

## PROBLEMS OF COOPERATION BETWEEN SCIENTIFIC ORGANIZATIONS AND HIGHER EDUCATIONAL INSTITUTIONS IN THE REPUBLIC OF ARMENIA

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**Abstract:** The article is devoted to the study of the methods and mechanisms for enhancing the cooperation between scientific organizations and higher education institutions in the Republic of Armenia, the factors, that determine their effective use, as well as the possibilities for improving the scientific-educational system of the Republic of Armenia in the context of stimulating innovative development of the economy. It is obvious, that in the current geopolitical and economic conditions, there is an urgent need for comprehensive assistance in enhancing cooperation between scientific organizations and higher education institutions, both with each other and with private sector companies. The increase in the efficiency of the scientific-educational system of the Republic of Armenia is currently largely due to the increase in the number of active scientists, the formation of a modern image of lecturers, targeted cooperation between scientists and lecturers, as well as the intensification of scientific-educational activities of students. In order to establish the desired relationship between an active scientist and an effective lecturer, it is necessary to improve the assessment of the scientist in the educational sphere, and the lecturer in the scientific sphere. It is also necessary to increase the level of media literacy of scientists and lecturers, which is due to the modern rapid digitalization of science and education. Particular attention should be paid to and study the experience of increasing the efficiency of scientific-educational activities of famous scientists and teachers. School, university, postgraduate and doctoral studies can also contribute to the formation of an effective scientist-lecturer, where lecturer and students of different educational levels can acquire new intellectual abilities and the necessary psychological skills of perception. In the article, using the example of the Republic of Armenia, the issues of innovative development of the scientific-educational system are discussed, some mechanisms for activating cooperation between scientific organizations and higher education institutions are developed.

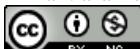
**Key words:** *scientific-educational system, innovative education, research activities, public policy, financing, stimulation, development, efficiency.*

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## **Introduction**

The innovative development of the economy of developed countries and the increase of the efficiency of the scientific-educational system are in close interaction and are mutually reinforcing processes. In the current conditions, there is an urgent need in the Republic of Armenia to comprehensively promote the activation of cooperation between scientific organizations and higher education institutions, both with each other and with private sector companies. The latter is conditioned by the importance of the innovative development of the republic's economy and the imperative of increasing the level of interest of scientific and educational personnel. The organization of innovative education can also greatly contribute to the innovative development of the economy and the increase in the efficiency of the scientific-educational system, as it is an important factor in the development of society and a consequence of pedagogical innovative activity, which ensures the achievement of new educational results, including its economic, managerial, social, environmental, health and other aspects.

## **The theoretical and methodological foundations of cooperation between scientific organizations and higher education institutions**

In order to intensify cooperation between scientific organizations and universities, as well as to solve the problem of increasing the volume of internal expenditure on research and development and increasing the share of extra-budgetary funds in their structure, it is necessary to study the experience of technologically developed countries, which allows us to identify a wide and diverse range of instruments that have a stimulating effect on the activity of economic entities in the scientific and technical sphere. The experience of the USA, the Netherlands, South Korea and China can be useful for creating a set of tools that stimulate the growth of domestic expenditure on research and development and have a positive effect on the development of intellectual capital and the efficiency of its use (Ushakova S.E., 2016, pp. 7-29).

## **Measures to stimulate the growth of domestic expenditure on research and development in the USA:**

1. Direct government funding of fundamental research and development.
2. State support for applied research and development carried out by enterprises through:
  - tax credit for scientific research and development (increase in the amount of tax credit provided by 20%, simplification of the tax credit calculation mechanism, provision of tax credit on an ongoing basis),
  - government procurement mechanism.
3. Improving the legal and regulatory system, governing of intellectual property rights:
  - granting temporary exclusive rights to use an innovation by the developer,
  - improving the quality of the patent system (accelerating the process of obtaining a patent for an invention).
4. Developing small entrepreneurship:
  - providing government loans to small businesses,
  - reducing the tax burden on small businesses,

- introducing a zero tax rate on profits from the sale of shares of small businesses that are sold no less than 5 years after their acquisition (the limitation for receiving such a benefit is the amount of the benefit of more than 10 million US dollars or a tenfold increase in the market value of the share).

5. Ensuring the efficient functioning of the capital market:

- allowing pension funds to invest 5% of their assets in high-risk enterprises,
- a tax break on profits from the sale of shares in high-tech companies.

6. Developing regional innovation clusters, that unite industrial enterprises, universities and regulatory government bodies on a partnership basis:

- a program of lending to enterprises by national and regional banks under government guarantees.

7. Ensuring the expansion of export opportunities for American high-tech enterprises.

8. Public-private partnerships, involving universities, research organizations and private industrial companies in collaboration.

**Measures to stimulate the growth of domestic expenditure on research and development in the Netherlands:**

1. A public-private partnership, based on the “leading sector approach” and consisting of concentrating major investments in selected leading sectors of the economy in order to maximize their return. One of the main principles of the approach implementation is the principle of joint coordination of research and development by the state and business:

- coordination of activities and encouragement of collaboration between the scientific, educational and production sectors; creation of expert councils from representatives of leading sectors of the economy, scientific organizations and government agencies for joint decision-making on industrial policy and the main areas of scientific research;
- reduction of the administrative burden on selected leading sectors of the economy,
- state aid to enterprises of leading sectors in foreign policy for the promotion of Dutch brands in foreign markets (involvement of the Ministry of Foreign Affairs of the Netherlands),
- accumulation of part of the income from gas sales and formation from them of “grants for the development of knowledge infrastructure”, “fund for structural improvement of the economy” and creation of so-called virtual research institutes.

2. Creation of industry consortia of knowledge and innovation in leading sectors of the economy to implement the principle of co-financing research and development.

3. Tax incentives for enterprises, carrying out scientific research and development:

- tax credit for expenses on personnel engaged in research and development,
- provision of a tax incentive for investments in equipment used for research and development,
- preferential taxation of income received from the use of intangible assets developed by enterprises and patented.

4. A mechanism for loans guaranteed by the state for research and development by enterprises in the business sector, the terms of which vary for large and small enterprises, as well as depending on the stage of the innovation cycle (seed research, the stage of

venture financing for research, the late stage of venture financing - launching products into production based on research results):

- an innovation loan for small enterprises, issued from an innovation fund, created to support innovative small enterprises,
- allocation of “seed capital” for new small businesses,
- allocation of funds from the state venture fund (fund of funds) for the development of small businesses;
- provision of bank loans to small businesses with state guarantees,
- provision of state guarantees of 50% of the funds allocated to small businesses by venture funds,
- provision of state guarantees of 50% of investments in small businesses to owners of invested capital,
- creation of the Dutch Investment Agency, combining funds from pension funds, insurance companies, banks,
- creation of a public-private partnership represented by banks, the Ministry of Economy, the Ministry of Social Development and Employment of the Netherlands to provide small businesses with providing consulting services to small innovative companies.

5. A mechanism for public procurement, that stimulates demand for the products of small innovative enterprises.

**Measures to stimulate the growth of domestic expenditure on research and development in South Korea:**

1. Tax incentives for small innovative enterprises:
  - tax credit for research and development,
  - benefits for the payment of taxes on the salaries of employees of small innovative enterprises.
2. Use of the mechanism of co-financing of research and development.
3. Financing of startup activities through funds.
4. Public procurement mechanism.
5. Public-private partnership.
6. Development of technological clusters.
7. Accumulation and patenting of the results of intellectual activity within the country with the aim of using them in national production to extract maximum profit from the sale of products, manufactured on their basis.

**Measures to stimulate the growth of domestic expenditure on research and development in China:**

1. Direct government investments in the implementation of the medium-term and long-term strategic plan for the development of science and technology.
2. Creation of high-tech development zones and incubators with preferential tax, customs, currency, visa and labor regimes.
3. Improvement of the venture financing system through the implementation of the principle of co-financing of the state and the business sector.
4. Improvement of the intellectual property protection system.

5. Creation of a low-budget form of patenting utility models and industrial design (low-value patents), allowing national innovators to obtain patents in a short time at a low cost.

6. Introduction of technological standards in the production sphere, that improve the quality of high-tech goods and stimulate investment in their improvement.

7. Implementation of a mechanism for public procurement of high-tech goods.

In order to achieve the desired results in the activation of cooperation between scientific organizations and higher education institutions in the Republic of Armenia, it is certainly necessary to modernize the activities of scientific organizations operating within the National Academy of Sciences of the Republic of Armenia and increase their efficiency (**Approval of the Development Strategy of the National Academy of Sciences of the Republic of Armenia for 2022-2026**, 2022).

The implementation of this goal requires new steps and approaches, of which, in our opinion, it is necessary to emphasize:

- limiting the terms of office of the heads of scientific topics of the scientific organizations until their expiration, appointing to these positions those employees of the organization, who will be in-depth in the studies of the topics subject to implementation, will have at least 5 years of work experience in the scientific organization and an academic degree. We believe that such an approach will contribute to increasing the efficiency of the work of the heads and performers of scientific topics, will stimulate professional competition between them, will develop the professional abilities of the performers of topics, will stimulate the aspirations to become leading researchers in the future, as well as will increase the desire to have an academic degree and continue working in a given organization.

- inviting leading scientists and specialists from scientific organizations of the NAS RA and well-known advanced scientists and specialists in these fields to lecture on individual professional subjects at higher educational institutions, as well as organizing remote cooperation. This approach will contribute to the integration of science and education, increasing the efficiency of the educational process and increasing students' interest in scientific research.

- ensuring the participation of scientists from the NAS RA and related professional organizations in the working key discussions of ministries and departments, publishing co-authored scientific studies by civil servants and scientists, as well as developing mechanisms to promote the activation of cooperation between civil servants and scientists. Such an approach, in our opinion, will contribute to raising the level of awareness of scientists about the measures implemented by the Government aimed at the development of the republic's economy and the processes conditioned by them, to the submission of proposals to the RA Government by scientific organizations of the NAS RA, universities and private sector specialists that imply economic progress, as well as to the activation of cooperation between civil servants and scientists.

- Modernization of the activities of the National Academy of Sciences of the Republic of Armenia, the presentation by the Government of the requirement to implement developments that imply socio-economic progress, ensuring the adequacy of funding for such developments, establishing cooperative ties with well-known foreign scientific research centers, raising the scientific level of domestic specialists, etc. Such an approach will contribute to improving the effectiveness of developments carried out by scientists,

creating the necessary conditions for their practical implementation, as well as ensuring a higher level of solving social problems for scientists.

Increasing the effectiveness of the scientific-educational system of the Republic of Armenia today is largely conditioned by the generation of the number of active scientists, the formation of a modern image of lecturers, purposeful cooperation between scientists and lecturers, as well as the activation of scientific-educational activities of students.

Knowledgeable and talented scientists stand out with their worldview and creative initiative; they are courageous and purposeful, they are able to see the future. Such scientists are people with great work abilities, strong will and huge creative potential. They are optimistic, believe in the power of knowledge, are able to dream and act boldly. Such people, of course, are not many, but the army of knowledgeable and talented people can be replenished with quite a few people ready for scientific and research activities. Therefore, first of all, they need to be instilled with a selfless love for science and their chosen profession. Here, it is especially important to emphasize their ability to overcome the difficulties and obstacles encountered on the path of a scientist, as well as their confidence in the importance of the chosen study. All this leads to a strong sense of purpose, which allows the researcher not only to see the long-term perspective of the work, but also to clearly plan its individual stages. Important qualities of a scientist should be his honesty, rigor and objectivity. He must be modest and self-critical, as well as respectful of the opinions of others. The success of scientific activity largely depends on the general disposition of the scientist. Optimism inspires and stimulates the will, sharpens perception and thought. A scientist must look ahead, love life, have systematic thinking and be optimistic. And finally, one of the main qualities of a true scientist is consistent work. When conducting any scientific experiment, one must have patience and endurance. Experiments sometimes require hard work; there are failures, overcoming which implies the exclusion of despair and, ultimately, the achievement of the desired results.

In the professional literature, the following concepts are distinguished in terms of the mental and physical qualities characteristic of a scientist (**Selye H.**, 1987, p. 175):

- enthusiasm and perseverance,
- originality - independence of thinking, imagination, intuition, talent,
- intelligence - logic, memory, experience, ability to concentrate, abstract thinking,
- ethics and honesty,
- harmony with nature - observation, physical and technical skills, etc.,
- ability to communicate with people - ability to form groups, explain to others, convince them if necessary, as well as listen to their arguments.

It is obvious that with the above qualities, in order to carry out effective activities, a scientist must study and analyze everything new, be in constant contact with foreign scientists, publish scientific works, give interviews, create teams of like-minded people, etc.

The image of a lecturer is extremely important in the modernization of the scientific-educational system. It should have a special meaning, since the influence of a lecturer on a student is great. The main characteristics, attributed to the image of a lecturer in professional literature are (**Image of a university lecturer: structure, technologies, stages of formation**):

**1. First impression.** A lecturer should leave a unique impression, which is formed by clothing, voice, grooming and neatness, strength of handshake, eye contact and posture.

A positive first impression makes it easier to communicate with people, making it warmer and more comfortable. On the other hand, a negative first impression can end a relationship before it even begins. Research conducted in academic studies has revealed a connection between the components of a first impression and subsequent relationships. Stylish clothing and a neat appearance are important factors in making a good first impression. The right clothes create the image of a successful professional, evoking a positive response.

**2. Depth of knowledge.** Both students and colleagues understand that the lecturer is proficient in his profession, can freely discuss various professional issues and has the necessary expert knowledge. It is assumed that the work of a lecturer should be a highly paid intellectual job, who not only transfers his knowledge to students, but also engages in self-improvement and continuous updating and enrichment of his knowledge.

**3. Comprehensiveness of knowledge.** In addition to knowledge in his field, a successful lecturer should have broad understanding and knowledge of related fields and other issues of public importance. He should have expert skills and freely discuss phenomena, that are somewhat far from the scope of his professional activities.

**4. Flexibility.** The lecturer should be endowed with a certain flexibility and, if necessary, be able to demonstrate such behavior, so as not to jeopardize relationships with others. Such a lecturer listens to the interlocutor and is able to adapt to the rhythm of communication, without causing the other person discomfort in communication.

**5. Enthusiasm.** A lecturer's enthusiasm should be understood as his ability to accept new information and willingly take on any task. In other words, in terms of the observed characteristic, it can be understood that the lecturer should freely give the most complete answer possible to the most diverse questions from the students, thereby not jeopardizing his own reputation.

**6. Sincerity.** A true lecturer should be sincere, not present himself as such. A person, proclaiming scientific values, must be their true bearer and adhere to the rules of academic ethics.

In order to establish the desired relationship between an active scientist and an effective lecturer, it is necessary to raise the assessment of the scientist in the educational sphere, and the lecturer in the scientific sphere. It is also necessary to raise the level of media literacy of scientists and lecturers, which is conditioned by the current general digitalization of the spheres of science and education (**Bostanjyan V., Zakharyan A.**, 2023, pp. 248-251). Special attention should be paid to and studied the experience of famous scientists and teachers in increasing the effectiveness of scientific and educational activities. The formation of an effective scientist-lecturer can also contribute to school, university, postgraduate and doctoral studies, where lecturers and students at different educational levels can acquire new intellectual abilities and necessary psychological skills of understanding.

It should be noted, that increasing the effectiveness of scientific-educational activities of scientists, lecturers and students is a continuous and ongoing process, the future of both science and education, as well as the future of the implementation of the results and developments resulting from them, depends on the degree of its effectiveness.

In order to achieve the desired future in the field of scientific-educational activities in the Republic of Armenia, it is necessary to actively involve students in both scientific research projects and scientific studies, carried out by professional groups. Moreover, as

a result, students must participate in co-authored publications, and master's students must have at least two published scientific articles.

The possible rapid formation of a scientific-educational system in the Republic of Armenia, the strengthening of the scientist-lecturer relationship will not only contribute to the involvement of young students in the scientific research field, but will also create the necessary conditions for them to engage in science and get acquainted with the nuances and peculiarities of the activities carried out in the field. It is obvious that more serious volumes of state and private funding will be required to motivate scientists, lecturers and young specialists. In this regard, we should also note that although the volume of expenditures allocated to scientific research and development in the former CIS countries has recorded some growth, it has not yet expanded in relation to GDP (see Table 1).

**Table I**  
**The volume of expenditures on scientific research and development in the CIS member states in relation to GDP in 2017-2022 (%)**

N	CIS country	% to GDP					
		2017	2018	2019	2020	2021	2022
1.	Armenia	0.2	0.2	0.2	0.2	0.2	0.2
2.	Belarus	0.6	0.6	0.6	0.5	0.5	0.5
3.	Azerbaijan	0.2	0.2	0.2	0.2	0.2	0.1
4.	Kazakhstan	0.1	0.1	0.1	0.1	0.1	0.1
5.	Kyrgyzstan	0.1	0.1	0.1	0.1	0.1	0.1
6.	Moldova	0.2	0.2	0.2	0.2	0.2	0.2
7.	Russia	1.1	1.0	1.0	1.1	1.0	0.9
8.	Ukraine	0.4	0.5	0.4	0.4	0.4	0.3

Source: *How much does your country invest in R&D? - UNESCO Institute for Statistics (UIS), 2025*, web page visited on 01.05.2025.

The CIS member states also significantly lag behind economically developed countries in terms of spending on scientific research and experimental and design work. Russia's indicator, which is the highest among the CIS member states, is about 12 times lower than the indicator of the world leader in the list of leaders. Armenia's indicator is about 5 times lower than Russia's indicator and about 47 times lower than the indicator of the world leader, the United States. According to the OECD's open database "Key Indicators of Science and Technology", the world leaders in terms of total domestic spending on R&D are the United States, Germany, China, Japan, and South Korea.

Of course, doctoral education also contributes to raising the scientific level of a scientist, and no matter how much some forces strive to abandon *this level of postgraduate education*, its importance will never decrease, since in Armenia, as in the entire post-Soviet space, this scientific degree is not only well recognized, but also the recognition of many as such is excluded.

At the same time, it is necessary to note, that not all doctors become inventors, since not all directions of the scientific sphere of the republic have the necessary conditions for full-fledged engagement in inventive activity. In our opinion, this circumstance is also the reason for the need to organize inventive education in the republic—the third

*level of postgraduate education.* Especially in the current challenges of the Republic of Armenia, the need to establish this third level of postgraduate education and the exclusion of discussions on abandoning the second level are emphasized. In modern conditions, it is certainly possible to establish additional conditions for the defense of doctoral dissertations, excluding, of course, the requirement to emphasize the presence of publications in periodicals with certain indexes in international scientific information databases. It is obvious, that the effectiveness of a scientist's work is objectively measured by the results of implementing the applied recommendations presented by him and the degree of their impact on social welfare.

There are serious prerequisites for the formation of a scientific-educational system in the Republic of Armenia, especially in the issue of human capital. In particular, many highly rated, professional lecturers work in the republic's primary vocational (craft), secondary vocational and higher educational institutions (see Table 2).

**Table 2**  
**Number of lecturers in primary vocational (craft), secondary vocational and higher education institutions in 2019-2024**

<b>Name</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
Pre-vocational (craft) educational institutions	939	963	1 035	1 189	996
Secondary vocational educational institutions	3 015	3 081	3 163	3 179	3 147
Higher educational institutions	6 747	6 538	6 484	6 505	6 450
<b>Total</b>	<b>10 701</b>	<b>10 582</b>	<b>10 682</b>	<b>10 873</b>	<b>10 593</b>

**Source:** *Education sector statistics, Statistical Yearbook of Armenia, 2024, pp. 169-199., web page visited on 21.03.2025.*

The analysis of the presented data shows, that there has been a change in the number of lecturers during different academic years. In particular, the number of lecturers in secondary vocational educational institutions increased by 132, in primary vocational by 57, and in higher educational institutions the number of lecturers decreased by 297. In general, the number of lecturers in educational institutions of the republic decreased by 108. The decrease in the number of lecturers, is certainly, due to both the reduction of the number of students and the low level of lecturers' salaries.

A certain number of scientific organizations currently operate in the Republic of Armenia. The trend that an increase in the number of scientific organizations has been registered in the republic in recent years should be considered positive. An increase has also been registered in terms of financing of such organizations (see Table 3).

**Table 3**  
**Indicators, characterizing scientific organizations operating in the Republic of Armenia in 2019-2023**

<b>Name</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Scientific organizations	63	65	94	91	89
Number of employees of scientific organizations (people)	4 539	4 499	4 889	4 864	4 853
Funding of research and development (million drams)	12 144.6	13 717.3	14 862.9	17 814.4	16 888.2

**Source:** (*Science sector statistics, Statistical Yearbook of Armenia, 2024, pp. 200-208*), web page visited on 21.03.2025.

The analysis of the presented data shows, that in 2023, compared to 2019, the number of scientific organizations increased by 26, the number of employees in them by 314, and the expenses on research and development by 4 743.6 million drams.

According to the relevant decision of the Government of the Republic of Armenia, the minimum requirements for certification of scientific personnel are established mainly for the numbering of scientific publications and monographs (**“On the approval of the procedure for attestation of scientific personnel, scientific and engineering-technical positions in state scientific organizations and the minimum criteria for their evaluation” Resolution of the Government of the Republic of Armenia, 2023**). Scientific publications must be included in journals with appropriate indexes in the international scientific information databases Science Citation Index Expanded, Social Sciences Citation Index (SSCI), Emerging Sources Citation Index (ESCI), Arts&Humanities Citation Index (AHCI) կամ Book Citation Index, SCImago Journal & Country Rank (Q2, Q4), SCImago Journal Rank Indicator, and monographs (collective monograph) or scientific works must have at least five printed volumes and be published in publishing houses, included in the list of publishers of the Book Citation Index of the Web of Science™ scientific information platform. In our opinion, such a requirement may cause certain inconveniences in the Republic of Armenia, due to the fact that the publishing houses specified in the Order are registered in the Republic, the expenses stipulated by such publications are incurred by domestic scientists with extremely small incomes, and other obstacles. In the procedure for attesting scientific personnel of the Republic of Armenia, adopted by the Government's decision, the emphasis on the presence of publications in periodicals with appropriate indexes in international scientific information databases is, in fact, an important characteristic for scientists, but this requirement, in our opinion, can and should follow the criterion of the practical implementation of the proposals of scientific personnel, since the effectiveness of the work of a scientist is objectively measured, is being measured and will be measured in the future by the results of the implementation of the practical proposals, presented by him. The attestation process, of course, may be preceded by training, exams, tests and other approaches to revealing professional skills.

The issue of professional advancement of scientific personnel is of key importance in the establishment of the scientific-educational system. In fact, in the Republic of Armenia, there is no effective mechanism, that would provide a certain opportunity to effectively organize the professional advancement (career) of a scientist. Researchers, as a rule, on their own initiative and through personal connections, try to so-called "move forward", directly or indirectly pushing the requirements of scientific and practical efficiency into the background. As a result, we have what we have. Meanwhile, advanced experience is known in world practice, which can be localized in any country, taking into account the specifics and characteristics of the given country. In particular, like many countries of the world, Armenia can be guided by the principles of the Japanese "career growth" system, which can lead to positive results, when state policy is also implemented in this direction, with the necessary developments and assessment of the degree of importance of the researcher's activities. It is obvious, that the necessary developments and assessments should be based on **education and work**:

1. in undergraduate or graduate programs at universities,
2. in postgraduate or doctoral programs at scientific organizations,
3. in educational institutions,
4. in the executive body,
5. in the legislative body,
6. in the international arena and other areas.

The period of transition from the presented education and working levels to each of them can practically last 5-7 years, in which case a minimum of 35 years of work experience can be obtained, the duration of which, depending on the duration of the specified works, the consistency of the scientific worker, the results obtained by him and other factors, can be reduced or extended. During the transition from the presented working levels to each of them, it is naturally desirable, that the salary of the scientific worker, as well as his scientific level, increase. As a result, a scientific potential that significantly contributes to the development of the state will be formed.

### **Conclusion**

In the establishment of the scientific-educational system in the Republic of Armenia and the strengthening of the scientist-lecturer relationship, the issue of competitive selection of scientific topics by the relevant structure of the sector is of fundamental importance. In particular, when selecting topics related to areas of strategic importance for the state, the involvement of representatives of the Public Council, the National Academy of Sciences of the Republic of Armenia, the Government of the Republic of Armenia, as well as highly rated experts from various professional fields in this process can provide positive results. It is obvious, that when discussing the feasibility of implementing the presented scientific topics, keeping in mind the opinions of the Public Council, the National Academy of Sciences of the Republic of Armenia, the Government of the Republic of Armenia, as well as the experts' conclusion, it will be possible to make an objective and transparent selection of topics. As a result, the effectiveness of their activities in various professional fields will increase, and the desire of scientists to carry out scientific research work will increase. Here, it is also necessary to emphasize the organization of "master classes" for young researchers, involving specialists with many years of effective scientific research experience. Such an approach will not only contribute to

increasing the effectiveness of scientific research work, but will also lead to improving the quality of scientific-pedagogical activities. Let us also note, that the final results of research conducted within the framework of scientific topics should also be presented to the relevant bodies of the executive power for their practical application and, why not, for the formation of state orders.

In summary, it is necessary to note, that the implementation of the practical recommendations for the integration of higher educational institutions and scientific organizations, as well as for increasing the efficiency of scientific-pedagogical and research activities presented in the article, can contribute to the innovative development of the economy, the creation of new jobs, the deepening of internal and external economic ties, and the balanced and sustainable development of the economy of the Republic of Armenia.

## References

Approval of the Development Strategy of the National Academy of Sciences of the Republic of Armenia for 2022-2026 (Decision 14/1805-27-14 October 2022), <https://www.sci.am/documents.php?y=2022&dcid=3&langid=1#top>.

Bostanjan, V., Zakharyan, A. (2023), Problems of digital transformation of the education sphere in the Republic of Armenia, Greater Eurasia: Development, security, cooperation: materials of the Fifth international scientific and practical conference "Greater Eurasia: national and civilizational aspects of development and cooperation", Yearbook. Issue. 6. Part 2 / Institute of Scientific Information on Social Sciences of the Russian Academy of Sciences. Dep. of scientific cooperation; Ed. V.I. Gerasimov. - Moscow, pp. 248-251, [https://inion.ru/site/assets/files/7615/2023\\_e\\_bol\\_shaia\\_evraziaa\\_6\\_2.pdf](https://inion.ru/site/assets/files/7615/2023_e_bol_shaia_evraziaa_6_2.pdf)

Education sector statistics, <https://escs.am/am/static/statistist>, Statistical Yearbook of Armenia - 2024, pp. 169-199, <https://armstat.am/file/doc/99552298.pdf>

Selye, H. (1987), From Dream to Discovery: How to Become a Scientist, Moscow, Progress, p. 175, [https://www.phantastike.com/way/ot\\_mechti\\_k\\_otkritiyu/html/](https://www.phantastike.com/way/ot_mechti_k_otkritiyu/html/)

How much does your country invest in R&D? - UNESCO Institute for Statistics (UIS), 2025, <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>.

Image of a university lecturer: structure, technologies, stages of formation, <https://lala.lanbook.com/imidzh-prepodavatelya-vuza-struktura-tehnologii-ehtapy-formirovaniya>.

"On the approval of the procedure for attestation of scientific personnel, scientific and engineering-technical positions in state scientific organizations and the minimum criteria for their evaluation" Resolution of the Government of the Republic of Armenia N 2298-N, 21.12.2023, <https://www.arlis.am/DocumentView.aspx?docid=187688>

Science sector statistics, <https://escs.am/am/static/statistist>, Statistical Yearbook of Armenia - 2024, pp. 200-208, <https://armstat.am/file/doc/99552303.pdf>

Ushakova, S.E. Stimulating the development of the sphere of using national intellectual capital: a review of foreign experience, Scientific journal "Science Management and Scientometrics", N4, 2016, pp. 7-29, <https://cyberleninka.ru/article/n/stimulirovaniye-razvitiya-sfery-ispolzovaniya-natsionalnogo-intellektualnogo-kapitala-obzor-zarubezhnogo-opyta>