

Svetlana Stradinya¹

ON THE ISSUE OF NATIONAL INNOVATION SYSTEM FORMATION BY THE GOVERNMENT OF LATVIA

The study shows that despite some progress of Latvia after the EU accession, there is a significant number of problems that hinder its innovative development. The article offers a two-tiered approach (national and regional) to the formation of Latvian innovation system. The proposed recommendations cover only the first steps, which are indispensable for the establishment of innovation economy.

Keywords: innovative development; national innovation system; state innovation policy; Latvia.

JEL classification: R11; R58.

Peer-reviewed, approved and placed: 26.04.2016.

Світлана Страдіня

ДО ПИТАННЯ ФОРМУВАННЯ УРЯДОМ ЛАТВІЇ НАЦІОНАЛЬНОЇ ІННОВАЦІЙНОЇ СИСТЕМИ

У статті показано, що, незважаючи на певні успіхи Латвії після входження до ЄС, є низка значних проблем, які заважають інноваційному розвитку. Запропоновано дворівневий підхід (державний і регіональний) до формування латвійської інноваційної системи. Представлені рекомендації стосуються лише перших кроків, без яких неможливе формування інноваційної економіки.

Ключові слова: інноваційний розвиток; національна інноваційна система; державна інноваційна політика; Латвія.

Рис. 1. Літ. 18.

Светлана Страдия

К ВОПРОСУ ФОРМИРОВАНИЯ ПРАВИТЕЛЬСТВОМ ЛАТВИИ НАЦИОНАЛЬНОЙ ИННОВАЦИОННОЙ СИСТЕМЫ

В статье показано, что, несмотря на определенные успехи Латвии после вхождения в ЕС, имеется ряд значительных проблем, мешающих инновационному развитию. Предложен двухуровневый подход (государственный и региональный) к формированию латвийской инновационной системы. Представленные рекомендации касаются только первых шагов, без которых невозможно формирование инновационной экономики.

Ключевые слова: инновационное развитие; национальная инновационная система; государственная инновационная политика; Латвия.

Introduction. Global competition and economic crisis of the recent years require response from national economies to new challenges of our time. Such response could be the formation of national innovation system (NIS) for further economic development. Innovative development of society today is the center of attention not only for researchers, but also governments of many countries. On the transition to an innovation economy, the role of the state is to be the initiator, the catalyst of innovation processes. Another important factor to be considered is the quality of governance, the ability of political leadership of a country to form the needed institutional environment, plan, support and implement innovation projects.

The national innovation system is created over a long period of time through the interaction (or coevolution) of economic and political systems. Formation of nation-

¹ Baltic International Academy, Riga, Latvia.

al innovative system involves precise interaction of government, business, science and education. However, Latvia has no innovative model of development, which would have been recognized by its government, formulated, promulgated and positively perceived by the society and business.

The issues considered in this article are only part of this problem. But even they present an obstacle to the process of innovation economy development in the country.

Literature review. The study on innovation issues has become one of the most important research areas in foreign economic literature. Thus, the key concept of the role of innovation as the main factor of economic development was created by J. Schumpeter (1950). His ideas about the internal stimulating role of innovation serve as the starting point for further formation of various theories of the capitalist system transformation.

Subsequent development of the NIS concept reveals the relationship of technological, social and economic development, and its impact on society development, as proved by R. Nelson and S. Winter (1982), C. Freeman (1987; 1995), B. Lundvall (1992).

Further studies have shown that competition and market selection are important elements in the process of technological evolution. Innovative environment shall enter into force on market demand and includes firms, scientific research universities, public bodies (authorities) (Nelson and Rosenberg, 1993).

It was found that in the context of innovation institutional environment can be interpreted as a system of relations, conditions, rules and mechanisms to ensure the dynamic development of innovative processes (North, 1991). Subsequent studies show the interaction between the totalities of economic, social, political, organizational, institutional factors determining the creation of NIEs (Enright, 1993; Johnson, 1997).

Principles of organization and functioning of innovation systems can vary greatly, depending on a number of factors: specificity and structure of national resources, strategic objectives of a country, sociocultural characteristics of the society, and national style of management (Dosi, 1988). These features are forming the model of innovative development of a separate state.

All of these studies have proved that NIS is the key element of country's development, contributing to the increase of its competitiveness. Therefore, scientific and practical significance of this concept cannot be overestimated. In fact, it already replaced the paradigm of "welfare economics". In this context, a very useful and valuable seems practical application of this research in shaping the innovation economy of Latvia.

Research objective. Based on the analysis of Latvian economy after joining the EU, to identify the reasons for the exhaustion of the existing model of economic development and provide directions (first steps) in the formation of the national innovation system.

Results. *Analysis of Latvia's development with the EU.* In May 2004 Latvia became a member of the European Union. The country started to receive European funds immediately upon accession. This allowed it in 2014 to make a certain leap in competitiveness rankings, from 52th up to 42th place (The Global Competitiveness Index

2014–2015). In 2014, the European Commission approved the use of EU funds for Latvian development program until 2020.

Practically, this means we started to acquire funds in the amount of 4.4 bln EUR allocated for the next 7 years. International rating agency «Moody's Investors Service» at the beginning of 2015 raised the credit rating of Latvia from "Baa1" to "A3" with a stable outlook for the future (Moody's rating, 2014). This is an important achievement of Latvia, because the government has in recent years acted decisively in response to the crisis and strengthened fiscal discipline.

High ratio of GDP growth in 2005–2008, no doubt, contributed to the emergence of an ambitious concept of the "Baltic Tiger", although this growth was formed artificially on a speculative basis, and the EU money. Beginning of the crisis has led to one of the worst economic downturns: in 2009 gross domestic product in Latvia plummeted by 18% (The Baltic course, 2009). The crisis manifested the lack in flexibility of the state management system, combined with limited internal resources and the demand had the most negative consequences. In 2008, Latvia saved from bankruptcy loans in the amount of 7.5 bln USD, provided by the EU, the IMF, the World Bank under the obligation to carry out structural reforms by increasing tax burden on population and to reduce social expenditures.

Latvia, despite the European funding, has not approached the EU average level of life. Some experts speak about banal stealing funds from the EU funds, others – about the irrational use of money, others see the reasons in the crisis, which has "eaten up" all former achievements. The implementation of projects is rather difficult due to bureaucratic procedures, which Latvia has furnished, to receive eurofinancing. Administration of funds is aimed at compliance with the formal criteria rather than on the achievement of a certain final result. Many ideas die, waiting for funding.

There is another critical factor – people. On August 1, 2015 the population of Latvia was 1,978,000 people – that 88,500 inhabitants less than in 2011 (news.lv, 2015). Most frightening is the fact that in recent years the 60% reduction in the number of young people (15–29 years), that left Latvia in search of work. And this trend is increasing annually.

In the sphere of innovations Latvia is far behind many countries in Europe. Business investments in R&D are particularly low – 6 times lower than the EU average and, as a consequence – low rate of innovation overall. Comparison of the innovation indices is presented in Figure 1.

Latvia lags far behind in terms of innovation performance, as in the early 1990s it had to catch up. This is reflected in the low level of investments in innovations, low investment financing by commercial structures, lack of highly qualified labor force and underdeveloped institutions.

Corporate innovations are very important, as compared to the public sector; they create products/services with high commercial potential. But much of the innovation activity in Latvia in recent years has been in the hands of the public sector (mainly using the EU structural funds). Innovation has not yet earned enough attention when companies choose opportunities for further development.

Why Latvia has such low innovation activity? Entrepreneurs state that the main reason is lack of funds for intensive development, low level of motivation, lack of tax

incentives. Another problem is the absence of cooperation between business, government and the academic sector. Government identified a number of objectives of national importance with respect to innovation, in particular, to raise the 2020 expenditure on R&D to 1.5% of GDP. But a viable action plan is yet to come. Innovation policy in Latvia now is the weakest link. The country belongs to the group of "modest innovators" with innovation activity lower the EU average (Innovation Union Scoreboard, 2014).

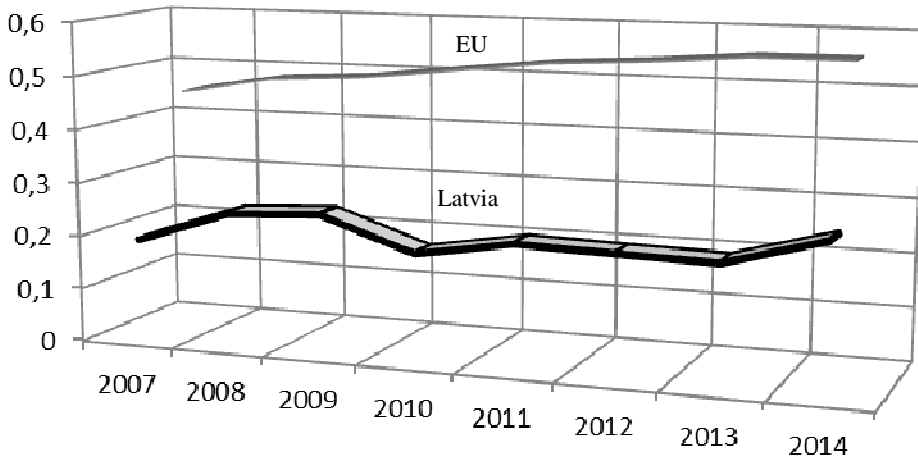


Figure 1. Comparison of the innovation index of Latvia with the EU average, 2007–2014, developed by the author on the basis of the European Union Scoreboard data for 2014

At the same time we note that, with few exceptions, all countries are developing innovation systems in their major regions. There is a very strong non-uniformity of growth of individual centers and peripheries, leading up to depressed areas. Latvia has 4 regions that differ significantly from each other in economic and social aspects of their development. The major share of GDP (about 69%) is concentrated in the Riga region, as well as large part of socioeconomic activity. Other regions, "bloodless" due to emigration remain without attention of government officials. This leads to the fact that in the next decade, some regions are doomed to extinction as such.

Innovative development of Latvia is slowed down by economic policy of the state, which carries out inefficient reforms, meager subsidies and little assistance in promoting the products of higher intellectual activity of scientists. In 2016 for the needs of higher education the government will allocate funds 65% less than in 2008, and science in the same period will lose another 23% (Kalvinsch, 2016).

As it can be seen, education and science, creating a favorable environment for innovation, are not among the priorities of the Latvian policy.

To these problems should be added another one which is much deeper and involves, primarily, the absence of traditions of statehood, low quality and irrationality of political elite decisions and, consequently, a heightened reaction to the alleged security threats (language policy, growth of military spending, migration issues), the lack of strategic vision and responsibility.

All this testifies to the limited state policies, their subordination to political goals. The government does not have enough understanding and no consensus on what sectors of the economy should be better developed today. Policy should send a signal to the society that it is not a one-day thing and not aligned to suit certain politicians. Politicians and legislators must understand the need for more serious decisions aimed at creating conditions for the medium- and long-term innovative development.

Recommendations on the formation of the national innovation system in Latvia.

Today, NIS is the result of deliberate government policy. Exactly the state, regardless the development model, should serve as the initiator, coordinator and catalyst of country's movement in an innovative direction. For Latvia it should be the priority theme in its upcoming national strategic program of economic development.

The government should develop a national innovation program for the coming years, publicly proclaim it, and guarantee its successful performance. According to M. Porter (1998), for its formation and existence is necessary to have long-term political and economic guarantees from the state.

Development of Latvia should take place only in line with the priorities of the EU innovation policy. But it should be adapted to specific realities of the country and to adjust the dynamics of changes under the fast-growing challenges. The NIS model of Latvia in our opinion, should be a two-level one, which will present both the state, and the regions. At the same time, the regional dimension becomes an integral part of the national innovation system.

The state level should cover both legal and economic areas. In organizational-legal aspects the role of the state is to develop and expand appropriate institutional and infrastructural conditions, in organizational-economic terms – in maintaining macroeconomic and social stability, ensuring stable operation of the financial mechanism to support development.

The regional level should include the development priorities for each region, taking into account the differences in the nature and availability of relevant resources. Regional innovation systems is a necessary condition for the existence of the national innovation system as its integral part. In Latvia, there is no fully fledged regional innovation system. However, in some regions there are elements of such a system, demonstrating an undeniable competitive advantage.

Here, the government should share power with regions and create centers for cooperation, which will include the representatives of local administrations, universities, research institutes and private businesses. Such a policy will contribute to the creation of regional clusters, network environments that will change the innovation landscape and accelerate its development. After all, the main goal of the EU regional policy is to strengthen economic, social and territorial cohesion by reducing the differences in the development level.

For the formation of Latvian NIS there is a need for competent professionals understanding the importance of the moment, but there are no such professionals in government at the moment, whereby one of the first tasks is their training. It is necessary to invite foreign experts that have developed NIS in their countries, to generate innovative thinking among members of the government. Trainings in particular: 1) would promote to recognition by the government of the importance of innovations as a factor in economic development; 2) would ensure broader government campaign

on innovation issues; 3) activate the dialogue between scientific community, industry and the public; 4) will contribute to coordination of various factors in the economy and society.

Due to the catastrophic outflow of youth, the government should create a program for the Latvians' reemigration because they got skills, ideas, knowledge and experience residing in developed countries and this are able to import new organizational models to their country. They will be able to fill in the gaps and help promote the innovation system.

Clear long-term plans of state support measures for small and medium businesses would facilitate enterprise investments in R&D. After all, small and medium businesses are the key beneficiaries of government programs. If governmental steps will keep short-term events with a high administrative burden, entrepreneurs are unlikely to consider the strategy that encourages investment in R&D, because by its very nature it is associated with risks and uncertainties.

It should be noted that at different stages the state's role in the development of innovation economy must be different. Initially, its role is to create an innovation system, but in other circumstances it is limited to observing how this system develops and also to stimulating certain individual units. Global experience shows that creation of individual elements for NIS should be linked together. Its formation can't be the prerogative of one ministry only; it requires coordination between various departments and between various other partners in the economy and society.

These are only the first steps. Political transition is essential for the creation of innovative economy. Further steps should include organizational innovations, covering education at universities, research institutions, business, social services, that is full development of NIS, which has to be declared by the government and gain support of Latvian society.

Conclusion. This study shows that innovative development of Latvia requires awareness of this problem, and major efforts on the part of the state. High innovative level of national economy can be, first and foremost, the result of deliberate actions by government which provides the basis for the innovation system. This framework creates further conditions for closer integration of science, advanced personnel training and educating future professionals.

The EC (2010) has developed a strategy "Europe 2020" which provides specific recommendations on policy improvement – to increase investments in R&D to modernize the education system, to support innovative partnership, to create a single EU patent system etc. Therefore, NIS development in Latvia should be in line with the priorities of the EU innovation policy. But it should be adapted to the specific realities of the country and to adjust the dynamics of changes under the fast-growing challenges. It is necessary to believe that this strategy will be supported by Latvian government in the foreseeable future.

Further research would consider the integration of relations between the state and regions, with the aim of smoothing the uneven development of the latter and tracking the processes preventing this.

References:

- В Латвии проживает 1,978 млн. человек // News.lv, 2015 // news.lv.
V Latvii prozhivaet 1,978 mln. chelovek // News.lv, 2015 // news.lv.

- Kalvinsh I.* Новый милдронат заработает миллиард, 2016 // www.mklat.lv.
- Kalvinsh I.* Novyi mildronat zarabotaet milliard, 2016 // www.mklat.lv.
- Спад ВВП Латвії в 2009 г. составил 18% // The Baltic course, 2009 // www.baltic-course.com.
- Spad VVP Latvii v 2009 g. sostavil 18% // The Baltic course, 2009 // www.baltic-course.com.
- Dosi, G.* (1988). The Nature of Innovation Process. In: Dosi, G., Freeman, C., Nelson, R., Silverberg, G., L. Soete (eds.). Technical Change and Economic Theory. London, Pinter.
- EC (2010). Europe 2020. A European strategy for smart, sustainable and inclusive growth. Brussels. 32 p.
- Enright, M.* (1993). The Geographical Scope of Competitive Advantage. In: Stuck in the Region? Changing scales for regional identity (pp. 87–102). Ed. by E. Dirven, J. Grocnewegen and S. van Hoof. Utrecht.
- Freeman, C.* (1987). Technology policy and economic performance: Lessons from Japan. London, Pinter Publishers.
- Freeman, C.* (1995). The National System of Innovation in Historical Perspective. Cambridge Journal of Economics, 19(1): 5–24.
- Innovation Union Scoreboard 2014 // www.ec.europa.eu.
- Johnson, B.* (1997). Systems of Innovation: An Overview and Basic Concepts. In: Systems of Innovation: Technologies, Institutions, and Organizations (pp. 36–40). Edited by C. Edquist. London: Pinter Publishers.
- Lundvall, B.-A.* (ed.) (1992). National Innovation Systems: Towards a Theory of Innovation and Interactive Learning. Pinter, London.
- Moody's upgrades Latvia's government bond ratings to A3; stable outlook, 2014 // www.moodys.com.
- Nelson, R., Rosenberg, N.* (1993). Technical Innovation and National Systems. In: Chapter in National Systems of Innovation (pp. 3–28). Edited by R. Nelson. New York and Oxford: Oxford University Press.
- Nelson, R., Winter, S.* (1982). An evolutionary Theory of Economic Change. The President and Fellows of Harvard College. 427 p.
- North, D.* (1991). Institutions, Institutional Change and Economic Performance. Cambridge: Cambridge University Press. 159 p.
- Porter, M.E.* (1998). On Competition. Boston: Harvard Business School Press.
- Schumpeter, J.A.* (1950). Capitalism, Socialism and Democracy. 3rd ed. New York: Harper & Row. 431 p.
- The Global Competitiveness Index 2014–2015 Rankings // reports.weforum.org.