to the Baltic power market.

It is also a fact, that the Baltic power production facilities would need replacement in coming years. From the beginning of 2010 Ignalina nuclear power plant was shut down, the oil-shale based Narva power plants need environmental upgrade before 2016. These two power producers have been producing close to 80% of electricity in recent years in the whole Baltic area.

Such preconditions have been puzzling for the people responsible for the development of this power market. How to structure the market in the way that the security of supply would be guaranteed? How to encourage investments into new power plants, if the competitors outside of the EU have clear competitive advantages? How to create a reliable power price, if you have very few players in the market? How to avoid market distortions?

All these questions were thoroughly discussed under the auspices of the Baltic Energy Market Integration Plan (BEMIP) where the Action Plan was agreed by the Prime Ministers and the President of the European Commission in June 2009 to boost the Nordic-Baltic power market. The first thing was to prepare the missing parts of the legislation in the Baltic States. In parallel the preparations for the start-up of the power exchange and planning process for new interconnections were started as well. The new interconnectors were also financially supported from the European Economic Recovery Package, which gave a very important push for their development.

And then came crucial steps: in 1. January 2010 together with the closure of Ignalina nuclear plant the power exchange Baltpool started its operations in Lithuania. In February the ownership unbundling of Estonian transmission system operations company Elering was finalised by the Government, and from 1. April 2010 NordPool Spot launched its operations in Estonia. These steps meant a start for a real liberalisation of the power markets in the Baltic States.

A specific market arrangement was introduced in Estonia: the power supplies from non-EEA countries are

allowed only to be traded in the power exchange. This would mean that they can only deliver short term supplies. This regulation was set to guarantee the long-term security of supplies from the EU-based power plants. Such an approach is currently analysed also by other countries.

The first year of the operations of the power exchanges has been extremely interesting. The hourly power prices in Estonia have been somewhat lower compared to the Finnish and Lithuanian market areas. The trading volumes in NordPoolSpot Estonian market area have even exceeded the consumption volume in Estonia, because several large Latvian and Lithuanian traders have used power exchange in Estonia for cheaper deliveries. In October the intra-day trading started also in NordPool Spot Estonian market area.

However, the liberalisation of the 35% of the Estonian power market has not been taken positively by the consumers, because the power price increased for them up to 50%! Earlier cost based regulated electricity price cap in Estonia delivered very low price of electricity for consumers, but did not guaranteed the long-term security of supplies. The market price provides the long-term price reference for the market players and incentivises the new investments into power production.

Though, not everything has run smoothly as well. Power exchange in Estonia had a market failure in 24. August, when the price of power in five hours reached the technical maximum of 2000 EUR/MWh. Investigation on that case is still running, but this experience has changed quite a lot in the activities of the market participants. The measures taken after that case should avoid us from the same situation.

The power market has shown that it can deliver its results also in such a small market area, if it is well tied to the other markets and has a professional setup. Crucial steps for further integration would be the kick-off of the power exchange market area in Latvia. This would also open the possibility to create the NordPool Spot market area in Lithuania. Hopefully in coming months the Parliament of Latvia will make the necessary amendments in legislation and the process will move forward.

The other challenge is to guarantee the fair playing ground in the market and to guarantee the framework for long-term energy investments in the region. In this respect it is crucial to agree among the Baltic States and Finland the common principles for power supplies from outside of the EU. This would guarantee that also in the long term there will be enough producers in the Baltic region to cover the demand in any situation.

This liberalisation process has been a very interesting journey with unexpected turns, up's and downs. But now we have crossed the line, where there is no return to the old setup. And it means that another Baltic dream has come true.

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## Gas around the Baltic Sea

By Antero Jännes

The main characteristics of the situation in the gas markets of the Baltic region are that its gas markets are dependent on a single source and are isolated from the common EU markets. The East Baltic Sea member states of Finland, Estonia, Latvia and Lithuania are the only four member states which remain isolated from the present integrated EU gas transmission system. The gas demand in these states is approximately 10 billion cubic metres (bcm) per year. Overall gas demand in the EU Member states around the Baltic Sea is around 115 bcm per year, with the majority of demand emanating from Germany. Total natural gas consumption in EU in 2009 was 484 bcm.

In June 2009 commissioner Anders Piebalgs stated: "Ending the effective isolation of the Baltic States, which still form an energy island, is an urgent task to deal with." Since then, a considerable list of infrastructure projects has been presented in the region to improve diversification and security of gas supply. This includes numerous methods: pipelines, underground gas storage and LNG projects.

The main pipeline projects in the area are Amber (Poland-Lithuania) and Balticconnector (Finland, Estonia, Latvia and Lithuania). With Poland-Lithuania pipeline the area might also benefit from Baltic Pipe (North Sea gas to Poland bypassing Germany) and InterTransGas (integration of Poland and Germany, reverse flow.)

The European Commission presented in November its energy infrastructure priorities for the next two decades. In the Communication, the Commission defines EU priority corridors for the transport of electricity, gas and oil. In the gas sector, Baltic energy market integration and connection to central and south east Europe is among the three priority corridors. Priority projects should benefit from EU financing and building permits. In planning and implementing these projects, the Commission favours regional cooperation between countries.

The geological conditions for gas storage are seen to be particularly good in Latvia, where a storage potential of several bcm has been identified. Also Lithuania, Germany and Poland may have storage possibilities. In Finland, Estonia, Sweden and Norway no possibilities exist for natural gas storage. Storage does not bring in any new gas, but of course increases security of supply in the event of supply interruption in gives not alternative supply option.

### Liquefied natural gas gaining share

One of the most important trends in the international natural gas market in the past few years has been the growth in the proportion of liquefied natural gas (LNG) trading. Technological developments have increased the price competitiveness of LNG and enabled shorter transport distances. The number of LNG vessels has multiplied and their size has increased. Also the grown share of indigenous natural gas production by unconventional gas (shale gas) in the USA has decreased demand of LNG.

LNG is produced and exported by countries including Qatar, Indonesia, Malaysia, Algeria, Australia and Norway. Major consumers include Japan, South Korea, Spain and France. Japan imports all the natural gas it consumes in liquefied form. China and India are also anticipated to begin imports of LNG. In the EU there are LNG import terminals in France, Spain, Italy, Greece, Belgium, Portugal and the UK. The share of LNG of the net-import of natural gas to EU member states is 13%.

So far no LNG import facilities exist in the Baltic region. However, opportunities for the utilisation of LNG in the Baltic region are being explored by Germany, Poland, Sweden, and Finland in cooperation with the Baltic States. It is important to ensure the largest market possible for any LNG terminal in order to ensure economic viability and utilisation of the LNG terminal. The relative small gas markets in Finland, Estonia, Latvia and Lithuania do not generate scope for more than one LNG terminal.

For smaller LNG terminals it is also possible to reload LNG at existing terminals in Western Europe and use smaller vessels with a size of less than 50.000 m<sup>3</sup>. A small LNG receiving terminal is under construction in Sweden, but will initially not be connected to the integrated gas network.

For Finnish markets, Gasum has invested in gas liquefaction plant in the Kilpilahti industrial area, Porvoo. The plant's production capacity is 20,000 tonnes of liquefied natural gas (LNG). Next to the plant were also constructed 2,000 m<sup>3</sup> containers for LNG storage to ensure security of supply.

Gasum sells LNG for research purposes and for trial runs of natural gas engines to areas in Finland not covered by the natural gas network. LNG has also been exported to Sweden and Norway on road tankers. LNG is delivered to customers by tanker trucks making it available to users outside the natural gas network.

### LNG as Marine Fuel

General concern about the state of the Baltic Sea has also made shipping companies operating in the area interested in cleaner fuel alternatives. LNG is highly suitable for use as a shipping fuel because its environmental emissions are considerably lower than those of other fuels such as light fuel oil.

The emission limits applicable to shipping will become essentially more stringent over the next few years. The first set of new restrictions by International Maritime Organization (IMO) will take effect in 2015. In particular, the limits for sulphur, NOx and particle emissions will be substantially tightened.

If clean natural gas is used as a fuel in shipping on the Baltic Sea on a large scale in the future, in-house production will have to be supported by LNG imports and LNG filling facilities at several ports in the region.

Gasum is among the organizations making a commitment to improve the state of the Baltic Sea through the Baltic Sea Action Group (BSAG). The BSAG gathers concrete commitments from public authorities, enterprises and NGOs to conserve the Baltic Sea. Some commitments have a direct impact on the state of the Baltic Sea, while others provide an indirect contribution towards action to save the Baltic Sea.

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## Renewable energy markets in Baltic Sea region from a perspective of a bioenergy company

By Matti Hilli

In the EU's energy and climate package the targets for renewable energy, for CO<sub>2</sub> reduction, for energy saving and for bio fuels has been set. This challenging 20/20/20/10 target has to be achieved by 2020. Every member state has to have their National Renewable Action Plan ready by 30th of June 2010 to show how to meet the targets. The present share of renewable energy is very high in many states in the Baltic Sea region like Latvia (34,9%), Sweden (39,9%) and Finland (28,5%) and is higher than average target in EU (20%). Anyway, all the states must increase their share of renewable energy and only Poland will have smaller target (15%) than the average in EU (20%). Sweden has the highest target (49%). Additional amount of renewable energy in the region is very big and is in the range of 217-242 TWh. Poland has the biggest increase of renewable energy (85-90 TWh). Also Sweden (50-60 TWh), Finland (32 TWh) and Denmark (25-30 TWh) have to increase a lot the amount of renewable energy.

Almost all the member states have built up their National Renewable Action Plans based on their own resources of renewable energy. It is very obvious, that every country must use all sources of renewable energy to meet the targets. Finland and Sweden have large potential of forest energy. These countries have also huge resources of peat. Peat helps to achieve renewable energy targets, because it makes possible to use poor quality biomass in multi fuel power plants. Estonia has similar situation. All the other countries in the region have to rely mainly on energy crops, straw and recycled wood. Sweden has good possibility to meet the target by increasing forest biomass, wind and geothermal. Also Denmark and Estonia have good possibilities to reach the target by using biomass and wind. Latvia, Lithuania and Poland have their main possibility is agro biomass and wind. Finland is likely to meet the target by using mainly forest residue. Waste, wind and agro biomass are additional sources. Peat is very important to help using poor quality biomass in power plants.

EU targets give very good business opportunities for companies offering renewable energy solutions. The production and sales of bio energy like forest energy, energy crops, waste and pellets offer huge possibilities for large international and small local companies. Large capacity of power plants and district heating plants has to be invested during next ten years. Wind energy offers also a lot of possibilities for energy companies. New innovations like bio diesel and bio coal are coming to the market. One of main concerns in some countries has been the supply of wood for all purposes needed. Forest industry is a very big user of wood raw material especially in Finland and Sweden. At the same time the industry is a big producer and user of bio energy. The concern is, that there is not enough wood both for industry and energy sector and the price of raw material will rise due the challenging energy targets. Both in Finland and Sweden forest growth is much bigger than annual cuttings and there is space for industry and energy sector, especially when energy sector uses forest residue and wood from first thinnings, which is not suitable raw material for industry. Main question will be the sales behavior of forest

owners. Are willing to sell wood enough? Renewable energy offers big potential also for forest industry. New thinking of bio refinery, which produces different products like paper, energy, chemicals and timber, is on the way to be realized. Bio diesel is a good example about excellent sustainable product for forest industry, which offers new large scale business opportunity. Another example is bio coal, which may be a really good product for replacing coal in power production.

There are some threats to the renewable strategy in the Baltic Sea Region. Subsidies and incentives are not harmonized in EU and this may lead to export to countries with highest subsidies. The level of incentives is not known so far, which makes companies planning renewable businesses, uncomfortable. Sustainable criteria may be taken in use for all bio energy and this may decrease the quantity of available amount of renewable energy. Commission will decide about the criteria during year 2012. There has been concern that European wood may not be sustainable due its long life time. It has been said, that for example stumps are not sustainable, because they decompose long time in the ground, but CO<sub>2</sub> is released immediately, if burned. This would increase the amount of CO<sub>2</sub> into the atmosphere. Right way of thinking is to look at forest balance of the country. If we are cutting less than annual increment, the forest is a sink and we do not have to worry about a single stump. Old forest is a carbon stock, but young, growing forest is both a carbon stock and a carbon sink. Wrong kind of thinking about sustainability would destroy the possibilities to achieve renewable targets in Nordic and Baltic countries.

There is also competition coming from outside EU. A lot of pellets come from North and South America, Africa and Russia. Raw material price is often cheap in those countries and sustainability of raw material production not always like it should be. The import will be remarkable also in future. EU has to take care, that foreign producers follow same rules as the EU producers to keep the competition fair and to guarantee that European bio energy consumption does not cause environmental problems in other countries.

Every country in the region must use all sources of renewable energy, has to build up their strategy based on their own resources and local circumstances. Some of the countries may have great difficulties in reaching the demanding targets of EU. The time span to 2020 may be too short, if investors have to wait for more years before all the uncertainties are clear and decisions can be made to invest in renewable energy production and use.

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## How will Russia cope in the emerging new energy agenda?

By Pami Aalto

Russia is often considered a leading fossil fuels power and for good reasons so as it is a big producer of natural gas, oil and coal, an important transit state and also a notable consumer of these resources. Most of these features pertain significantly to Russia's role vis-à-vis Europe. At the same time it is less often discussed how Russia will manage in the emerging new energy agenda where Europe is also prominently involved. I will propose that this question will have to be examined against the backdrop of the global economic crisis and other market developments that have changed Russia's posture dramatically in its energy markets. On top of this we have questions of global climate change; shift towards renewable energy resources, energy efficiency and savings; a possible switch to unconventional gas in Europe; and the renaissance of nuclear power in Russia's major markets in Europe.

To start with the global economic crisis, we know that Russia suffered greatly from the economic slowdown of 2009 which brought with it a drop in energy demand in the European markets where most Russian energy exporters cash in their biggest profits. Russia had to cut production by 12% in 2009. 'Only' 142 billion cubic metres of natural gas was imported from Russia to the EU on the average price of 302 US dollars per 1,000 cubic metres. Even worse from the Russian perspective was the market entry of liquefied natural gas (LNG) on cheaper prices than Russian gas. Some of Russia's European customers violated their take-or-pay contracts with Gazprom, paid the due penalties and instead bought cheaper LNG from spot markets. Some experts expect the demand for Russian gas through pipelines to stay weak until 2015, some longer as excess capacity built in a tighter market era sustains the market invasion of LNG, the continuing financial crisis and sluggish growth weaken demand, and as European states develop sources of renewable energy, and introduce energy efficiency and savings measures. In short: Russia will have to revise the pricing formula of its gas to maintain competitiveness in that sector vis-à-vis LNG, improve its image as a gas and oil supplier – which means also investing to more reliable means of transit such as the Nord Stream – and fight for renewing its expiring contracts in a market where the balance is again tilting in favour of energy consumers.

As for the agenda-setting qualities of global climate change Russia is a newcomer to the game. Russia's climate change doctrine of 2009 for the first time proposed that climate change, if not combated, would reduce Russia's GDP by 2-5 per cent. President Medvedev promised in the Copenhagen climate summit of 2009 that his country could meet its target of 25 per cent emissions decrease by 2020. In January 2009, the Russian Government passed a resolution limiting the flaring of associated gas in oil fields to only 5 percent of the entire output, set to be in force from 2012. Alongside that concrete measure Russia has been a key member of the Kyoto mechanism. Gazprom Marketing and Trading, the company's London subsidiary, has been actively involved in global emissions trade since 2006 by coupling gas sales with emissions quotas and by investing to emissions reduction projects abroad to buy emissions rights. Overall, the Russian approach to climate change questions is defensive and dominated by considerations of economic rationality, but it will help to keep it in the same boat with its partners in Europe.

One measure by which Russia could contribute more to combating climate change is to develop renewable sources of energy. Russia has huge potential in possessing a wealth of resources while it is producing only about 1% of its primary energy supply from renewable sources – which in Russia mean also peat. Some additional percentage points incur from Soviet-built hydropower plants. Yet the renewable resources are highly scattered throughout the country and industrial capacity low in the sector. The potential for improving energy efficiency and savings is huge, as noted in Russia's energy strategy of 2009 which lifts the former into the group of four main priorities. These measures can partially help Russia to maintain its sales in Europe in the longer run – we know that Russia's proved oil reserves will only last for some two decades with current production rates (although more will probably be found). Regardless of its high potential it is clear that Russia is on the defensive here. The European market is the only one where Russian exports are truly threatened by renewable

energy. These new energy sources represent not only a climate policy measure as part of the EU's 20-20-20 targets but also a response to the recurring problems in Russian gas transit through Ukraine (and earlier, oil through Belarus). Quite simply, several European governments aim to lessen their dependence on imported energy and are therefore unlikely in the future to want to import Russian biomass or buy Russian electricity produced from renewable sources – and in the absence of adequate grid connections between Russia and Europe could not even do that.

The European Commission together with the International Energy Agency (IEA) estimate total recoverable reserves of unconventional gas in Europe to be between 33 and 38 trillion cubic metres – more than tenfold the conventional reserves. If these could be effectively utilized, unconventional gas could compensate for an important part and even substitute Russian fossil fuels within the EU for several decades. This is not the place to dwell into the plethora of problems and long time-scale of unconventional gas in Europe – where small-scale commercial production may start perhaps around 2020 – but rather to note that the prospect adds on to the list of factors making the European market a tougher place for Russian companies. Gazprom itself plans to start pilot production of coalbed methane in Kemerovo's Kuzbass coal basin in 2011 but most likely unconventional gas will serve Russia's domestic market and thus will not bring in any foreign currency. Yet Russia's oil industry is unaffected as long as alternative fuels are not widely used in Europe's transport sector.

Finally, the renaissance of nuclear power in Europe further highlights the turn to domestically produced energy in Europe although the uranium or the utilized nuclear fuel in most cases has to be imported from Russia or elsewhere. Nuclear power plant projects are underway in four EU member states and two others have committed to launching one. Russia is planning to build some two to three new reactors a year until 2020 and is set to test closed fuel cycle technologies, and examine fusion techniques and fast neutron technologies. This is to respond to expected higher domestic demand and again to reserve more fossil fuels for export. Rosatom also wants to participate in the beefing up of Europe's nuclear sector but faces a big information war to adjust the image of Russian energy and push away the legacy of the 1986 Chernobyl accident – although it is launching a joint venture with Siemens. But in any case, neither are Russia's oil exports affected here as we mainly speak of power generation.

The balance of threats and opportunities for Russian actors is mixed and calls for a sea change in Russian energy policies that was not fully foreseen in the country's 2009 energy strategy. Although admittedly Russia is not a trend-setter in the emerging new energy agenda, it can be more than an also-run. I would perhaps somewhat controversially propose that Russia, Russian energy companies and other actors together with their business and political partners in Europe would view this as a golden opportunity for their mutual relations. While it is clear that a lot of the present oil and gas trade will continue owing to several lock-in factors including expensive infrastructure and natural market dynamics, another track can now be opened up. This should include technology transfers in renewable energy, efficiency and savings technologies, utilization of Russia's engineering capacity to boost the same sector, trade in the nuclear power sector, climate change coalitions for international negotiations, and full exploitation of the large and growing market in Russia to boost European exports overall. Such a two-track approach for Russia-EU energy relations would also support Russia's adjustment to the new energy agenda.

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## The Shale Gale – perfect storm or flitting breeze?

By Joseph Dutton

The so-called unconventional gas revolution continues to divide opinion within the energy and financial sectors in Europe, US and Asia. The rapid and near-exponential growth of this formerly niche area of the natural gas industry in North America has been the subject of many hyperbolic statements over the last eighteen months; game changing, paradigm shifting; energy market realigning, to name a few. The US is the largest importer of energy in the world, and the second largest consumer of energy, but as of early 2010 the country became self sufficient in natural gas, with unconventional gas representing 42% of the total gas production, and shale estimated to form 15% of daily gas consumption. With unconventional reserve estimates of over 8,000tcf in North America, it is somewhat difficult to not get swept away in the 'shale gale'. The benefits of domestic unconventional gas development are clear, with the principal ones being increased energy security and reduced reliance on foreign energy imports. The success of US unconventional gas development is, somewhat understandably, being used as a blue print for development in other regions of the world.

### The EU and unconventional gas

The disruption in supply to the EU in recent years following politico-energy disputes involving Ukraine, Belarus and Russia have forced energy supply security to the forefront for both member states and the European Commission. Among a number of renewable and efficiency proposals, and supply diversification in the form of the Nabucco gas pipeline, increased exploitation of indigenous resources has been highlighted in the 'Second Strategic Energy Review' of 2008 and the November 2010 'Energy 2020-A strategy for competitive, sustainable and secure energy' policy document; the latter also affirming that the role "unconventional gas will play must be assessed in all objectivity" (EU Commission, 2010). Europe is estimated to have between 1,500 and 4,00tcf of unconventional gas, in the form of shale gas, coal bed methane, and underground coal gasification reserves. Unsurprisingly direct comparisons are being made between the present situation in the US, and the future potential that the European subsoil holds. With unconventional reserves between five and fourteen times greater than those of conventional gas, the strategic and security benefit for Europe is potentially enormous.

European Commission initiatives toward greater energy independence would be aided substantially by the development of indigenous unconventional gas reserves. The science of unconventional gas is not alien to the EU; during the late 1990s the EU sponsored underground coal gasification trials in Belgium and Spain, while the mining industry across Europe has long been using methane for generation power. Exploration and utilisation of shale gas however is very much at an early stage in Europe, but energy policy implications are clear. Foreign relations between the EU and Russia and North Africa are influenced by energy, and the dependency member states have upon imports of oil and gas from them. This can be seen in the European Neighbourhood Partnership, Black Sea Synergy, and Euro-Mediterranean Partnership. These programmes also apply to strategic transit states, such as the Ukraine and Belarus. Consideration of energy supply and transit security form part of the EU's holistic approach to its neighbourhood, but development of the indigenous unconventional gas reserves would of course lessen the reliance upon external energy exporters, thus altering external relations.

### Poland at the eye of the storm

The northern region of Poland is currently the epicentre of shale gas development in Europe, with the country conservatively estimated to hold 48tcf of shale gas. Over sixty test drilling licences have been issued by the Polish government to a number of companies,

including Chevron, Exxon Mobil and Shell. Parallels have been made between Poland and Middle Eastern oil-rich Emirates, but production will not occur until the middle of the decade at the earliest. Although such a huge gas reserve would alter EU policies, for Poland the difference could be as far reaching. With Poland importing 68% of its natural gas from Russia (House of Lords European Union Committee, 2008), Warsaw has previously affirmed the desire to reduce the country's dependency upon Russian gas – memories of the gas supply disruptions to Poland following Belarus' dispute with Russia are helping to fuel the shale gas bonanza in Poland and further afield in Europe.

### One size fits all?

Despite this, when the US blue-print is laid down upon the European map and energy bureaucrats in Brussels are awoken from their dreams of European energy dependency, there are some harsh realities that will prevent the shale revolution from sweeping across the region for at least the next decade, if not prevent it from occurring at all. Leaving aside more technical aspects of shale production, there are specific conditions in Europe that will inhibit the development that has been witnessed in the US. The conditions that fostered shale growth in the US are not present in Europe. There are some fundamental localised issues, such as continental Europe having only 10% of the number of land drilling rigs found in the US, and the EU having a population density over three times greater than the US. Due to the geology of shale basins, production requires hundreds of wells to be drilled over a large area – Europe neither has the number of rigs, nor the vast open spaces seen in US producing regions. Furthermore, unconventional gas wells in the majority of US producing states are subject to tax breaks and exemptions, which keep the producing wells profitable – there are no proposals for such financial conditioning in Europe, with the EU favouring a more 'Washington consensus' style of economic governance. Shale gas development in the US has benefitted from this financial assistance, during a period of high global energy prices.

There is also the question of whether there is the political desire in the EU to develop unconventional reserves. The Nord Stream, Nabucco, and South Stream projects, which have a combined patronage of thirteen member states (including some involved in both Nabucco and South Stream) and combined investment of over €30 billion, will collectively import 5.1tcf of gas to Europe by 2015. Furthermore, Poland has recently signed an agreement with Moscow to increase gas supplies by 38% by 2019, with a supply agreement that may run until 2045. This has led some analysts to claim that Warsaw has lost its appetite to invest in the uncertain future of shale gas (Euractiv, Nov 2010). Poland is also constructing an LNG terminal on the Baltic coast that will process 176bcf of gas per year by 2014 – half of total Russian imports. This leaves little room for shale gas in either the Polish market or the European gas market. The affect shale gas has had upon US energy supply and the global energy market cannot be understated. However, the role unconventional gas will play in the future of the European energy market may yet appear to have been blown out of proportion.

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# University of Eastern Finland, an example of Finnish university reform

By H Kalervo Väänänen

## Universities Act 2009

Finnish university system underwent a profound reform in the beginning of 2010 when the new Universities Act 2009 was launched. There was a long discussion period, actually during three different governments but still it was, however, a surprise for most professors and other personnel.

A major change in the legal status of the universities has opened both new possibilities but also a number of new challenges. The public universities are now independent legal entities. They may now undertake commitments, obtain rights in their own name and possess movable and immovable property. A university may also pursue business activities which support the performance of the mission.

According to the Universities Act "universities must arrange their activities so as to assure a high international standard in research, education and teaching in conformity with ethical principles and good scientific practices". The new act has stimulated an intensive reform in many Finnish universities since it is obvious that there will also be changes in criteria of governmental funding. In the forthcoming years this will feed a lot of changes and create several new practices.

Among the main practical aims of the new act is to improve the level of teaching and to implement the Bologna-model with bachelor degrees to the Finnish university system and to ensure shorter mean time used for the university degree. In addition, it is important to improve the level of research and especially to facilitate profiling the universities.

## University of Eastern Finland

At the same time a number of universities in Finland decreased from 20 to 16 and three new universities emerged by fusions of seven old universities. One of the new universities is University of Eastern Finland (UEF) which was created by the fusion of University of Kuopio and University of Joensuu.

UEF is located at three different campuses, namely in Kuopio, Joensuu and Savonlinna. Two main campuses, Kuopio and Joensuu are 140 kms apart and host together about 14 000 students and almost 3000 staff members with a budget of 250 million Euros.

UEF is an internationally recognised research and teaching university. It aims to be among the three most important universities in Finland and among the leading 200 universities in the world in 2015. The university has a strong profile in its areas of expertise. It also takes a particular interest in promoting the regional development of eastern Finland.

Areas of expertise in research of UEF are: 1. Forests and the environment, 2. Health and well-being and 3. New technologies and materials.

The University of Eastern Finland is a national leader in research relating to forests. The extensive research carried out by the university especially on forests and the climate emphasizes the sustainable use of natural resources and constitutes an internationally unique research cluster in the field. The societal significance of this area of expertise is enhanced by research pertaining to environmental law.

In the area of health and well-being the university conducts research in molecular medicine to uncover the

basic mechanisms behind various endemic diseases. Research in the field creates new prerequisites for the development of new prevention, diagnostics and treatment methods. Together with social sciences research focusing on the role of nutrition, exercise, and other lifestyle choices in maintaining health constitutes an important field of research.

Technological research based on natural sciences serves as a foundation for developing new technologies and applications in biosciences, information sciences, materials sciences and nanosciences.

In addition to above mentioned three research areas UEF targets significant strategic resources to two fields, namely broad-based expertise pertaining to Russia and teacher education.

In the broad-based expertise pertaining to Russia and cross-border cooperation UEF seeks to gain international recognition as one of the leading experts in the field. The university is strengthening its research and education pertaining to the Russian language, culture, industry and commerce. Furthermore, the university develops its cooperation with Russia especially through the expertise found in the areas of expertise in research. Cross-Border-University (CBU), including several universities both in Finland and in Russia, is now becoming even more important tool for us to develop cross-border collaboration.

## A new innovation policy

The new legal status and research focused strategy calls also new type of innovation policy for the future. Technology transfer and for instance licensing of immaterial rights has been "Achille's heel" of all Finnish, as well as most other European universities. Reasons for this have been numerous, one being low interest of academic researches to start new business, another low level of funding to develop innovations further. In practice this has not been able at all in Finnish universities. Only a couple of universities have had enough funds to support their own spin-off companies.

It remains to be seen if the new legal status and especially new financing would allow universities to develop better solutions to support innovations and development of new enterprises. However, a lesson we have learned earlier is that in order to be successful you need to build up alliances that are strong enough to be competitive in the international arena. The present transition period in Finnish universities is a perfect time to form these alliances. I am positive that in the long run this will boost both Finnish research as well as economy.

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## Baltic Sea Region – a globally recognised innovation hub

By Antti Valle and Pirjo Kutinlahti

### Global innovation landscape is changing

Globalisation manifests itself in terms of supranational flows where ideas, competencies, technologies, products, services, and finances flow across borders and contribute to the global value networks. Collaboration in innovation is becoming increasingly international, with global knowledge communities that are formed by members located all over the world. Also companies are resorting to these networked communities in their innovation processes, conducting less research and development work in-house,

The networked paradigm is changing the global innovation landscape, activities being concentrated in regions and locations offering the best structural preconditions for innovation. Instead of national innovation systems, innovation ecosystems and nodes are becoming the centre of attention. Being locally anchored but globally networked, they combine in a fruitful manner the ideas and abilities required to address the needs of both businesses and society. The leading hubs of innovation are setting the global trends and are being closely followed by everybody in the field.

### Macro-regional policy approach in innovation collaboration

Europe should aim at no less but hosting some of the leading innovation hubs in the world. This requires ability to pool resources and boost collaboration among the most dynamic companies, research institutes and other innovation actors. The EU strategies for functional macro regions could be instrumental in identifying the stakeholders, common priorities and actions towards this goal. Within a macro region, geographical proximity, historical and cultural heritage as well as structural features of the economies bring a competitive advantage to explore and learn from complementarities and diversity.

Promoting innovation collaboration has been chosen as one of the key objectives in the EU strategy for the Baltic Sea macro region. The long-term vision is to make the Baltic Sea Region one of the global nodes of innovation, hosting world class expertise in selected fields. One target of the BSR collaboration is to identify the competence areas and functions where it has the best capabilities to create competitive edge. These focus areas will be based on existing business strongholds such as ICT, cleantech and biotechnology but also on future business potentials arising from societal grand challenges such as ageing, global warming, reducing supplies of energy, clean water and food as well as pandemics and public health.

The basic elements for this strategy are already well in place: there are several strong regional clusters and advanced industries in the Region, the population is well educated and investment in R&D capacity is high. The Nordic countries have strong framework conditions regarding innovation and they also score high in various innovation performance indexes. Realising the strategy benefits from the extensive experience in promoting joint R&D projects and from the long tradition of Nordic co-operation e.g. regarding the mobility of human capital. Collaboration with regard to joint networks has steadily increased over the last 20 years. However, at business level the potential of transnational innovation collaboration has not been fully utilised.

These objectives in the EU's Baltic Sea Region strategy are realised by the BSR Stars flagship programme. It is a

good example of macroregion policy approach for supporting sustainable growth and prosperity in the region. The programme is aiming at establishing the Baltic Sea Region as a functional region with an internationally competitive position in a number of selected fields such as cleantech, ageing and transport. The mission is to expand the domestic market for the SMEs, to catalyse cross-border cluster collaboration as well as to build innovation capabilities of the actors in the Region.

The focus of BSR Stars is to activate and deploy the resource base of the macro regions by linkages and increased collaboration between research environments, clusters and SME networks. It is crucial to support the networking of SMEs in order to strengthen their innovation capacity and growth. The programme is initiating mutual bridging projects that will involve SME's from different countries as well as promoting the supply of risk capital for SMEs.

### Ensuring continuity of the efforts

We believe that the intensified innovation collaboration in the Baltic Sea Region can boost the dynamism of the region's innovation ecosystem and make it a more attractive hub of leading ideas worldwide. It can also generate global market opportunities for the participating businesses and other actors.

National governments and innovation agencies as well as regional actors are the key stakeholders in realising the policy towards these goals. However, pooling resources for transnational collaboration is a challenging task and here the EU can play the key role. We see a need to intensify the promotion of the transnational innovation collaboration with the EU policy instruments. It is important to sustain the allocation from the EU Structural Funds to transnational operations with a focus on innovation. The EU research funds should be allocated on competitive bases, but networked innovation collaboration could be instrumental in lowering the threshold for SMEs and other smaller actors to join in the EU research programmes.

At the EU policy level, the macro region innovation programme can serve as a platform for realising the broad-based innovation policy presented in the EU 2020 Strategy and Innovation Union initiative. It can also work the other way, feeding tested practices from the Baltic Sea Region to the rest of the EU. The BSR collaboration could provide a model for implementing the EU's macroregion strategies by coordinating regional, national and international resources for common objectives as well as by testing and demonstrating new cluster or demand-driven innovation approaches such as innovation procurements or open innovation methods, at macro regional level.

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## University in innovative space region

By Ilya Romanovich Shegelman

Founded in 1940, Petrozavodsk State University (PetrSU) is one of the largest multidiscipline classical universities in the European North of Russia. Till 1956 the facility had been referred to as Karelian and Finnish State University. Today PetrSU plays the leading role in research, staffing and technological support to social and economic development of the Republic of Karelia (RK). It develops the most advanced technical and process solutions, innovations and cross-border international cooperation. In the course of 70 years the University has trained over 60000 specialists for different branches of the economy and social sphere.

PetrSU does research in 22 scientific fields and in 43 priority subject areas. Researchers of the university complete about 300 research, educational and commercial projects annually. The most significant fields are the ones related to the development of information technologies, mathematical modeling and electronics; some are connected with solving the issues of comprehensive and rational use of forest, mining, water, fish and other resources, environmental protection, including human ecology, modernization and development of education, studying languages, literature and culture of the people of the Russian North.

PetrSU is an important segment of the regional innovation system of Karelia and it implements the whole range of fundamental and applied innovations, R&D, commercialization and transfer of developments and technologies. The University has got over 60 research and training teams (schools) in different areas of natural and technical sciences and arts.

Thanks to the efforts of its employees, the University is transforming into a special training, re-search and innovation facility aiming – besides all – at implementing a complete innovation cycle dealing with creating innovations. It means that the University targets not only fundamental, exploratory and applied research, but also strives for creating innovations, their commercialization and transfer. It is very important that innovative activities are combined with training, i.e. creativity of students is enhanced by joint scientific research done by teachers and students. The findings are published in monographs, collected works, textbooks, guidebooks, articles and abstracts of reports at scientific conferences. All in all, teachers and researchers of the University produced 3574 publications including 130 monographs, 247 textbooks and workbooks, as well as 3197 articles in scientific journals in 2007-2009 only.

One of the major innovative subdivisions of PetrSU is IT-park, which employs over 330 persons. The key segments of the IT-park is the International Center of PetrSU-Metso Automation Systems, International Center Nokia-PetrSU Mobile Devices, International Center for wireless telecommunication systems, International laboratory of mathematical modeling and software development for natural resource facilities, Center for software development for production control, Center for developing and introducing automated process management systems. The IT-park will to a large extent contribute to the establishment of creative capabilities in young generations. This up-to-date innovative division of the University is one more step towards strengthening the influence of Petrozavodsk State University not only on the development of training and research in our region but also on the development of its economic and

social sector. Every year the University makes a stronger impact on the activities of the Government of the Republic of Karelia, and it is turning into an extra expert and analytical center for the whole range of issues and challenges.

We are hoping that the University innovation facility – the IT-park being a part of it – will gradually solve the key issue of innovative development, i.e. matching the interests of R&D and business. Expectations of the business sector from researchers are known on the whole, and those are considerable reduction of production costs with no damage to quality, increase of production capacities of equipment and technologies, their automation, resolving complex R&D tasks that cannot be solved by local engineering communities etc.

As of today, the innovation facility of PetrSU comprises 49 innovative and infrastructural sub-divisions including IT-park, Regional Center for transferring technologies, Regional Center for new information technologies, Center “PetrSU-Metso Automation Systems”, Budget monitoring center, International R&D Center “Plasma”, R&D Center for designing and extracting open pit mines, 3 research institutes (Karelian Research Institute of Forest Industry, Northern Fisheries Research Institute and RI of Historical and Theoretical Problems of People's Architecture), specific research centers and laboratories (mathematical modeling, planning optimization, electronic database development and management for forest industry, comprehensive use of forest resources, environmental problems of the North, challenges of Scandinavian countries and Finland etc.), Center for collective use of research equipment, Karelian Medical Research Center under Northwestern Branch of the Russian Academy of Medical Science, Regional center for international cooperation in the European North, Northern European Open University, Karelian Information Center of the European Union, Karelian Center for Canadian Studies, branches of university departments at enterprises and organizations, and the students' Business Incubator established in 2010. Special attention is paid to the issue of protecting intellectual property. Department for Protection of Intellectual Property and Inventions was opened, students are trained in this sphere, and innovation contests are conducted for young people.

The enterprises established by the University in 2010 take part in innovative activities: Invest-businessconsulting, Optisoft etc. In 2010, PetrSU also founded several new innovative research and training centers, and the most promising one is Economy Security Center, which studies the questions of economic security and sustainability of the whole region and some specific enterprises, covering the issues of employment, migration, people's income, budget effectiveness etc.

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## Assuring safe use of engineered nanomaterials and nanotechnologies – a challenge for the future or today?

By Kai Savolainen

Nanotechnologies are enabling and rapidly growing versatile technologies that utilize material at nano-scale for different nanotechnology applications. Examples of such applications are several consumer products such as mobile phones, computers, cosmetics, sun-block creams, sports wear, novel textiles and clothes, self-cleaning windows, strengthening of concrete in construction industry, chemical industry, and car industry including new car paints, production of semiconductors, as well as clean water and utilization of nanotechnologies in the production of energy. Industry has predicted that the turnover of industry sector utilizing technologies utilizing ENP will exceed 2.5 trillion US dollars by the end of 2014. This goal may not quite be reached, but the number of novel applications of ENM in nanotechnology products increases faster than ever before.

With the expected importance and increased number of applications of nanotechnologies, there are urgent challenges to assure the safe production of different types of ENM. The number of workers exposed to ENP today may be about 2 million globally, but will most likely at least double by 2020. The number of consumers exposed to ENP via nanotechnology-based consumer products such as cosmetics, sun-block creams, paints, waxes, and various other consumer items including nanotechnology-based novel foods will exceed several hundreds of millions by 2020. Therefore, assuring safety of the growing number of nanotechnology applications and incorporation of ENM into products, handling of nanotechnology-based products, and safety at the end of the life-cycle of these products requires immediate attention. The rapid growth of nanotechnologies has increased the number of workers exposed today to ENM, and products containing them also rapidly increases. The number of potentially exposed consumers also rapidly increases, and increased production of ENM may lead to an increased burden of the environment to these materials.

Recent observations have shown that materials at nanoscale may pose more health hazards to humans or the environment than their bulk, chemically identical, counterparts. In humans, the effects vary from pulmonary inflammation and fibrosis in the lungs to microcirculatory problems and possible carcinogenicity, especially in the lungs. Such observations have been made for titanium dioxide as well as for a certain type of carbon nanotubes (CNT). Furthermore, several types of ENM have been shown to reach the circulation through the lungs thereby having a direct access to any organ in man. Most alarming observations come from studies with carbon nanotubes, several metal oxide and metal nanoparticles such as titanium dioxide, zinc oxide, silver and gold. In addition to the entry into the body, and impacts on the lungs, circulation and possible carcinogenic effects in experimental animals they have also been found to find their way to the brains. Even though some of the observations in experimental animals and cellular systems have been alarming for some ENP, another consideration is that only few tens of ENM have been evaluated even briefly for their potential toxicity. The number of different types of ENP exceeds though hundred thousand, and for most of these particles nothing or next to nothing is known. Thus, there is not a single ENM

safety and toxicity information would allow a full scale reliable risk assessment.

These and other observations have prompted several organizations to make attempts to carry out quantitative risk assessment (QRA) for ENM, but so far the toxicological, exposure and characterization data of these materials have been too limited to allow reliable QRA. More recently, National Institute for Safety and Health in the US and European organizations have initiated activities to carry out QRA for several ENM, and several draft occupational exposure limits (OEL) have been proposed especially for metal oxides and carbon nanotubes. The results of these activities are based on dose-effect analysis of toxic effects of these materials, and knowledge on their distribution in the body. Also, lung burden caused by life-time exposure is considered in these estimates. These evaluations are based on animal-to-human extrapolation, and the use of mathematical risk assessment models. An important prerequisite for the implementing of possible OELs of ENM requires appropriate measurement principles and instruments that allow estimation of potential ENM-related hazards and risks. The ultimate goal of these activities is to prevent harmful exposures to these materials that will require prevention of leaks these materials, or their distribution from the site of handling to the occupational environment.

Even though there is not information that would show that ENM had caused any health problems in humans, established safety assessment models have provided concerning information for a limited number of ENM that they may cause health hazards to humans, provided that exposure especially in the occupational environment is high enough. There thus a need to take these observations into consideration when developing new ENM and nanotechnologies already when designing these new and enabling materials and technological applications. This would remarkably shorten the gap between cutting-edge nanotechnological and material science research and attempts of regulators to assure that these materials and technologies are safe to the consumers and that their production is safe. It has become apparent that safety is an essential component in the mixture that assures the future success of ENM and their several innovative applications.

This work has been funded by the European Commission under grant FP7/(2007-2013)-211464-2 (NANODEVICE). The views and opinions expressed by the author do not necessarily reflect the views and opinions of the European Commission.

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# The Russian CEOs analyse the innovation activity of their company

By Alexey Prazdnichnykh and Kari Liuhto

In terms of gross expenditure on R&D (GERD) relative to GDP, Russia is positioned in the club of such countries as Estonia, Belarus, South Africa, and Ukraine. Russia slightly exceeds India, Turkey, and Chile, but she is behind China and the Czech Republic.

The share of businesses' expenditure on research and development (BERD) in the Russian GDP is not very high (0.72%). This is more than in her CIS neighbours, and more than in Turkey, Chile or Brazil, but it is clearly less than in China. Regarding the ability to adapt technology and the present technological level, the Russian executives provide exceptionally low rankings compared to other countries. According to the World Economic Forum's Executive Opinion Survey, firms from Ukraine and Kazakhstan were more able to adapt technology, as well as had a more sophisticated technology at their disposal than enterprises from Russia.

Why is the situation so distressing for a country that was first to launch a satellite into the space? In order to find an answer to this question, we conducted a survey among 250 Russian firms. The research results can be summarised as follows.

Approximately a half (51%) of the studied Russian companies had a dedicated R&D department. Only a quarter of all the firms documented their innovation strategy either as a separate publication or a part of corporate strategy. 51% reported to have innovation strategy which was not documented, and 24% acknowledged that they do not have innovation strategy at all.

The major source of innovation for 47% companies in the sample was an own R&D department. Foreign and Russian suppliers of equipment and parts, as well as other functional departments were other three most frequently used sources of innovation.

Approximately a half of Russian middle-sized and large corporations cooperate with foreign partners in technology and innovation. The findings indicate that the most frequent reason for cooperation is upgrading of existing products. Among those companies that cooperate with some foreign partners, over half (53%) mention product innovation among the purposes of cooperation.

The Russian firms often establish partnerships with companies in Western and Central Europe. The overwhelming majority of the surveyed executives pointed out to a European country as the location of their major technology partner, whereas the USA is only 23%, while Japan is about 8%. A more detailed analysis reveals a dominating role of Germany as a technology partner for Russia (36%), which seems to confirm traditional views on the intensive Russia-Germany cooperation. The collaboration with Germany seems to be of more importance compared to technological partnership with all other European countries taken together, including France, the UK, Italy, Spain, the Nordic countries and the Central East European countries, except the CIS.

Finland holds the second place among the European countries as a technological partner for Russia. Finland is twice more often mentioned as the major technology partner for a Russian company than Sweden.

It is interesting to note that the technology cooperation between Russia and the rest of the CIS countries is less frequent than with China. And although our empirical results do not contain information about the direction of the technology transfer, most partnerships with China are certainly bi-directional i.e. the technology transfer occurs to both directions.

More efforts can be applied to streamline the international partnerships. One way is establishing associations and specialised technology trade agents in the most important countries. For example, special technological exchange offices may be set up in Düsseldorf and Munich, Boston and San Francisco, Shanghai and Beijing, Helsinki and Tampere / Turku.

In addition to foreign cooperation, the Russian state plays ever increasing role in the innovation activity of firms. 16% of companies studied indicated to have participated in some government-led innovation support programs at least once.

The most widespread type of support is providing funds for R&D-based innovation projects. 62% of those companies, which obtained support for innovation, report to have used these funds. Financing and subsidising various projects and activities, including innovation projects, purchasing of production equipment and software, construction and development of innovation infrastructure and participation in international exhibitions, are the most common forms of support, and this is in a direct correspondence to the major innovation obstacles outlined by the executives.

Other forms of support such as tax rebates or supporting connections either with universities and research institutions or with businesses are less common. Only 10-15% of executives, who obtained any government support for innovation, reported to have used such forms.

In general, the enterprises consider government science, innovation and technology policies to be ineffective. 65% of surveyed executives do not see positive results of the government intervention at all. Just 11% consider that there are positive results. Given that the government can take multiple roles and implement a multitude of approaches, and therefore, we asked what should be the direction of the governmental intervention.

According to the firms studied, tax rebates for R&D as well as co-financing and other measures of direct and indirect funding of R&D in companies are the priority instrument. This potential policy direction is supported by 57% of the executives. This is of course not surprising if we take into account that these types of funding are direct benefits for the businesses.

Among measures which do not directly presume giving money to companies, 41% consider enhancing the level and scale of education in natural sciences and engineering (at all stages of education) as something that can effectively improve innovation activity. Giving away more R&D funds for research institutes and universities is the third most popular measure with 35% of the company executives considering it as a priority. In addition, companies propose to the government to support the commercialisation via grant systems, to reform the existing system of the government research institutes to increase the R&D effectiveness, and also to pay more attention to developing intellectual property rights, industry regulation, technological standards, and the commercialisation system.

Therefore, the Russian enterprises consider R&D funding, both in private and public sectors, as well as policy steps to increase R&D effectiveness, as those measures of innovation policy which should be of the highest priority for the Russian government.

The research, which this article is based, was conducted in the framework of the project funded by the Academy of Finland (grant 118 338). To read the whole report visit the website of the Pan-European Institute ([www.tse.fi/pei](http://www.tse.fi/pei) -> Publications: Can Russian companies innovate? - Views of some 250 Russian CEOs).

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## Partnership for modernisation – incentive to revise the EU-Russia relations

By Jarosław Ćwiek-Karpowicz

The willingness to enhance the EU-Russia relationship, declared by both sides for years, has not been transformed into political practice so far. The new document specifying the scope and institutional foundations of these relations and replacing old Partnership and Cooperation Agreement (PCA) has been under difficult negotiations for three years now. Also four “common spaces”, which were established between Russia and the EU at the 2003 summit in Saint-Petersburg have encountered many obstacles. Even in respect of the common economic space, which is relatively the most advanced, the goal of a gradual market integration remains elusive. Russia has taken a highly selective approach and cooperated only in these areas where it stands to gain (e.g. trade in steel products). Prospects for establishing common economic space were also obscured due to Russia's difficulties to become a member of the WTO. In 2009 Russia practically blocked negotiations for almost a year and resumed talks in the second half of 2010.

Serious tensions rose in the EU-Russia energy relations. The Energy Dialogue launched in 2000 produced some results such as improved exchange of information and early warning mechanism, but it also revealed severe conflicts of interests and different perspectives on the future cooperation. The EU wanted to establish a regulatory framework as well as a level playing field for energy trade. In its view reciprocity should be a cornerstone of mutual relations. Yet, Russia chose its hydrocarbon potential as an instrument for regaining its political and economic prominence and started to perceive any efforts to regulate energy trade and transit through multilateral agreements as attempts to its autonomy.

The Russian-Georgian war in August 2008 and the Russian-Ukrainian gas crisis in January 2009 severely damaged the EU-Russia relationship. Both events revealed different understanding of key political questions, first of all how to deal with the post-Soviet space. A few weeks after military intervention in Georgia, new Russian President Dmitry Medvedev announced five points of Russian foreign policy, in which he underlined Russia's right to co-decide about the foreign policy and domestic situation in former Soviet countries. Recognising every country's right to decide freely about joining alliances, the EU rejected the idea of spheres of influence. Moreover, the EU launched Eastern Partnership, a new initiative to support the process of modernization in post Soviet countries. This new idea within the European Neighbourhood Policy provides the EU neighbours with an opportunity to be gradually integrated with the common market and embraced by the EU policies and programmes. It is also supposed to pave the way for transmission of good practices in the field of trade, economy and politics. Despite the fact that Russia rejected the offer of being covered by the ENP in 2003 as it sought to emphasize its special status in relations with the EU, the Eastern Partnership founding documents envisaged the possibility of Russian participation in multilateral projects.

Due to an exceptionally deep recession (GDP dropped by nearly eight per cent and imports plunged by a whopping

27 per cent in 2009) and huge foreign capital outflow (FDI plummeted by more than 45 percent in the first six months of 2009) Russia has changed its policy towards the EU and began to improve its deteriorated relations with some EU member states like Poland, Great Britain and Sweden. Russian leaders have realised that they need the EU's assistance to create an innovated economy and decrease the Russia's heavy dependency on hydrocarbon and raw materials exports. At November 2009 summit EU and Russia signed an agreement on regional cooperation to be financed largely by the European Neighbourhood and Partnership Instrument. At June 2010 summit they launched a Partnership for Modernisation for promoting reform, enhancing growth and raising competitiveness.

Polish experience of political, economic and social transformation in 1990s indicates that adoption of the European model and integration into the EU accelerated the modernization of the former communist bloc countries and effectively reduced the economic distance between Eastern and Western Europe. For Russia this kind of rapprochement with the EU not only is a chance for strengthening economic reforms, but also getting over with deficit of democracy, enhancing of rule of law and good governance. Additionally, it can amplify international position and increase attractiveness of Russia as a political and economic partner.

New EU initiatives towards Eastern Europe, namely Eastern Partnership and Partnership for Modernization, can be utilized as an incentive to revise the EU-Russia relations. They certainly need a new paradigm replacing the old-fashioned prism of geopolitical rivalry by a win-win way of thinking aimed at bridging development gaps between various parts of the continent. As it was demonstrated by Poland's experience, the fastest and most effective way for Russia to accelerate the development and catch up in terms of standard and quality of living of citizens is to adopt *acquis communautaire* to the greatest acceptable extent. Recognition of rational and mutually beneficial principles, such as mutual investment protection or joint dispute settlement mechanism, would represent a step towards restoration of trust in the EU-Russia trade relations, namely in energy sphere. It could be achieved through Russia's WTO accession and introduction of new separate chapter into the future EU-Russia agreement (PCA 2), deriving from provisions of the Energy Charter Treaty.

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# Universities' innovation and entrepreneurship activities at cross-roads in Baltic Sea Region – case Pskov

By Pasi Malinen

The role of universities has changed considerably during the last decade or so. This is even more so in the case of some Baltic Sea countries. Examples thereof are: more emphasis being laid into international accreditations and rankings, diminishing public funding, and increased external (to university) funding, productivity pressures etc. External pressures to change have also been of non-financial nature, i.e. involvement in external environment and economies, additional innovation pressures (i.e. European Union strategies, national strategies), demands for practical solutions and greater emphasis on cross-disciplinary research and education. Innovation system development stresses the role of universities in the system as a provider of new scientific knowledge, educated graduates (workforce), and as a source for applied knowledge and technology. Open innovation ideology and networked activities are changing the innovation system(s) as well as, even more so, universities. Additional ingredients for that change derive from: i.e. i) The Medici effect of bringing different talents together (as opposed to large concentrations of single-discipline talent), ii) The open innovation approach (networks as innovation engines), iii) The economics of smallness, especially promoted by the recent advances in mobile and internet technology, iv) The huge growth in social media and resulting challenge to IPR leading to interaction between the social and the business dimension, v) The evolution in business models and technology, creating disruptive changes, vi) The extreme complexity and dynamism of business systems that challenge the traditional ways of coping with change and risk (the present global economic crisis clearly supports this notion), vii) The traditional definition of *R&D* is also challenged. A modern, wider definition also incorporates softer elements into *R&D*, such as software creation, marketing, education and training, and organisational development. This new element of *R&D* may already be larger than the traditional one. Implications to the importance of business understanding in technology education are obvious. To sum up this discussion I use the term Third Generation University (3 GU), which has been introduced by Wissema (2009):

	First generation university	Second generation university	Third generation university
Objective	Education	Education + research	Education, research + know-how exploitation
Role	Defending the truth	Discovering nature	Creating value
Method	Scholastic	Modern science, monodisciplinary	Modern science, interdisciplinary
Creating	Professionals	Professionals plus scientists	Professionals + scientists + entrepreneurs
Orientation Language Organisation	Universal Latin Nations, faculties, colleges	National National languages Faculties	Global English University institutes
Management	Chancellor	(part-time) Academics	Professional management

The objective of 3 GU is a transfer of capabilities to society and no longer to serve the elite but society at large. In 3 GU world, entrepreneurship and innovation are in close co-operation with technology. The 3 GU University is global, rather than national – it is the centre of an international know-how carousel, attracting staff and students from all over the world, and uses English as the lingua franca. The 3 GU is an open hub and it reaches back to Renaissance values such as consilience and trans-disciplinary research. The 3GU needs a new organizational format, reducing the role of the faculties, a new approach to research funding, and a new way of teaching and mass education.

BID Business Innovation and Development Unit at the University of Turku has been running The EuroFaculty project in Pskov (2009-2011) in West of Russia, which aims at i) curriculum development (according to Bologna model) in universities in Pskov, ii) training of trainers/educators, iii) learning development, iv) creation of a quality assurance system for education, v) provision of additional language training, vi) developed access to teaching/learning materials, and vii) developing university-industry co-operation. The EuroFaculty project is a successor of various EuroFaculty projects in the Baltic Sea Region since 1993. There are 5 universities involved and receiving institutions are in Pskov Region. The funding of the project is international, Sweden being the biggest donor.

The aims of the EuroFaculty project are in line with the change in universities discussed earlier. There is a need to internationalise universities in a collaborative way. As far as the project results are concerned most of the targets have been reached. The university sector in Pskov is of good quality with limited international ties and industry collaboration. Additionally, innovation activities (ie. from science to business) and entrepreneurial activities need further development.

In order to develop the innovation and entrepreneurship activities in the Pskov region BID will introduce some of its education and development tools, which have been used in international programmes in various countries and leading universities to the Pskov universities, such as: i) Business Development Laboratory (BLD), ii) Innovation & Entrepreneurship (I&E) education model, iii) PhD+MBA programme, and iv) tools and training in university-industry co-operation. BLD is a programme, in which university students (business and law) develop a business plan for a university-based invention. I&E education model deals with new ways of developing ideas into businesses. In PhD+MBA programme, natural science PhD students are taught innovation and entrepreneurship content and skills for the use of student's industry. Finally, the university-industry collaboration will be translated into practical and applied processes used in Scandinavia (+EU project development knowledge).

The changes introduced earlier show that entrepreneurship and innovation education are interlinked, which indicates, in a way as "coming back to their entrepreneurial roots" (Schumpeter). There is an increasing demand for entrepreneurship and innovation education and development in Baltic Sea Regions. All these activities have to be carried out in international, open, and collaborative way together with society and industry.

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## Finland should dare to take initiative – the strategy for the Baltic Sea region needs to be concretized

By Jari Lähteenmäki and Jarkko Heinonen

**Developing co-operation between different macro areas within the EU is essential. It is especially important to countries in the Baltic Sea region. The EU Strategy for the Baltic Sea Region is a good beginning. However, this will only be significant to the economy if it will lead to more versatile and profound co-operation of businesses and authorities.**

### The Baltic Sea region is a fragmented market area

The central structural problem of the Baltic Sea economic zone is its fragmentation. The nine coastal states differ from each other in culture, language, economy and politics. Excluding Germany, the region consists primarily of rather small national economies. Additionally, of the Baltic Sea coastal states, Russia is always a story of its own. All this creates problems for market efficiency.

The domestic market, which is important to small businesses, offers limited preconditions for growth. Thus an expanding business must also invest in developing international trade early on, often using relatively scarce resources. The adjacent areas form a natural growth area.

A small national market easily leads to the segmentation of the market. The pressure created by competition can then remain weak, which diminishes the development of the businesses' international competitiveness. The businesses will not develop to be strong enough to become international.

Thirdly, the critical mass of business and production activities often remains small. If sufficiently large and strong cluster structures are not formed in the Baltic Sea region, the attraction of our region as a business location will diminish.

### Internal market advantages develop slowly – a need for strengthening operations

A well-functioning EU internal market would be a great solution to the structural problem of the Baltic Sea economic zone. However, the reality does not correspond with the objectives, and new solutions need to be sought through regional co-operation. The Baltic Sea region should offer businesses a commodity and production input market and supranational cluster structures comparable to the domestic market. This would offer small and medium sized businesses better prerequisites for growth as well as improve the region's competitiveness.

There are many unsolved issues. They are especially connected to the practices of border crossing, customs and taxation. These difficulties are known and the knowledge required to fix them already exists. It should be taken into consideration how much businesses need to deal with the authorities of different countries and what could be dealt with more simply by mutual co-operation of the authorities. In an ideal situation it would be sufficient for a business to only deal with the closest authority.

To develop the production environment, labour mobility should be promoted by unifying labour legislation and practices as well as education. Developing the innovation environment and cluster structures should not be limited to national borders but the significance of wider co-operation between businesses should be seen. It is not enough to seek to improve national competitiveness, but we also need to build the competitiveness of the Baltic Sea region worldwide.

### Estonia's euro affiliation speeds up the integration of the Baltic Sea economies

Of the Baltic Sea countries only two, Finland and Germany, have a common currency. At the turn of the year Estonia will also join the euro countries. During the current economic crisis it is hardly possible to even think that Sweden or Denmark would want to join. With one's own currency, it is easier to manage the countries' financial and monetary policy. The countries are also not bound by the euro countries' mutual – although contrary to the affiliation

contract – common liability for the financial difficulties of member countries.

It is clear that getting Sweden and Denmark to join will be a challenging long-term goal. It is equally clear that the joining of these countries would be a very positive matter considering common currency and the development of the Baltic Sea region. The results of the study *Perspectives of Northern EU Integration* conducted by the Central Chamber of Commerce show that a common currency would clearly increase trade between the Nordic countries and other Baltic countries.

Creating a tighter common market is important to the small national economies of the region. As a significant national economy in the region, Finland has to take responsibility in creating this. As Dr. Esko Antola states when evaluating the study of the Central Chamber of Commerce, the countries of the Baltic Sea region now have the possibility to give their input for the future development of the whole of Europe. Minister Astrid Thors suggests in her own comment that "the Nordic countries would form a pilot area for a functioning internal market". To our own competitiveness it is important that, through mutual co-operation, we can get further into creating a common market in the Baltic Sea region than the whole EU can achieve at least within reasonable time.

### The Baltic Sea common market area needs to be an important part of the EU Strategy for the Baltic Sea Region

Small, industrialized national economies such as Finland are completely dependent on international trade. Additionally, expanding businesses operating in the small domestic market need to invest in export at an early stage. Even though the market is worldwide, the adjacent areas still offer the most important operating environment for businesses.

Half of Finland's export goes to the Baltic Sea region. For small and medium sized businesses and especially those just starting exporting the significance of the Baltic Sea economic zone is emphasized.

The most important goal of the economic co-operation of the Baltic Sea region is to build a tighter common market. This would offer wider growth possibilities especially to the small and medium sized businesses of the region and improve the competitiveness of the Baltic Sea region as well as its attractiveness to investors. The basis for all this is the ability to create a business environment based on established regulations and practices in the whole of the Baltic Sea region. This goal should also be visible in the EU Strategy for the Baltic Sea Region.

This will only be significant to the economy if it will lead to more versatile and profound co-operation of businesses and authorities on a practical level. The Baltic Sea region, within the EU, needs to move forward in one of the original basic goals of European economic co-operation: the Baltic Sea economic zone should be made into a common economic and trade area that is tighter than the rest of the EU. This is a great political challenge and thus it should be seized daringly. The EU Strategy for the Baltic Sea Region gives an excellent opportunity to do this.

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## Way out of the crisis – privatization of Russian federal property

By Juha Stenholm

Russia has announced a new privatization plan for the coming five years. First the plan was scheduled for period 2011 – 2013 but then prolonged up to 2015. In principle the list of objects in the plan covers almost 900 companies and holdings in companies. By this action the federal government is expected to receive 1,8 trillion roubles (59 billion USD). What are the reasons for this new privatization program and what do we expect as real results? Is modernization linked with privatization?

First of all, we can start by looking the history of earlier privatization programs held in Russia. In early 1990s the privatization program was regarded as an example how in Russia the well-connected insiders could reorganize and privatize the ownership in state-owned companies by doubtful means. This time the process will be more controlled and transparent simultaneously which is a good sign also from the point of view of foreign investors. But, still there will be a question-mark for completely honestly accomplished program and tendering. As one of my friends commented this by using commonly in Russia known words of ex-Prime Minister Mr. Chernomyrdin "We intended the best in the beginning, but it ended as it does always".

On the menu there will be various companies and shares depending on the strategic status of stakes for government. Approximately a little bit more than 50% of publicly traded equity is under control of government. According to the information in the most attempting and interesting state-owned (wholly or partly) big companies like banks and oil-producers, there will be sale of minority shares of state property. The government will finalize the list in the nearfuture, but so far are openly presented companies like Sberbank, VTB-bank, Agricultural Bank, Rosneft, OAO Russian Railways. Other companies, which will be listed on menu, but will stay under state control are for instance Rushydro and Sovkomflot. In already privatized companies like Apatit, Uralkali, Aviakompania Sibir, UAZ and Nalipetski the government is supposed to sell the rest of its shares. This gives a picture of some sort of controlled privatization with minor changes in these companies. This can be regarded as a statement that the state will keep strongly its position in these companies and will also control them in future. Will there be any options for selling also controlling stakes in these big companies – it will be seen also in the nearfuture. I think that all this tendering and selling will be under development during the process. Will there be any other additional approvals from the government side – this also will be seen later.

In Russia the coming elections, in 2011 for state дума and in 2012 for president, will also have a special effect on the privatization plans. In my opinion there are elements, which are linked to each other and the government should make some compromises in order to gain results good enough for Russian economy in order to support current political situation. Russia is lacking investments and foreign investments especially. The success of privatization program will show for foreign investors in that sense the "guide-lines" for coming years. On the other hand the modernization is linked to privatization program. I can believe that in the menu will be companies which are on sale due to poor management and ineffective production. These companies might be the hardest ones to sell for a new owner and to run a modernization, which is obviously necessary. Of course every investment is a risk, but how big and could it be under control, it depends from the buyer very much in these markets. How much this kind of objects will be on menu? I think we can only wait and look for the results of the program.

Officially is stated that the tendering will be done in competitive tenders and using real market valuations. The government is expecting quite a good success and for sure they have a different situation this time than in early 90's. According to the information published in Profil (8th of November, 2010) the government has agreed the sale of state-owned assets by the following consultants: VEB Capital, VTB Capital, Renaissance Broker, Rossijskij auktsionnyi dom, Credit Suisse, Deutsche Bank, JPMorgan, Merrill Lynch, Morgan Stanley, Goldman Sachs. It is in governments hands if the list of consultant-banks will be expanded. For sure the list of consultants gives a feeling that this time there will be specialists and professionals in charge of practical sales processes and the hard work prior to tendering. A Russian specialist of one international bank operating also in Moscow was very confident for the coming results of these consultancy group.

The Russian economical performance is facing the financial post-crisis phase in which they are looking for revenues for the coming years. As a fact the balance of the budget for the next couple of years will be turned to deficit after being a decade on surplus. Economic Minister Naibullina is expecting that state assets will cover approximately 16 – 17 percent of the deficit in the coming three years. This year the gross domestic product is expected to gain 4 % and next year somewhat less than this year. Basically the tools for Russian government to balance the budget are clear: raise taxes, cut costs, privatization of state-property and use currency reserves. Each element has its strong sides and weaknesses. The success of the privatization program is closely linked to these three elements. And definitely without the privatization they have to make it with the "hard" way, which will have lot of unpleasant consequences for government, people and economy of Russia.

The past few months there have been some interesting points in Russian economy, which reflect directly or indirectly to privatization plans and the launching of the program. The capital outflow has increased the past two months from 2 to 6bn dollars which has forced the Central Bank of Russia to spend 9bn dollars in order to downgrade the outflow. As a result of unsuccessful actions to increase foreign direct investments to Russia the FDI inflow has declined about 18% in the Q3 of 2010. In 2009 the reduction was about 40%, which together with the figures of this year means that the investment attractiveness is low in Russia's real sector. One positive point is that when Russia is suffering from the role of outsider of global capital flows it has not been that much following the history of EU debt crisis.

In conclusion I would like to point out that in my opinion the privatization of federal property will have a positive contribution for the image of Russia. Hopefully this program gives results, which can extend and turn to real integration to world economy. The good start for accelerate the results could take place in form of accession to WTO. This sounds like a Christmas Eve gift.

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# Game rules for foreign investments in strategic companies in Russia

By Sergey Stefanishin, Alexey Skvortsov and Yulia Tsykalo

Federal Law No. 57-FZ dated April 29, 2008 on the Procedure for Making Foreign Investments in Economic Companies Which Are of Strategic Importance for Ensuring the State Defense Capacity and State Security (*Law*) initially did not arouse interest in Russian business society and abroad. However informal state control for foreign investments in social crucial economic areas was laid open and new game rules hereupon were announced. There is no denying that this Law had lessened investment attraction of Russia especially in economic crisis of 2008-2009.

For the purposes of ensuring the state defense and security the Law establishes withdrawals of a restrictive nature for foreign investors and for groups of persons which include a foreign investor (*Foreign investor*) when they participate in charter capitals of companies which are of strategic importance for ensuring the state defense and security (*Strategic companies*) and/or when they make deals entailing imposition of control over the said companies.

\*\*\*\*\* (The brief review of the Law is outlined below.)

Foreign states, international organizations, as well as organizations controlled by them, including those established in the territory of Russia, (*Foreign state investors*) are not entitled to make deals entailing imposition of control over the Strategic companies.

Herewith deals made by Foreign state investors as a result of which they acquire the right to dispose directly/indirectly over 25% of the total number of voting Strategic companies' shares (*Shares*) or other ability to block the decisions of managerial bodies of such companies, or acquire the right to dispose directly/indirectly over 5% Shares and are engaged in geological subsoil areas of federal importance, are subject to preliminary consent with the state authorities.

Furthermore the deals and agreements made outside of Russia if they have the effects cited above are regulated under the Law. This Law shall not extend to the relations connected with foreign investments in the Strategic companies used land plots of federal importance, if Russia owns here over 50% Shares.

In order to be recognized as the Strategic company one must be included to the special list adopted by the state Government due to engagement to the strategic activity, e.g., connected with use of bacteria, subsoil of federal significance, encryption, natural monopolies, TV broadcasting, etc.

Herewith control exercised by a foreign investor means the ability of the Foreign investor to determine directly or through third persons' decisions adopted by the Strategic company by disposing of its votes at any managerial bodies of such company, by way of management company, as well as the ability to dispose directly/indirectly over 10% Shares of such company used land plots of federal importance, or to appoint a sole executive body and/or 10% of the collective executive body of such company, or the unconditional ability to elect 10% of the board of directors, other collective executive body of such company.

Making deals which entail institution of control by the Foreign investor over the Strategic companies shall be permissible where there is a decision on preliminary consent legalized by the Federal Antimonopoly Service (FAS) having a specified validity term.

Deals with shares of the Strategic company (except if it uses a subsoil area of federal importance) are not subject to preliminary consent, if prior to making the said deals the Foreign investor have disposed directly/indirectly over 50% Shares.

If control on the part of a foreign investor over the Strategic company is instituted as a result of alteration of the votes ratio resulting from acquisition by such company, transfer thereto or redemption by it of its own shares, distribution of shares possessed by such company to shareholders thereof, other reasons provided for by the Russian legislation, the Foreign investor is obliged to file a petition for coordination of the institution of control within 3 months as of the date of control institution.

On the petition's examination FAS cooperates with the Federal Security Service (FSS), the Ministry of Defense, other state authorities of Russia. Thus for the purpose of establishing the fact of control institution the operational units of FSS' are entitled to under-take operational search measures. Based on clarifications from the said state authorities FAS shall adopt a respective decision on threat's existence/absence. FAS' decisions/actions in connection with the petition and holding an inspection of the Strategic companies may be appealed to the court.

Further in some complex cases the petition on preliminary consent may be refer to the Government Committee on Control under the Foreign Investment in Russia (GC). Its decision may be appealed to the Higher Arbitration Court of Russia.

Moreover GC's decision may be issued upon condition of conclusion of an agreement made with the Foreign investor to ensure discharge of

certain obligations imposed without fail upon the Foreign investor, e.g., forming managerial bodies of the Strategic company, continued supply of products (works/services), etc. Such agreement shall be valid within the period while the Strategic company is under the Foreign investor's control and must provide the obligations for its failure, in particular, forfeit payment, imposition of other civil law sanctions, compensation for losses, etc.

In the event of a refusal from FAS or GC, the Foreign investor shall be obliged within 3 months to alienate a part of shares of such Strategic company possessed so that the remaining shares did not give this Foreign investor the right to exercise control over such company. Otherwise a court shall render a decision on depriving the Foreign investor of the Shares' voting right. In this case the votes belonging to the Foreign investor shall not be taken into account determining the quorum of and counting votes at the general meeting of Strategic company's shareholders.

The deals to be preliminary agreed with FAS and GC made in violation of Law requirements shall be null and void. A court shall apply the effects of invalidity of such deals, otherwise it shall render a decision on depriving the Foreign investor of the voting right at the general meeting of Strategic company's shareholders with consequences above.

Indeed anyhow Foreign investor is obliged to present to FAS information about acquisition of 5% Shares.

It should be noted that since April 2008 122 petitions were examined by FAS and 58 one – by GC. State authorities work actively however there are a lot of administrative issues unsettled in the Law.

In this respect the Government in face of Mr. Vladimir Putin requested FAS to draw out amendments to the Law. Many seminars and meetings were holding with the representatives of foreign investors, American Trade Chamber, embassies and of Association of European Business. Finally the following amendments were proposed to the Government:

- Banking being exempt from cryptographic activities;
- Radioactivity and bacteria use in the medical and food sector being excluded;
- Exemption of deals aimed to increase charter capital, the result of which does not increase the voting shares of the capital managed by the Foreign investor;
- Deals within group of persons shall be excluded;
- Increase of time frame for review by FAS;
- Time frame for approval process begins only after submission of complete set of documents;
- Foreign investor may apply for extension of deadline to conclude agreement on obligations imposed on him;
- etc.

Thus in order to conclude the purchase deal of 62% shares of RFS Holdings by Royal Bank of Scotland (RBS), the Russian subsidiary of RBS is bounded to abandon the license on cryptographic activities used in the system "bank-client". This is not the solitary case: banks are bounded to decline their licenses on cryptographic activities due to close similar deals. That one mitigates a security of banks' clients' transaction which may be challenged by them in future.

Also some complex issues were arisen within the merger of Russian company Unimilk and Danon since some bacteria are used in sour-milk production. This merger was approved by the Government Committee.

Therefore the acceptance of above amendments to the Law shall allow eliminating the uncertainty in understanding and in practice application of several Law's provisions, to obviate one un-considering the sufficient interests of the state and society, to activate the foreign investors.

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## Combining the requirements of Russian Accounting Principles and IFRS – challenge for many international companies

By Heli Pellikka

Russian accounting and financial reporting principles have gone a long way since the change of the economical regime in early 90's – unfortunately, in practice the International financial reporting standards (IFRS) are still far away in many areas. This causes additional challenges for international companies operating in Russia and obliged to prepare and publish the consolidated financial statements in accordance with IFRS. The financial reporting prepared in accordance with Russian Accounting Principles (RAP) requires detailed analysis and several adjustments before it can be transformed into financial reporting corresponding to IFRS.

The international companies also face several practical challenges when organizing the IFRS reporting of the Russian entity. Identifying the transactions requiring IFRS adjustments might be difficult from the accountancy prepared on the basis of the obligatory unified chart of accounts. Finding qualified employees to financial department with strong knowledge of RAP and IFRS is challenging, not to mention knowledge of English language. In practice many Russian legal entities derive their IFRS reporting for group consolidation purposes from Russian statutory accounting with the help of manually filled electronic registers as there is lack of developed program support not requiring significant customizing. Therefore preparing the IFRS reporting is often very time-consuming and the risk of losing the audit trail of the made adjustments and clerical mistakes is high. Special attention of the parent company's financial controlling department and external auditors is definitely required to IFRS reporting of the Russian entity.

The IFRS are officially the basis of the accounting and financial reform in Russia. Russian Federation has published its first program to reform the accounting and financial reporting in alignment with IFRS already in 1998. Within the program the Ministry of Finance of the Russian Federation (MFRF) started to develop and publish the Accounting Principles (PBU) to align in practice the accounting and financial reporting in Russia with IFRS. Since then there have been several amendments to earlier published PBU's and new ones have been published – as of September 2010 there are 22 PBU's regulating the accounting and financial reporting in Russia. The second program to reform the RAP into conformity with IFRS was issued by MFRF in 2004. The program sets a middle term development plan for the implementation of the IFRS in the country during the period 2004-2010. As of today socially significant open joint-stock companies, banks and insurance companies are already obliged to prepare their consolidated financial statements in compliance with IFRS.

Thanks to made reforms, many general principles of RAP are similar to IFRS. The PBU 1 (Accounting policy of organization) even determines that the guidelines of IFRS may be used by the Russian organization when developing their own accounting policies, if there is no corresponding guidelines set by the Russian accounting regulations. If the general principles and conceptual framework of RAP are in alignment with RAP – what is the problem then? Why is it difficult to trust that the presented financial statement prepared in accordance with RAP gives a true and fair view of the organizations' financial position and performance?

There are several issues making the practical implementation of IFRS challenging in Russia. The clear domination of the Russian tax legislation over RAP is one of the main factors. Even though the tax accounting and financial accounting were separated in 2003, the organizations seem to often choose the norms of the tax legislation over RAP when considering the accounting treatment of separate events in order to avoid the conflict between the tax and accounting regulations. The term "form over substance approach" is often used when describing the Russian tax regulations – this is clearly opposite to the principles of IFRS. The financial consequences of violations of Russian tax legislation are serious and keeping additional separate registers for tax accounting is laborious. On the

other hand, there are almost no consequences for violation of RAP. The rare lack of control and strict practical guidelines make RAP seem almost like voluntary or recommendable guidelines for organizations – however, this is not the case. The guidelines of RAP are obligatory for the organizations.

In addition to above mention issues causing difficulties to implementation of IFRS in Russia, there are still areas not covered by RAP and conceptual differences between IFRS and RAP. To mention some examples, RAP does not give guidelines for consolidations, impairment of the assets and financial instruments. The fair value is an important IFRS principle used in assets and liabilities measurement to present a fair and true view of organizations' financial position. RAP does not use the term fair value widely and the assets and liabilities are mainly measured on their historical cost. However, RAP determines for example that the inventory is measured at the lower of historical cost or market price. In practice the inventory is almost always measured at the historical cost and the effect of obsolete inventory items is not considered when the inventory value is presented in the financial statement.

Due to difficulties in practical implementation of IFRS in Russia, and still existing differences between IFRS and RAP, the reform of the Russian accounting and financial reporting principles is hopefully not over. At the same time IFRS itself are also changing. In order to keep track of the international development, special attention should be paid to continuous development of RAP and strengthening the legislative position of IFRS in Russia. The Law on Consolidated Financial Statements issued in 2010 already determines that consolidated financial statements should be prepared in accordance with IFRS. There is a legislative proposal to replace the current quite short and limited Law on Accounting with more detailed and extensive law, including e.g. more detailed guidelines for development of the accounting standards in Russia. Also the regulations determining the transition of Russian companies to IFRS are expected to be introduced. However, it is unknown when these documents may be ratified and come into force.

Russian companies are more actively working in international market and searching for international financing – without financial statement prepared in compliance with IFRS execution of these plans is almost impossible. Also the Russian and foreign owners and investors are more interested in analyzing the financial statements presenting the fair and true view of financial position and performance of the Russian entity, rather than trying to understand the financial reporting solely prepared to fulfill the requirements of authorities.

There is ever increasing interest in Russia, and not only by the international companies operating in Russia, to complete the alignment of RAP and IFRS. The future will tell us whether the interest will be strong enough factor itself to bring Russian accounting and financial reporting principles in line with the international principles. Positioning ourselves in the future five years from now and looking back, it would be truly delighting to see that the issues pointed out in this article have become void and Russia is an active member of the international body developing the IFRS.

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## It has been a year since the implementation of the EU Strategy for the Baltic Sea Region started – how is the situation today?

By Krista Taipale

In October, the European Commission published a report on the first year of the EU Baltic Sea Strategy implementation. The purpose of the Baltic Sea Strategy is to respond to the key challenges of the Baltic Sea region and to provide a macro-regional framework for improving the condition of the environment.

The Baltic Sea Strategy is relatively extensive, and it includes a detailed Action Plan with 15 priority areas and 80 flagship projects. The Action Plan has been divided into four priority focus areas according to theme: the environment, economy, safety, energy and traffic.

One of the most important tasks during the first year implementation of the Baltic Sea Strategy has been creating concrete structures for realising the operations in the priority areas. Functional structures have also been needed for starting the flagship projects. When the administrative basis of the Baltic Sea Strategy is formed, the next step is focusing on ensuring the future of the strategy.

Throughout the entire Baltic Sea Strategy process it has been evident that the continuous maintenance of political pressure and support is very important for retaining the achieved results and for expanding on them. The severe impact of the economic recession on certain Baltic countries has naturally been reflected in the implementation of the Baltic Sea Strategy – especially through nationally determined general priorities.

For instance, the following issues and areas for improvement emerged during the first year of the Baltic Sea Strategy implementation.

Internal operations and creating networks in the priority areas have proved to be challenging. Therefore, more expert feedback is needed on the methods of creating networks.

It is critical to fit the strategy to national administrative organisations. For coordinating the strategy measures, the administrative organisations in the member countries must be more accurately in line with their objectives. In addition, these organisations must be evaluated continuously.

The lack of funding makes the practical work even more difficult. The lack of a centralised and earmarked funding option can restrict the commitment to some areas and projects and make the implementation of the strategy vulnerable to administrative cuts as well as changes in political priorities and the condition of national economies.

In general, committing the funding of EU structural funding programmes to the Baltic Sea Strategy

implementation has proved to be more challenging than expected. This is another issue that needs to be resolved.

Strong political support is needed. Continuous and strong political support is needed for achieving the objectives of the Baltic Sea Strategy. Regional and local political actors have critical significance.

Maintaining high-level political pressure calls for forming a forum, in which the directors of different areas can discuss the implementation and the future of the strategy in a constructive way. The combining features of the priority areas need to be identified and promoted more extensively as well. In addition, there is a need for measures committing various sources of funding to the strategy.

The results are expected. There is high pressure being placed on determining the concrete added value achieved through the Baltic Sea Strategy because the planning of the future EU structural funding season is already well underway. The Baltic Sea area is a pilot and test platform for the new, so-called EU macro-region development. This also places pressure on the implementation of the strategy. The next EU macro-region, the Danube, and in the future possibly the Black Sea, Adriatic Sea and North Sea are all following closely as to how the Baltic Sea pilot strategy succeeds.

Finally, I want to say that, in spite of all the challenges, the local and regional actors have shown significant support and enthusiasm for implementing the strategy. Without the strong support and commitment by these grassroots-level actors, the strategy would not have a chance to succeed.

Turku and Southwest Finland have also been actively involved in the development of the Baltic Sea Strategy right from the outset. The City of Turku, the Regional Council of Southwest Finland, as well as other actors in the region are systematically contributing to the success of the strategy in many different forums.

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# Large towns dominant in the economy of culture in Finland

By Aku Alanen

In nearly all countries, cultural activities (as measured in economic terms) are concentrated in the largest cities and towns and usually the biggest population centre is also the main cultural centre. In Finland, the largest towns are more dominant in the economy of culture than in the country's economy as a whole. Helsinki is in a class of its own; its share of Finland's economy of culture is more than twice its contribution to the national economy. Tampere, Turku and Lahti also play a much more important role in the economy of culture than in the country's economy as a whole. At the same time, Oulu is an example of a large Finnish town where the situation is the opposite.

However, large towns are less dominant in the economy of culture than in the KIBS sector. Large towns make up almost 75 per cent of the value added of the Finnish KIBS sector, which is somewhat more than in culture. Cultural services and products are mainly directed at households while most KIBS services have enterprises as their target group. Helsinki is the only large town that has a larger share of culture than of KIBS categories. Helsinki accounts for slightly less than 40 per cent of Finland's KIBS production but generates more than 40 per cent of the country's cultural output. In other large Finnish towns the situation is the opposite. Helsinki also accounts for a substantially larger share of the value of cultural production than of persons employed in culture. In overall terms, cultural employment is also significantly more evenly divided than the value added of culture.

Cultural production is concentrated in Helsinki because in a small country like Finland, there are many cultural fields with only one important institution and these institutions are located in Helsinki (arts universities, the Finnish National Opera and the Finnish National Theatre). Most of the head offices of both public and private radio and television companies are also located in Helsinki. The contribution of Helsinki to the value added of Finnish culture has varied in recent years but has mostly remained above 42 per cent. Tampere, Finland's largest inland town, comes second. However, the cultural value added generated by it accounts for good six per cent of the national total and the proportion has been in a slow decline.

The role played by culture in the local economy varies by town

The contribution made by cultural value added is biggest in Helsinki (T2). Culture accounts for more than seven per cent of the city's economy, which is more than twice the national average. The percentage has remained at this level all through this millennium. If a small country has cultural fields with only one operator (such as the audiovisual sector) the operator is almost inevitably located in the capital. At the same time, because of the cost of the operations and the equipment needed there is also a great degree of concentration in other audiovisual sectors (such as motion picture production activities).

However, Helsinki also plays a very important role in fields with a large number of operators (such as design and architecture).

In Turku, which comes second in the comparison table, the contribution of culture as percentage of GDP has also remained above the national average. It is noteworthy that even though in absolute terms, Tampere has a substantially larger economy of culture than Turku, culture makes a larger contribution to the economy of Turku.

## T2 The contribution of culture to the economies of large towns

Average for 2001 - 2007

	employment percentage	value added percentage
Espoo	4.0	1.9
Helsinki	9.5	7.2
Vantaa	4.0	3.0
Turku	6.0	4.5
Lahti	5.1	3.5
Tampere	5.9	3.8
Jyväskylä	4.6	3.7
Oulu	3.2	2.1
Finland	4.2	3.2

In Espoo, which comes last on the list, the contribution of culture to the municipal economy has averaged less than two per cent. Mainly as a result of gambling activities, the proportion has been on the increase in recent years.

Generally speaking, there is no clear trend in the annual variations of value-added contributions made by cultural activities to the economies of large towns. As there have been both increases and decreases in nearly all of them during the last few years, I have used the average for the period 2001 – 2007 as a basis for the calculations.

The employment contribution of culture is larger than its contribution to the value added

In all large towns, culture is much more important in terms of employment than as a contributor to the value added. This is understandable because most cultural fields are very labour-intensive. In this respect, Helsinki is again in a class of its own. In 2001 – 2007, culture accounted for a significantly higher proportion of employment (9.5%) than of the value added (7.2%) in the economy of the Finnish capital. In other words, the proportion of employment was one third higher than that of the value added.

Is there any cause for concern?

Concentration of cultural activities is understandable and in my view the present situation is in keeping with general trends in society. However, there are causes for concern if the field becomes significantly more concentrated. If a large number of major towns located in more remote areas are unable to make any real contribution to cultural production, there may be more inequality and fewer economic opportunities in the regions concerned. There are, however, still cultural sectors that are characterised by more or less full regional equality. These include library services, which are divided fully in accordance with the distribution of population in Finland.

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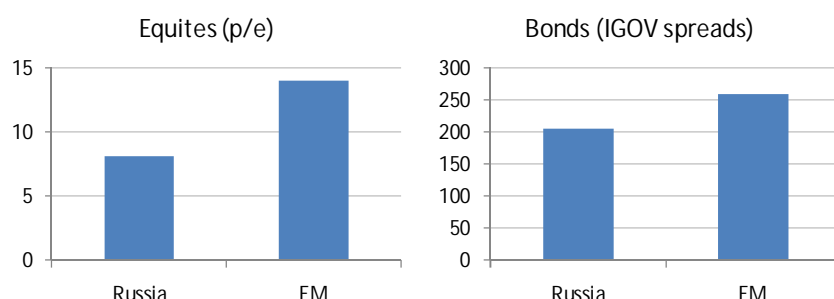


## Herd mentality

By Marcus Svedberg

There is a fair amount of herd mentality in the investment community. It is not hard to detect certain themes that many investment banks and brokerage houses are pursuing quite strongly from time to time. That emerging markets have been in favor during the past year has probably not escaped anyone. Inflows to emerging markets set an all time high in 2009 and will most likely be even higher this year. But the investment flows have not been evenly distributed across the emerging market space. Asia in general and China in particular have been the clear favorites – even though those markets have not performed the best and despite potential risk of bubbles – while Brazil and Latin America in general were quite popular last. Turkey has been the darling this fall but the rest of EMEA and Russia in particular have been out of favor.

Russia is standing out as perhaps one of the most misunderstood and neglected markets in the emerging market space. The Russian equity market is currently trading at a p/e level of around 8 while the EM average is 14. Investors are reluctant because Russia was hit hard by the crisis and because the economy remains dependent on resources. Investors also complain about corruption and corporate governance problems as well as the leadership. In short, many investors stay out of Russia because they have a problem with the Russian state. This is, however, not reflect in the rating of Russian sovereign bonds as the spreads are lower than for the EM average. So, equity investors put a huge discount on the Russian state while bond investors rate it at a premium. Something is clearly wrong in this herd mentality. Looking at the underlying fundamentals may help determine who is right.



Source: Source: BofA-ML (as of Nov 19, 2010)

It is true that the crisis had a negative impact on growth and the economy contracted substantially in 2009. But the economy has recovered fast and the macro economic situation has stabilized considerably throughout 2010. The currency and the fx reserves, which dropped significantly during the crisis, are almost back at pre-crisis levels. The economy is expected to grow around 4% in 2010 and 2011 driven by a healthy mix of external (exports) and internal (consumption and investment) demand. Perhaps more importantly, the recovery is taking place in an environment where inflation and interest rates are at historically low levels, which will spur credit growth to the household sector that is almost completely unleveraged.

It is also true that the Russian economy remains dependent on natural resources in general and oil exports in

particular, but the direct effect should not be exaggerated as Russia is a large economy that is more dependent on consumption than exports. But the price for oil and other commodities also have substantial indirect effects on the economy as it drives the appetite for the currency and, more generally, foreign investment into Russia. It is also important for the Russian government in terms of budget revenues. We believe the current oil price, around USD 90 per barrel, is almost ideal as it makes Russia interesting enough for investors but does not automatically lead to hot petro dollars flowing into the country, driving up inflation and the currency in an unsustainable fashion. The government should, under normal circumstances, also be able to balance the budget at the current oil price. The budget expenditures have, however, been increased during the crisis and Russia will run a deficit this year and in the coming years. The Russian government went to the international debt market in April 2010, for the first times in a decade, in order to raise money to finance the deficit. The offering was quite successful with a spread on the 5 and 10 year bonds only around 130 basis points over US Treasuries.

It is also true that corruption is a problem in Russia and that corporate governance is far from perfect, but the question is if it is so much worse than in other emerging markets to warrant such a big discount. Moreover, there are also signs that things are moving in the right direction under President Medvedev. The change of mayor in Moscow also seems to stimulate change in the capital's notoriously inefficient real estate and construction sector.

The herd mentality is not likely to disappear anytime soon although the calls will most likely change. Markets do not tend to stay undervalued for a very long time and many of the above mentioned houses have put Russia and a number of other EMEA markets on overweight recommendations. So it might be the case that investors start moving into Russia even though they dislike the sovereign. They may also be triggered by the recently announced privatization program, which is the largest since the controversial loans-for-shares program in the 90s, and the increasingly likely WTO accession. The forthcoming presidential election could also trigger the market in a positive way, if the tandem leadership were to be maintained for example, since many investors tend to expect the worst from Russian politics. Although these issues may trigger the herd to come back to Russia in 2011, we want to argue that Russia is not only interesting in the short term but, more importantly, that the medium-long term fundamental factors are supportive for investors and Russia alike.

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## Gender equality in Latvia – achievements and challenges

By Irina Novikova

Gender equality is one of core goals in human development. Implementation of gender equality into the national legislation of Latvia was among prioritised areas for its harmonisation with *acquis communautaire*. Adoption of the *acquis* contained a separate sub-chapter on equal treatment for women and men focusing on equal pay, equal treatment for women and men at work and in access to employment as well as balanced distribution of work-related and family duties. For the first time, the national legislation of Latvia defined terms such as 'gender equality', 'equal treatment', 'sexual harassment', as equal rights, obligations, opportunities and responsibility of men and women in professional life, upon acquisition of education and participation in other areas of social life. The EU gender equality policies have been of enormous influence in legitimizing gender equality as a political topic in Latvia.

The EU accession process contributed to promoting gender equality onto the national policy agenda in Latvia. Together with the European Commission, the national government prepared a Joint Social Inclusion Memorandum where long-term goals for gender equality activities have been set. The European Employment Strategy has also influenced the content of national labour market policies. According to the national gender equality legislation, all state and local authorities and institutions are obliged to apply a gender equality mainstreaming strategy. Gender mainstreaming as a pro-active instrumentarium of gender equality has been introduced and a relevant pool of key institutions in the national gender equality machinery has been constituted.

The attitudes towards gender equality are changing, and really significant improvements in the field of gender equality *de facto* are a long-term perspective and challenge that cannot be divorced from other political, ethnic, social and economic issues and how they will be solved in Latvia. A number of projects have been undertaken as an important evidence of tendencies towards pooling of civil servants, NGO activists, gender researchers involved in the projects on equal pay and equal pension for women and men, on changing the situation with reproduction of gender stereotypes in national educational programs and systems, on social inclusion and its gender dimension, etc. The development of gender research has contributed to increasing the levels of gender-awareness, gender-sensitivity, and understanding of gender equality as one of basic principles in promoting development of democracy in our country. However, gender studies remain marginalised in the curriculum transformation politics. Gender equality issues are not taught in higher education or in further training institutions preparing civil servants on a regular and nationwide basis; guidelines, handbooks and manuals on gender mainstreaming and gender equality should be widely available in the public reading market.

There are more challenges to be addressed, in particular the implementation of the commitments made during the negotiation process, and in addressing gender issues in policy areas other than labour market policies and social policies. The first and foremost question is whether gender mainstreaming in Latvia is seen as part of the expansion of an equal opportunities agenda, and whether political opportunities, mobilizing structures, and strategic framing do already exist (1) to ensure the sustainability of a gender-mainstreaming approach in various issue-areas on the national level (2) to provide for the state funding of local and municipal projects prioritising gender equality (3) to ensure gender equality policy implementation and sustainability into local/municipal/regional levels of governance (3) to ensure the principle of social/ethnic inclusion in the local and regional gender equality policies

In the Baltic dimension of the EU accession process, rather than being a comprehensive policy integrated in all areas of policy intervention, mainstreaming is mostly viewed as the latest management equality tool. The mainstreaming strategy has been devised to address the perceived needs of women and to pre-empt gender discrimination in the future labour market in European member states. However, it has been unable to expose and

address the needs of women outside the labour market and outside the formal economies of the European Member States, in particular those who migrated into the low-pay sectors of western European countries or were exploited by the sex industry.

Achievements in gender equality and women's empowerment in Latvia have been seriously challenged by the international financial crisis, having affected women's livelihood in the Baltic region (vulnerable jobs, under-employment, lack of social protection, migration) taking into account that they have a limited access to political, economic and financial resources. The ILO report on Global Employment Trends for Women 2009, makes an emphasis on the fact that today women are "often in a disadvantaged position in comparison to men in labour markets around the world [and that] in most regions, the gender impact of the economic crisis in terms of unemployment rates is expected to be more detrimental for females than for males".

There have been different national policy responses to the crisis, and all stakeholders of gender equality process should urgently think of their gender-specific impacts, e.g., cuts in public expenditures, with a negative effect upon care economy. In many ways the problems that women of Latvia have been confronting during the crisis of the last two years are similar to the global trends: in Europe – women's prevalence in insecure, part-time and short-term jobs, very much because of care and household duties. Another challenge is that national gender equality policies are not accommodated to the job migration and a growing number of Latvian women migrants to other European countries as well as a pressing demographic situation in the country (low birth rates and aging of population), with its impact upon future welfare policies.

The crisis has moved all governments to think more about the productive sector and structural reforms in order to change the existing economic framework. Investing in gender equality also during times of crisis would be an important political and economic step in the build-up of a different kind of sustainable rights- and equity-based development of the nation for confronting structural inequalities. In this respect, an initiative of the ILO Director-General Juan Somavia to create an emergency global jobspace is a global response for dealing with negative effects of the crisis upon national gender equality policies in the labour market. It is expected to provide a coordinated policy response to the global jobs crisis and global social recession.

The commitment of Latvia to advancing gender equality in all spheres of our political, social and economic life should not eroded by the global economic crisis, and Latvian women's organizations have to adhere more persistently to affirmative action measures and monitoring procedures, to collaborate more intensely with women trade-unionists and empower them in the negotiation process of trade-unions with national government, to advance the principles of gender equality in knowledge-production areas of the national economy. It is also the time for women-politicians to collaborate across their party affiliations, thus, adhering to a vision of the transformed leadership of women and men and working for the principle of gender justice as a corner-stone in the democratic development of the country and Baltic region.

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## Russian military transformation – work in progress

By Keir Giles

Russia's Baltic Fleet, and troops based in Kaliningrad Region, have been absorbed into an entirely new military command structure as part of the ongoing overhaul of the Russian Armed Forces. With effect from 1<sup>st</sup> September 2010, the Baltic and Northern Fleets, Kaliningrad, and the Moscow and Leningrad Military Districts have been amalgamated into a new Western Military District, with headquarters in St Petersburg.

It is now just over two years since Russia embarked on the most radical programme of military reform it had seen since the end of the Soviet Union, and in many respects since long before that. The armed conflict between Russia and Georgia in August 2008 provided the impetus for the long-overdue creation of a distinct form for the Russian military, as opposed to a continuing existence as a pale remnant of the Soviet Armed Forces. The process of transformation now under way has affected the military, and individual servicemen, at all levels from the General Staff to newly-enlisted conscripts, and the emerging form of the new Russian forces fully justifies their claim to a "new look".

The most palpable changes at an operational level so far are the abandoning of a mobilisation principle for manning the forces (with the resulting final closure of "cadre" units which were only to receive their complement of soldiers after mobilisation), and the transition within the Ground Troops from a divisional to a brigade structure – in other words, making the basic unit of organisation a much smaller one than was previously considered suitable for Russian conditions. The brigading of Russian sub-units is one of the clearest indications yet that the Russian military establishment has abandoned its preoccupation with large-scale land incursion. Previously, this would have been unthinkable, as would the recognition that mass mobilisation is no longer a viable option. Early critics of the plans for reform were apt to complain that they would destroy the country's capacity to mobilise reserve divisions for war – missing the point that that capacity was now explicitly declared redundant.

### The Military Threat to Russia

The most recent large-scale military exercises, practising and refining new concepts of employment of the Russian forces, serve as an illustration of the threat perceptions guiding the military transformation. They follow the pattern noted some time ago of exercises in Russia practising offensive action in the West and defensive action in the East, and tally with the threat picture expressed during the *Ladoga-2009* exercise by Chief of the Main Staff of the Ground Troops Lt-Gen Sergey Skokov – in the west, Russia has to contend with "innovative armies with non-contact forms and methods for using the latest forces and equipment", in the south, "irregular formations... [and] guerrilla warfare", and in the east, "a multi-million troop army using traditional approaches to the conducting of combat operations... with a great concentration of manpower and firing systems". Six months after this statement, Russia's new Military Doctrine emerged, containing a carefully nuanced treatment of NATO and a studied silence on the subject of China.

Contrary to much media reporting at the time, the new Doctrine signed into law by President Medvedev in February 2010 does not describe NATO as a military threat to Russia. But specific NATO activities (in particular, the development of military infrastructure closer to the borders of Russia, and use of force globally 'in violation of international law') are noted as "military dangers" which could under certain circumstances lead to an immediate threat. At the forefront of Russian thinking in this respect are the Baltic States – within NATO but not subject to the restrictions of the unadapted Conventional Forces in Europe (CFE) Treaty – and any potential new members for NATO that could be found around the Baltic rim.

### Operational Command

The new Western Military District is the first of four new amalgamated military administrations that will cover nearly all Russia's land, air and naval forces. The remaining Southern,

Eastern and Central Military Districts are scheduled to be implemented on 1<sup>st</sup> December 2010. But key to the overhaul of Russia's military command and control arrangements is the creation of parallel command structures to take charge of military operations. These new bodies are variously translated as Operational Strategic Commands, Combined Strategic Commands, and Joint Strategic Commands (even official statements seem unable to decide whether they are joint, "*obyyedinennyye strategicheskiye*" or operational, "*operativno-strategicheskiye*"). But all versions share the Russian acronym OSK.

The commander of the Military District is to double up as commander of the OSK – in the case of the Western Military District, this is now Colonel-General Arkadiy Bakhin, a 54-year-old senior commander born in Kaunas, Lithuania. According to the latest proposals, the Military District will remain the main organisational division in peacetime, and the OSK function will only come into effect 'during special periods', in practice during military exercises or in time of war. The activation of the OSK structure would therefore serve as a significant indicator of imminent large-scale activity by the Russian armed forces.

### The Navy

Changes implemented as part of the current transformation could be interpreted as the beginning of one of the periodic major reversals in the role of the Navy in Russian military thinking. Senior naval officers are certainly alarmed at developments. Subordination of the fleets to the OSKs is seen as a surrender of the Navy as an independent force with its own priorities to the needs of the Ground Troops; so the navy risks returning (not for the first time in Russian history) to being no more than the adjunct of a continental power's land forces. Furthermore, the Navy high command is to be absorbed as a department into the General Staff, restricting still further capacity for independent maritime thinking. With the exception of a quite possibly fictitious skirmish with Georgian patrol boats, the Russian Navy's actions in August 2008 were effectively all in support of ground operations. In subordinating naval forces to a joint commander in the OSKs, the top Russian military leadership could well be cementing the Navy into this ancillary role.

In parallel with this process, the priority of re-equipping the Navy seems to be slipping back in the queue for funding. The long lead times involved in the Navy's re-equipment plans have not worked in its favour, and Deputy Minister of Defence Vladimir Popovkin has appeared to suggest that long-awaited plans for aircraft carrier groups are being shelved indefinitely. As if to drive the point home, the highest-profile purchasing plan currently under discussion for the Navy, the potential purchase of Mistral-class assault ships from France, was not originally a naval priority but is intended precisely for supporting land operations.

The fundamental reform of the Russian forces is proceeding with unprecedented speed and flexibility, as different options are trialled and then adopted or rejected – so much so that after two years of rapid and radical change, even some of those senior officers who fully back the need for reform are describing themselves as disoriented and unable to keep up with the stream of adjustments and changes of direction. Further significant developments should be expected throughout 2011, while the desired end state for the reform process continues to evolve.

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# Baltic Sea sustained stability vs. Black Sea geopolitical struggle – myth or reality?

By Dominik P. Jankowski and Barbara Kirejczyk

The process of regionalization within the European Union can no longer be kept at bay. In fact, one can observe a constantly augmenting importance of the maritime regions. From the Polish perspective the main European security challenges are generated within the Baltic Sea-Black Sea geopolitical axis. Therefore, the aim of this article is to depict the security commonalities between these two regions.

## The Baltic Sea Region

The end of the Cold War resulted in a substantial redefinition of the geopolitical situation of the Baltic Sea Region. With the fall of the regional division into the balanced, peaceful and offish Norden (Denmark, Finland, Iceland, Norway, Sweden) and the heavily divided, tensed as well as militarily oppressed continental part (Germany, Poland, the Baltic States) came the crisis of sub-regional identities. The so-called Nordic Balance Strategy had to be reformulated and adapted to the entirely new circumstances in the south part of the region. The triangular division of interests and dependencies into those Atlantic, West European and Soviet collapsed. European integration, tightening cooperation between united Germany and France, democratization and liberalization of Poland, Estonia, Latvia and Lithuania led the North to a fear of becoming peripheral as well as to questioning the future of Norden cooperation and identity. Indeed, this—in combination with the advent of the Scandinavian third-way, welfare model crisis—brought about a strong need for redefinition of relations between the northern and southern Baltic regions. Isolationism and neutrality were no longer sufficient.

The Baltic Sea Region became a new cooperation project which in fact incorporated the already existing ones. It emerged from the necessity of finding a new strategy in the changed reality and to a certain extent promised satisfaction to a rich mixture of national orientations and interests. The creation of the Council of the Baltic Sea States (CBSS) in 1992 was an official recognition that the real need of consultations and institutionalised framework exists among all the Baltic Sea Region states. The later enlargement of the EU and NATO complicated the picture and forced intertwined collaboration patterns. Indeed, the cooperation under the CBSS umbrella is more decentralised and regionally focused as opposed to interstate character of NATO or the macro-regional character of the EU.

Baltic cooperation is a relatively fresh pattern. The CBSS tackles softer security issues such as nuclear and radiation safety, organised crime or trafficking in human beings. Hard security remain mostly under control of other institutions such as the Baltic Security Assistance Group, NATO and to a limited extent, the EU. The need for more EU involvement was reflected in the recently adopted EU Baltic Sea Region Strategy which recognizes and uses the region as a test for the idea of macro-regionalism in Europe.

Not only does the Baltic Sea Region remain socially and economically heterogeneous, but also many of the old political and geographical conditions remain problematic.

Firstly, energy is definitely one of the biggest issues challenging the Baltic Sea basin stability. The Russian and Norwegian hydrocarbon policies—aiming at securing their position on European energy demand market—can be put in opposition to the safety of supply of the rest of the region. Furthermore, the regional dependence on Russian oil and

gas forces the governments to make economic rather than security-oriented decisions. In fact, the quest for energy hales individual states to turn to external sources which is perceived as a factor of their further differentiation.

Secondly, historical conditions shaping the relationship between Russia and its neighbouring states still have not been comprehensively dealt with. In general, the specific position of Russia in the Baltic Sea Region cooperation patterns has recently been emphasised by an array of reactions from the suspicion of conducting cyberattacks on Estonia in 2007 to the construction of the Nord Stream. The latter is an evidence that although much has been achieved in promoting stability in the region, the major security dilemma still exists. The pipeline, which was bluntly—albeit exaggeratedly—compared to the 1939 Ribbentrop-Molotov Pact by the Polish Minister of Foreign Affairs Radosław Sikorski, divides the region and calls into question the future of actual cooperation and unification of common security strategies in the Baltic Sea Region.

## The Black Sea Region

When the Cold War faded away the basin of the Black Sea joined the regions, which were characterised by the existence of the “security vacuum”. Initially, this situation resulted mainly from the lack of mechanisms that would coordinate regional cooperation. Presently, despite the establishment of a number of political, economic or military institutions, the Black Sea Region is no more stable and predictable than two decades ago.

What is specific of this area, as compared to its Baltic counterpart, is the exceptional change in the geostrategic perception of the Black Sea after the fall of the USSR. In the last decade of the 20<sup>th</sup> century, from the kind of *mare nostrum* (although not completely) of the communist bloc it became the crossing place of interests rooted in the revival of national states (Ukraine, Georgia), of genuine hopes for integration with Western political, economic and military structures (Bulgaria, Romania) and the existence of states which could be depicted as regional powers (Russia, Turkey).

Furthermore, in the last ten years the largest European international organizations (EU, NATO) joined this puzzle following their expansion to the East. The United States, by declaring a plan to deploy a new anti-missile defence system, SM-3, in Romania, sent a clear signal that this area remains important from the point of view of its national interests. The Black Sea has become one of the epicentres of European geopolitics. The world economic crisis has further expounded the differences in the political and economic interests of the individual actors in the region.

Regional stabilization still remains possible in the long run. Nevertheless, there are three reasons for which the Black Sea “security vacuum” is extant.

Firstly, the confidence level in the region is not sufficient. This ensues from the “frozen conflicts” that have not been solved yet (Abkhazia, South Ossetia, Nagorno-Karabakh, Transnistria) and because of which the regional political community faces the problem of “virtual states”. Furthermore, the growing militarization of the Black Sea area, being the indirect upshot of the Russian-Georgian war of 2008, can further contribute to the intensification of local tensions.



Secondly, the regional powers, Russia and Turkey, strive to maintain the existing *status quo*, which is mainly expressed in the opposition to the expansion of third states and international actors in this area. Cooperation of both states, despite many differences in their strategic objectives, is getting tighter and tighter, which gives rise to common fears that the Black Sea will become a Russian-Turkey condominium.

Thirdly, there is no coherent vision of the region within the EU forum. On the one hand, European states are not capable of developing an inclusive strategy for the regional powers. On the other hand, the EU initiatives (the Black Sea Synergy, the Danube Strategy and the Eastern Partnership) are complementary only in theory and for the time being they do not create an essential synergy effect.

From the EU's perspective it is the energy dimension—including the transit of oil and natural gas from the Caspian Sea basin—that will be most instrumental to the regional stabilization. The EU, being the world largest importer of energy resources and the second energy consumer in the world, has been forced to look for methods to diversify its energy basket. Since in the coming decades the global economy will still be based on hydrocarbons, the Black Sea basin should be of key importance for Brussels. The EU must face this new geopolitical formula of the Black Sea. Therefore, it must accelerate the construction of the Nabucco pipeline and strengthen its relations with the key transit states, i.e. Turkey and Ukraine.

#### Myth or Reality?

Currently, a misperception is common that there is a growing geopolitical divergence between the Black Sea and the Baltic Sea. However, despite the fact that the Baltic Sea Region remains a “security consumer” while the Black Sea is a “security concern”, there are fewer discrepancies that one might think. Indeed, if one takes into consideration energy security and the ambivalent Russian foreign policy in both regions a clear-cut axis of interdependency is evident.

Therefore, it is high time for the EU and NATO to acknowledge that meaningful fact in their future regional strategies and activities.

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*The views expressed herein are solely those of the authors and do not necessarily reflect the opinions of the institutions they represent.*

## Bringing Russia into NATO – a Trojan horse in the making

By Marat Terterov

Is there any logic behind suggestions aired by senior decision makers, both past and present, that Russia could one day become a member of the North Atlantic Treaty Organisation (NATO)? At first glance, Russian membership to NATO may seem as a suggestion bordering on the absurd, given the history of relations between East (Russia/the Soviet Union) and West (the Euro-Atlantic bloc), as well as the fact that “Cold War warriors” are still in positions of power and influence on both sides of the former-Iron Curtain. That being said, the prospect of Moscow joining the NATO alliance has been implied publicly by former-Russian presidents, Boris Yeltsin in 1991, Vladimir Putin in 2000, and by former-NATO Secretary-General, Lord Robertson, at a high level political conference in the Russian city of Yaroslavl just last September.

Many opinion shapers in Europe argue that “these are now different times in which we live”. NATO’s *raison d’être* as a defence umbrella protecting the European mainland from Moscow’s “hard threat” is now outdated and, despite persisting moments of tension, Europeans should instead consider how to best incorporate Russia into European institutional space. This applies just as much in terms of security, the argument goes, as well as resonant discussions on EU-Russia economic relations. Recent weeks have seen a flurry of high level, diplomatic activity further perpetuating the idea of Russian-NATO integration. On October 18-19, French President Sarkozy and German Chancellor Merkel hosted Russian President Dmitry Medvedev at a tripartite summit in the French resort town of Deauville, which some experts have described as an attempt by Paris and Berlin to “pull together to present Russia’s candidacy to NATO”. Deauville preceded the Lisbon NATO Summit of November 19-20, which was billed as one of the most important meetings of the Alliance in recent history. Relations with Russia, together with the vexing question of Afghanistan, were at the top of the Lisbon agenda.

Debates within the security and political establishments of the Euro-Atlantic countries as to how to further pursue relations with Russia appear highly evident at present. The Deauville Summit is itself an outcome of such debates, reflecting the position of mainstream European states such as France and Germany, which would like to see a more inclusive relationship with Moscow. The Anglo-American position, together with some of the newer EU member states and former-Moscow allies in the Warsaw Pact, advocates a more truculent policy. Within the context of the NATO relationship, they have shown far more eagerness to reach out to Georgia and Ukraine, as opposed to Moscow – to the chagrin of the latter, needless to say. However, whilst a broad-based, trans-Atlantic consensus on Russia is yet to emerge, and while discussions of closer ties between Russia and NATO once again appear to be in fashion, the likelihood of any further momentum towards Russian membership to the Alliance was put to rest in Lisbon by none other than the Russian president himself.

In a speech addressing the delegates and guests at the Lisbon Summit, in contrast to his predecessors in previous years, President Medvedev stated in surprisingly clear language that he did not believe that Russia could become a member of the Alliance at any time soon. He likewise added that Russia would only accept any joint initiatives with NATO on the basis of equal partnership and that Moscow would expect joint decision making powers in any such ventures – be they through joint instruments such as the Russia-NATO Council or collaborative initiatives relating to missile defence, Afghan security, terrorism, Somali pirates, etc. While it is fine to assume that the head of the Russian state was reflecting present-day Russia’s greater confidence as an international relations actor in his remarks, Medvedev’s comments also mask the fact that in strategic terms, there would be very little value for Moscow in pursuing Alliance membership. To the contrary, anything more than cooperation with NATO in the areas of security challenges which Russia and the Alliance have in common (including those mentioned above), would not only hinder Russian national interest, it would undermine Moscow’s strategic position in Eurasia, as well as severely weaken NATO itself – possibly fatally. Here are four reasons why, which surfaced during a recent online debate about Russian relations with NATO between a group of Russian and international security experts and political scientists.

(1). Eurasian balance of power. NATO was originally conceived as a regional alliance promoting collective defence in wake of the military-strategic threat posed to Europe by the once mighty Soviet Union and its

own defence alliance of East European vassal governments, the Warsaw Pact. This created a balance of power in Europe – a “bloc mentality” forged around two rival, well armed camps – which evaporated during the 1990s following the end of the Cold War and the decline of Russian power in the international arena. During this past decade, the configuration of Eurasian geopolitics has changed, which is not only reflected by Russia’s re-emergence as an active political force in wider-Europe, but also by the rise in importance of China, India, Turkey, the Gulf and the Caspian states. Some Russian Eurasianists like to talk of the rise of RIKI (Russia, India, China [*Kitai* in Russian lang.] and Iran). This has created a new balance of power in Eurasia, underscored by Russian cooperation with China, more active engagement in the Middle East and endorsement of regimes non-aligned to Western policy in the region. Russian entry into NATO would radically change this state of affairs. With NATO’s borders encompassing Russia, China could succumb to a new state of encirclement, while the Arab street, which remains attached to the idea of Russian counter-balance to US policy in the region, would conspire to the view that Moscow has switched to the camp of its foes.

(2). Russian influence in the former-Soviet Union (FSU). Russia’s Permanent Representative to NATO, Dmitry Rogozin, recently stated that “Great powers do not enter alliances. They make alliances”. While we could debate as to the degree that today’s Russian Federation is in actuality a great power, Moscow still provides a form of leadership to inter-governmental security organisations encompassing other-former Soviet Republics, predominantly the Collective Security Treaty Organisation. There is also the Shanghai Cooperation Organisation, which is driven by both Beijing and Moscow, operating across Eurasia. Both organisations function with the mentality of some level of counter-weight to NATO, at least in Eurasia. Both serve to further deepen the Eurasian balance of power which has been emerging during the 2000s. And both organisations would fall apart were Russia to join NATO.

(3). Sovereign democracy. Russian experts readily concede that NATO is an alliance of states endorsing largely similar social and political philosophies. The Russian Federation, by contrast, as a relatively new state which has inherited many old, Soviet institutions, is seeking consolidate upon its own form of democracy over which it is sovereign. Unlike the NATO countries, which are ready to cede part of their sovereignty for the collective good of the Alliance, Russia prefers to maintain full sovereignty over national decision making, particularly in strategic areas. Russia would be compelled to surrender (some degree of) sovereignty over its nuclear missile capability to Brussels-based NATO if it was to join the alliance, something for which Moscow is hardly ready.

(4). Fragmentation of NATO internal decision making. Despite the fact that it is often viewed as the vanquished party in the decades-long Cold War between the Soviet Union and the West, the Russian Federation has never been an easy negotiating partner for NATO. No shortage of testing moments between Moscow and the Alliance are evident in recent memory. Serbia (1999) and Georgia (2008) are just two examples. Were Russia to join NATO, these areas of structural disagreement between the two parties would be incorporated into the heart of the decision making process inside the Alliance itself. Russia would bring with it a bagful of disputes with the FSU countries and seek to turn these into problems for the alliance to resolve. The Alliance would also become a playground for further disputes between former-Warsaw Pact members who have since joined NATO in order to protect themselves from Moscow. National interests would seriously hamper any notions of “the collective good”, leading to the further fragmentation of internal NATO decision making and possible collapse of the Alliance itself.

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## On security management and precautions on municipal level

By Bo Österlund

### **Concreting and coalescing the strategy of safeguarding the essentially vital activities of society into a part of normal activities and focusing resources on a local level of municipal units**

All communal activities are increasingly dependent on energy systems, data communications, and data systems. Social activities have become more technical and more complicated, which has resulted in greater damageability and increased susceptibility to disturbances in society. Systems of data technology have been webbed, and their reliability is less dependent on the user's own functional preparedness than on other people. Simultaneously we have become more and more dependent on experts of several various fields. Recent everyday disturbances have risen to affect the most crucial aspects in taking precautions in our society.

The following lists a few natural phenomena of significant dimensions, accidents, and natural disasters in the decade 2000 - 2010 with crucial consequences from our point of view.

#### **The storm which raged in Sweden in January 2005**

with its minor tornadoes and jet streams proved to be presumably the worst natural catastrophe in Sweden so far. The storm wind blowing at the velocity of more than 30 m/s felled in Sweden approximately some 75 million cubic metres of timber, equalling to what is annually cut down in Sweden industrially. In comparison: The industrial forest harvest in Finland rises to approximately 55 million cubic metres annually. The storm cut down the electricity for 730 000 customers, most of whom regained the electric current in a day or so, but as long as 20 days after the storm more than 12 000 clients were still without electricity. Part of the power cuts lasted far too long, even as much as 45 days. To compensate the power loss electric aggregates were taken into use to produce more than 3 000 megawatts of electricity. The aggregates had to be brought to Sweden from elsewhere because its own resources were inadequate. A great number of foreign electricity mechanics were hired for the repair work from the neighbouring countries including Finland. Part of the Finnish resource of mechanics were thus not available to do their work in Finland, which had a retarding effect on our forest harvesting in late winter and early spring. Repairing almost 30 000 kilometres of electric wires demanded immense effort of the electric companies since 2 700 kilometres of this amount, for instance, had to be totally rebuilt. Even the telecommunications were cut off for a long time. The storm also devastated highways and broke railway lines. Part of the population could not remain in their homes, schools and kindergartens had to be closed.

**The storm then moved to the Baltic States** where it caused a lot of damage; in Pärnu in Estonia, for instance, the Baltic Sea rose as much as 2,75 metres and surged in the streets of the Old Town. In Finland this January storm did not reach its top violence in full strength but even here the sea level rose to an exceptionally high level. In Helsinki the water rose 1,51 metres; in Kauppatori Market Place a dam was erected of waste paper bales but it did not hamper the influx of the water into the market place. The force of the sea water onto the coast interfered, for instance, with the operation of the waste water purification plant in Helsinki, and 63 000 cubic metres of waste water had to be discharged into the sea unprocessed. At several harbours hundreds of new cars in storage suffered severe water

damage. At my own summer cottage the shore terraces failed, and the supporting structures had to be searched up at considerably higher sites on the shore.

**The water crisis in Nokia in November 2007** with its provincial companies and official executive assistance troops is still fresh in our minds; something that should never have happened - not even in theory - did happen. The tap of the branch junction designed to flush the waste water and to dilute its concentration was, purely accidentally, not closed properly. Such tap constructions were then found to exist in the systems of several other municipal waterworks. An extensive power cut with lengthy consequences in Jyväskylä cut the electricity of more than 9 000 customers for a prolonged period. The extra apertures in the pipeline system below the central railway station of Helsinki caused a flooding in November 2009, and its unpleasant consequences were being repaired even in the following year at a considerable expense. The heavy rains of this year and the rather notorious storms named Asta and Veera had profound and extensive impacts on the infrastructure of our society. The resources of the District Department of Emergency Services were overloaded and proved insufficient to meet the demands of all the rescuing and clearing operations in the disaster area. Far too many households had to manage far too long without electricity. In the above situations, natural disasters, and their consequences we must deal with massive units, figures, expenses, and damages not to mention the huge number of citizens who were forced to do without all basic services.

**The distribution cut-off of the district teleheating in Turku** near Christmas last year was a scrape we got out of with a mere shock. The teleheating net is a loop-like structure which does not allow the disconnection of the damaged sites or getting around them. Consequently one single leakage resulted in the disability of the entire net to act properly. To evacuate more than 150 000 people in December frost would have been rather a challenge. The traumas of the school shooting cases in Kauhajoki and Jokela are not easily appeased.

**The violent breaking up of the ice coating of the River Uskelanjoki in Salo** on last Easter Sunday threatened to become a really impending disaster; the situation may, however, be regarded as a "narrow escape". In case the floating ice blocks had pulled away and destroyed the bridge structures across the river we would have lost most of our westward data communications since the cables run across the river along the bridge structures mentioned above. The use of the Internet and our steady connections westwards even from Helsinki would have been hampered, at least for some time.

**Duties have to be performed in all conditions.** Preparedness to normal-time disturbances is based on decrees concerning the duties of various authorities. The regulations of the duties ensure a uniform basis of preparedness. The obligation of preparedness in emergency conditions is based on the Emergency Powers Act (1080/1991). The purpose of the Act is to determine the policy which will secure the health care and livelihood of the population of the country, the national economy, maintain legal order, constitutional and human rights as well as to safeguard the territorial integrity and independence of Finland. According to paragraph 40 of the Emergency Powers Act the Government, the state administrative authorities, state businesses, and other state authorities as

well as **municipalities shall ensure, by means of emergency plans, prior preparation of emergency operations and other measures, that their duties will be performed with the least amount of disruption also in emergency conditions.** The Emergency Powers Act does not, however, regard communities as authorities although the community includes fields of action performing duties of authorities such as social welfare, health care and the District Department of Emergency Services. According to the spirit of the law preparedness to *normal-time emergencies* and to emergency conditions requires prior preparations within the compass of available economic and physical resources, as well as ensuring the operation of vital activities also in *emergency conditions*. Communities exist to bring welfare to their residents in normal everyday life as well as in emergency conditions. Every event occurs within one community, and therefore it should be pointed out that the authorities and other operators mentioned in the Emergency Powers Act have not, at their disposal, sufficient means to prevent states of emergency or to avert totally the ensuing damages. Still, preparedness is wisdom and cost-saving as a prophylactic measure. The amount of the gain thus attained or to be attained is, however, utterly difficult to estimate. If the tap of the Nokia waterworks had been closed or had never been installed our society would have been spared from the expenses it had to pay. The extra apertures in the pipeline system below the Main Railway Station of Helsinki should never have been made; a huge amount of costs would have been saved.

**State of Defence Act (1083/1991)** can be enforced only when a serious crisis is threatening. The law determines the special authorities of the Government and officials as well as the duties of the citizens in an emergency situation. The law also increases the authority of the defensive forces of the country. The essential duties of planning and other prior preparation are included in the **Rescue Act (468/2003)** which is being updated. It obliges the authorities, communities, and private citizens to draw up plans determining the necessary measures to shelter the population and property as well as offices and institutions, and to safeguard the activity and continuance of society. Crucial aspects in preparing civil defence are: building shelters and maintaining the systems of leadership, control, and alarm as well as data communications. Duties in emergency conditions have been mentioned also in the Maintenance Security Act.

On November 27, 2003 the Government issued a Resolution including the **Strategy for Securing the Functions Vital to Society (YETTS)**. The text of the strategy was adopted and updated on November 23, 2006. A new updating is being adopted, and the YETTS 2010 resolution will be ready by the turn of the year. The basis of the resolution 2010 will consist of 10 risk situations threatening in normal conditions. The risk situations in emergency conditions will apparently remain unchanged. The total number of different risk situations will, according to Colonel Aapo Cederberg, rise to 13.

The strategy determines the functions vital to society and sets the *aims and lines of development* to secure them. Functions vital to society are: management of government affairs, international activity, national military defence, internal security, functioning of the economy and infrastructure, People's income security and capability to function and psychological crisis tolerance. In accordance with the goals of the Finnish Security and Defence Politics the safeguarding of YETTS will, for its part, maintain our political independence as well as the living conditions and security of our citizens.

In the resolution, preparedness is considered too concise a concept to interpret the maintaining and safeguarding the functions vital to society in all conditions. The preparedness and the duties of the authorities included in the Emergency Powers Act are one of the several methods aimed to secure the functions vital to society. The purpose of the resolution is to point out that the functions vital to society have to be secured in *all security conditions* through an effective and appropriate collaboration of various resources. This requires co-operation between the state and other authorities, communities and the private sector. Civic society, churches and other religious communities contribute to attaining these objectives in accordance to their own resources. Preparedness suggests an amalgamated, anticipating, and prophylactic activity for the welfare of our society. Prior preparation to emergency conditions is supervised, controlled, and adapted by the Government and each ministry in their respective branch of administration.

The vulnerability of our society and our ever-increasing dependence on a complicated infrastructure which often transgresses state boundaries has brought the focus of preparedness from contingency planning in emergency conditions towards serious emergencies in normal conditions. Abnormal incidents, subtler technology and greater vulnerability have turned everyday emergencies and exceptional conditions into **a part of operating in normal conditions**. In principle, and leaving out further ado, we could express the matter with a concrete example: if a bus with say 57 passengers tumbles down into the River Uskelanjoki in Salo, the essential matter is not the factor occasioning the accident, whether the vehicle was hurled down into the river as a consequence of a missile assault or a heart attack of the driver. The only thing that matters is to save the lives and find protection to the victims of the accident. This requires *preparedness and capacity* in all security conditions. The basic level of capacity is built in normal conditions and on the basis of authorized operations and resources. Since most of the communities at least in Southwest Finland take their raw water out of open ditches or drain channels, the crucial question in a case of contaminated water is not, whether the incident was caused by a terrorist deed or some other factor. Our duty is to cope with the situation and to provide the residents of the community with pure water.

In their study, published in 2009, Juntunen, Nurmi, and Stenvall have defined this prophylactic activity and preparedness covering each condition of security on community level as follows: "*The preparedness and management of security in changing structures of service*".

The management of security in the communities involves basically in all patterns of conditions the aspects of *taking active control, choosing the correct counteractions, and leading the operations* in line with the chosen alternative activity. The community acts in collaboration with the other operators regardless of whatever the counterpart happens to be: authorities or some other public institution, association or a voluntary organization. The role of the community as the amalgamator and the consolidator of the activities within its borders is crucial and requires active measures. The community should have a proactive grasp of its environment and an anticipating role in guaranteeing the welfare of its residents. Anticipation also embraces the principle of *not admitting any chance accidents or even accepting such a possibility*.

The threats described in the strategies of 2003 and 2006 for securing the functions vital to society now give uniform and parallel arguments to be used in contingency planning all through our administrative system and society. With this strategy we have entered a totally new era and world of



ideas in preparedness and anticipation of emergencies. Simultaneously we have set the threats in their appropriate proportions.

At the beginning of this century the plan or the document in itself was an absolute value in planning precautions, emergency powers, and security. The plan was a document meeting all necessary formalities and focusing on emergency conditions, drawn up by some individual person, a consult, or a workshop, and its framework was often necessitated by the authorized activities mentioned in the Emergency Powers Act and the State of Defence Act. The commanding and executive system of the plan as well as the follow-up of the arrangements was often given too little consideration or it was completely neglected not to mention training. The planning document was preserved for a rainy day or the controllers of the higher executives. The updating of the plan was troublesome and the maintenance of being up to date was difficult. The performers, i.e. the labourers often remained rather distant from the substance as well as the execution itself due to the fact that it had been made by other people.

The planning of the measures to be taken was launched in Salo in spring 2009; this program was necessitated in *Paragraph 40 of the Emergency Powers Act* as well as in the list of the threats mentioned in YETTS (Strategy for Securing the Functions Vital to Society). The planning process is still going on. The title "*The Procedure Program for Security Managing and Preparedness*" was taken from the headline of the study made by Juntunen, Nurmi, and Stenvall, and was to be used as a guiding headline for the planning.

**In the first phase**, the assessment of risks and vulnerabilities based on the threat scenarios of YETTS was dealt with in a relatively extensive group of trusted persons and officers in several fields of action, as a crucial factor of security management and preparedness. **The threat scenarios in normal conditions** discussed were 1. Disruptions in the electric infrastructure including data systems, telecommunications systems, and data nets with payment transactions, 2. Environmental threats. **Emergencies in normal conditions**, more extensively than previously, were regarded as including also 1. A serious disturbance of health and livelihood within the population, 2. Nature disasters and other serious catastrophes, 3. Serious disruptions in economic activities, 4. Threat scenarios concerning traffic, and 5. Terrorism and organized or other serious criminality. **Threat scenarios in emergency conditions:** Political, economic or military pressure. The use of military power was postponed to a later planning phase.

When discussing the various threat scenarios answers to the following questions were pursued by operators in the various fields of activity: What may happen? How will it affect us? And in conclusion: How can we cope with it? The discussion dealt with: risk mapping, risk analysis, risk management, and the assessment of the effects of the event. The discussion also focused on the possibilities of diminishing or avoiding imminent risks, and deferring the effects. When discussing the matter of consciously condoned risks, the appointed representatives were given the opportunity to assess the resources of the community, and to set economic limits to devoting resources. The flood limits during and after the storm Gudrun were used as an example: measures will be taken for an emergency during which the water in the River Uskelanjoki should rise by 1,50 metres, but should the water rise more than that, the preparation measures will not be taken due to the limitations of the resources. Thus the political mechanism of decision-making committed itself to contingency planning.

After this the planning process proceeded to a mutual comparison of the reports of the various fields of operation, and then gradually to drawing up the lists of measures for the supervising and executing personnel, and finally the cards of duties. This work is at the moment in process but not yet completed. *The instruction for repelling flood* given in March prior to the debacle in the River Uskelanjoki and the accompanying detonation plan were to serve as a pattern. The instruction and the included list of measures to be taken were of great use on Easter Sunday.

**The second phase** comprised the possibilities of building a picture of the situation in the community. Anticipation and preparedness to repel accidents, to hamper or restrict its effects will be launched and triggered by this picture of situation. A timely picture of situation provokes a need to do something, or gives the chance of neglecting consciously the development of the situation. The absence of a picture of the situation will exclude both alternatives.

Since communities are not authorities, they will not, in pursuance of present instructions, obtain pictures of the situation gathered and delivered by authorities, nor will they receive any picture of the situation or any data of the situation from the emergency centre. The news from the Yleisradio (The Finnish Broadcasting Corporation) on August 27 this year is likely to indicate the presence of the same defect in the service level; according to this news both the police and most district rescue departments will establish situation centres of their own to maintain and supervise their own activities.

Since last year the City of Salo has had at its disposal the following adaptations of the picture of the situation to give a general picture of events: <http://www.tilannehuone.fi/index.php> displaying the event alarms on the map, <http://www.pelastustoimi.fi/aula> displaying the duties of the rescue department, and <https://prontonet.fi/Pronto3/online1/OnlineTilastot.htm#> displaying wing the statistics of the present, the past, and a few previous years concerning the numbers of the commissions of the rescue department.

The memorandums made in co-operation with the District Rescue Department of Southwest Finland and the Police Department of Southwest Finland in last March render it possible for society to create awareness of the situation, and to share it with the leading organs of the City of Salo. The memorandum with the Rescue Department reads: An arrangement of report and planning is to be created between the leading organs of the City of Salo and the District Rescue Department of Southwest Finland, and the system of procedures will be defined to support the leading organs of the City of Salo in coping with **disruptions in everyday situations as well as with emergency situations**.

The District Rescue Department is to distribute awareness of the situation and the picture of the situation assessed by the executive level, and to provide the community with the grounds to participate in drawing up evacuation and oil destruction measures and preliminary action in normal conditions. The District Rescue Department is to provide the community with a reactive (i.e. launched at alarm) picture of the situation, and information of what has happened or any event submitted to be reported. The memorandum points out nine groups of events, which have to be reported in the first place. The report will launch the action of the community executives to restore the situation to what it was, or to take subsequent restoring measures, we might even call it "putting out the glowing embers". In the memorandum made in co-operation with the police, the picture of the situation to be distributed to the community authorities is proactive, i.e. it will be launched on omens and

the estimated development of the situation. In the co-operation with the police, regular meetings of both the parties separately make an essential point; the subjects discussed at these meetings deal with the management of security and its development. The second "quarterly" meeting this year took place at the end of September. Some of the issues discussed at this meeting were: the possibilities of immigrant integration, the fight against drug abuse, and improved traffic culture. The picture of the situation distributed by the authorities is to be completed, as far as possible, with the observations made by the community. The communications concerning the picture of the situation act like two-way flow.

**The Third Phase** dealt with the co-operative network of local operators, its extent, and principles of its organization. Apart from authorities, also congregations and the local organization of the Finnish Red Cross, are essential factors in the preparedness of communities and in securing the functions vital to society; other significant factors are associations working with the Education of National Defence, other relevant associations, and local units and operators of economic life participating in the service production of the local administration. Solid and constant co-operation with the authorities has, in the City of Salo, resulted in a practice where the management of security and preparedness are always present. The community is obliged to be active in fitting together the local resources, and, if necessary, to act as the convener of the co-operating parties.

The executive assistance defined in the law on Defence Forces has not apparently opened to everybody, neither during the planning process nor in the light of the events of the last few years. When the ice blocks of the River Aurajoki in the City of Turku threatened the structures of the Myllysilta Bridge which today has already been torn down, it was suggested that the imminent danger could be escaped by asking for executive assistance from the Defence Forces. As the radio reporter asked the operator responsible for the request for help what executive assistance had been entreated, the answer was that executive assistance had been asked for, and that it would be cleared later on what sort of assistance was needed. As the request was made by the community, which in fact has no right to make such requests (communities are not authorities), it had to be withdrawn and forwarded by the District Rescue Department to the Defence Forces, with the same contents. The procedure with the executive assistance really needs more precision and adjustment to be more effective at both ends of the chain of action.

**The fourth phase** included discussions about the supervising, decision-making, and information systems of the community. The preparedness of the basic community is supervised by the Mayor of the Community with the Communal Administration according to the decrees of the law. The responsibilities for preparedness and operations in practice are, however, distributed more extensively as guided by alterations in the environment of operations. In communities, all significant decisions concerning strategies, ruling, and resources are always made by *boards of trustees*. In a municipality, when dealing with security management and preparedness, continuance and anticipation are accentuated in addition to practicing the management of situations; the documents attached to preparedness are always and every day on the table of the manager of the field of operation, they are always in mind and updated, if necessary. In process working, this means that preparedness is not dealt with as a separate process but always as deviations from the main processes. In

association of the budget discussion the Board of Trustees obtains annually an account of changes in the community's capability of preparedness as well as of the objects and expenses requiring further resources. The resources of preparedness are created in advance within the compass of authorized activities in normal conditions.

The reachability of the members of the Board of Directors of the Community as well as the deputyship arrangements in decision-making have been settled, and the contact information between the most important authorities and operators has been exchanged. During the flood repelling operation of last Easter the Chief-on-Duty of the Rescue Management, the Police, and the Municipal Board of Directors assembled several times a day at the most crucial point of the situation. The experiences gathered from the event were dealt with immediately, and they were carried over to the documents of Security Management and Preparedness as conclusions and suggestions of improvement.

The condition of reachability and maintenance of discussion and decision-making contacts is that the contacts at the disposal of the community should always be functioning. The restrictions and the vulnerability in the use of mobile telephones were last revealed during the storms Veera and Asta. As the base stations were void of electricity the batteries operated only a few hours. The serviceability of a separate net for authorities is under consideration. The VIRVE-course ordered from the Education of the National Defence this autumn will actualize the choice of a feasible intelligence device of great operational reliability.

On the basis of the experiences obtained from the planning process concerning security management and preparedness in the town of Salo we may point out that the system proved to be reliable in dealing with the natural disasters of last year; it also brought the management in normal emergency conditions to be part of communal everyday activities to the benefit of the residents of the community. The contribution of the trustees has been striking. The planning process carried out in the town of Salo has had a great effect on the way of thinking of the participants who have helped in making lists of measures for themselves and linked preparedness to be part of the everyday routine of activities in the community. The marching will go on as we soldiers are used to saying, meaning the continuance of operations.

John Steinbeck once said that the ability to think today differently from yesterday makes the difference between wise and obstinate.

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*Finland*

*Since summer 2009 the author has worked as an assisting expert of the Board of Directors of the City of Salo, and as one of the writers for the operations program of security and preparedness of the community. After leaving his post in the operations program in February 2010 he has worked in materializing the concretion and carrying out of the plan, and started a practice of co-operation memorandums with the District Rescue Department and the Police. The Chief of the Police Force in Southwest Finland has recommended the expansion of this practice but in adequately large entities.*

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ISSN 1459-9759

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