

Viasphere Technopark

Overview

The Viasphere Technopark is a commercial technology park in Yerevan, Armenia, providing infrastructure to local start-ups, and Information and Communications Technology (ICT) companies worldwide, looking to extend their core development offshore.

The Technopark, a wholly owned subsidiary of “Viasphere International” (incorporated in the US), has been operating at the Yerevan site since July 2000. The estate was previously a Soviet facility dedicated to electronic and related research.

The Viasphere Technopark currently houses ten companies working in a variety of ICT fields, and is also looking to expand into the green energy sector.

Strategic Environment Summary

The Armenian government aims to build a Western-style parliamentary democracy with a Presidential head of state. It has universal suffrage above the age of eighteen, and voters have their choice of a multi-party system. Executive power is exercised by the federal government, and legislative power is vested in both the government and parliament. The single-chamber parliament is currently¹⁰ controlled by a coalition of four political parties.

Like other newly independent states of the former Soviet Union, Armenia's economy suffers from the legacy of a centrally planned economy, and the breakdown of former Soviet trading patterns. The conflict with Azerbaijan over Nagorno-Karabakh, and other enclaves, has not been resolved. GDP fell nearly 60% between 1989 and 1993, but since that period has been in a growth pattern. Armenia has an on-going dispute with one of its most important neighbors, Turkey, over the mass killings that occurred in Armenia between 1915 and 1917. Yerevan wants the world, and particularly Turkey, to recognize that the killings perpetrated by the Ottoman Empire of hundreds of thousands of Armenians, constituted genocide. Turkey opines that there was no genocide and that the dead were victims of World War I. The two countries have no diplomatic relations and the land border is closed.

The government has, however, been able to make wide-ranging economic reforms that have paid-off through lower inflation and steady growth. The 1994 cease-fire of the Nagorno-Karabakh conflict has also helped the economy. Armenia has had strong economic growth since 1995 and been able to develop new economic sectors. Examples of new sectors include: precious stone processing, jewellery making, information and communication technology, and even tourism. These sectors are beginning to supplement the more traditional sectors in the economy, such as agriculture. Poverty is still an issue in Armenia, but the tide of economic reforms has contributed to a significant reduction. Between 2004 and 2007, the overall incidence of poverty decreased from 34.6% to 25.0%, while the incidence of extreme poverty decreased significantly from 6.4% to 3.8%.¹¹

A liberal foreign investment law was approved in June 1994, and a law on privatization was adopted in 1997, which has included a program on state property privatization. Foreign investment in real estate is

¹⁰ As of December 4th 2008.

¹¹ “Armenia: Economic Growth, Poverty and Labor Market Development in 2004-7”, National Statistical Service of the Republic of Armenia, 2008.

relatively straightforward, although after strong economic growth over the last few years the market is suffering from the effects of a recent global downturn. The ICT sector is currently dominated by foreign investors such as Synopsys, E-logic Systems, Lycos, Synergy and Virage Logic to name a few. Notably, approximately 80% of ICT output is exported.¹² International service companies that have invested in Armenia include HSBC, British Airways, Glaxo and Coca Cola; although these companies are largely operating sales offices rather than production or research facilities.

Although there is a historically strong focus on attracting inward-investment, the Armenian government is developing a system to support investment for domestic ICT start-up companies. This system uses government funds to match funding up to 50% of an initial investment, and private investors are providing the remaining funds.

The “Doing Business” project ranks Armenia 44th in the world for ease of doing business. Armenia has particularly favorable building and construction regulations but is held back by a complex tax regime. General attitudes to free market business and competition are positive. The current government holds an aspiration of moving the business and investment environment of Armenia up to the level of top ten best countries, by 2012.¹³

The Armenian telecommunications system has been extensively modernized since the Soviet era. It is now 100% privately owned and undergoing expansion. A mobile/cellular services monopoly was terminated in late 2004, and a second provider began operations in mid-2005. There are reliable modern landlines and mobile/cellular services across Yerevan and other cities. International communications is provided through both fiber and microwave links, and internet access is widely available.

Armenia has 64,370¹⁴ students (≈2% of the population) in Higher Education providing a significant potential talent pool for domestic and foreign direct investment. In Yerevan there are nine institutions serving approximately 26,000 students. There is a heavy bias toward sciences, and the State Engineering University of Armenia alone accounts for approximately 10,000 students.¹⁵ However, it is open to debate as to how many students will remain in Armenia after graduation. Armenia has lost up to a full quarter of its population since its independence, as young families seek what they hope will be a better life abroad.¹⁶

Project

The Viasphere Technopark is a commercial technology park in Yerevan, Armenia, providing infrastructure to local start-ups and ICT companies worldwide looking to extend their core development offshore. The Technopark is developing into a center for companies looking to capitalize on Armenia’s technical capabilities.

The Viasphere Technopark provides the facilities and infrastructure services to companies in support of cost effective, speed-to-market and scalable solutions. The Technopark interacts with technical universities and institutes in areas of advanced research with commercial applicability in Europe and the

¹² Embassy of the Republic of Armenia in Egypt at <http://www.armembegypt.com/php?page=made&path=BUSINESS:MADE>

¹³ Panorama AM, January 2008

¹⁴ Embassy of the Republic of Armenia, Washington, DC, <http://www.armeniaemb.org/DiscoverArmenia/armedu.htm>

¹⁵ State Engineering University of Armenia, <http://www.seua.am/eng/index.html>

¹⁶ BBC Country Profile: Armenia, http://news.bbc.co.uk/2/hi/europe/country_profiles/1108052.stm

US. Viasphere offers extensive management and consulting support to tenant companies (see *Business Services* below), as well as significant networking opportunities described as the “Viasphere biosphere”. The “Viasphere biosphere” is a network of Private Industry; Angel Investors; Venture Capitol Funds; the Technopark itself; and an Academic network and links with multinational companies in Armenia.

Potential tenants, wishing to enter the program, must provide a written business plan and it must fit the technical profile desired by the incubator management. Potential tenants may not participate in activities that would impinge on existing tenants. The incubator will also assess its own ability to meet client demands as part of any decision to accept or reject a potential tenant. The final decision to accept or reject a company rests with the Technopark management board.

In both an international and national context, the management relies largely on printed promotional leaflets, presentations, and the website as their marketing collateral. In reality, the Incubator is overwhelmingly marketed through networking opportunities; although the website has also produced relevant inquiries. Tenants have also been known to refer new clients. Viasphere has a strong PR element, and has been able to develop a high profile in Armenia.

The Incubation Program

Location of the Incubator

The Viasphere Technopark is located within the City of Yerevan, the capital of Armenia, between the airport and the city center, in a mixed but mostly industrial area. The incubator enjoys excellent road and public transport connections, and is within close proximity of a major railway station. Zvartnots International Airport (EVN), Armenia’s main international airport and the hub of the national carrier Armavia; roughly 6 miles away.

Yerevan itself is the mainstay of the Armenian economy, accounting for approximately: 33% of the national population; 50% of industrial output; 80% of the registered retail turnover and 76.3% of services.¹⁷ Yerevan's manufacturing capabilities include chemicals, primary metals, machinery, rubber products, plastics, textiles, and processed food. The city hosts the headquarters of major Armenian companies, and of a number of international players, and is seen as a potentially attractive outsourcing location for Western European, Russian and American multinational companies. Yerevan is also the country's financial hub, home to the Armenian National Bank, the Armenian Stock Exchange, as well as some of the country's largest commercial banks.

The climate of Yerevan is relatively continental, with dry/hot summers and cold/short winters. The intensity of the summer sun, with temperatures regularly reaching 40°C (104 °F), is one of the primary reasons there is a push to develop solar energy technologies.

Physical Properties of Incubator

The Viasphere Technopark is a campus incubator of conventional block-concrete low-rise construction. It consists of ten buildings of various sizes, mostly in good condition. The general environment of the incubator is well kept and pleasant.

The incubator rents office space to tenant companies and makes available other facilities (see below) on demand. The site is extensive and there is a total of around 15,000M² (≈160,000 ft²) available, which

¹⁷ Republic of Armenia: Poverty Reduction Strategy. Paper IMF Country Report No. 03/362. ©2003 International Monetary Fund, November 2003.

includes a kitchen and underdeveloped space. Incubatee occupied space is estimated at 8,000 M² (≈86,000 ft²).

Beyond the availability of office space, the physical site services include a kitchen, parking space for 200 cars and constant security.

Facilities and Services

The facilities available to the Viasphere tenants include: a clean room development environment (with an isolated LAN and electrical supply); convention and conference facilities; and internet services through both broadband and satellite access. Turnkey telephony services are also available.

Business Services

Viasphere operates a full suite of management support services for its tenants. These include:

- **Business Assessment:** Management will assist in assessing the value of the company in terms of strategic vision, mission, technology, available market and business models.
- **Product Strategy:** Assistance in formulating product roadmaps for the development of specific products or product sets.
- **Company Structure Support** including: company formation, company capital structure (stocks), establishing a Board of Directors, establishing corporate agreements, etc.
- **Staffing:** The Viasphere will assist tenant companies in finding qualified executive talent.
- **Program and Project Management:** Assistance and training in program execution through rigorous program and project management.
- **Sales and Marketing:** Assistance in the identification, development and exploitation of marketing and business channels worldwide.
- **CFO Functions:** The Viasphere can offer assistance with developing Balance Sheets, Income Statements and Cash Flow analyses as well as with Armenian annual tax reporting requirements.
- **General Council Functions:** Assistance in legal matters such as IP protection, non-disclosure agreements and other legal matters.
- **Funding Sources:** Assistance in identifying worldwide funding sources and particularly Armenian Angel Investors; Venture Capitol Funds, government grants; and tax incentives.
- **Board Membership:** The Viasphere management (or appointees) may serve as a member of a tenant company's Board of Directors.
- **Advisory Services:** Regardless of whether companies use the Viasphere appointees on their Board, the incubator offers hands-on mentoring for senior management.
- **Exit Strategy:** Assistance through the exit process to realize investment whether through a merger, acquisition, public offering or other means.

The Viasphere has developed relationships with multiple training resources, and created strong ties to universities specifically. Both business and technical consulting services are available to tenants from the Russian-Armenian University (RAU) and the American University of Armenia (AUA), along with access to testing and development laboratories in the RAU, and access to the main library at the AUA. Additional university links include the National Academy of Sciences of Armenia, Engineering Academy of Armenia and the State Engineering University of Armenia.

The Viasphere provides advice on funding sources, but does not of itself invest. The Viasphere Stakeholders are free to finance tenant companies.

Tenants:

Transistor Plus, LLC - Semiconductor and Testing Devices Design

Epygi Labs Armenia, LLC - Networking Software

Synopsys ARDA CJSC - Electronic Design Automation

UniCad, CJSC - Electronic Design Automation

DVA Group Armenia, CJSC - Broadband and Digital Television

Transistor Delta, CJSC - High frequency Semiconductor Research

Sonics Armenia Holding, Inc. - Electronic Design Automation

Damaris JSC - Electronic Design Automation

Rubin L. Tech CJSC - Optical Devices Design

M-Possible CJSC - Electronic Design Automation

Tenants speak well of the incubator management, facilities and services which are commented to be accessible, visible, and appropriately tailored to business needs. Further, tenants state that the leases are suitably flexible to meet their needs, and that the incubator is serviced by professional staff.

Organizational Structure

The Viasphere was founded in 1998 as an incubator and accelerator with offices in the US (Mountain View, California) and the Technopark itself in Yerevan, Armenia. The US management team has a track record of working with start-up companies and has founded, funded, managed and helped guide several in their development process. The team also has experience working with multinational corporations.

“Viasphere International” owns and operates the Viasphere Technopark.

Management

The management team has appropriate financial experience for the market in which they operate and possess strong resource and project management backgrounds. The manner in which both strategic and business planning is delivered is also pertinent to Armenian business culture.

The local management consists of a team of nine, headed by Dr. Aram Vardanyan who serves as General Director of Viasphere Technopark in Armenia. Mr. Vardanyan is a seasoned technologist and business executive, having served in lead positions in semiconductor research and Armenian development, and formerly held a position in the Soviet Union as General Director of the Transistor Research and Development Center for Power Semiconductors.” There are an additional staff of fifty including maintenance, security and other service personnel.

Board Members

The Technopark has no Board in the usual sense of the word. The management team fulfills most of the board-type roles by developing the strategic direction of the incubator and managing its higher functions.

Budget and Funding

The incubator's annual budget varies slightly but is about US\$500,000 per annum. There is an annual plan for job development, maintenance of the facility, and stimulating business. The plan is stated to be clear, current, achievable and detailed. The incubator is making a slight operating profit which is re-invested in the operation.

There are currently no tax liabilities as the operating profit on which tax would be levied is re-invested in the incubator. The incubator is regularly audited by external professional accountants.

Approximately 60% of the incubator's budget is achieved from rent, with the remaining 40% coming from the recharge of professional services listed above.

Graduation Policy

There is no graduation policy as it is conventionally understood. Although tenants are issued with five-year leases, they are able to extend those leases as desired. The longest serving tenant has been with the Viasphere for seven years. There is currently no government support for companies graduating from the incubator. However, the government recognizes the need to provide graduation support systems that will include adequate follow-on space and allow companies to assimilate more easily into the general economic environment.

Conclusions

Information Not Mentioned Above

The Viasphere Technopark enjoys an influential group of sponsors who may provide non-financial support, minor financial support or significant promotion. Significant supporters include:

- The (Armenian) Chamber of Commerce and Industry
- The National Academy of Sciences of Armenia
- The Engineering Academy of Armenia
- The American University of Armenia
- The State Engineering University of Armenia
- The Russian-Armenian University

In addition to the Sponsors listed above, Viasphere also lists the following institutions that promote and support the incubator in a non-financial manner.

- American Association for the Advancement of Science (USA)
- International Association of Science Parks (Spain)
- National Renewable Energy Laboratory (USA)
- International Engineering Academy (Russia)

In addition to the above the incubator has previously received World Bank financial support for feasibility studies. Viasphere is also supported by the national government, although the government does not contribute financially.

Implications for the ICT Africa Sustainable, Replicable, Business Incubation Model

The Viasphere Technopark has successfully developed a model that works well in its environment. It is not a 'traditional' incubation model. By integrating well into local economic circumstances the Viasphere has developed an effective, wide-ranging, support scheme. Widening models of business incubation in this manner can be relevant to a number of other economies, particularly those that are developing in challenged circumstances.

While Armenian business development has been limited, the Viasphere has excelled in attracting foreign investment into a non-traditional market. Undoubtedly, the presence of a strong Armenian diaspora has assisted the Viasphere offer, but the incubator has out-performed many other incubators around the world by establishing foreign direct investment (FDI), and succeeding in keeping those inward investment companies within their territory. While incubation in economically challenged countries has often focused on the development of domestic business, the Viasphere highlights opportunities for FDI in a country not previously considered to be viable geographically, or in a business development sense.