Science, Higher Education, Social Practice - the Need for Evolutionary Symbiosis

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"...evolution calls for thinking, investing in yourself, doubting, searching and working very, very hard."

Vlado Daverov (writer and scriptwriter)

Abstract

The research aims at presenting a reasoned theory outlining some ideas for changes in the system of higher education (HE) in Bulgaria. The starting point is from the leading initiatives which shape the European framework for the development of HE in the European Union (EU). Conclusions of Bulgarian researchers about the present state of the Bulgarian HE are referred to. The relation between HE and the labour market in Bulgaria is discussed. Based on some ideas shared by other authors, suggestions are made for cognitive-methodological, organizational-managerial, human resource and financial changes.

Keywords: European University Initiative, higher education, science, social practice, labour market, possible changes

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Introduction

At the beginning of the new millennium, a study of the Institute of Economics of the Bulgarian Academy of Sciences and the Friedrich Ebert Foundation (2003) concluded that "along with health, higher education and better qualification are important factors determining quality of life. ... The system of education, training and gaining higher qualification is one of the main pillars of society ... The new "rules of the game" emerging in the economy and society encourage the individual for not only greater activity in arranging their own lives, but also their active participation in structuring public affairs. This reality will demand new knowledge, skills, new ways of flexible and constructive thinking, the ability to turn threats into opportunities and to rely mainly on one's own behavior and actions in life; new curious thinking of will have to be fostered oriented to the challenges of the future." Educational systems² "must respond to the rapidly changing labour markets, advance in technologies, urbanization, migration, political instability, deteriorating state of the environment, competition for natural resources, demographic challenges, rising unemployment, persistent poverty and growing inequality, as well as growing threats to peace and security." They are called to create valuable human capital. Rakadzhiyska T. (2017) points out that "according to the theorists of economic analysis of human capital, the most important areas of "investment in man" are education and vocational training, professional qualification, health care, migration, job search "... The focus, however, is on investment in education and professional qualification ... In general, human capital is defined as a set of general and professional knowledge, skills and abilities/competences of the individual, which contribute to increasing their productive power. ... It is normal, when these processes are analyzed in terms of investments in the acquisition of new skills, knowledge, competencies, to expect from individuals to be more productive and more competitive on the labour market."

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² Education 2030, WORLD EDUCATION FORUM, 2015, ED/WEF2015/WD/2, 23 April, 2015. "Education 2030" Action Framework: Towards inclusive and equitable quality education and lifelong learning opportunities for all. NNEX (PROJECT)

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Occupying the top of the educational pyramid, HE is called to educate highly erudite individuals who creatively solve the problems of today, turning them into opportunities for a better life of the individual and society as a whole with efficient and innovative use of resources available.

Bulgarian HE has a young history, but it is rich in traditions, multi-layered and dynamic in its modern development. As a member of the EU, Bulgaria seeks to improve its national HE system in accordance with the requirements of a number of European programming documents. The specific features of the country's development in economic, political, social and cultural perspective have their influence on the specific actions of the responsible bodies in the search for solutions to improve the national system of HE. This search for adequate solutions to overcoming weaknesses manifested in the pursuit of its innate goals must be a continuous process.

The aim of this research is to present and outline some author's ideas for a closer connection of the Bulgarian HE system to the changes taking place in Europe and the whole world. The approach to the issue is based on theoretical and comparative analysis of leading EU documents, scientific and practical research of various institutions, theories of foreign and Bulgarian scientists and the method of observation. The limited volume of the publication does not allow for a detailed examination of the selected issues.

EU Initiatives for Developing Higher Education

Demand for highly skilled people is increasing; by 2025, half of all jobs will require highlevel qualifications. The COVID-19 pandemic has suddenly accelerated the **digital transformation** of higher education institutions. Yet, much more needs to be done for deep **technological and structural changes to the benefit of learning and teaching**, allowing for more inclusion and flexible learning approaches. The fast-changing labour market and societal transitions require higher education institutions to provide students, staff and researchers with the skills they need to navigate the **twin green and digital transition and build a resilient society**. Beyond their core tasks of **teaching, research and innovation**, universities are key actors in Europe, able to address big societal challenges, become true **engines of development for cities and regions** and promote **civic engagement**.

Europe needs universities that dare to truly and continuously innovate education and maximise their societal impact. Society is changing fast and societal challenges and solutions are not bound by borders. The European Commission proposed the European Universities initiative to European Union leaders ahead of the Gothenburg Social Summit in November 2017, as part of an overall vision for the creation of a European Education Area by 2025. The initiative was endorsed by the European Council in December 2017. With its European Universities initiative, the European Commission aims at fostering excellence, innovation and inclusion in higher education across Europe, accelerating the transformation of higher education institutions into the universities are ambitious transnational alliances of higher education institutions developing long-term structural and strategic cooperation. According to the UniGR³, the European University links higher education and institutionalised research institutions, driven by a shared vision, a set of common objectives and the desire to develop long-term international visibility. The European University is based on synergies between its members in terms of academic excellence (joint study programs, mobility etc.) and societal excellence (strong links with territorial development).

According to the European Commission (Brussels, 9 July 2020), European Universities are institutions from across the EU that come together for the benefit of students, teachers and society. With financial support from the Erasmus+ and Horizon 2020 programmes, they enhance the quality, inclusion, digitalisation and attractiveness of European higher education. European

³ University of the Greater Region – UniGR: Position Paper, European University, www.uni-gr.eu

Universities include different types of higher education institutions, from universities of applied sciences, technical universities and film and media art schools to comprehensive and research intensive universities. Each alliance receives up to \in 5 million from the Erasmus+ program and up to \in 2 million from the Horizon 2020 program for three years to start implementing their plans and pave the way for other higher education institutions across the EU to follow. From 2020, five Bulgarian universities – "St. Kliment Ohridski" University, Technical University, UNWE and NBU from the capital Sofia and University of Agro-business and Rural Development from the town of Plovdiv are linked to the European Universities Networks.

On 30 September 2020 in Brussels, the Commission adopted further initiatives to increase the contribution of education and training to the EU's recovery from the coronavirus crisis and to help build a green and digital Europe. Defining the vision for the European Education Area to be achieved by 2025, the Commission proposes more investment and stronger cooperation between Member States to help all Europeans, of all ages, take advantage of the rich opportunities for education and training offered by the EU. The European Education Area is based on six dimensions: quality, inclusion and gender equality, green and digital transitions, teachers, higher education and a stronger position for Europe in the world.

A European degree status would be a helpful step forward, particularly if it is backed by streamlined quality assurance mechanisms, to empower academic and scientific staff to work across multiple jurisdictions. The Council and the European Institutions must join forces to tackle such challenges, and we call upon them to publish a roadmap containing key milestones that pave the way for a much more integrated European Education Area.

Greater emphasis on how big data could be used to power intensive cooperation. Tools like the Online Learning Agreement could be harnessed to embed mobility in the curricula in a timely and cost-effective way; in relation to joint programs, emphasis needs to be placed on combating the weaknesses of initiatives already in place in the context of joint programs in Europe generally. For example, there is a need to guarantee (by means of external audit and control mechanisms as well as self-regulation) the implementation of good practices; greater emphasis on the importance of staff mobility, especially educational and research visits for a longer period than standard Erasmus+ staff mobility, which may contribute to exchange of good practices and strengthening of cooperation (i.e. visiting professor); the need to consider greater EU support for the implementation of recognised short-term study/training mobility (since students tend to increasingly engage in professional activities already during their studies); the important aspect of research cooperation in the university networks.

Ensuring the competitiveness of European higher education on a global scale: through the creation of structured university networks, driven by increased mobility, quality of teaching and research collaboration. The major objective of European Universities must be to strengthen the academic excellence, visibility and international attractiveness of the European higher education ecosystem by creating new tools of cooperation.

EUF (**European University Federation**) insists that the cooperation model of European University initiative should be based on the three pillars of the universities' mission: research, education and innovation. It is highly recommended that successful activities and cooperation models that can be replicated should be considered for funding to contribute to the modernisation of all European universities in general. EUF member universities also recommend seeking geographical balances, to ensure that all EU member states are represented in these future initiatives. Promoting excellence in education should not play second fiddle to excellence in research, nor contribute to the cartelisation of the European research landscape. The European Student Card, or the forthcoming EU online learning hub (eU.university) and European University initiatives should in this sense act as role models in adopting such digital workflows and platforms. The EUF is committed to support its member universities in developing such ambitious and

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impactful cooperation models under the upcoming calls for proposals.

The GUILD (of 19 European Research-Intensive Universities, www.THE-GUILD.EU) welcomes the European Universities initiative as a way of strengthening and deepening existing successful university collaborations, and as an opportunity to form new partnerships across Europe. The initiative must bring about a stepchange for the Bologna process, and foster flagship initiatives boosting outstanding quality in education and research excellence. For European Universities to be effective, they need a clear strategic focus, and a strong commitment to deliver on their objectives. To maximise the impact of the clusters of European universities, it's crucial that they share a joint vision for the future, and that the underlying objectives of organisational integration and of creating educational quality are defined from the beginning. To distinguish themselves from traditional types of university partnerships, networks of European universities should commit to the creation of a common pool of physical, virtual, intellectual and administrative resources to be used by their communities.

The ECIU⁴ supports the development of ambitious European Universities Networks by sharing ten recommendations: ambition; knowledge triangle (research, education and innovation); mutual trust; openness to surrounding communities; openness to the world; open governance structure; no number fits all; commitment on different university level; commitment from the member states; integrated education, research and 5 innovation activities as mobility, collaboration projects, joint curricula development and execution of Bologna process, training, network management.

Universities have a strong role in society as a whole. European Universities Networks could focus on **BSc**, **MSc**, **PhD**, but should not exclude continuous education. Working in partnership with students and external stakeholders, and using innovative educational models as problem-based, challenge-based, industry-led and research-based learning, help to build lifelong and future-facing learners. Cooperation and communication skills, information literacy, creativity, citizenship and problem solving are essential competencies in the 21st century's education. Therefore, educational programmes need to address the needs of alumni, students, business and university staff. Universities Networks must involve **all three university missions (research, education and knowledge transfer).**

The guidelines for the development of HE, outlined in these initiatives, comprehensively cover all the prerequisites for achieving a new quality of the system - content, scope of the educational process and outcomes; the link "science - training - social practice (labour market)";

⁴ The European Consortium of Innovative Universities (ECIU) has been a closely-knit European network of likeminded universities for over twenty years. It is the leading university consortium of research intensive universities with a collective emphasis on innovation, creativity and societal impact. Members of ECIU: Aalborg University is ranked as the best European university for engineering. Dublin City University is Ireland's University of Enterprise and Ireland's leading university for licensing and innovation partnerships with SMEs and multinational companies. Hamburg University of Technology offers one of the top 5 combined Management and Engineering study degree programs in Germany. Kaunas University of Technology's return on Investment of business incubator Start-up Space is 600 % - taxes paid by start-ups in 5 years exceed the investment of the KTU 6 times. Linkoping University is ranked as Sweden's foremost university in terms of societal engagement and impact, having produced the highest number of innovative spinouts in Sweden during the last decade. Tampere University of Technology is ranked on the 11th position in the world, and the 4th in Europe for industry collaboration according to THE rankings. TEC de Monterrey is on the Top 25 Undergraduate Schools (NO. 14) for the Princeton Review's Top Schools for Entrepreneurship Studies for 2018. The University of Nottingham has a J1.1bn economic impact on the UK every year. The Universitat Autonoma de Barcelona led the UAB-CIE Sphere, comprising scientific, technological and business parks, multinational companies, SMEs, foundations and city councils. The University of Aveiro was designated as best-practice by the National Strategic Reference Framework Observatory, for its close cooperation with the Region. University of Stavanger produces more business ideas per researcher than any other university in Norway. University of Twente was awarded best technical university and university with the highest impact in the Netherlands.

international partnership and cooperation ("free movement" of knowledge); personnel, organizational-managerial, financial and digital provision of the system.

Higher Education and the Labour Market in the EU and Bulgaria

Latham and Pinder (2005) stress that "work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration (Pinder, 1998, p. 11). Thus, motivation is a psychological process resulting from the interaction between the individual and the environment. Job design is traditionally included in reviews of motivation. The job environment affects and is affected by a person's needs, personality, and values. The characteristics of jobs, particularly job autonomy, learning, performance and satisfaction are important, however, in only those jobs where the work is not routine or predictable. Unenriched routine jobs can result in job depression. The attraction-selection-attrition (ASA) model states that people gravitate to organizations and jobs that are congruent with their values. It addresses the dysfunctions of interpersonal homogeneity (e.g., the dangers of limited perspectives for decision making, group thinking, etc.) as well as the putative benefits such as high levels of interpersonal harmony and job satisfaction. Based on needs, values, and the situational context, people set goals and strategize ways to attain them.

There is not enough official and continuously collected data about the connection between the higher education system and the labour market either in the EU, or in Bulgaria. Usually such information is contained in special research studies and documents. Thus, in the document Draft Joint Employment Report of the Commission and the Council, accompanying the Communication from the Commission on the Annual Growth Survey for 2019." (eur.lex.europa.eu> LexUriServ.pdf, Brussels, 21.11.2018, COM (2018) 761 final) on p.20 it is stated that those employed by educational level in the group of 25-64 year olds are as follows: 85.3 % of those having completed higher education, 75.7% of the graduates of secondary vocational education and 55.6% of the graduates of primary education. In 2017, 39.9% of the EU population aged 30-34 had higher education qualification (for Bulgaria about 32%) and 33% with secondary vocational educational education. The employment rate of recent graduates is 84.9%.

Expert forecasts point to an increased demand for highly qualified staff in the EU, while there is a lack of skills in processing complex information, independent thinking and reasoning, creativity, intelligent and efficient use of resources, effective communication, in a foreign language inclusive (ec. europa.eu> eurostat> statistica-explained ...) from 30.03.2020. Nearly 34% of students study social sciences, journalism, economics, administration and management, and law. The second largest group are students preparing for engineers, construction specialists and production specialists -21%. They are followed by medical students - 14%, arts - 11%, natural sciences, statistics and information and communication technologies - 11%, pedagogy - 9%. Data for Bulgaria (2016) show that 49% of graduates have studied social sciences, journalism, computer science, administration and management, and law; less than 8% - medicine, arts and humanity sciences. (https://offnews.bglobshtestvoIdelat-na-vischistite-u-nas-e-pod-srednia-za-es-eto-koi-spe ...)

In the next 3 to 5 years, the greatest number of employees will be needed in the sectors "public administration, education, human health care" - 38% of all required specialists. The industry will seek the greatest number of specialists in the field of information technology, programming and engineering. (Www.bgonair.bg> \ which are the most sought after specialities on the labour market 17.01.2020.

The Bulgarian labour market is characterized by permanent disparities in terms of demand and supply of jobs for HE graduates. According to employers, the HE system does not prepare the required types of specialists, according to graduates - there are no suitable jobs with appropriate pay. As a result, there is a significant migration of highly qualified professionals to other labour markets in the EU and third countries, including the so few engineers, IT professionals with knowledge of a foreign language, other than English, educators, and now scientists, doctors, nurses and others.

Problems and Possible Aspects of Improving the HE System in Bulgaria

Georgiev and Velushev (2019) find that the Bulgarian Strategy for the Development of Higher Education demonstrates a more limited understanding of its role and the necessary changes needed to be done, that it differs from the idea of open innovation as an approach of the European Union institutions to its effective development.

The two authors refer to the existing problems presented in this document, such as: the excessive scale and inefficiency of the HE system, expressed in the discrepancies between the qualification of graduates and the demand on the labour market; access to, and increase in the number of HE graduates; /lower than the average in Europe/; the quality and compatibility of higher education with European HE systems; lack of connection between higher education and the needs of business and public institutions; insufficient connection between training and scientific research, expressed in insufficient funding for basic and applied research and experimental development; shortcomings in the management system of higher education institutions and the network of higher education institutions; shortcomings of the current funding model, expressed in insufficient efficiency and transparency of the way financial resources are used; slow process of attracting and career growth of university professors, expressed in the imperfections of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), which led to a disproportion between habilitated and non-habilitated professors; lack of differentiation of professors' salaries according to results achieved; the need to provide opportunities for university professors' qualification; insufficient opportunities for lifelong learning.

The desire to look for ways and means to eliminate the identified weaknesses in the Bulgarian HE system should be positively assessed. At the same time, the changes have been partial (see the Law on HE), formal (only documentary), due to lobbying or political status quo factors (opening of higher schools and their subdivisions; introducing new courses; allocating capacities of higher schools for student training, etc.), hurried (not waiting for assessing results of the previous change), etc. Any change should be linked to a comprehensive assessment of all components of the HE system, the real economic, technological and social practice, as well as the achievements of foreign experience and the prospects pursued in this area.

Ribov M. (2011) points out that, "... the discovery and development of individual creative personality characteristics is the main and fundamental thing that is relevant for the purposes of higher education ... Today's specialists, more than ever, regardless of the field of higher education and professional field they have graduated from, face the need to deal with situations of various nature. The integrated way of thinking and analysis is brought to life by the profound and large-scale changes that occur in science, education and society. The starting point for it is searching for and identifying such system characteristics that lead to the synthesis of the parts ..."

In the cited publication, M. Ribov also emphasizes "that the effective reorganization of the curriculum in higher education is associated with the synthesis of mutual penetration of various scientific disciplines, built on the unity of basic laws and principles that operate and determine the existence and development of nature, man and society ... In this regard, it is necessary to replace the existing reproductive learning system with a system that provides an interactive environment, enabling the individual to develop integrated skills to cope, find solutions, be creative, be able to take full care of themselves and others, to contribute to the well-being and development of society ... It is not about the so-called intermediary sciences, but about a new type of synthesis of sciences, as a result of which concepts, categories and theories bordering between three, four, five and more classical sciences are established. With regard to this, the task of **revealing mental constructions**,

in which and through which the synthesis of knowledge and practical actions is achieved, has become of paramount importance for both science and education ... Obviously, this is not just a matter of transferring cognitive methods and tools. The question is far more complicated, because there is a deep process of transformation of some cognitive structures into others, of the formation and justification of a new type of spiritual perception of the world. Practice has undoubtedly proved that a profession can no longer be mastered without extensive scientific background and general knowledge. A reasonable balance needs to be struck between the theoretical and practical orientation of the curriculum."

In order to achieve such a new and better quality at the **cognitive-methodological level** of students' education and training, each subject of study must be based on three important considerations: learning about scientific achievements in the field / previous knowledge accumulated / without assuming that identifying facts is a theory; checking the accuracy of previous knowledge acquired/ process of scientific research carried out by students / and setting tasks for acquiring new knowledge / while students seek solutions through practical, real-life case studies/. Special attention should be paid to the role of **digitalization of the learning process**. Ease and speed of access to theoretically unlimited information does not mean acquired knowledge. The "copy-paste" approach does not generate a process of thinking that turns information into knowledge, which, in turn, is a prerequisite for creative practice. Individual good practices existing now must be integrated into the system curricula in time.

In **organizational and managerial aspect**, both the Bulgarian HE system and the labour market will benefit if steps are taken towards establishing an independent 5th level of the International Standard Classification of Education (ISCED) /specialized vocational education after secondary education /, while ensuring recognition of that vocational qualification for applying to the next educational levels, in the profile of the acquired professional competencies and skills.

The greater speed at which processes in society are running requires intensification and shortening of the duration of study at higher education level, as required by the Bologna Process: three years for a bachelor's degree, two years for a master's degree and three years for a doctoral degree. Practical skills can be acquired through the introduction of the so-called **"sandwich" study** - between every two semesters there will be a "work practice" semester for apprenticeship/work with a well-developed organizational mechanism, with well-written rules of commitment for all stakeholders - higher education institutions, business enterprises and students.⁵

The processes of strengthening international partnership and mobility under the European Universities Initiative could also be implemented between national higher education institutions through the creation of clusters for sharing resources, scientific research results and teaching expertise.⁶

Acquiring skills during the university study course can be facilitated by **a more flexible organization of the study process**. After each completed study cycle/year, the student should be able to receive a certificate of acquired competences (knowledge and skills), which would give them the right start a job while interrupting university study and then continue and complete the their study for the respective educational degree in a reasonable time slot, regulated by the institution, without being sanctioned. Hence the need **to fix possible exam period options** so that students could have the opportunity to take their exams choosing the best option for them.

A major factor for the efficient functioning of the Bulgarian HE system is its staffing with erudite university professors, people of highly professional competencies and moral virtues - a difficult task given the regulatory requirements for workload, opportunities to improve their

⁵ Example: the system of European student traineeships (work placements, internships, etc)

⁶ Example: A Cluster in the field of finance and accounting as well as Cluster in the field of marketing and entrepreneurship between UNWE-Sofia, University of Economics - Varna and D. Tsenov Academy of Economics - Svishtov.

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qualifications and return on their own investment on self-improvement. The system abounds in curricula-based quantitative restrictions on the essence of teaching work, scientific research and practical-applied activity without corresponding qualitative evaluation of contribution. The methodology for rating of higher education institutions in the country is strongly influenced by the imperfections of the national labour market and that of the state socio-economic policies. and stimulating teachers. The huge work on accreditation of higher education institutions has not been turned into a motivation factor and real follow-up control fostering the improvement of their activity, including retention and financial incentives of teaching staff. These two systems are not directly related to improving the remuneration of teaching staff.

There is no incentive mechanism for inclusion in the study process of erudite scientists and practitioners outside these education institutions. Perhaps it is time to consider restoring the status of "private associate professor/professor" or research fellow instead of the status of part-time lecturer, through which, incidentally, if necessary, any higher education institution can attract such specialists for appropriate pay outside the system of basic regulated payment by employment law.

Higher education, given its objectives, is costly in terms of both public and individual costs. For its greater part, these costs in Bulgaria are covered by state funding. The current basic financial philosophy (**subsidy paid by the number of students**) does not take into account the actual costs of guaranteeing a quality learning outcome based on analytical calculations. The result is an unjustified desire of higher education institutions to open up admission numbers and lower the criteria for students' successful completion of a course. Industries and other businesses, hiring university and college graduates, as well as other stakeholders relying on degree-holding employees, stay away from significant, direct financial commitments to meeting the needs of higher education institutions. The funding of higher education, as stated in the European documents must be in line with its long-term goals, creating the needed environment to fulfill these goals, facilitating the provision of the necessary digital resources, but also monitoring the efficient use of the resources provided.⁷

Conclusion

The modern, rapidly changing technological world, which is to a large extent the result of the contribution of higher education to empowering individuals who develop science, technology and their practical application in society, poses new challenges to national educational systems. The specific solutions will be diverse, but the basic line of behavior will be unchanged – **acquiring knowledge, competencies, skills and their practical implementation.** The better human intellectual and creative potential (artificial intelligence is another issue) is developed, due to the contribution of higher education, the more favourable conditions will be created for understanding and improving the quality of life of individuals and society as a whole. The future holds all the answers...

References

- 1. Angelov Iv., (2003) Ikonomikata na Bulgaria i Evropeiskia sayuz za dogonvashto ikonomichesko razvitie do 2020. Starprint EOOD, Sofia, November, 2003, p.94
- 2. ECIU (2018) 10 Criteria to Maximise the Impact of European Universities Networks, Brussels / 26 April, 2018, <u>www.eciu.org</u>
- 3. EUF (2018) Position Paper on the Universities Initiative, April, 2018, www.uni-foundation
- 4. **European Commission (2020)** Achieving The European Education Area By 2025, Brussels, 30.9.2020 COM (2020) 625 final

⁷ Some steps in this direction have already been taken and reflected in the Higher Education Law, such as approval by order of the Minister of the policies of higher education institutions aiming to achieve the goals set in the "goal - outcome" model.

- 5. Georgiev R., M. Velushev (2019) Strategia za Razvitie na Vissheto Obrazovanie: Evropeiski Iziskvania, Metriki, Problemi in: "Nauchni Trudove na UNSS", Volume 2/2019, IK-UNSS, Sofia, cit. pp.113-121
- Latham, Gary, Craig C. Pinder (2005) Work Motivation Theory and Research at the Dawn of The Twenty-First Century, Annu. Rev. Psychol. 2005. 56: 485–516 doi: 10.1146/annurev.psych.55.090902.142105
- Rakadzhiyska T., (2017) Choveshkiat Kapital- Teoretichni i Ideologicheski Osnovania in: Rakadzhiyska T., M. Hristova, D. Sivkov (2017) "Socialniat Kapital", IK, UNSS, Sofia, 2017, pp. 47-57, ISBN 978-954-644-977-1
- 8. **Ribov. M**, (2011) In Search of a New Conception of Higher Education in Online Publ. "Higher Education in Bulgaria and the Europe 2020 Strategy", IBS PRESS, (International Business School, Botevgrad), 2011, ISBN 978-954-9432-43-5, pp. 340-349
- 9. **THE GUILD (2018)** (19 European Research-Intensive Universities), Shaping European universities of the Future. The Guild' recommendations for European Universities Initiative.", Position Paper, 23 March 2018, www.THE-GUILD.EU