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INTERNATIONAL AND REGIONAL MOBILITY OF SCIENTISTS

Introduction. Modern requirements to the scientific staff of the state are growing very fast and qualified specialists constantly adapt to the new needs of society that is to be flexible and mobile. It is well known that the brainpower of Ukraine deserve special attention because of the high skill and respect in the world. With this in mind, it is very important to prepare professionally mobile, flexible, and open to new trends in the implementation of their knowledge in practice. A striking example of the preparation of such a scientist can be the experience of European countries.

Analysis of recent research and publications. In recent years, the views of scientists have repeatedly appealed to the mobility issue. Thus, the issue of professional mobility engaged L. Amirov, S. Bagishaev, N. Vasylenko, O. Vyhrystyuk, L. Goryunova, N. Grytskova, Yu. Gurovz, M. Dyachenko, E. Ivanchenko, Yu. Kalynovskyi, L. Kandybovych, Yu. Klymenko, L. Lesokhina, L. Mitina, L. Piletska, T. Sylvestrova, L. Sushentseva; problems of social and professional mobility highlighted T. Zaslavska, S. Kugel, L. Lesokhina, L. Rybnykova, R. Ryvkina, P. Sorokin, V. Shubin; the issue of academic mobility studied V. Andrushchenko, N. Gulyaeva, D. Svyrydenko, V. Molodchenko and others. However, the problem of international and regional mobility did not find high-quality investigation in the research work of scientists, which caused our research interest.

Purpose of our work - to explore the international experience of international and regional mobility of scientific personnel, and implement it in the Ukrainian scientific space.

The presentation of the main research material. Note that the study of international and regional mobility is impossible without definition of the basic concepts. Therefore, mobility is the movement of the subject within the social system or movement within the social space *[3]*.

Professional mobility of specialist, according to S. Savytskyi, "can be expressed in its ability to successfully carry out various activities and to adapt their implementation" *[4]*.

According to L. Sushentseva *[5]*, the basis for the professional mobility of the individual is the dynamism of its motivation, intellectual and volitional processes, thereby creating an individual field of readiness for professional mobility.

According to the Department of International Economic Relations – the mobility of scientific staff – the ability of scientists to change specialization, the object of study, place of work, place of residence, etc. *[2]*.

In today's fast-paced world of global companies sometimes need to quickly and easily move the key professionals with specific knowledge and has a special talent, to the destination. Therefore, in accordance with these requirements may determine that the international mobility – the ability to use the acquired knowledge of the subject outside the state. In addition, accordingly, the regional mobility – the ability to use the acquired knowledge and skills in a variety of jobs / positions within the state.

Analyzing this information we can determine that the international mobility is the use of their scientific personnel acquired in the course of research knowledge in scientific, educational, industrial facilities, etc. outside the State for the purpose of implementing them in practice and expand their own horizons and learn new skills, will allow to disclose the scientific potential of using new technologies in their research work. Accordingly, the regional mobility is the use of their scientific personnel acquired in the course of research knowledge in scientific, educational, industrial facilities, etc. within the State, with a view to implementing them in practice, expand their own horizons, and learn new skills that will reveal the scientific potential of using new technologies in their research work.

Let us consider in more detail the mobility of the scientific staff at the regional level. Regional mobility of scientific staff promotes the transfer of knowledge within the state, the use of them in practice due to the barriers of commercialization of research results and improvements. At the regional mobility is a movement of scientific personnel from the university and research institutions in the research departments of companies and vice versa. In addition, the regional mobility may include the following forms of knowledge transfer:

- The teaching of specialists of enterprises in higher education;
- Part-time work, both at the enterprise and scientific organization (or institution of higher education)
- Consulting professors at the enterprises;
- Compatible projects of scientists and representatives of enterprises, scientists from different institutions of higher education within one, two or more regions of the state;
- Work graduate students of higher educational institutions and scientific organizations at the enterprises, including the innovation;
- The cooperation of scientists on an interdisciplinary level, etc.

The highest rating in a high regional mobility of scientific personnel have the United Kingdom and the United States of America. The average level of regional mobility of scientific personnel have China, Japan, and France. The low level have the Post-Soviet States.

For example, in the US regional mobility of scientific personnel is an essential element of the implementation of research results in innovation processes in the economy. This mobility has many kinds, clearly reflected in the results of the cooperation between universities and business. Moreover, the mobility of scientists in this case is not a matter of known fact the need for

research due to receipt of a scientific status and is a form of interaction between the academic and business sectors, in the form of joint projects, startups, etc., indicating a high level of scientific personnel.

In the UK, the regional mobility of scientific staff though is supported by the state, but the vast number of research projects going on with the private sector.

French regional mobility of research personnel is mainly focused on co-operation between universities.

As for Ukraine, the regional mobility of the scientific staff is almost not developed industry therefore requires a detailed study and active development. The only example of regional mobility of scientific staff can be program "Targeted research and development initiatives" for Ukrainian scientists which will operate on the basis of the National University "Lviv Polytechnic" in 2016 on the range of areas, such as biotechnology and the life sciences; materials science and nanotechnology; information and communication technologies; environmental studies; nuclear energy and safety; agricultural sciences and medicine *[1]*. This program will act on state support and allow the scientific staff of the state to share experiences and create joint projects and to develop the ability to be flexible and mobile in the scientific sector.

The international mobility of scientific personnel – sufficiently developed line of scientific activity. Scientific mobility contributes to the development of new areas of research, including interdisciplinary memories and skills of researchers. Studies conducted on the basis of data on the mobility of scientists in the United States, allow to identify a number of both positive and negative effects that arise as a result of the mobility of staff. We select them on the national level – the recipient (host country for foreign scientists) and donors (country where scientists leave), as well as the global effects that cannot be attributed to a single country.

Thus, the positive effects for the recipient countries include: productivity growth of research due to the influx of highly qualified personnel; transfer of knowledge and the development of cooperation; development of relations with foreign scientific institutions; expand opportunities for exports of technology; increase the number of applicants to graduate school. The negative factors are for the recipient countries: reducing incentives for indigenous people to obtain higher qualification; be "washed out" in the indigenous inhabitants of the best universities in the language and cultural barriers between domestic and foreign scientists.

Accordingly, the positive effects of the donor states are: motivation for the growth of indigenous people to obtain higher qualification; you may receive economic effects in the case of the return of those who left earlier; transfer of knowledge and the development of cooperation; development of relations with foreign scientific institutions; expand opportunities for exports of technology; assistance from the scientific diaspora. The negative effects of donor States include "brain drain": loss of productivity due to the outflow of skilled personnel and students.

Possible global effects: increasing the international circulation of knowledge; improvement of employment opportunities for researchers; more likely to find use unique knowledge / skills; the formation of international scientific and technological clusters *[6]*.

There are a large number of international mobility programs of scientific personnel among which the best known are: the grant program named Frederick Banting (The Banting Postdoctoral Fellowships); grants (awards) by the name of Amelia Earhart (Amelia Earhart fellowships); Japan Society support research – Japan Society for the Promotion of Science (the JSPS); Sophia Centre of Postgraduate education (the Centre for Advanced study Sofia CAS Sofia); Human Frontier Science program (HFSP, Strasbourg, France) offers scholarships for researchers with a PhD degree in the framework of transnational and interdisciplinary basic research in the life sciences. The proposed scholarship program will allow scientists to having a PhD, to carry out research in this new field of science; Erasmus Mundus is designed for students and researchers, higher education institutions organized into consortiums is aimed at enhancing international cooperation and increased mobility among students, teachers, researchers and universities in third countries universities. It is aimed at promoting mutual understanding between the people, the intensification of intercultural dialogue; Tempus is designed for universities, research institutes, ministries, independent agencies to ensure the quality of education, the rectors of associations, teachers, students, and other organizations working in the field of education – the purpose – to promote the modernization of higher education in the EU partner countries (neighbor countries) through enhanced cooperation between the universities of the EU Member States and partner countries; Jean Monnet program – designed for high schools (universities) accreditation. Association of professors and researchers in European integration. The aim of the program is to spread knowledge about the European integration process by encouraging higher education institutions, associations of professors and researchers to the implementation of educational, research and information activities on European integration in various spheres of public life; Fulbright (Fulbright) - for candidates and doctors of science, culture, specialists in library studies, postgraduate students.

As you can see, the programs are designed and close cooperation of scientific personnel of the European Union countries, as well as with the participation of the CIS countries, which allow scientists to lead projects in their area of scientific activities, to expand horizons, to change the direction of research activities and the like. The complexity of participation in such projects is the large number of people willing and a small number of seats for participants, that is to receive a grant or a place in the program compared with the participation in the lottery.

The mobility of the scientific staff reflects not only the direction of movement of professionals, but also the level of "scientific" attractiveness of research centers and the individual countries, the nature of public policy and the private sector, where the procedure of selection of scientific and assessment of candidates is aimed at improving competitiveness. Mobility in modern conditions is closely linked to competitiveness – the possibility of free movement and employment of scientists greatly increases the competitive

advantages of both countries and scientific organizations. The development of mobility can in some way to characterize market relations between scientists who act as sellers competencies and organizations or governments, which play the role of buyers who seek to, improve their competitive position in the national and international scientific market.

Conclusions. So, to improve the measure of prospective conditions of international and regional mobility of the scientific staff of our state is to create new, flexible research groups in institutions, as they will help solve two problems at once – attracting young science and the return of those scientists who have left.

Since most of those scientists who go out of the country, younger, ready to come back among an increasing proportion of those who have received their doctoral degree abroad (PhD). The Ministry of Education does not equate to their doctoral degrees, and therefore, if returned to government scientists who have left must be protected thesis again. It is currently an obstacle to a full refund of scientists. Finally, the policy on the promotion of mobility should include encouraging the exchange of personnel between universities and small innovative companies.

We distinguish several problems that need to be put in front of Ukrainian scientific school, a decision that to a large extent help to solve the problems of international and regional mobility of the scientific staff of our state:

- Creation and development of the state system of grants for scientists from different levels;

- Provide information about the possibilities of training / exchange of experience / creation of research projects in other institutions / organizations / international institutions;

- The provision of targeted financial assistance to the budgets of higher education institutions in the mobility and international development;

- Develop mobility assessment and implementation of it as a measure of the prestige of the institution of higher education;

- Provision of information support, creation of infrastructure to support adaptation, cultural and social support for scientists who come.

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