

STRATEGIJA PAMETNIH SPECIJALIZACIJA I MOGUĆNOSTI ZA NJIHOVU PRIMENU U SISTEMU ZDRAVSTVENE ZAŠTITE REPUBLIKE SRBIJE

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SAŽETAK

Cilj ovog rada je da prikaže koncept pametnih specijalizacija prema Strategiji istraživanja i inovacija za pametne specijalizacije (engl. *Research and innovation strategies for smart specialisation, RIS3* ili skraćeno S3), Zajedničkog istraživačkog centra Evropske unije, kao mogućnosti za njihovu implementaciju u zdravstvenu zaštitu Republike Srbije na bazi iskustava zemalja iz okruženja, kao i u okviru određenih oblasti. Potrebno je da privredna društva, visokoobrazovne ustanove, individualni inventori i inovatori uoče potencijal za primenu ovog koncepta u zdravstveni sistem Republike Srbije, da utvrde u kojoj meri zdravstvo spada u prioritetne oblasti, zatim da uspostave regionalnu saradnju sa zemljama iz okruženja zbog sličnosti, i postanu konkurentni inovacijama na evropskom tržištu.

Ključne reči: strategija, pametne specijalizacije, zdravstvena zaštita

Uvod

Strategija pametnih specijalizacija (S3) u Republici Srbiji (RS) je usvojena početkom marta 2020. godine, na osnovu Zakona o planskom sistemu RS i definisana je za period od 2020. do 2027. godine. Sama strategija generisana je inicijativom Zajedničkog istraživačkog centra Evropske unije (engl. *Joint Research Centre European Union*), a RS je postala jedna od pet pilot zemalja za praćenje procesa njene implementacije (1-3).

Osnovni cilj strategije je da podigne konkurentnost ekonomije u RS, doprinese privrednom rastu i društvenom napretku povezivanjem istraživačkih i inovativnih resursa sa prioritetnim oblastima privrede (1).

U cilju strategije sadržano je obrazloženje njenog značaja na nacionalnom, ali i na regionalnom nivou. Sa istorijskog aspekta posmatrano, unapređenje društva u celini uvek je postignuto utemeljenjem u istraživačkim i inovativnim resursima. S obzirom da su u realizaciji strategije resursi vezani za prioritetne

oblasti privrede, na bazi istraživanja, rezultati i napredak se očekuju u tim oblastima privrede, posebno u vidu inovacija (1,3).

Pripreme za usvajanje strategije pametnih specijalizacija

Usvajanju strategije prethodio je skoro trogodišnji set pripremnih aktivnosti među kojima su značajnu ulogu imale pripreme radionice, a ulogu koordinatora imalo je Ministarstvo prosvete, nauke i tehnološkog razvoja. U proces svih aktivnosti su bili uključeni Srpska akademija nauka i umetnosti, Privredna komora Srbije, Ministarstvo privrede i druge relevantne institucije.

Kroz pripreme radionice, strategija je na najbolji način objašnjena kao moderan pristup ekonomskom razvoju koji se bazira na znanju, ali i na kontinuiranoj komunikaciji između javnog i privatnog sektora. Relevantne institucije uključene u donošenje strategije su kroz aktivnosti istraživale potrebe zainteresovanih strana, što jeste suština same speci-

ACTUAL TOPIC**SMART SPECIALISATION STRATEGY AND POSSIBILITIES FOR ITS IMPLEMENTATION IN THE HEALTHCARE SYSTEM OF THE REPUBLIC OF SERBIA****Marijana Curcic¹**¹ Department of Toxicology "Akademik Danilo Soldatovic", Faculty of Pharmacy University of Belgrade, Belgrade, Serbia**SUMMARY**

The aim of this paper is to present the concept of smart specialization strategy according to Research and innovation strategies for smart specialisation RIS3 (S3) of Joint Research Centre European Union as well as some considerations related to its implementation in health care in the Republic of Serbia based on the experiences of neighboring countries, as well as within certain areas. It is necessary that companies, higher education institutions, individual inventors and innovators see the potential for the application of this concept in the health care system of the Republic of Serbia, to determine the extent to which health is a priority area, then to establish regional cooperation with neighboring countries due to similarities, and to become competitive with innovations in the European market.

Key words: strategy, smart specialisation, healthcare

Introduction

The smart specialisation strategy (S3) was adopted in the Republic of Serbia (RS) at the beginning of March 2020, on the basis of the Law on the Planning System of The Republic of Serbia, and it was defined for the period 2020-2027. The strategy itself was generated by the initiative of the Joint Research Centre European Union, while the Republic of Serbia became one of the five pilot countries for observing the process of its implementation (1-3).

The main aim of the strategy is to increase the competitiveness of economy in the Republic of Serbia, to contribute to the economic growth and social progress by conjoining research and innovation resources with priority fields of economy (1).

The aim of the strategy contains the explanation of its significance at the national and regional level, as well. From the historical perspective, the progress of society as a whole is always achieved on the basis of research and innovation resources. Taking into consideration that the aim of the strategy contains resources related to the priority fields of economy, based

on research, results and progress may be expected in these fields of economy, especially in the form of innovations (1,3).

Preparations for the adoption of smart specialisation strategy

The adoption of strategy was preceded by the three year set of preparatory activities, among which preparatory workshops had a significant role, while The Ministry of Education, Science and Technological Development had the role of a coordinator, and the Serbian Academy of Sciences and Arts, the Chamber of Commerce of Serbia, the Ministry of Economy and other relevant institutions were included in the process.

Through preparatory workshops, the strategy is in the best way explained as a modern approach to economic development, which is based on knowledge, as well as on the continuing communication between public and private sector. Relevant institutions, which participated in the adoption of strategy, examined the needs of the interested parties through activities, which is the essence of specialisation, as well as

jalizacije, i način kako doći do prioriternih oblasti za investiranje. Primenom strategije i njenom implementacijom očekuje se postizanje regionalne, a zatim i globalne konkurentnosti srpske privrede i društva (1).

U evropskim zemljama je analizom strategija pametnih specijalizacija utvrđeno da identifikovani prioriteti doprinose dostizanju ciljeva održivog razvoja, što je dovelo do toga da RS bude pozvana i uvrštena u jednu od pet pilot zemalja u ovom programu. Nakon usvajanja strategije sledi Akcioni plan koji će prerasti u Mapu puta za nauku, tehnologije i inovacije za dostizanje ciljeva održivog razvoja (1,3).

Iskustva drugih zemalja

Jedan od prvih autora, koji je 2011. godine govorio o pametnoj specijalizaciji bio je *Foray*. On je u procesu implementacije strategije pametnih specijalizacija u Bugarskoj istakao da pametna specijalizacija kao akademska ideja polako prerasta u politički instrument, zbog čega je kao koncept naišla na poteškoće u implementaciji (4). Kasnije, *Foray* ukazuje da je potrebno da se država ili region fokusira na razvoj prepoznatljive i originalne oblasti specijalizacije, ne imitirajući druge. U svom objašnjenju on je pametne specijalizacije nazvao strateškim procesom kojim se selektuje prioriterna oblast u kojoj je potrebno razviti određen klaster aktivnosti iako to predstavlja određeni rizik za donosioce odluka. Naime, privreda i poslovna politika se najčešće vode tako da pri postavljanju prioriteta rizici budu svedeni na minimum, međutim strategija pametnih specijalizacija sugerise drugačiji pristup: dozvoliti preduzetnicima da otkriju pravi domen buduće specijalizacije.

U jednom momentu svog razvojnog ciklusa S3 predstavlja stepen lokalnog razvoja koji je postignut zahvaljujući podršci lokalne samouprave. Takođe, smatra se da je ovakva vrsta aktivnosti već dovoljno osnažena i da pokazuje obećavajuće rezultate za ceo region. Potrebno je jačanje aktera koji će najviše doprineti realizaciji uočenog potencijala poput stanja snabdevanja (posebno u ljudstvu), koordinacije (pružaoци usluga), povezivanja sa resursima van regiona i aglomeracije. Najmanji doprinos strategije može biti u transformisanju manje naprednih regiona u dobre pratioce

naprednih. Posebno je naglašeno da pametna specijalizacija nije uniformizacija i nije nužno da zavisi od prethodno postojeće sektorske strukture, upravo zato ona uvodi preduzetnika da bi otkrio poslovni domen, što je esencijalna dobit modela pametnih specijalizacija (3).

Oblasti zdravstvenog sistema sa iskustvom primene strategije pametnih specijalizacija

Blažević, 2016. godine, opisuje zdravstveni turizam u svoj svojoj kompleksnosti, interdisciplinarnosti i sistemskom pristupu problemima kao idealan model pametne specijalizacije (5). Ovaj autor uočava da zdravstveni turizam nije nužno vezan za turističke regione, već za bilo koji lokalitet od nacionalnog interesa. Iako iznosi nekoliko različitih definicija zdravstvenog turizma, najpribližnije ga objašnjava kao turizam u kom su združeni putovanje i mogućnost dobijanja specifičnih medicinskih usluga, često brže i mnogo jeftinije nego u sopstvenoj državi. Autor jasno razlikuje *welness* od zdravstvenog turizma, a kao najčešće pružene medicinske usluge po njegovom istraživanju navodi: estetsku hirurgiju 25-34%, stomatološke intervencije 30-50%, ortopedske intervencije 7%, tretmane gojaznosti 7%, postupke *in vitro* fertilizacije 3-6% i oftalmološke intervencije 3% (5).

Iskustva iz Evrope, koje su predstavili *Borg* i saradnici, ukazuju da je savremena struktura zdravstvene zaštite u uspostavljanju centara medicinske izvrsnosti uporedo sa klasterima biomedicinskih inovacija (5). Autori zaključuju da su pametna specijalizacija i inovacije u medicini bez obzira da li se posmatraju kao usluga ili na organizacionom nivou, povezane sa povećanjem međunarodne konkurentnosti zdravstvenog turizma (6).

Baier i saradnici se, između ostalog, bave inovacijama u oblasti biotehnologije u medicini, s ciljem da inovacije budu prepoznate od strane preduzetnika, kao i primenom koncepta pametne specijalizacije za biotehnološke procese i proizvode (7). Ljudske resurse u oblastima zdravstva obradio je *Morgan*, prepoznavši obrazovne institucije u kojima se školuje kadar za rad u zdravstvenim ustanovama kao resurs za inovacije i konkurentnost na tržištu (8). Kao resurs uočava veoma širok spektar institucija, univerziteta, laboratorija, medicinskih škola itd.

the way in which it is possible to come to the priority fields for investment. The regional, and then global competitiveness of Serbian economy and society are expected to be achieved with the help of this strategy and its application (1).

In European countries, the analysis of smart specialisation strategies showed that the identified priorities contributed to reaching the aims of sustainable development, which led to the fact that the Republic of Serbia was invited and included in the pilot countries in this programme. After the strategy had been adopted, the Action plan was made and it developed into the roadmap for science, technology and innovations for achieving the aims of sustainable development (1,3).

The experience of other countries

One of the first authors to talk about smart specialisation in 2011 was Foray. In the process of implementing the strategy of smart specialisations in Bulgaria, he pointed out that smart specialisation as an academic idea is slowly growing into a political instrument, which is why, as a concept, it encountered difficulties in implementation (4). Later, Foray pointed to the necessity that a state or region should be focused on the development of recognizable and original field of specialisation, not imitating others. In his explanation of smart specialisation, it is referred to as a strategic process, with the help of which one could select a priority field, in which it is necessary to develop a certain cluster of activities, although it presents a risk for decision makers. Namely, economy and business policies are most frequently managed to reduce risks to a minimum when setting priorities, however, the smart specialisation strategy suggests a different approach: to allow the entrepreneurs to find the actual domain of future specialisation.

At one point in its development cycle, S3 represents the degree of local development that has been achieved thanks to the support of local self-government. Also, it is considered that this type of activity is already sufficiently strengthened and that it shows promising results for the entire region. It is necessary to make the actors stronger, which would contribute most to the realization of the noticed potential such as the state of supply (especially

regarding manpower), coordination (providers of services), connections with resources outside the region and agglomeration. The strategy will transform less developed regions into good followers of developed ones to the least extent. It is especially emphasized that smart specialisation is not the uniformisation and it does not necessarily depend on the previously existent sector structure, due to which it introduces an entrepreneur, who discovers the business domain, which is the essential benefit of the smart specialisation model (3).

Domains of the health system with the experience of the application of smart specialisations

Blažević (2016) describes health tourism in all its complexity, interdisciplinarity and a systematic approach to problems as an ideal model of smart specialisation (5). This author notices that health tourism does not necessarily relate to touristic regions, but to any locality of national interest. Although he provides a few definitions of health tourism, which are different, it may be described most precisely as a type of tourism, in which travelling and the possibility of obtaining specific medical services are conjoined, often in a faster and much cheaper way than in one's own country. The author clearly differentiates wellness from health tourism, and medical services which are provided most frequently, according to his research, are the following: cosmetic surgery 25-34%, dentistry 30-50%, orthopaedic surgery 7%, obesity treatments 7%, procedures of in vitro fertilization 3-6% and ophthalmic surgery 3% (5).

Borg and associates present the experience from Europe, which shows that a modern healthcare infrastructure has been established by incorporating centres of medical excellence along with clusters of medical innovations (5). The authors conclude that smart specialisation and innovation in medicine, no matter whether they are observed at the service or organizational level, are related to the increased international competitiveness of medical tourism (6).

Baier and associates, among other things, deal with the innovations in the field of biotechnology in medicine, the need to recognize innovations in entrepreneurship,

Vizija pametnih specijalizacija u Republici Srbiji

Opšta vizija Strategije pametne specijalizacije RS je da RS, pametna i kreativna, visokokonkurentna u svetu i prepoznata po inovacijama zasnovanim na znanju, partnerstvima iz domaćeg ekosistema i kreativnosti pojedinaca, stvara inovacije u oblastima:

– održive visokotehnološke proizvodnje hrane za budućnost sa visokom dodatom vrednošću,

– sofisticiranih softverskih rešenja za globalno tržište, i

– međusektorskih utemeljenih industrijskih inovacija (1).

Sve tri oblasti su usko povezane sa istraživanjima i inovacijama u oblasti medicine, te otvaraju mogućnosti za prepoznavanje sektora zdravstvene zaštite od preduzetnika i aktivacije koncepta pametnih specijalizacija.

Zaključak

Da bi se jasno definisala strategija pametne specijalizacije, potreban je adekvatan pregled razvoja regiona ili države, praćen pregledom razvoja sistema upravljanja, identifikacijom oblasti od najvećeg strateškog potencijala od strane preduzetnika i primena politike pametnih specijalizacija radi povećanja potencijala zasnovanog na znanju. Strategija pametnih specijalizacija, kao osnova za buduće inovacije bi trebalo da se bazira na dostupnim resursima i potencijalima, tehnološkim specijalizacijama i identifikaciji konkurentskih prednosti. Kroz strategiju pametnih specijalizacija, stimulišu se

investicije u oblasti istraživanja, tehnološkog razvoja i inovacija, sa ciljem povećanja konkurentnosti na nivou regiona države, ali i šire. Još jedan od ciljeva startegije pametne specijalizacije je racionalno korišćenje resursa limitiranih u Evropskoj uniji, što bi praktično značilo da ne moraju svi regionu sprovesti istraživanja i osmišljavati inovacije u svim sferama.

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as well as the application of the concept of smart specialisation for the biotechnological processes and products (7). Human resources in healthcare have been analyzed by Morgan, who recognizes educational institutions, in which healthcare workers are educated, as a resource for innovations and competitiveness in the market (8). He perceives a wide range of institutions, universities, laboratories and medical schools as a resource.

The vision of smart specialisations in the Republic of Serbia

A general vision of the smart specialisation strategy is that the Republic of Serbia, which is smart, creative, highly competitive in the world and recognized for its innovations based on knowledge, partnership with the domestic ecosystem and creativity of individuals, creates innovations in the following domains:

- sustainable high technological production of food for the future with high added value,
- sophisticated software solutions for the global market, and
- intersectoral industrial innovations (1).

All three domains are tightly connected with the research and innovations in the field of medicine, and therefore, they open up the possibilities for the healthcare sector to be recognized by entrepreneurs and the activation of the smart specialisations concept.

Conclusion

In order to define the smart specialisation strategy clearly, an adequate survey of the regional or state development is necessary, followed by the survey of the management systems development, the identification of the field with the largest strategic potential recognized by entrepreneurs and the application of the policy of smart specialisations aimed at

increasing the potential based on knowledge. The smart specialisation strategy, as a basis for future innovations, should be based on available resources and potentials, technological specialisations and the identification of competitive advantages. With the help of smart specialisations strategy, investments are stimulated in the field of research, technological development and innovations, with the aim of increasing the competitiveness at the regional, national level, and wider. One of the aims of the smart specialisation strategy is also the rational usage of resources limited in the European Union, which would practically mean that not all regions have to conduct research and introduce innovations in all domains.

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