

POLICY BRIEF

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“Ghost” of Academic city: is chosen policy optimal?

Since the 1950s, [Robert Solow](#), an American economist (later- Nobel prize winner, 1987) has consistently been advocating his new theory- Solow’s economic growth model, stating, that in order to have sustainable and long-run economic growth, countries should invest in progress of science and technology (including higher education). Nowadays, it seems unquestionable. Moreover, recent studies indicate that between 1995 and 2021, higher education contributed approximately [0.1 percentage point](#) to [1%](#) economic growth in most developed OECD countries. In that context, it is commendable, that the Government of the Republic of Armenia has initiated extensive reforms in higher education and science. However, the concept of an “[Academic city](#)” remains debatable.

This policy brief aims to address the issue by describing the current situation, drawing parallels with international experiences, and offering practical recommendations for policymakers.



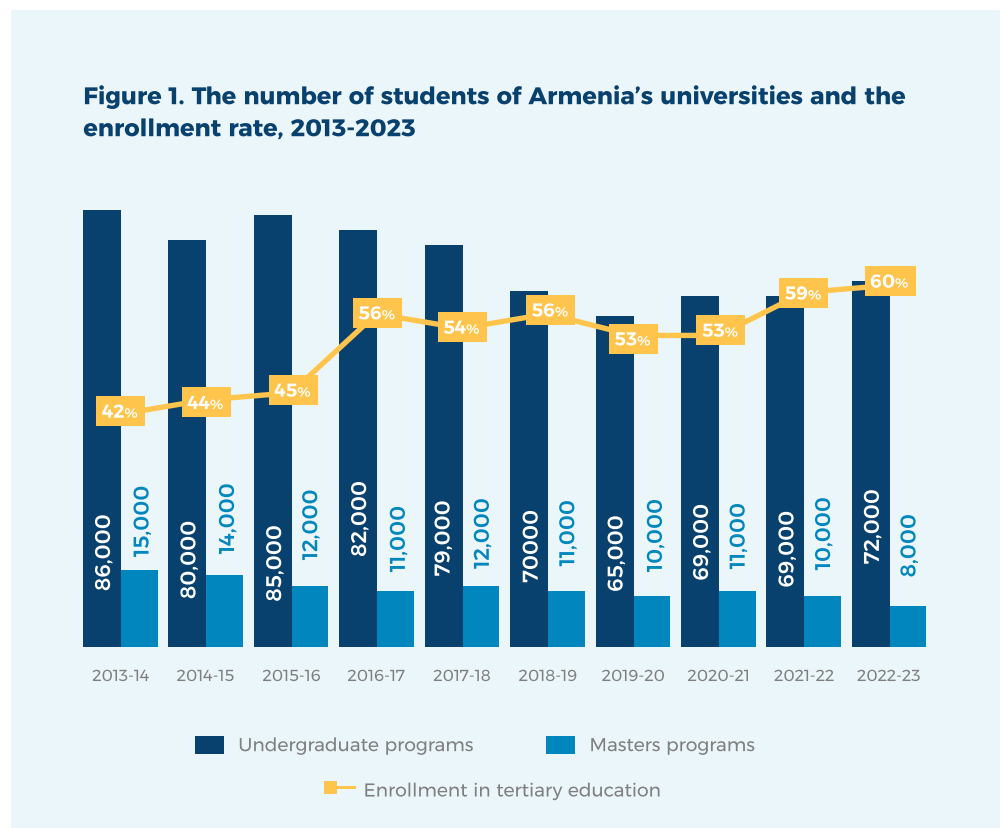
What is going on in Armenia's field of education and science: international comparisons

The number of students decreases, the enrollment level increases, and the quality threshold of university admission decreases. Thus, in the 2013-2014 academic year, 100,854 students were studying in first (undergraduate programs) and second (masters programs) levels of higher education, while in 2022-2023 - only **79,513**: the number of students for the given period has decreased by 21,000 or by **21%**. The main cause of this kind of drop in the number of students is, probably, the decrease of the

number of population in the corresponding age group, which artificially led to the increase of enrollment level in higher education, which reached **60%** in 2023 in comparison with 42% in 2013. At the same time, during the last 10 years, the number of places allocated for the first level of education in state universities dropped by only **10%**, which led to a decrease of the quality threshold of admission. In other words, less qualified students were allowed to study in universities.

The supply of educational services considerably exceeds the demand

Figure 1. The number of students of Armenia's universities and the enrollment rate, 2013-2023

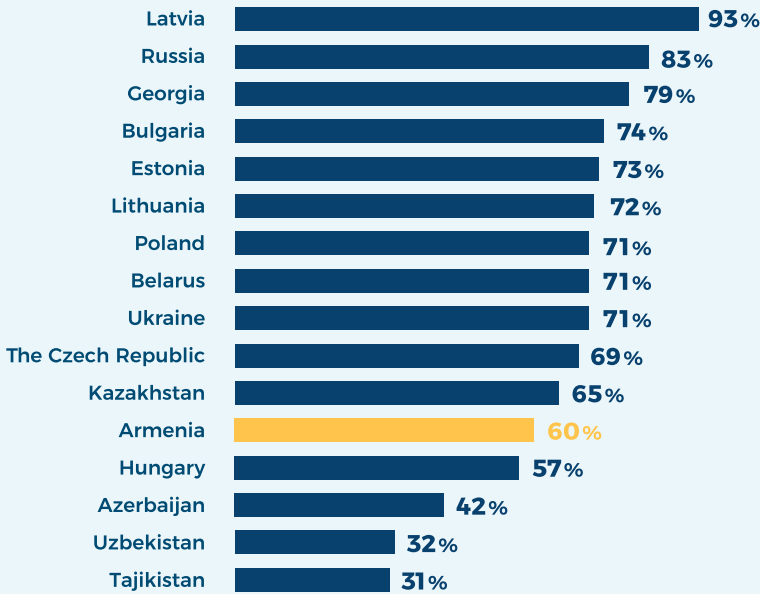


Source: ARMSTAT, World Bank

Nevertheless, the enrollment rate in tertiary education in **Armenia (60%)** is lower than in countries such as Latvia (93%), Russia (83%),

Georgia (79%), Bulgaria (74%), Estonia (73%), Lithuania (72%), Poland (71%), etc. (Figure 2)

Figure 2. Enrollment rate in tertiary education, according to recent data



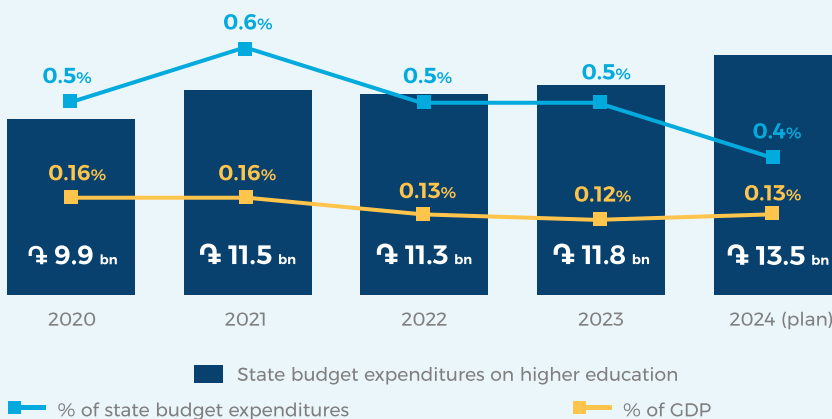
Source: World Bank

In Armenia, 6 out of every 10 people of university age are enrolled in higher education

It is worth noting that the RA Government has recently been consistently increasing state budget funds allocated for higher education. For example, the Government has planned to allocate **AMD 13 billion 494 million (EUR 32 million)** to higher education in 2024, which is AMD 1.7 billion (EUR 4 million) or by 14.6% more, than in 2023 and AMD 3.6

billion (EUR 8.5 million) or by 36.3% higher, than in 2020. Nevertheless, it should be noted that although the funds allocated to higher education have increased in absolute terms, they have remained unchanged or even decreased slightly as a percentage of both the total state budget expenditure and the country's GDP.

Figure 3. State budget expenditure in the field of higher education in Armenia, 2020-2024



Source: MoF of the RA, ARMSTAT

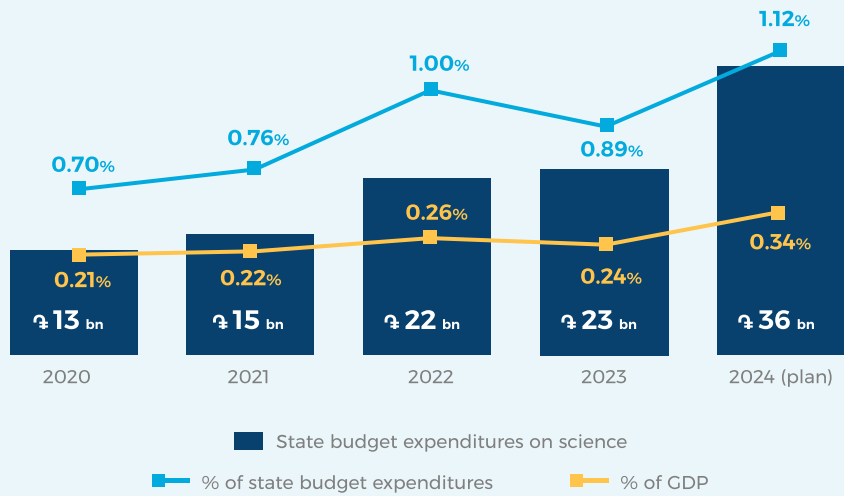
In 2023, AMD 758 out of every AMD 1,000 allocated to science was actually spent

In recent years, expenditure on science has also increased, however, the performance level remains disturbing. For example, in 2023 the Government planned to spend around AMD 30 billion (EUR 71 million) on science (excluding expenditures on military science and technology), but only about

AMD 23 billion (EUR 54 million) actually have been spent.

In 2024, the Government plans to spend AMD 36 billion (EUR 85 million) on science, which is 58.2% higher than in 2023 and 2.7 times more than in 2020.

Figure 4. State budget expenditure on science in Armenia, 2020-2024

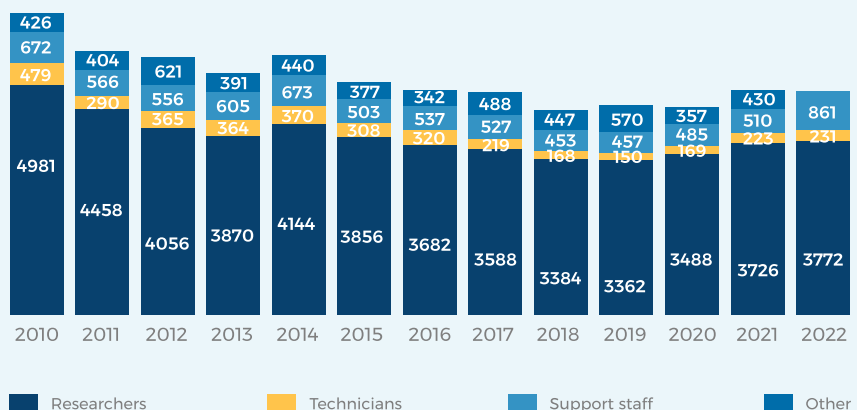


Source: MoF of the RA, ARMSTAT

Despite increasing state funding for the field, the number of employed people in science has continued to decrease in Armenia in recent years. In 2022 it was **4,864**, which is **26.0%** or 1,694 less, than in 2010.

Moreover, this decline happened due to the decreasing number of researchers. During 2010-2022, the number of researchers in the field of science has reduced by **24.3%** or by **1,209** people. (Figure 5)

Figure 5. Number of employees in the field of science in Armenia, 2010-2022



Source: ARMSTAT

Despite the continuous increase of state funding in higher education, as well as science, the universities of Armenia are not enough represented in the world university rankings. For example, according to the data of the 2023-2024 academic year, **60 universities** are functioning in Armenia (including foreign universities), from which

only 1 state university is included in the **QS World University Rankings**. For comparison, in Lithuania, Latvia, Estonia, and Belarus, where there are much fewer universities, more universities are included in the QS World University Rankings.

Figure 6. Number of universities in Armenia and selected countries



Source: National statistical agencies and QS World University Rankings

In summary, regarding several indicators in higher education—such as student enrollment in higher education, the number of scientists, and the inclusion of universities in renowned international ranking – Armenia

continues to lag behind the selected countries and has even regressed compared to them in recent years.

It is clear that the field needs reforms, but the main question is how and in what direction these reforms should be implemented

What does the Academic city imply?

The first mention of “**Academic city**” in legislative regulations in Armenia appeared in November 2022, when the government approved the “Education Development Plan until 2030”. Particularly, in order to increase the effectiveness of education, it is planned to establish an academic city, as a set of campus clusters providing a modern educational environment for quality higher education and research. This idea is mentioned also in the action plan of the state program, becoming a measure to achieve one of the 7 subgoals of higher education reform, which is the implementation of a network education system and the development of infrastructure. As a result, it is expected to have up to **8 universities** with 100% state funding, **4 universities** included in world university rankings, and also to double the number of foreign students.

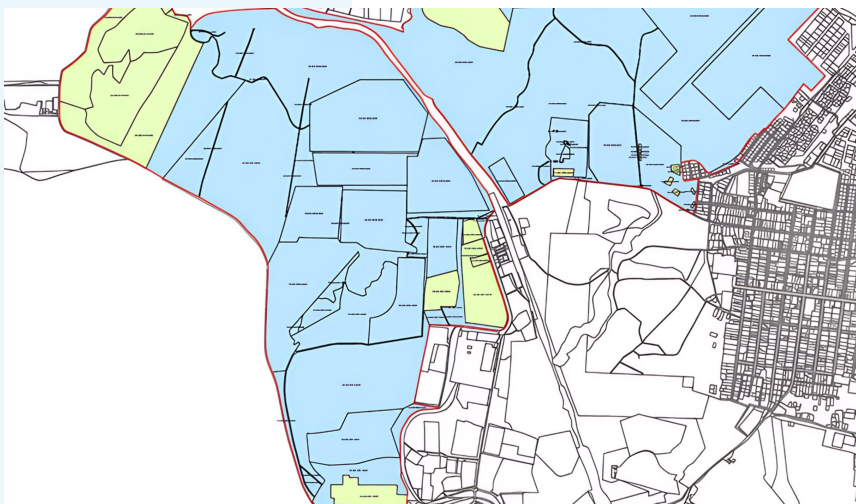
More than 80% of the territory is either state or community-owned, **16%** belongs to private owners and **4%** is owned by people who have not registered their ownership. It is expected to locate up to **16 universities** in the Academic city, from which up to 8 state enlarged universities and up to 8 private or international universities, as well as the Higher Education and Science Committee, the governing body of the “Academic city”, and other infrastructures relevant to the field.

During the first phase of project implementation, it is planned to organize **four clusters**: technological, arts, educational, military, where around **44 thousand people** will be employed/studying. Part of them have to be accommodated either in dormitories (students, junior researchers, and assistant lecturers) or in apartments (lecturers and senior researchers).

Table 1. Number of cluster residents

Cluster	Employee	Student	Pupil
Technological	3,000	14,500	500
Arts	900	2000	200
Educational	1400	15,000	
Military			
Total		44,000	

According to the Academic City concept, the planning phase is expected to be completed by **September 2025**. This will be followed by the construction phase, which is anticipated to continue until **December 2029**. The facility is scheduled to become operational in **2030**.



Academic city

The Academic city is a territory of **700 ha** surface (overall 95 land plots), situated in the North-Western part of Yerevan, adjacent to the 17th district, and in the storage facilities of “Hayfilm” studio named after Hamo Beknazaryan.

Do the financial capacities match the wishes?

On March 16, 2023, the Government approved the action plan for the “Education Development Plan until 2030”, which stipulates, that the topic of necessary funds allocation from the state budget should be discussed in the frame of the current year’s budget process, moreover, there is no financial assessment of the implementation cost of the whole program for the state in any public document.

There is the same problem with the assessment of investments in the Academic city: state bodies haven’t provided any estimation concerning the amount of financial expenditures. Some experts [talk](#) about several billions of dollars. Moreover, the international experience shows, that the actual costs of such mega-projects frequently and considerably surpass the expected costs.

The analysis of the 2024 State Budget and the Medium-Term State Expenditure Framework for 2025-2027 shows that state funding is planned by the proportion as presented in Table 2.

In other words, as of now, the project design and selection of constructors are expected to last until 2026, and the actual construction will begin in 2027.

Table 2. Funding of Academic City in 2024-2027

	2024 (plan)	2025 (plan)	2026 (plan)	2027 (plan)
Funding from state budget, million AMD	1,057.32	2,114.8	5,023.52	240,292.81

We consider it unlikely that in 2027, **6%** of the state budget expenditures will be directed only to this project, although, taking into account the expected economic difficulties, it is not excluded that such large-scale capital expenditures can be carried out with the help of international financial institutions in order to stimulate the economy. Nevertheless, the issue of financing mechanisms still largely remains open to discussion. In several speeches, Prime Minister Nikol Pashinyan has mentioned, that they are considering handing over the management of the current territories of state universities to a

Skolkovo Innovation Center

In 2013, the Government of the Russian Federation decided to build the “Skolkovo” innovation center on 400 hectares within 7 years, where scientific and educational institutions, high-tech productions, office spaces, etc. would be located. Initially, the state funding portion of the project’s cost was estimated at around RUB 132 billion (around USD 4.2 billion), with nearly as much investment expected to be attracted from the private sector. However, the project has been delayed until 2024, while the amount of state funding has already reached RUB 177 billion, and the value of private investments – RUB 570 billion.

This is like a man going to car dealership and ordering Ferrari 812 GTS, without knowing its price

specialized operator and directing all income generated from it to this project, however, this cannot be done until 2030, while after that, re-profiling and commissioning real estate of that volume will take at least several years, even if we assume that there will be sufficient demand.

Academic cities around the world

Academic cities or educational clusters around the world usually have several goals. Their main goal is to foster scientific and research activities, as well as they intend to group branches of renowned international universities in one place, assuring an attractive educational environment for local and foreign students.

For example, Tsukuba Science City in Japan and Hsinchu Science Park in Taiwan serve the first purpose. In these educational clusters, the proximity of higher education institutions, scientific, research, and technological companies allows for fostering cooperation, assuring knowledge exchange, implementation of joint research projects, and formation of a dynamic scientific community.



Tsukuba Science City in Japan

Education City in Qatar, Dubai International Academic City, Education City in Penang serve the second purpose.



Dubai International Academic City

These educational clusters unite branches of different renowned international universities. For example, the Education City of Qatar is home to Carnegie Mellon University, Georgetown University, Texas A&M University, etc.

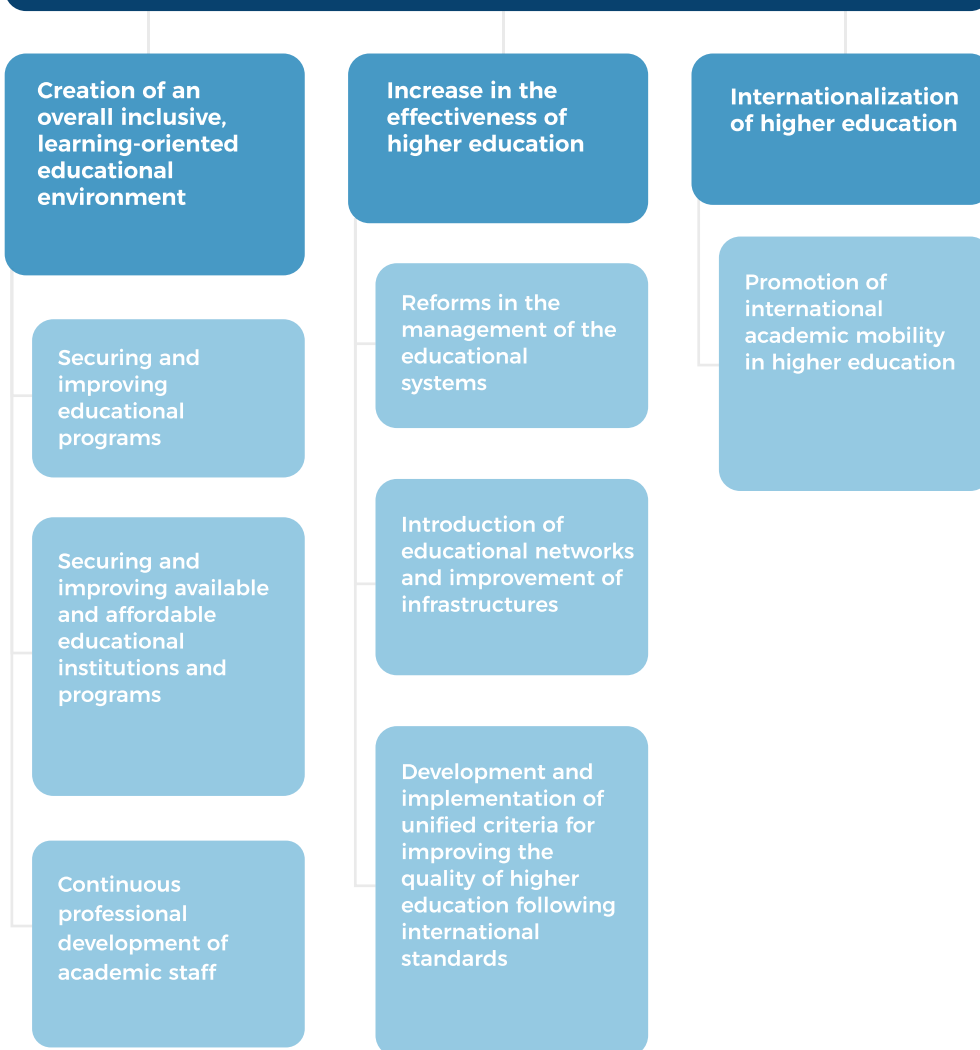
Another international practice is, when, for example, a number of higher education institutions are concentrated in a district of a city, such as The Ciudad Universitaria in Madrid, The Latin Quarter in Paris, the Haidian District in Beijing, etc. However, it should be noted, that none of the abovementioned examples excludes the existence of higher education institutions beyond that area.

The focus of higher education and science development in Armenia and in the world

Strategic goals and subgoals of higher education reform in Armenia are defined in the [“Education Development Plan until 2030”](#) and the corresponding [action plan](#).

Strategic goals and subgoals of higher education reforms

Each alumnus will have an internationally recognizable professional qualification, which will allow them to acquire decent work in a short period or to start their own business.



There is a strategic gap between goals, means and targets

On the whole, these goals correspond to the approaches of the [World Bank](#) and [EU](#), but the main issue is the focus: high concentration on one of the strategic goals overshadows the importance of the others and, in the case of limited financial resources, calls into question their realization. Moreover, in specific cases, there is a strategic gap between goals, targets, and means. For example, through the Academic City project, it is expected to reach three targets: 8 enlarged state universities, 4 universities represented in the first top 500 of internationally recognized rankings, and a doubling of foreign students. However, it is not possible to achieve the last two targets by this means, because the factor of good infrastructure has a small share in the methodology of international well-known ranking tables, and the latter is necessary, but not sufficient, to attract international students. Besides, the time lag factor is also important: even if we abstract ourselves for a second and believe, that means directly guarantee the implementation of all targets, it is impossible to have an academic city and doubling of

international students at the same time by 2030. As to the subgoal of introduction of educational networks and improvement of infrastructures of the Academic city, drawing parallels with international experience, it should be mentioned, that this kind of goal is also set in other countries, but it mainly concerns virtual inter-university platforms, organization of virtual campuses and development of digital infrastructures in universities ([EU](#), [Ireland](#)), thus solving the problem of unequal capacities and possibilities of universities, assuring availability of resources, as well as vaster opportunities of cooperation between scientists, lecturers and students. In order to make use of opportunities provided by network infrastructures, different countries have put the focus of the improvement of higher education systems on the speedy development of digital skills and digital processes among their lecturers and students (Latvia, Estonia). The development of digital infrastructures and corresponding skills is also at the center of EU higher education system improvement projects.

European Union

The EU member countries have also initiated reforms in the field of higher education in recent years. Particularly, the European Commission adopted a number of legal acts in 2022, where general principles and approaches of improvement of higher educational institutions are defined and they should serve as guidelines for the EU member countries for coming years, when implementing reforms in higher education. Overall, those reforms should be based on four pillars, including:

- international cooperation enhancement between universities,
- reviving cooperation between countries in the field of higher education,
- future-oriented skills development at universities,
- pivotal role of universities in the process of technological transformation of economies and sustainable development.

Under the Digital Education Action Plan (2021-2027) [adopted](#) in 2020, the EU has revised its approach to higher education digitalization.

It plans to allocate substantial funds for developing digital infrastructure and enhancing digital skills at universities.

General conclusions

- ✓ The Education Strategy of Armenia until 2030 mainly corresponds to the imperative of the time and pursues the same strategic goals as other countries, but in some cases, there is a strategic gap between goals, means, and targets.
- ✓ Considering limited resources, a strong focus on one of the goals/subgoals can overshadow the importance of others and lead to failure.
- ✓ The project will likely require an investment of several billion dollars, which is unlikely to be implemented within 4 years with Armenia's state budget funds, not even if the funding is attracted from international financial institutions. In other words, according to our assessment, the financial capabilities of the government don't match its wishes, particularly if we take into account, that in the case of mega-projects, costs tend to increase in the implementation phase.

Policy recommendations

- ✓ Conduct a comprehensive financial evaluation of the activities outlined in the Education Development Plan until 2030, prioritizing those activities, which have higher financial efficiency and greater impact on achieving the overall goals.
- ✓ If it is determined that establishing the Academic City is one such action, revise the concept to include the construction of technology company offices and technoparks. This will enhance the appeal of the project to private investors.
- ✓ Introduce public-private partnership (PPP) mechanisms to finance the project, which will allow to reduce costs associated with constructing public infrastructure to some extent.
- ✓ Develop separate investment projects, organize roadshows around the world, in order to attract big investors (for example, technology companies, that would like to locate their Armenian offices in the Academic city).