



## **US-ARMENIA INNOVATION CORRIDOR**

### **PILOT INITIATIVE FOR THE INNOVATION AND INDUSTRIAL DEVELOPMENT FUND**

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#### **Objective**

American Councils for International Education (American Councils) welcomes collaboration with higher educational institutions, regional governments, and the private sector to advance the launch and development of research and innovation projects in Armenia. Such a program is timely, given the imperative to advance Armenia's innovation profile amidst growing regional and global competition.

The launch of an Innovation Corridor through partnership with the Innovation and Industrial Development Fund (IIDF) would establish a global platform for scientific and startup collaborations, university partnerships, and region-to-region economic development. American Councils proposes a pilot initiative to IIDF to produce tangible results including the advancement of new technology transfer practices, management of university research and commercialization, and a platform for venture investors and business. The partners believe that a pilot program in IIDF will form the foundation for U.S.-Armenia cooperation in STEM education, and open new areas of cooperation by introducing innovative, cost efficient, and replicable models.

#### **About American Councils**

American Councils for International Education is a premier, international nonprofit creating educational opportunities that prepare individuals and institutions to succeed in an increasingly interconnected and rapidly changing world. Through academic exchanges, overseas language immersion, data-focused research, and educational development programs, American Councils designs and administers innovative programs that broaden individual perspectives, increase knowledge, and deepen understanding. For 40 years, American Councils has responded to the needs of the communities where we work with hundreds of robust, international education programs that span over 80 countries, 40 languages, and are represented by over 55,000 alumni worldwide, including government leaders, top international educators, business innovators, public officials, and K-16 students.

With over 40 years of experience, American Councils unites business, university, and government to advance collaborations across international education. Innovation programs at American Councils bring U.S. and global best practices in the areas of innovation, research commercialization, acceleration programs, and entrepreneurship-based curriculum to international leaders. Our customized programs aim to increase understanding of U.S. and global innovation practices, entrepreneurship, commercialization, innovation organizations, government agencies, and companies for economic and educational impact.

#### **About Innovation and Industrial Development Fund (IIDF)**

The Fund is not-for-profit organization. It was established in 2012 by a group of scientists, intellectuals and businessmen to create a sustainable structure to contribute to the development of industrial potential of Armenia by exploiting available intellectual capital.

For this purpose the Fund established business relations with many local institutions including, in particular, leading public and private universities, the Academy of Sciences and its affiliated



bodies, various associations and unions etc. The Fund also searched for and identified several locally developed innovations and technologies with good commercialization prospects for promotion to the local and international markets.

IIDF has created a roster of highly qualified experts (mainly from universities and academia) in various industrial fields and invested its own sizeable resources in innovative on-line web-based tools and mechanisms to support dissemination of knowledge and promotion of industrial partnerships which can be adapted for any special purpose.

The Fund actively cooperates with the Government, including various ministries, governing bodies of the Eurasian Economic Council, with Russian and European innovation centers and with other national and international organizations. In the scope of cooperation with all these institutions IIDF has prepared a portfolio of innovative projects in various fields related to economic and industrial development.

### **Enhancing University Research and Entrepreneurial Capacity (EURECA)**

Since 2010, American Councils has administered the Enhancing University Research and Entrepreneurial Capacity (EURECA) program, a multi-year initiative supporting Russia’s innovation ecosystem, with a focus on Russian National Research Universities’ capacity to commercialize technologies. The goal of EURECA is to support a functioning innovation ecosystem in Russia in which research universities are key partners that galvanize and serve local economies and regions, and facilitate the application of technology and innovation. Since its inception, the program has built U.S.-Russia university partnerships, and a strong network of supportive participating organizations within the innovation ecosystem from government and the private sector. EURECA was designed to move beyond a traditional consulting, technical assistance, or university partnership effort to enable long-term, sustainable, mutually beneficial relationships between Russia and the U.S. in research and investment sectors and to engage and foster Russia’s participation in the global innovation ecosystem.

Some key organizations American Councils accesses in implementing EURECA and other innovation programs include:

<b>University</b>	<b>Private Sector</b>	<b>Regional Economic Development</b>
Association of University Research Parks (AURP)	Angel Capital Association (ACA)	International Business Innovation Association (InBIA)
Association of American Universities (AAU)	Small Business Investor Alliance (SBIA)	International Association of Science Parks and Areas of Innovation (IASP)
Association of University Technology Managers (AUTM)	National Venture Capital Association (NVCA)	State Science & Technology Institute (SSTI)
National Council for Entrepreneurial Tech Transfer (NCET2)	Community Development Venture Capital Alliance (CDVCA)	U.S. Small Business Development Center Network (SBDC)
Global Consortium of Entrepreneurship Centers	Technology Councils of North America (TECNA)	Innovation America



(GCEC)		
Network of 700+ universities	Bilateral business councils	State-level economic development agencies

## U.S.-Armenia Innovation Corridor –Pilot Program

Centers for Innovation (technoparks) represent intellectual and organizational hubs for science-intensive industries and targets for venture capital in the new global economy. The proposed U.S.-Armenia Innovation Corridor Pilot Program has the potential to strengthen cooperation in science and industry, sharing U.S. best practices and accumulated experience in R&D and technology transfer management, and supporting appropriate implementation and adaptation models at Armenian universities and innovation centers. The objectives a program include:

- Creating U.S.-Armenia university partnerships and experts network based on an affinity of research interests and development strategies;
- Developing and implementing adapted and replicable models and approaches to modernization of research management, technology transfer, and commercialization;
- Developing handbooks and training methodologies for a) R&D commercialization and IP rights and b) improving entrepreneurial culture and skills of main actors involved in the commercialization of R&D results for conducting appropriate training for scientists, university research staff as well as graduate students;
- Elaborating dissemination mechanisms and methods for scaling up practical application of created models, approaches, and by-products; and
- Facilitating involvement of public and private stakeholders to enhance Armenian universities' ability to successfully commercialize products of their research and contribute to economic development of the country.

The proposed Program entails developing up to partnership module projects addressing innovation infrastructure development for IIDF:

- Building the capacity of 1-2 pilot universities to disseminate the accomplishments of partnership projects and serve as an education and knowledge hub(s) for IIDF and Armenia as a whole;
- Assembling an international pool of experts and institutions available to provide support in university management of technology transfer and the launch of new infrastructure initiatives;
- Share best practices of leading U.S. research universities and technoparks;
- Mobilize potential stakeholders from both public and private sectors involved in innovations and technology transfer.

## Program Activities

The American Councils propose the following primary Program components:

1. Needs Assessment
2. Module Projects for Capacity Building
3. Startup Exchanges in Priority Industries

## Needs Assessment

The first phase of the Program (5 months) will be devoted to the selection of core participants of the partnerships; analysis of specific development needs of research universities and technology infrastructure, and capacity mapping of U.S. research universities and other relevant actors in U.S. higher education; mobilizing potential stakeholders outside of core partnerships; integrating



proposed activities of the Program into other Armenia innovation initiatives; and building a core U.S.-Armenia expert network to serve various components of the program.

Proposed activities include:

- **Partner Meeting Workshop:** custom, or tied to an existing industry conference, this initial orientation will bring together (up to 10) senior innovation managers, independent experts, private sector representatives from Armenia to introduce the Program to the U.S. education, academic, and business communities. Discussions will also focus on third-country collaborations (e.g. with Russia, Israel, Germany) to broaden impact.
- **Selection of Partner Organizations:** 1-2 innovation organizations (including universities) are selected, based on research potential, existing international links, and commitment to the Armenia's innovation goals. These institutions will serve as the catalyst for replication efforts across the country.
- **Capacity Mapping of U.S. Stakeholders:** Screening, search, and engagement of appropriate partners on the U.S. side ready to offer institutional engagement and support. American Councils already has a list of potential innovation partners in mind.
- **Recruitment and Selection of Expert Pool:** The goal of this process will be to align stakeholders to develop the framework for win-win partnerships. American Councils anticipates to gradually accumulate a pool of experts that would allow putting together ad hoc international experts teams to conduct an "institutional auditing" of the innovation ecosystem. This includes a call for experts through a comprehensive survey.
- **Technology Audit Study:** A formal, written assessment will be implemented to identify the needs of the Armenia innovation ecosystem to deploy best practices for applied research, technology transfer, and commercialization activities. Our approach includes working with top-ranked business schools to assign MBA students for consulting internships as part of requirements.
- **Outreach and Information Support:** Launch of a programmatic website and database of resources.

### *Module Projects for Capacity Building*

Within the next phase Program(three months), the partners will develop their module projects with expert support from American Councils. Projects will reflect the needs of the main implementation phase of the Program will focus on: development and implementation of module projects; and establishing a broader network of Armenian institutions interested in learning and applying approaches and development models generated and adapted by the pilot university partnerships.

Proposed activities include:

- **International Innovation Conference:** American Councils operators will organize a week-long International Innovation Conference for 5 top administrators to sharpen the focus of collaboration and joint projects and discuss themes, such as technopark management training courses, regulatory and legal issues, entrepreneurship curricula, relations with companies and capital, packaging innovative research and social enterprise concepts into viable businesses, etc. The International Business Innovation Association (InBIA) is a prospective partner.
- **Custom Study Tours to Emerging Innovation Ecosystems:** Emerging innovation ecosystems are being developed across the U.S. – outside of Silicon Valley. A custom study tour for up to 20 working-level managers and leaders will provide U.S. and Armenian peers to share opportunities, challenges and best practices. Participants will engage in workshops focused on common experiences and challenges. The goal is to create win-win partnerships and a network based on collaboration.



- **Dissemination:** Results of each module project will be packaged in a user-friendly way, and made accessible through the Program website.
- **Materials:** Translation of classic guides and texts into Armenian language.
- **Guest Lectures and Workshops of U.S. Experts to Armenia:** international experts will provide supplementary support for designing and disseminating new programs and approaches, and to solidify working-level contacts and interests across institutions.

### **Startup Exchanges in Priority Industries**

The third phase (four months) will create long-term bilateral connections between concrete scientific researchers and startups and to deepen innovation and entrepreneurship ties around key priority sectors and regional economic clusters (see Appendix). Implementing partners will design and implement a pilot bilateral exchange program of startups and early-stage technologies. Startups will be selected by American Councils, the IIDF, and a panel of external experts through an open application.

Proposed activities include:

- **Industry-Based Startup Exchanges:** Startups need to get out of the building or lab to meet with potential customers and co-principal investigators. Since no business plan survives first contact with a customer, pitch sessions help startups gain critical feedback to pivot their business model. Short-term (10-day), custom exchanges provide startups the first contact to the global market and interaction with industry experts.
- **Market Research and Relevance:** Startup founders learn about market demand in their industry or research area to create businesses with relevance and impact through access to proprietary research methods and databases.
- **Market Access Webinars:** A bi-weekly webinar series provides information in key topics for startups, including an introduction to the U.S. regulatory system, market access, and establishing a U.S. company to help startups define their global value proposition.
- **Mentorship and Coaching:** Serving as an innovation intermediary, the partner provides committed mentors who serve as an “innovation intermediary” – a gateway to better understand the challenges and opportunities of advancing cross-border startup collaborations.

### **Impact and Results**

Through this Program, research and commercial connections will be stimulated across innovation and educational institutions, leading to the following impact and results:

- Partnerships create long-term collaboration, revealing and adapting U.S. experience in managing research, technology transfer, and commercialization of research results.
- Necessary conditions created for dissemination of model approaches to innovation ecosystem creation.
- A broad coalition of public and private stakeholders involved in innovation, technopark management, and technology transfer.