

THE ROLE OF PUBLIC ADMINISTRATION INSTITUTIONS IN IMPROVED APPROACHES TO MODERN LABOUR FORCE TRAINING

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The current research is aimed at studying the role of public administration institutions in securing improved approaches towards modern labour force training. More specifically, the research is being targeted at the existing and emerging institutional approaches (mechanisms) for a comprehensive treatment of the problem of labour market skills in relation to ‘innovation capable’ labour force. The presupposition behind the research is that the relatively weak links between the higher education and research system and the vocational education and training system may be a potential obstacle for the training of ‘innovation capable’ workforce at all levels. The aim of the paper thus is to analyse the current theoretical approaches regarding the research problem and to present the results of the related empirical study – in order to evaluate the attitudes of relevant stakeholders towards the existing institutional mechanisms and towards proposed future developments to improve the labour force training. The tasks of the research were as follows: based on the analysis of the theoretical material, to identify the opinions of the stakeholders towards the current and proposed approaches in the implementation of labour force training, evaluate the new initiatives of the Latvian policy makers in vocation education and training and the attitude towards the newly established Branch Expert Councils and their role for future labour force training. The analysis of the theoretical and empirical study Based on the results of the research, further practical recommendations for possible improvements of approaches to the training of modern labour force will be developed. As a result of the research the following conclusions have been drawn: in the new situation of the labour market the change of attitudes is of utmost importance for promoting new developments. New and sustainable institutional mechanisms are needed for a successful training of modern labour force. The issue on creating and securing closer links between the higher education and research system and the vocational education and training system for preparing the modern labour force may need more attention in future. The existing traditional approaches, on the one hand, may secure stability and continuity, but on the other hand, may act as potential hindering factors, given the overall novelty of the global economic situation. Therefore, further academic research is needed on how to create and secure flexible and enduring future models. Further studies are also needed on the possible effects the existing and emerging institutional mechanisms may leave on the training of the modern workforce, and vice versa. More specifically regarding the empirical study – the range and the polarity of answers, as well as the included ideas and comments will serve as a base for next stages in the research, as well as for preparation of realistic and research based suggestions for policy makers.

Keywords: *labour force, training, innovation, skills gap, institutional mechanisms.*

Introduction

Lack of adequately trained labour force is an increasingly challenging problem all over Europe, greatly due to the need for specific skills in new or emerging professions. The education systems, though due to objective reasons, are often unable to react immediately to the labour market demand. Moreover, the globally new economic situation demands not only a well trained but also ‘innovation capable’ labour force. At the same time, there is not enough knowledge and experience how to train such labour force. There is some indication that the existing approaches in the training of the modern workforce of all levels does not any longer secure the needed results¹. Increasingly there is policy discussion regarding skills’ shortage or skills’ mismatch, and approaches are being discussed, both academically and politically, on the possible ways to address this problem. As these described new problems and challenges are often being addressed by traditional formerly

established approaches and existing institutional mechanisms, there is a concern that these approaches may not be effective enough and may fail to produce the desired results. This may potentially become an obstacle for successful future solutions regarding the training of ‘innovation capable’ labour force. At the same time, without strong innovation capacity, economies are increasingly failing to be competitive, and there is growing awareness that “innovation is our best means to help...tackle societal challenges in the global economy”². Not surprisingly, the need ‘to develop new curricula addressing innovation skills gaps’ have been pointed out in the policy documents of the European Union³. This is a particularly challenging task

² State of the Innovation Union 2011. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 2.12.2011, COM(2011) 849 final

³ Europe 2020 Flagship Initiative. Innovation Union. Communication from the European Commission of 6 October 2010.

¹ The textual analysis within the research support this opinion.

for Latvia, since Latvia now already for many years running has been at the bottom of EU 27 countries regarding in EU Member states' innovation performance, and according to the Innovation Union's Performance Scoreboard for Research and Innovation⁴ Latvia is being referred to only as a 'modest innovator'⁵. As it is clear that innovation cannot be implemented without an adequately trained labour force, we see it important to view the training of modern labour force in unity with the issue of innovation. This approach – the unity of innovation and the training of labour force – is being reflected also in the Latvian policy documents on research and innovation⁶, for example, the Order of the Cabinet of Ministers of the Republic of Latvia Nr 631 "On the Guidelines for the development of Science and 2009-2013" 16 September, 2009 (in Latvian), and this issue will be reflected throughout our research.

The questions discussed above have prompted our research problem - the role of the existing and emerging institutional approaches (mechanisms) for a comprehensive treatment of the problem of the training of 'innovation capable' labour force. Our attention was primarily focused on the role of public administration institutions in securing improved approaches towards modern labour force training. The novelty of the research lies in its attempt to view the higher education and research system and the vocational education and training system as a unity in the complex treatment of the problem of the training of modern labour force. Lack of closer links between these two systems has been viewed in the present research as a potential obstacle for the training of 'innovation capable' workforce at all levels. Thus, the issue of the training of the labour force is being viewed in the context with the key European challenge – to address innovation skills gaps. **The aim of the paper** thus is to analyse the current theoretical approaches regarding the research problem and to present the results of the related empirical study – in order to evaluate the attitudes of relevant stakeholders towards the existing institutional mechanisms and towards proposed future developments to improve the labour force training. The tasks of the research were as follows: based on the analysis of the theoretical material, to identify the opinions of the stakeholders towards the current and proposed approaches in the implementation of labour force training, evaluate the new initiatives of the Latvian policy makers in vocation education and training and the attitude towards the newly established Branch Expert Councils and their role for future labour force training.

The research methods used were: textual and literature analysis, consisting of policy documents, legal acts and research articles; the empirical study, consisting of the survey of opinions and interviews with policy makers, administrators and experts in Latvian higher education, research and vocational education and training, as well as

with representatives of the employers' organisations on the actual evaluation of the existing mechanisms in the training of the modern labour force. Through the textual analysis we were able to identify the current policy and academic discourse regarding our research problem and evaluate the predominant approaches in the present intellectual thought. By the empirical data analysis we were able to evaluate the existing attitudes among the key stakeholders towards the questions of our research problem and determine the prevailing tendencies in policy and decision making. This allowed us also to determine the degree to which the key stakeholders are prepared to discuss proposed approaches and mechanisms that differ from the existing traditional solutions. It also allowed us to test our own ideas and assumptions against the current expert knowledge and yield material for possible needed amendments in our overall research approach in future studies.

To carry out the empirical research, a questionnaire was developed and tested among the proved professionals in the above mentioned fields. Evaluations had to be made in scale 1 – 10, where 1: fully disagree; 10: fully agree. Based on the material obtained by the questionnaire, the primary analysis of the opinions of the various target groups has been conducted and compared. Qualitative analysis has been complemented by quantitative analysis through applying the indicators of central tendency or location (arithmetic mean, mode, median), as well as indicators of variability (variance, standard deviation, standard error of mean, range, and other).

As a result of the study certain conclusions were drawn. Among the key stakeholders in Latvian higher education and research system and the vocational education and training system, support to more traditional approaches is currently predominant. At the same time, the attitudes towards novel solutions is not markedly negative, which allows us to assume that there is space for innovative development. Discussing and developing new institutional mechanisms by key stakeholders may prove to be an effective approach to the solution of the problem. Also a new type of discourse is needed on the approaches to address skills shortage or innovation skills' gap. The Branch Expert Councils (BECs) which may serve as an example of a new type of institutional mechanism for improved labour force training are worth further in-depth study and analysis.

What kind of innovation are we aiming at?

The raised awareness that innovation has become a key factor to secure the competitiveness of national economies has been equally reflected in national and European policy documents and in academic discourse. According to the report "Taking European Knowledge Society Seriously"⁷, "an important change in the governance of innovation would be strategic development of improved European institutional capacity to deliberate and resolve normative questions concerning the prior shaping of science and innovation", recommending structured ways of appraising the projected benefits of innovation, implying a shift from expert-dominated

⁴ Innovation Union Scoreboard 2010. The Innovation Union's performance scoreboard for Research and Innovation. 1 February 2011 (<http://www.proinno-europe.eu/metrics>).

⁵ It has been pointed out in the Innovation Union Scoreboard 2011 and 2012 that "the performance of Bulgaria, Latvia, Lithuania and Romania is well below that of the EU27 average. These countries are 'Modest innovators'".

⁶ Order of the Cabinet of Ministers of the Republic of Latvia Nr 631 "On the Guidelines for the development of Science and 2009-2013" 16 September, 2009 (in Latvian) <http://www.likumi.lv/doc.php?id=197974>

⁷ "Taking European Knowledge Society Seriously". Report of expert group on science and governance to the Science, Economy and society Directorate of the Directorate-General for Research, European Commission. Luxembourg, 2007.

to more open deliberative science-informed institutions on ethics, risk and innovation.

More academically, Sharif claims that “there now seems to be universal awareness that technological innovation is indeed the engine for economic prosperity of a country”, indicating that technological innovations provide limitless opportunities for all people to do “*more things, newer things, better things, and things faster than ever-before*” (Sharif, 2012). Bogliacino & Pianta are arguing that “research in innovation systems, especially at the national level, is valuable and necessary for developing appropriate policies and understanding a particular actor’s behaviour” (Bogliacino & Pianta, 2011). In this respect the Innovation Union European Innovation Partnerships, announced by the Europe 2020 Flagship Initiative, should be considered as an important initiative, since it calls for “mobilising actors across the innovation cycle and across sectors around an overarching target in order to speed up innovative solutions to societal challenges”⁸. Thus the above mentioned challenges ‘to develop new curricula addressing innovation skills gaps’⁹ are clearly at the centre of EU policy making. This aspect is especially important for the present research, since our attention is being focused on potentially new forms of alliances and approaches in public administration to facilitate the training of ‘innovation capable’ labour force.

At the same time, as argued by Hobdaya, policies for innovation rarely concern themselves with theories, since understandably, the policy makers focus on the main task at addressing problems and challenges (Hobdaya et al, 2012). Mere policy transfer in itself is rarely a solution. Although policy transfer (closely related to the issue of best practice), is frequently recommended in policy making, it should be treated with care. According to Marsdena, for example, the principal motivation in policy transfer might be not only ‘strategic need’ but also ‘curiosity’ (Marsdena et al, 2011). Our implication here is that there is no clear answer as to what is the ‘right’ approach towards innovation policy as such, neither there is a clear answer if the best practice of one actor (or country) is useful (and therefore transferable) to another actor or country. Independent original ideas should be developed and tested, and these policy and public administration issues should be placed and studied in certain research contexts.

Clearly, each national economy has to take responsible decisions on the choice of the path to implement innovation, for example, considering the claim that technology policy means different things to different countries from the point of view of their level of income and size, as argued by Lundvall and Borrás. According to Lundvall and Borrás, in big income countries the focus will be on “establishing capacity in producing the most recent science-based technologies, as well as apply these innovations”, whereas in smaller countries it might be a question about “being able to absorb and use these technologies as they come on the market” (Lundvall & Borrás, 2005). Saint-Paula in this respect refers to ‘home bias’ – implying opinions and approaches that it is cheaper to produce a good in the country where the innovation has taken place (Saint-Paula,

2002).

Although these may be arguable approaches, nevertheless, the absorption and adequate use of new technologies is a challenge, and absorption is impossible without adequately trained labour force. The training of the labour force primarily is the responsibility of the public sector administration. According to Kwon, the development of labor education is driven not only by workers’ needs but also by the state’s policy to increase productivity while keeping the labor movement and political expression under control (Kwon, 2011). Thus, the role of public authorities should not be underestimated.

Also the relationship between innovation and productivity growth is at the centre of continuing interest in academic and policy-oriented research (Bogliacino & Pianta, 2011). According to Kwon, the government “continuously maintains national priorities of higher productivity and development of new technology that are crucial to nurture strategic industries and secure global competitiveness” (Kwon, 2011). At the same time, these national strategic priorities cannot be implemented without good governance, and this is another challenge for implementing responsible innovation. Such linkages between national governance systems and innovation systems indicate that a country is more likely to gain global competitiveness in markets whose innovation requirements are well supported by its national governance system (Hoskisson et al, 2004). Still, as pointed out by the European Union policy makers, the majority of Member States are ‘in the process of improving their governance structures and strategic guidance for research and innovation...however, very few countries are explicitly targeting societal challenges as their main priority’¹⁰. Moreover, “in the European Union ... beliefs are often surveyed via empirical analysis, in order to identify the views held by citizens”, as pointed out in the General Report on the Activities of the European Group on Ethics in Science and New Technologies to the European Commission 2005 – 2010¹¹, simultaneously stressing that “the results of such empirical research are sometimes used as a basis for political decision making procedures, without the intermediate step of ... analysis based on values”.

Consequently, the issue of good and responsible governance and sustainability cannot be overlooked in national innovation policies, and scholarly approaches for seeking solutions might become of greater importance today than before. According to conclusions of high level European policy research, countries should be increasingly aware of the “contribution socioeconomic sciences and humanities can make in addressing the key challenges of our age” and of the “capacity of these disciplines to stimulate stakeholder synergy and cultivate sustainable approaches”¹². For example, some researchers argue that recent years have shown “the emergence, take-up and use of the term ‘policy mix’ by

¹⁰ State of the Innovation Union 2011. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 2.12.2011, COM(2011) 849 final

¹¹ General Report on the Activities of the European Group on Ethics in Science and New Technologies to the European Commission 2005 – 2010. European Union, 2010.

¹² Strengthening the participation of research teams in science, economy and society in an enlarged Europe. Summary of the sessions at the research connection conference, Prague, 7-8 May, 2009. European Communities, 2009.

⁸ Europe 2020 Flagship Initiative. Innovation Union. Communication from the European Commission of 6 October 2010.

⁹ See foot-note 3

innovation policy makers and by policy analysts and scholars alike” - the term implying a focus on the interactions and interdependencies between different policies as they affect the extent to which intended policy outcomes are achieved (Flanagan et al, 2011). According to Von Schomber, the challenge is “to arrive at a more responsive, adaptive and integrated management of the innovation process”, pointing out that “the involvement of stakeholders and other interested parties should lead to an inclusive innovation process whereby technical innovators become responsive to societal needs” (Von Schomber, 2012).

This is not surprising, since societal challenges imply change of thinking paradigms, both, for the ‘governors’ and the ‘governed’ - public administration and society at large, and this has never been an easy task. There are also implications in this regarding the real interests of the society, related to potential risks and the needed precaution in the drafting and implementation of innovation policies at national and European level¹³, however, this is not the focus of the present research.

Much policy discussion has been devoted to the ‘demand-side’ and ‘supply side’ innovation policies. It has been noted that “a growing awareness amongst policy makers for the need to better exploit the power of public spending for innovation and the emerged focus on searching solutions to societal challenges” is a promising sign for the future spread of demand-side innovation policies¹⁴. At the same time, Kwon puts an emphasis to stable labour–management relationship as a prerequisite to achieving these priorities and notes that government-led labour education must be carefully planned and implemented to foster this relationship. (Kwon, 2011). These issues have continually and increasingly been on the European Union and national states’ political agenda already since the end of the previous century, with the awareness that stable growth within the global economic system implies factors such as “skill and education levels, effective institutions and administrations, a modern infrastructure and innovative industrial base”¹⁵. Clearly, a well trained labour force is being highly prioritised among other relevant factors, and the role of public administrations for the training of a competitive labour forces in the context of the implementation of innovation strategies should not be underestimated.

Challenge to the traditional approaches in labour force training

The issue of skills has always been a key concept regarding the labour force, but the new global situation demands reconsidering the traditional concepts and approaches. As already mentioned before, our research interest lies in the role of public administration institutions in securing improved approaches towards modern labour force training. More

specifically, we are interested in the existing and emerging institutional approaches (mechanisms) for a comprehensive treatment of the problem of labour market skills in relation to ‘innovation capable’ labour force. Our interest is both, from a theoretical and from the practical perspective. At the same time, being aware that the governmental approaches are determined by multiple factors and the same applies to the labour force training, the respective institutional mechanisms cannot be viewed as an isolated phenomenon. Thus, we will attempt to view our research problem in an integrated context, especially regarding the theoretical perspective on the present labour force situation.

Regarding the theoretical perspective, the currently existing research offers a wealth of material for consideration. The need ‘to devote more analytical efforts examining how technical innovation interacts with organisational change’ has been pointed out by Lundvall and Borras, when seeking answers on how organisational change affects innovation processes in the economy (Lundvall and Borras, 2005). The issue of the role of improved institutional co-operation and synergy effects is not new, and clearly “the strength of each institution arises not just from its own productivity, but also from its ability to make other institutions more productive” (Hoskisson et al, 2004). At the same time, it has been argued by Liu & White that “the central issue in...economies is not the need to establish new organizational actors” but instead the activity should be focused on “changes in organizational boundaries around activities comprising the innovation system, as well as the incentive structure and capabilities of actors to undertake these activities and perform well (Liu & White, 2001).

Along somewhat similar lines Hermann claims that “the combination of employee skills and scientific knowledge seems to facilitate different strategies not in an *additive* but in a *multiplicative* manner”¹⁶ (Hermann et al, 2011). In this respect Rycroft points to the organizational and technological changes as the focus of the continuous change model highlighting the development of flexible structures, featuring extensive interaction, learning, and freedom to adapt (Rycroft, 2006).

The shifting of labour demand toward relatively more skilled workers has been a hot issue in the economic field since long, as claimed by Antonioli, and “a consolidated explanation for the upskilling phenomenon is that technological–organisational changes have driven the labour demand with detrimental consequences for less skilled workers (*skill-biased technological–organisational change*)” (Antonioli, 2011). Technological changes that rapidly alter the productive structure of firms have strong influence on the labour force, and creates a potential skills gap. According to Lamo, when workers have adaptable skills, the gains from trade liberalization and technological change are rapidly realized. Still, when the skills do not comply with the new economic environment, shortages of workers with adequate

¹³ Research on these issues has been implemented by Ilze Buligina within the framework of the EU 7th Framework project EGAIS, <http://www.egais-project.eu/>, and research results presented and published at several international conferences.

¹⁴ Trends and Challenges in Demand-Side Innovation Policies in Europe. Thematic Report 2011 under Specific Contract for the Integration of INNO Policy TrendChart with ERAWATCH (2011-2012), technopolis [group], 26 October 2011 Authors: Kincso Izsak & Jakob Edler

¹⁵ Building the Knowledge Society. Report to the Government. Information Society Commission, Republic of Ireland. Dublin, December, 2002.

¹⁶ The implication here by Hermann is that various parties (here specifically employees and scientists) alike have important innovative potentials, and this innovative potential is multiplied whenever employees and scientists do not act in isolation but collaborate and, possibly, learn from each other (Hermann et al, 2011). Our assumption, however, is that the same phenomenon can be attributed to various stakeholders in innovation policy making and implementation.

skills might become a long-lasting phenomenon (Lamo, 2011). At the same time, in a way of precaution, when evaluating the skills of the work force, Elia points out that the existing empirical studies on the influence of globalisation on the demand for skilled labour force often use approaches that measure skill upgrading only indirectly¹⁷ (Elia, 2009).

When stressing the role of qualified labour force, Doms points out that policies “promoting and retaining a highly educated workforce could be at least, if not more, important than policies that attempt to more directly assist new businesses” (Doms et al., 2010). For this reason it is important to understand how social context under a specific political regime is related to a certain type of educational implementation and expansion (Kwon, Y. (2011). Consequently, much of the research supports the idea that the investing in the effective functioning and co-operation among the existing institutional mechanisms is to be supported, and the investment in labour force training cannot be overestimated. According to Freitas, public programmes are understood as coordinating and rewarding individual and collective learning for a determined period of time in order to accomplish specific objectives (Freitas, 2008). Boom raises the issue of the incentive to train and claims that the incentive is still not sufficient from a social welfare point of view¹⁸ (Boom, 2005).

Regarding the practical perspective and in the Latvian context, our presupposition was that the relatively weak links between the higher education and research system and the vocational education and training system may be a potential obstacle for the training of ‘innovation capable’ labour force at all levels. To study the problem, the opinions of the relevant stakeholders had to be obtained and analysed. Our empirical study was constructed with the aim to study the opinions and attitudes of the relevant stakeholders and draw the respective conclusions regarding our research problem. The content of the empirical study was to a certain extent related to the latest initiatives of the Latvian policy makers in vocation education and training, especially regarding the newly established Branch Expert Councils (BECs) and their role for future labour force training. In order to carry out the empirical study, a questionnaire was designed, and the opinions of the top and medium level public administrators in the higher education and research system and the vocational education and training system were obtained.

The key issue in the overall approach within the research was the attempt to link the higher education and research system and the vocational education and training system, by viewing them as a mutually complementary actors in the training of ‘innovation capable’ labour force. Since this approach is not alongside with the long established tradition

¹⁷ Elia et al claim that the most popular proxy, i.e., the share of high skilled workers over total employment [high skilled/(high skilled + low skilled)], may lead to misleading conclusions as it may point to skill upgrading even when the high skilled component does not change at all. Further on it is being claimed that the ratio may increase because of the reduction of low skilled employment, as well as from the unbalanced decrease in both high and low skilled workers, but the latter decreases more than the former (Elia et al, 2009).

¹⁸ Boom claims that the inefficiency problem would become even more severe, if there was free entry on the skilled labour market and training resources were not ‘wasted’, because of unemployed skilled workers. He claims that only if workers are able to pay for their general training without any limits, and if perfect markets for training can be established, then efficient levels of training can be achieved (Boom, 2005).

(which is to view the two systems relatively separately) we were prepared for a polarity of answers (which after the study proved to be the case). At the same time, it should be noted that it was not a challenge “for challenges sake”. The acquired positive experience in the work of the BECs¹⁹ in developing a new system for professions and qualifications in Latvia - including both, the ones obtained as a result of vocational training (primarily) and through higher education - could be considered as a promising sign to continue research work along similar lines. At the same time, it was not surprising that many of the interviewees were not familiar with the BACs (especially, those interviewees from the higher education and research system) - which in our opinion proves the relative separation in the functioning of the higher/research and vocational education systems. As was mentioned before, the BECs have been established through the initiatives within the vocational education system but to a certain degree addresses also the issues of the training of the modern labour force within the higher education system.

In addition to the above mentioned – there are opinions among policy makers in Latvia that the vocational training system should ‘learn’ from the higher education system and should possibly apply (or transfer) some tested approaches from the higher education system. Without any intention to criticise this approach, one should keep in mind the concerns expressed by Hoskisson on the ‘path dependence’ implying that “institutions create path dependence that shapes new institutions that favor the consequences of the preexisting institutions (Hoskisson, 2004). This is another issue stimulating further discussion how far and in what direction institutional co-operation (experience and practice transfer) should go, and how to determine the potential positive synergy effects it may cause.

The theoretical and empirical study results

The theoretical research results show that governance in modern public administration needs rethinking also regarding the labour force training. In its turn, the issue of innovation cannot be overlooked, since this is an indispensable component for global competitiveness. However, it is not sufficient to promote the development of innovative solutions alone, since the very implementation of innovation is crucial. Although the paths for this in various countries may differ, all depend on skilled labour force at all levels. At the same time, by tradition innovation is more linked to the higher education and research sector, paying relatively little attention to the relevant processes outside this system. Through our theoretical research we have identified it as a serious drawback in the traditional approaches, and this has prompted our interest to study empirically the existing opinions and attitudes towards proposed future solutions regarding relevant institutional mechanisms.

The survey prepared and implemented within our empirical study covered a broad spectrum of targeted questions, however, in the present paper we will analyse only the issues related to the overall attitude of the interviewees towards our above described research approach. Consequently, our attention will be focused on 3 questions/ statements:

¹⁹ One of the authors of the paper Ilze Buligina has been nominated as the public sector (Ministry of Education and Science) representative in the 12 BECs.

1. Are you familiar with the 12 Branch Expert Councils (BECs) established in 2011 (in text further – “Expert Councils”).
2. In the education system more attention should be paid to the training of ‘innovation capable’ specialists (in text further – “Training of innovation specialists”).
3. Can you see added value for a ‘horizontal’ co-operation between the institutional mechanisms functioning within the higher education and research system and the vocational education and training system – with the aim of training ‘innovation capable’ labour force at all levels (in text further – “Horizontal co-operation”).

Further on the research results will be presented.

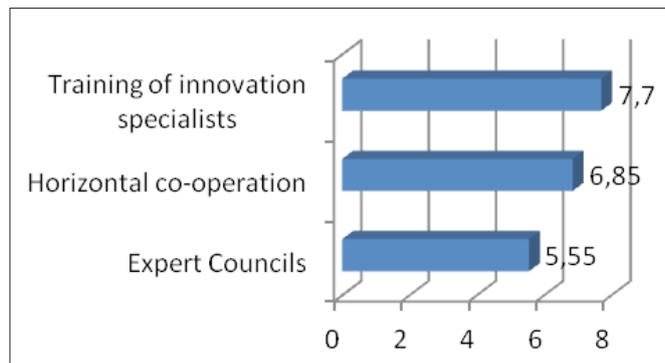
Table 1. Main statistical Indicators of Expert Survey

		Expert Councils	Horizontal co-operation	Training of innovation specialists
N	Valid	20	20	20
	Missing	1	1	1
Mean		5,55	6,85	7,70
Std. Error of Mean		,819	,629	,398
Median		6,00	8,00	8,00
Mode		0; 6; 10	8 and 9	8
Std. Deviation		3,663	2,815	1,780
Variance		13,418	7,924	3,168
Range		10	10	6
Minimum		0	0	4
Maximum		10	10	10

Source: Expert survey: January – March, 2012, n=21
Evaluation scale 1 – 10, where 1- fully disagree; 10 – fully agree; 0 – no opinion

Data of table 1 indicate that experts have rather similar and high opinion on “training of innovation specialists”: all indicators of central tendency are alike: arithmetic mean is 7,7; mode is 8 (most often evaluation level of experts); median is 8 (half of experts gave evaluation 8 or less, half of experts gave evaluation 8 or more), indicators of variability are rather low: all experts gave evaluations at least 4 and all of them had supported this issue and had view on that. Rather high evaluations are on “horizontal co-operation” where most evaluations are 8 and 9, but there are three experts who gave evaluations 4 or less. Very different opinions are on expert councils: the evaluations were from very high till rather low and no opinion (indicated by mode and extremely high indicators of variability).

The expert survey results confirm that the experts see training of innovation specialists as very important for the institutional mechanisms’ functioning within the higher education and research system and the vocational education and training system. However, the need for horizontal co-operation between the two systems in preparing the respective labour force is supported by fewer experts. Too many experts are not informed about the experts councils and their contribution for innovation development in Latvia. There is an indication that among the experts traditional approaches prevail.



Source: Expert survey: January – March, 2012, n=21
Evaluation scale 1 – 10, where 1- fully disagree; 10 – fully agree; 0 – no opinion

Figure 1. Average Evaluations of Experts

Conclusions

As a result of the research the following conclusions have been drawn. Among the key stakeholders in the higher education and research system and the vocational education and training system, support to more traditional approaches is currently predominant. At the same time, the attitudes towards novel solutions are not markedly negative, which allows us to assume that there is space for innovative development. Discussing and developing new institutional mechanisms by key stakeholders may prove to be an effective approach to the problem. Also a new type of discourse is needed on the approaches to address skills shortage or innovation skills gap, as well as on the issue how to determine the needed qualifications. The identified problem with the labour force skills and qualifications and the effectiveness of the existing institutional approaches in addressing these problems has allowed us to identify the twelve Branch Expert Councils (BECs), established in 2011 to implement governmental priorities for improved qualification systems, as a potentially promising new institutional mechanism. The BECs may serve as an example of a new type of institutional mechanism for improved labour force training and are worth further in-depth study and analysis.

In the new situation of the labour market the change of attitudes is of utmost importance for promoting new developments. New and sustainable institutional mechanisms are necessary for a successful training of modern work-force and establishing adequate and flexible qualification systems. The issue on creating and securing closer links between the higher education and research system and the vocational education and training system for preparing the modern labour force may need more attention in future. The existing traditional approaches, on the one hand, may secure stability and continuity, but on the other hand, may act as potential hindering factors, given the overall novelty of the global economic situation. Therefore, further academic research is needed on how to create and secure flexible and enduring future models. Further study is also needed on the possible effects the existing and emerging institutional mechanisms may leave on the training of the modern workforce, and vice versa.

More specifically regarding the empirical study – there are clear indications of the awareness of key stakeholders on the need for training the ‘innovation capable’ labour force. At the same time, regarding the institutional approaches and the potential change of the existing tradition, there is more reservation, as we had already anticipated at the start of the research. The expert survey results confirm that the experts see training of innovation specialists, as very important for the institutional mechanisms’ functioning within the higher education and research system and the vocational education and training system. However, the need for horizontal co-operation between the two systems in preparing the respective labour force is supported by fewer experts. Too many experts are not informed about the experts councils and their contribution for innovation development in Latvia. There is an indication that among the experts traditional approaches prevail. The range and the polarity of answers, as well as the included ideas and comments indicate that more discussion and research is needed in order to identify and implement institutional mechanisms to promote the training of innovation capable labour force. This is an immediate task by public administrations, since innovation is crucial for the global competitiveness of national economies, and innovation needs to be implemented at all levels. Thus, also the need for respective labour force refers to all levels of the production process, and the public administrations are responsible for this. Based on our theoretical and empirical analysis, our assumption is that the public administrations will have to develop more flexible and innovative approaches themselves, in order to be able to follow and address the modern labour market developments. The present research will serve as a base for next stages in the research on the role of public administrations in the training of modern innovation capable labour force.

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