

ARMENIA 2030: TRANSFORMING THE DEVELOPMENT LANDSCAPE

START-UP LED TECHNOLOGY-FOR-ARMENIAN-DEVELOPMENT MODEL

Dasaran

<http://www.dasaran.am/>

Slogan/Mission: “New Horizons in Education”

Sector: EdTech

Country of origin: Armenia

Date of establishment: 2009

Entry into the Armenian market: The legal entity behind the “Dasaran” platform is the nonprofit organization - “New Generation School” NGO. It was set up in 2009 with the purpose of making education equally accessible to all children in Armenia.

National leadership: Suren Aloyan, Founding President/CEO

Project timeline: project cycle management is not applicable

Partners:

State Partnerships as follows: Republic of Armenia (RoA or RA) President’s Apparatus, RoA government (headed by the Prime Minister), RA Ministry of Education and Science, RA Ministry of Territorial Administration, RA Ministry of Culture, RA Ministry of Diaspora, RA Ministry of Defense, RA Ministry of Emergency Situations, Municipality of Yerevan and Regional Governors’ Offices.

International Organizations as follows: EU Delegation to Armenia, UNDP, UNICEF, USAID, US Embassy to Armenia, Save the Children, Counterpart International, British Council, Publicis Hepta, Pyunik Human Resources Development Foundation.

Other entities/institutions as follows: Armenian State Pedagogical University, Agribusiness Teaching Center (International Center for Agribusiness Research and Education), Teach for Armenia etc.



Quotes

“Through our activities we aim to increase Armenia’s profile abroad and promote it as a modern education-exporting country.”

Suren Aloyan
Co-Founder and CEO

“This is a very important project for the European Union. Armenia abounds in talent in the younger generation. It is imperative to make use of these talents here in Armenia, and they can be developed only through investing in education.¹⁴⁴”

Ambassador Piotr Switalski
Head of the EU Delegation to Armenia

Situation Analysis

Armenia has been successful in realizing its potential as one of the most innovative hubs for technology development in the entire CIS region, primarily thanks to the highly competitive technical workforce and world-class R&D capabilities in engineering, computer science, physics and mathematics. According to the Enterprise Incubator Foundation, in 2015 approximately 450 ICT companies operated in Armenia, with nearly 82% of them being founded during the period from 2000 to 2015.¹⁴⁵ Armenia's authorities have actively supported the development of a stimulating 'ecosystem'. From 2010 to 2015, the Enterprise Incubator Foundation, the RA Ministry of Economy, with the support of World Bank, initiated a number of grant programs targeting information and other advanced technologies to promote idea-generation and innovation. These included Innovation Matching Grants, Gyumri Matching Grants and Vanadzor Matching Grants.

To facilitate the establishment of digital infrastructure in Armenia, the government of Armenia, the EIF, and Hewlett Packard piloted the Computers for All Program in 2010. This aims at increasing the population's computer usage and at legalizing software by offering modern and reliable computers with software at affordable prices. Armenia's ICT landscape also features a number of cooperative initiatives between the IT and education industries, such as Gyumri IT Center, Academic Initiative (launched jointly by IBM and IBM Innovative Solutions and Technologies), and Samsung Learning Center. Within the framework of the Armat project, which was launched in 2014, almost 120 robotics-dedicated groups and engineering laboratories, attended by 2,000 children, now exist in the country. By 2019, Armat laboratories are expected to operate in every school of the country. Also, there are currently four tuition-free TUMO Centers for Creative Technologies in Armenia, where approximately 10,000 children between the ages of 12 and 18 learn animation, game development, web design and

film-making. The Armenian IT/High-Tech Representative Office was officially launched at the Plug & Play Tech Center in California's Silicon Valley in December 2012. The office was set up as a hub to foster the development of sales and investment opportunities for Armenian IT and high-tech companies in the USA.

Vision and Solution

Historically, all professional and educational opportunities in Armenia have been Yerevan-centric. By launching the "Dasaran" platform, its founder, Suren Aloyan, wished to address the problems of educational inequality and technological divide within Armenia. Upon his return to Armenia after postgraduate studies in the USA, Suren was convinced that education is vital for the future prosperity of Armenia and that the advancement of its human capital is the road to this prosperity. His vision also focused on the unification of the Armenian diaspora and the preservation of Armenian identity. In order for quality education to reach the most remote locations within and beyond Armenia, an electronic network of distribution channels had to be established.

Dasaran, which means 'classroom' in Armenian, has become the pioneer technology globally and nationally. It has been designed as a comprehensive e-Learning portal integrating technology and gamification with educational modules to provide equal access to education for all children in Armenia.

Products and Services

From the start, Suren knew that he had to build his own proprietary technological platform as he could not rely on external providers. The exceptional quality of the technological expertise available in Armenia enabled him to contract coders and developers domestically. It took 18 months to complete the pioneering e-Learning environment. Since then, the program has been upgraded on a daily basis as a result of users' feedback.

Today, Dasarano offers a range of solutions to three main beneficiary groups: (1) school management and information system solutions to principals and teachers, (2) free educational and social networking products to students (including diaspora), and (3) centralized statistical analytics to educational policy makers. Parents or guardians, especially expatriate parents, who work outside Armenia are identified as a fourth beneficiary group, as they use the “Dasaran” platform for tracking the academic performance of their children. E-Gradebook and E-Diary became Dasarano’s flagship solutions which were introduced in all schools in Armenia. Later the product range has expanded to interschool social network, and other tools and games. Today the platform offers more than 50 educational games to its users.

In addition to the technological products and solutions, the “New Generation School” NGO also delivers free training for IT teachers who administer the “Dasaran” platform in schools. The organization utilizes the Training of Trainers (“ToT”) approach and brings all teachers to Yerevan two or three times a year.

Funding And Partnerships

During the first three years of its operations, the organization was financed out of the founder’s own capital. As time passed and Dasarano received more recognition, the funding structure became more diversified. In 2010, the “New Generation School” NGO signed an agreement with the Ministry of Education under which the government agreed to contribute to the project in two ways: (1) by employing and paying the salary of one IT teacher in all state schools where the platform has been installed, and (2) by bearing the cost

of connecting each school to the platform on a monthly basis.

Once the unique infrastructure which connected all Armenian schools was established, different international development organizations came on board. For them, Dasarano became a cost-effective way of disseminating content relevant to their mandates. For example, because of the alignment of UNICEF’s education-oriented objectives with those of the “New Generation School”, cooperation between two organizations has been beneficial for both, as well as for the final beneficiaries. In 2015 “I Know: My Rights in the Army” awareness-raising online game for high school students was developed in partnership with the Armenian Defense Ministry and the U.S. Embassy in Armenia.* Another educational game which was launched in 2015 was the EU-funded “Explore Europe” project. This delivered interactive content concerning the European Union member states, and European culture and history. In 2016 the E-stat Diagnostic Tool on Public Education, which aggregates data on public schools and national educational indicators at school level, was launched with the support of the Delegation of European Union to Armenia.** Experts from Harvard University have provided *pro bono* support to the Dasarano team with big data analysis within the framework of the E-stat Diagnostic Tool project. For the purpose of educational content development, the “New Generation School” organization has partnered not only with the public authorities and international donor organizations, but also with corporations (e.g. Samsung), the Chess Federation of Armenia and the Holy See of Etchmiadzin. The latter resulted in the launch of interactive lessons related to spiritual education.

* The educational game teaches its users to better understand legal and human rights related to military and criminal legislation of Armenia.

** The E-Stat provides real-time statistical data and comparative analysis on school management using various indicators, including student, parent and teacher distribution by region (territorial-administrative units), age and gender distribution, student performance data by average grades and absence rates, student emigration and transfer rates (from regions to Yerevan or from Armenia to foreign countries), comparative analysis of teachers’ workload and teacher/student ratios in class, etc.

Over the years, Dasaran has become Armenia’s flagship project in EdTech and an example of a successful PPP. Today Suren is invited to join official delegation visits abroad, where the highest-ranking officials ‘pitch’ Dasaran alongside other potential investment opportunities which Armenia has to offer to foreign public and private investors.

Operational Results and Achievements

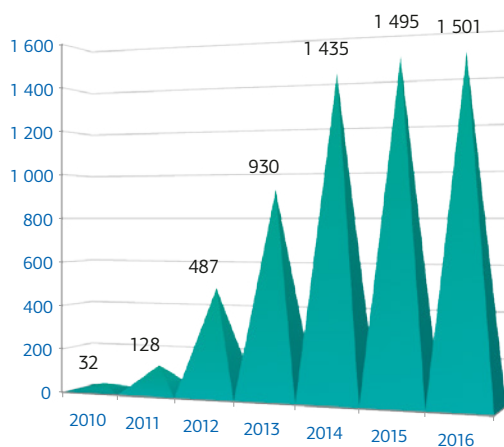
With regard to public school coverage, Dasaran achieved the 100% threshold in 2016. Today all 1,501 schools in Armenia and one international school (St. Stephen’s Armenian Elementary School in Massachusetts, U.S.A.) are integrated into the common online platform. The number of unique users, including all beneficiary groups, has been reported at around 1,000,000, which includes teachers, students, parents/guardians and policy makers.

The model has proved immensely successful within Armenia and beyond. In 2016 Dasaran was recognized as one of the world’s top 5 most innovative enterprises in the final round of Accelerate 2030, a joint international initiative by the UNDP and Impact Hub. Being an Accelerate 2030 finalist, Dasaran was invited to represent Armenia at the inaugural Social Good Summit in Switzerland in late 2016, and received pro bono consulting services from Dalberg Global Development Advisors and the Boston Consulting Group after the event.

Impact

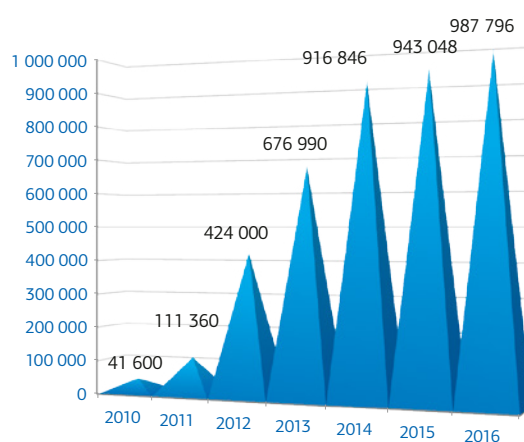
Thanks to the government’s contribution to the project, Dasaran has generated employment for 1,501 IT teachers who are salaried public sector employees. Through the ToT model, 38,000 Armenian teachers have been trained in information technology and

Figure 44. Number of Armenian Schools Integrated into the Dasaran Platform



Source: “Dasaran” presentation materials

Figure 45. Number of Dasaran Users



Source: “Dasaran” presentation materials

general computer knowledge, and as a result their computer literacy has increased from 5% to 81%, according to the test results. Dasaran also monitors and reports certain indicators on student academic performance. For example, between 2014 and 2016 the student absenteeism rate fell from 0.74% to 0.12%, and the A-performance rate rose from 5.8% to 8.1%.

Going Forward

As the “New Generation School” NGO has succeeded in its primary objective of establishing country-wide electronic infrastructure and an online school environment in the country, Suren and his team are currently in the process of conceptualizing the future vision for the next 5 years and developing a 2017-2022 strategic plan. In Armenia, Dasaran will focus its main efforts on equipping younger users with the most progressive and useful professional and life skills.

Most of Suren’s future plans have an outward focus. He feels that the business model is already mature enough for it to evolve and be transferred abroad. Suren envisages it evolving from a nonprofit to a hybrid format. Revenue would be generated primarily by integrating foreign public education systems to the “Dasaran” platform, with these being administered and supported centrally by the Armenian team. The “New Generation School” NGO has already entered into preliminary negotiations about business expansion to six countries whose public authorities have expressed an interest in adopting the “Dasaran” platform. Such negotiations are taking place at intergovernmental level with the public authorities of Zambia, Senegal, Qatar, Turkmenistan, and Ukraine. Suren is also very much interested in having a presence in the U.S. market, and he has already started exploring the possibility of registering intellectual property rights in the U.S.A.*

However, there are some obstacles. International expansion plans require software upgrades needing a capital investment estimated at around US\$4m. In order for Suren to fund this venture with a commercial loan, a for-profit entity eligible for raising debt capital has to be established. By 2022 Dasaran plans to achieve: (1) presence in 3 different countries, (2) integration of 30,000 schools, and (3) 15,000,000 unique users.

* Full intellectual property rights for the “Dasaran” products are registered in Armenia.

