
KNOWLEDGE IN EU DEVELOPMENT STRATEGIES

Jovan Bazic, Ph.D

Teachers Training Faculty, University of Pristina-Kosovska Mitrovica, Serbia jovan.bazic@pr.ac.rs

Mirjana Knezevic, Ph.D

Faculty of Economics, University in Kragujevac, Serbia mknezevic@kg.ac.rs

Abstract: This paper presents the analysis of the role of knowledge in European Union (EU) development strategies pertaining to the period between 2000 and 2020. It focuses on two basic strategies. The first is the *Lisbon declaration on strategic EU objectives 2010*, and the second is *Europe 2020: Strategy for smart, sustainable and inclusive growth*. The European Council adopted in 2000 in Lisbon the strategy whose objective was for the EU to become the most competitive and dynamic knowledge-based economy in the world by 2010. Later (in 2005), due to unsatisfactory results of its implementation, the objectives were redefined in such a way that three new priority directions were determined, most important of which was strong support for knowledge and innovations development. Such EU policy was maintained in the future so that structural reforms could be continually implemented.

For this reason, the new strategy Europe 2020 was launched. It focuses on three priorities: smart growth, sustainable growth and inclusive growth, accompanied by five mutually reinforcing objectives. Smart growth is defined as knowledge-based economic development. Knowledge and innovations are seen as drivers of future growth, while knowledge is additionally identified as the basic resource for progress and development. To obtain the required knowledge and innovation, it is necessary to have an efficient and coordinated educational system which will provide dynamic economy with skilled work force and life-long learning competences. Consequently, the strategy's objectives comprise an increase in GDP spending on research and development, a reduction of the early school leavers' rate, and a rise in the percentage of population with university diploma.

All the priorities and objectives have been disseminated through various initiatives, guidelines and instruments for Strategy implementation to EU member and candidate states to ensure common policy in reform processes. In this way the policy and direct activities leading to faster technological growth and increased competitiveness in the global market were united. The analysis of EU development strategies for the first and second decade of the 21st century reveals that they give knowledge an absolute priority linking it almost invariably to technological innovations and development. This means that the emphasis is placed on applied knowledge to which entire education is dedicated.

If these projections are seen in the context of technological changes happening in Europe since the beginning of the 21st century, it becomes obvious that knowledge and innovations have resulted in impressive changes termed as the *Fourth Industrial Revolution* or *Industry 4.0*.

Key words: knowledge, economic development, European Union.

ЗНАЊЕ У РАЗВОЈНИМ СТРАТЕГИЈАМА ЕВРОПСКЕ УНИЈЕ

Проф. др Јован Базић

Учитељски факултет Универзитета у Приштини-Косовска Митровица, Србија

jovan.bazic@pr.ac.rs

Проф. др Мирјана Кнежевић

Економски факултет Универзитета у Крагујевцу, Србија mknezevic@kg.ac.rs

Резиме: У овом раду је изложена анализа улоге знања у развојним стратегијама Европске уније (ЕУ) које се односе на период од 2000 до 2020. године. У центру пажње су две основне стратегије. Прва је *Лисабинска декларација о стратешким циљевима ЕУ до 2010*; и друга *Европа 2020: Стратегија за паметни, одрживи и инклузивни раст*. Европски савет је у Лисабону још 2000. године усвојио стратегију према којој је постављен циљ да Европа до 2010. године треба да постане најконкурентнија и најдинамичнија привреда на свету, која ће бити заснована на знању. Касније (2005), због незадовољавајућих резултата у реализацији ове стратегије, дошло је до редефинисања постављених циљева па су прецизирана и одређена три нова приоритетна правца деловања међу којима је на првом месту поново изражена снажна подршка развоју знања и иновација. Таква политика ЕУ настављена је и касније како би се у континуитету оствариле структурне реформе.

Зато је донета нова стратегија Европа 2020. У њој се истичу три приоритетне области: "паметан раст", "одржив раст" и "инклузивни раст", као и пет циљева који се међусобно допуњају. Паметним растом се дефинише развој економије засноване на знању и иновацијама. Овде се знање и иновације виде као покретачи будућег раста а знање се још одређује и као основни ресурс напретка и развоја. Да би се дошло до потребних знања и иновација неопходан је ефикасан и усклађен систем образовања који ће обезбеђивати неопходне стручне профиле динамичној привреди и компетенције за доживотно учење. Зато се међу циљевима, у овој стратегији, нарочито указује на: повећање процента БДП који се издваја за истраживање и развој, смањење стопе раног напуштања школе, као и на повећање процента становништва са дипломом високог образовања.

Ови приоритети и циљеви су, путем различитих иницијатива, смерница и инструмената за спровођење Стратегије, пренети земљама чланицама и земљама кандидатима за пријем у ЕУ, како би се обезбедила јединствена политика у реформским процесима. Тиме су обједињене политика и непосредне активности ка бржем технолошком развоју и већој привредној конкурентности на глобалном тржишту. Након анализе развојних стратегија Европске уније, за прву и другу деценију XXI века, може се запазити да знање у њима има апсолутни приоритет, да се оно готово увек доводи у контекст технолошких иновација и развојних пројекција. Дакле, у питању је нагласак на знање у пракси и њему је подређено целокупно образовање.

Уколико се ове пројекције доведу у контекст технолошких промена које су остварене у Европи од почетка XXI века, онда се може запазити да су знање и иновације довели до импресивних промена које се означавају као *Четврта индустријска револуција* или *Индустрија 4.0*.

Кључне речи: знање, привредни развој, Европска унија.

1. INTRODUCTION

In the first two decades of the 21st century, the European Union (EU) development strategies have paid close attention to knowledge. Two relevant strategies will be discussed here. The first is the *Lisbon declaration on strategic EU objectives 2010*, and the second is *Europe 2020: Strategy for smart, sustainable and inclusive growth*. Apart from these, there are other EU documents pertaining to the projection and role of knowledge in the economies of EU member countries and the Union as a whole.

1. In the European Council meeting held in Lisbon (on 23-24 March 2000) the development strategy known as *Lisbon declaration* or *Lisbon strategy*³⁹ was adopted. Its starting point was the assessment that EU economy is getting less competitive in the global market, with growing unemployed and elderly population demanding more welfare benefits. Additionally, the EU was about to be expanded through the accession of predominantly poor countries, which presented a major economic and social challenge. All this led to the enactment of Lisbon strategy in order to launch reforms and provide faster economic growth, higher employment and social cohesion. The Lisbon strategy proclaimed that the main goal for the EU is: 'to become the most competitive and dynamic knowledge-based economy in the world'.⁴⁰ For this purpose other objectives were also set pertaining mostly to the improvement of knowledge and technological innovations, increased growth and employment rate and longer working life. It soon transpired that the set objectives were not met at the planned rate. This was attributed to economic difficulties, more intense competition with new economic powers and slow progress of the reforms in EU member countries. The primary goal to transform the EU into the most dynamic and competitive world economy was not attained. The other objectives, especially in the field of growth and employment⁴¹ were achieved either partially or not at all. However, the countries which made most progress in the reform proved to be most ready for the crisis.⁴²

2. After a lengthy preparation, the European Council agreed on the development strategy for the period from 2010 to 2020 and officially published the document *Europe 2020: Strategy for smart, sustainable and inclusive*

³⁹ Kronja, J. (Ed.) *Vodič kroz strategiju Evropa 2020*. Evropski pokret u Srbiji, Beograd 2011.

⁴⁰ European Council, *Presidency Conclusions*, Lisbon, 23-24 March, 2000, available at http://www.europarl.europa.eu/summits/lis1_en.htm, retrieved on October 28th 2016.

⁴¹ Butkovic, H., Samardžija, V. (Ed.). An Introduction, *From the Lisbon Strategy to Europe 2020*, Zagreb 2010, p. 5.

⁴² Tilford, S., Whyte, P. *The Lisbon Scorecard X: The Road to 2020*. Centre for European Reform 2010, available at https://www.cer.org.uk/sites/default/files/publications/attachments/pdf/2011/rp_967-251.pdf, retrieved on November 2nd 2016.

*growth*⁴³ on June 17th 2010. The main starting points of the strategy Europe 2020 are: the plan to move beyond the crisis and continually implement the Lisbon strategy, increased financial support, better coordination between EU institutions as well as EU member countries, new strategy implementation mechanisms, stronger instruments of economic management and better competitiveness at the European level. This strategy proclaimed three interlinked priorities: smart growth, sustainable growth and inclusive growth. For this purpose the main objectives of the strategy were defined as follows: 1) to increase employment rate and improve migrant integration, 2) to increase GDP spending on research and development, 3) to reduce greenhouse gases emission, increase the share of renewable energy sources and improve energy efficiency, 4) to reduce the early school leavers' rate, and increase the share of population with university diploma and 5) to reduce the share of population living below the poverty threshold. Special attention is dedicated to the monitoring instruments for strategy implementation as well as to the coordination of the EU, the member countries and the EU candidate countries to ensure common approach to global market. In this way, the strategy has been made relevant for candidate states to influence their development and harmonize the reforms.

3. Basic dimension of knowledge are present in both strategies, as they emphasize the role of knowledge, innovations and lifelong learning in economic development of European Union member countries. This is why special attention will be paid to these questions in the following sections.

2. KNOWLEDGE AND INNOVATIONS

1. The Lisbon declaration maintains that technological innovations generate jobs, entrepreneurial initiatives and innovative enterprises. This creates the need for better links between enterprises, scientific, research and education institutions. It also requires infrastructure to improve knowledge and to encourage creative individuals and financial incentives. The key component of the Lisbon strategy was knowledge development and improvement, which primarily implied increased investment in education and advanced training, scientific research and technological innovations. In that context, the objectives were set that by 2010 the average annual growth rate in the EU member states should be around 3 per cent, that spending on research and development should be around 3 per cent of the GDP and that 30 per cent of European population should have access to high speed internet. However, it soon became obvious that the implementation of the proclaimed goals was lagging behind, and so in March 2005 the European Council assigned priority to economic development and employment. Nevertheless, it was once again emphasized that knowledge, innovations and the optimisation of human capital are crucial for development. Three priority directions for action were defined, first of which was strong support for the development of knowledge and innovations.

Later (in 2007), the European Council proclaimed that increased investment in knowledge and growth should be one of the priorities for EU development, while the European Commission proposed that the unified European Research Area (ERA) should be established to unite research capacities and make research and development investments more attractive. These and similar strategic goals contributed to stronger support of research and development of innovation in EU member countries, but not as much as was expected. Research capacities remained fragmented, insufficiently connected to other sectors, and less attractive for investment, since 'at the EU level, national interests prevent the creation of a unified research space'.⁴⁴ Afterwards, when the Lisbon strategy was evaluated, the European Commission concluded that the increase of research and development investment was marginal, having grown on average from 1.82 per cent in 2000 to 1.9 per cent of GDP in 2008 at the EU level, although some countries like Sweden and Finland exceeded the 3 per cent rate or came very close, like Danmark, Austria and Germany.⁴⁵

2. In the strategy Europe 2020 knowledge and technological innovations are central and pervasive themes, which is a continuation of Lisbon strategy goals. *Smart growth* is listed at the very beginning of the strategy Europe 2020 as the first priority. It implies the economic development based on knowledge and technological innovations, whose integral part is scientific and technological research and development, innovation, education and digital society. When it comes to the identification of the main goals, knowledge and innovation are given special attention. Two out of five goals pertain to these. The first goal is to maintain the previous research and

⁴³ European Council, Brussels, 17 June 2010, *Conclusions*, available at http://ec.europa.eu/eu2020/pdf/council_conclusion_17_june_en.pdf, retrieved on November 11th 2016

⁴⁴ Wyplosz, Ch. *The failure of the Lisbon strategy*, 2010, available at <http://voxeu.org/article/failure-lisbon-strategy>, retrieved on November 6th 2016

⁴⁵ European Commission, *Lisbon Strategy Evaluation Document*. SEC (2010) 114 final, Brussels. 2.2. 2010, available at http://ec.europa.eu/europe2020/pdf/lisbon_strategy_evaluation_en.pdf, retrieved on November 3rd 2016

development spending at 3 per cent of the GDP. In other words, it should be increased from 1.9 to 3 per cent. Furthermore, it is pointed out that the economies which the EU measures itself against spend considerably more in this field: the USA 2.6 and Japan 3.4 per cent. The other goal is to decrease the early school leavers' rate below 10 per cent from the current 15 per cent, and to increase the share of population holding a university diploma from 31 to 40 per cent. Once more, the EU is compared with the USA and Japan. Approximately one in three people aged between 25 and 34 in the EU holds a university diploma, as opposed to 40 per cent in the USA and over 50 per cent in Japan.⁴⁶ A closer analysis of these goals shows that they are interconnected so that in order to achieve one of them all the others must be attained. However, the objective pertaining to improved conditions for research, development and innovation particularly stands out, being crucial for the development of knowledge-based economy.

When it comes to flagship initiatives, which work out the specific actions to take at the level of the EU and member countries, three out of seven directly pertain to knowledge and technological innovations. The first and most relevant is the Innovation Union, which unites an improved framework and accessibility of research and innovation funding in order to transform innovative ideas into products, processes and services which will create new jobs and encourage growth, at the same time improving the competitiveness of the European economy.⁴⁷

Science plays an important part in this, as it is expected to provide more productive results in the form of innovations across sectors. Such concept of science, as the strategy points out, requires organizational reconstruction of research systems and enlarged capacities within the EU, primarily in terms of stronger cooperation, networking and unification. In addition, the EU member countries are asked to provide the sufficient number of experts holding university diploma in natural sciences, mathematics and engineering, and to shape the national curricula in such a way to promote creativity, innovation and entrepreneurship.

The strategy's second flagship initiative that pertains to knowledge and innovation is *Youth on the Move*. It contains measures and activities to enhance the quality and international attractiveness of Europe's higher education institutions and to raise the performance of entire systems of education, to promote student and teacher mobility and improve the employment of young people. For this purpose it is particularly important to integrate and improve mobility programs, university and researcher's programmes and to link them up with national programmes and resources. In addition, at national levels it is necessary to provide efficient investment in education system at all levels, improve educational outcomes and reduce the number of early school leavers, as well as to improve openness of education systems by creating national qualification frameworks and by better adjusting learning outcomes towards labour market needs. The third initiative linked to knowledge and innovation is an *Agenda for New Skills and Jobs* which emphasizes acquisition of work force skills and knowledge, increased employment, better balance between labour supply and demand and improved conditions for mobility.

3. LIFELONG LEARNING

1. The Lisbon strategy proclaims that educational systems should be adjusted in order to build a knowledge-based society and to provide all social strata and all age groups with a chance to learn and get educated.⁴⁸ This strategy was the basis for the *Memorandum on Lifelong Learning*, whose purpose was to launch the process of building a comprehensive strategy to implement lifelong learning at individual and institutional level, as well as in all spheres of public and private life, in order to improve knowledge, skills and competences.⁴⁹ This memorandum was the starting point for harmonization of lifelong learning at European level and it encouraged numerous activities at national levels, including enactment of lifelong learning strategies. In order to enhance the social attitude towards lifelong learning, the European Parliament adopted (in 2005) the *Key competences for lifelong learning* which recommended that lifelong learning framework should be introduced as the first

⁴⁶ European Commission, *EUROPE 2020: A strategy for smart sustainable and inclusive growth*, COM (2010) 2020 final Brussels, 3.3.2010.

⁴⁷ Bazić, J., Ljubisavljević, M. Educational Challenges in the Fourth Industrial Revolution. *KNOWLEDGE - International Journal Scientific*. Vol. 14.2., 2016, 814-818., p. 815.

⁴⁸ European Council, *Presidency conclusions*, Lisbon, 23-24 March, 2000, available at http://www.europarl.europa.eu/summits/lis1_en.htm

⁴⁹ Commission of the European Communities, *A Memorandum on Lifelong Learning*, Brussels, 30.10.2000 SEC (2000) 1832.

comprehensive referent framework which should facilitate curriculum reform and enhance lifelong learning strategies at national levels.⁵⁰

This document stipulates that EU member countries should: a) improve the education system so that it enables young people to develop the key competences to a level that equips them for adult life and provides a solid basis for future work and learning, b) develop a support network for those without an equal chance for education, c) enable adults to develop their key competences, d) provide adequate infrastructure for education of adults, together with validation and evaluation procedures, e) establish a coherent relationship between employment, social, cultural and other policies, and support social partnership and cooperation between all stakeholders. The European frame of reference lists eight key lifelong learning competences that should be acquired through curricular and extracurricular activities.⁵¹ All these competences are regarded equally important. Generally speaking, there are three main application fields for these competences: education, employment and work of the young. The main criticism leveled at this document is that it neglects 'emotional competences and creativity and inadequately treats moral and esthetic upbringing'.⁵²

2. The strategy Europe 2020 also pays close attention to lifelong learning. The need for lifelong learning is part of its first priority – *smart growth*. This is supported by the arguments that one quarter of pupils have low reading skill and that one in seven young people leave school too early. Furthermore, approximately 50 per cent of young people acquire medium qualification level which is often inadequate for the labour market. For these reasons lifelong learning is seen as support for the strategic education and training framework which will encourage all stakeholders to improve the appeal of education through flexible ways of learning across sectors, education levels and training. It is also pointed out that the EU will make effort to ensure that the competences needed for future learning and for the labour market are acquired and recognized at all levels of education, adult education and especially through the European Skills/Competences, Qualifications and Occupations framework (ESCO). To achieve these goals, the EU member countries are obliged to: a) ensure that lifelong learning and labour market competences are acquired and recognized through the entire process of education and adult education, and b) to develop partnerships between the world of education, training and work, especially by involving social partners into education and training planning.

4. CONCLUSIONS

The European Union (EU) development strategies in the first two decades of the 21st century are underpinned by the questions pertaining to the role of knowledge, innovations and lifelong learning. These strategies perceive knowledge as the key factor of modern economic development. As early as in 2000, the Lisbon strategy sets the objective that Europe should become the most competitive and dynamic knowledge-based economy in the world by 2010. This fundamental goal is contained in the strategy Europe 2020, so that both strategies emphasize knowledge in the context of technological innovations and development projections. This is why knowledge received lots of attention, which is reflected in the support and increased investment in education and advanced training, scientific research and technological innovations. The entire system of knowledge is thus reduced to pragmatic knowledge which takes shape of technological innovations and which is given absolute priority. Consequently, there is the need for better links between enterprises, scientific, research and education institutions, and for creating infrastructure to improve knowledge, creative individuals and financial incentives. Thus, the role of knowledge in these development strategies is to serve accelerated economic growth of the EU and EU member states, and their competitiveness in global economic markets.

As far as lifelong learning is concerned, the EU is committed to providing conditions for learning for all social strata and for all age groups at individual and institutional level and in all spheres of public and private life, in order to improve knowledge, skills and competences. So that social attitude toward lifelong learning would be enhanced, it is recommended that the concept of key lifelong learning competences should be introduced as a referent framework which should help curriculum reforms and lifelong learning strategies development at

⁵⁰ European Parliament. Recommendations of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning. *Official Journal of the European Union*, 2006/962/EC.

⁵¹ Curriculum should implement: 1) communication in mother tongue, 2) communication in foreign languages, 3) competences in mathematics, natural sciences and technology, and 4) digital competences. Extracurricular activities should include: 5) learning to learn, 6) social and civic competences, 7) initiative and entrepreneurial competences and 8) cultural awareness.

⁵² Suzić, N. Kompetencije za život u 21 stoljeću i školski ciljevi učenika. *Pedagoški istraživanja*. 11(1), 2014, 111-122, str. 113.

Eleventh International Scientific Conference
KNOWLEDGE IN PRACTICE
16-18 December, 2016 Bansko, Bulgaria

national levels. It is also pointed out, especially in the strategy Europe 2020 that the EU will make effort to ensure that the competences needed for future learning and labour market are acquired and recognized at all levels of education and adult education.

Apart from the questions of knowledge, innovations and lifelong learning, in terms of better coordination and labour division between the EU institutions and members countries and mechanisms for implementation of strategic goals, these strategies show tendencies toward unification of national education systems in order to enable common approach and to increase skilled work force mobility and its competitiveness in the global market.

4. REFERENCES

- [1] Bazić, J., Ljubisavljević, M. Educational Challenges in the Fourth Industrial Revolution. *KNOWLEDGE - International Journal Scientific*. Vol. 14.2., 2016, 814-818.
- [2] Butkovic, H., Samardžija, V. (Ed.). An Introduction, *From the Lisbon Strategy to Europe 2020*. Institute for International Relations - IMO, Zagreb 2010.
- [3] Commission of the European Communities, *A Memorandum on Lifelong Learning*, Brussels, 30.10.2000 SEC (2000) 1832.
- [4] European Commission, *EUROPE 2020: A strategy for smart sustainable and inclusive growth*, COM (2010) 2020 final Brussels, 3.3.2010.
- [5] European Council, *Presidency conclusions*, Lisbon, 23-24 March, 2000, available at http://www.europarl.europa.eu/summits/lis1_en.htm
- [6] European Parliament. Recommendations of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning. *Official Journal of the European Union*, 2006/962/EC.
- [7] Kronja, J. (Ed.) *Vodič kroz strategiju Evropa 2020*. Evropski pokret u Srbiji, Beograd 2011.
- [8] Suzić, N. Kompetencije za život u 21 stoljeću i školski ciljevi učenika. *Pedagogijska istraživanja*. 11(1), 2014, 111-122.
- [9] Wyplosz, Ch., *The failure of the Lisbon strategy*, 2010, available at <http://voxeu.org/article/failure-lisbon-strategy>