FINAL REPORT

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INTERNATIONAL BUSINESS & TECHNOLOGY INCUBATOR (IBTI)

Project Amount and Duration: $2.46 million, October 1994 - September 1997 (including no-cost grant extensions and second phase support)

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I. Executive Summary

The International Business and Technology Incubator (IBTI) was developed through a USAID grant to Virginia Polytechnic Institute & State University (Virginia Tech) as Prime Contractor, and Atlas Group as Subcontractor, with the Academy of National Economy under the Government of the Russian Federation. The IBTI is a virtual incubator, rather than the traditional real estate based model; providing services to new technology-based businesses at locations such as R&D institutes or privatized parts of such institutes.

At the time that the IBTI program was developed, Russia was still in the early stages of coming to terms with the break up of the Soviet Union and the post-perestroika movement to a market economy. Donor nations had not yet recognized that Russia had a largely untapped asset - its science and technology base built up over generations at great financial and personal sacrifice.

The project was funded by USAID in two phases. A two year $2 million first phase grant was followed by an additional $460,000 second phase. The purpose of the first phase was to create the IBTI infrastructure and provide grants to new technology-based Russian companies provided on a phased basis of up to $25,000 in seed funding for their early stage development. IBTI infrastructure includes a capability to assess a technology for its commercial potential and to provide training and intellectual property support to entrepreneurs. Russian company grants, closely monitored by the IBTI, have been typically used for prototype development and testing, patent protection, and market assessment. The purpose of the second phase grant was to continue development grant funding for some of the most promising IBTI supported firms, and continue supporting the associated IBTI infrastructure.

The IBTI project goal was to create and support the formation of small and medium size technology oriented enterprises and create new employment opportunities. A secondary objective was to demonstrate a workable, replicable, and self-sustaining model for supporting the creation and growth of technology based companies out of Russian R&D institutes. These goals have been achieved.

Out of just over 500 proposals reviewed, 60 received investment or other support, and 9 new companies were created. Total non-USAID support of $845,000 was received by the IBTI. Twenty two regions and cities are now in the IBTI network, and 676 new entrepreneurs received training in new technology business development. The IBTI further enhanced its credibility through a series of specialized seminars, publications, and conferences. Support from Russian agencies and income generated by IBTI activities such as training and project evaluation services have made it self sustaining.

II. Origin of the International Business and Technology Incubator (IBTI) Project

The idea to create the IBTI, resulting in a subsequent unsolicited proposal to USAID, came out meetings in Moscow in early 1993 with the President of the Academy of National Economy under the Government of the Russian Federation, Dr. Leonid Kelner (Atlas Group), Dr. Alistair Brett (then full time status with Virginia Tech), and the USAID Moscow Mission Director and staff.

At that time, Russia was still in the early stages of coming to terms with the break up of the Soviet Union and the post-perestroika movement to a market economy. Donor nations had not yet recognized that Russia had a largely untapped asset - its science and technology base built up over generations at great financial and personal sacrifice. At one time an estimated one third of the world's scientists and engineers worked in the Soviet Union. In the USA and several other nations science and technology and research and development have been drivers of the economy. Thousands of new technology intensive companies and millions of jobs have been created, and continue to be created. Many such small firms have rapidly grown to become giants in their industries; and indeed have created entire new industrial sectors.

One brief anecdote will indicate how far Russia has progressed in attempting to capitalize on its science and technology base as an engine of economic development. In the winter of 1993 one difficult problem being discussed was how to translate into Russian the word "commercialize," (as in technology commercialization) which had strong negative connotations; in Soviet time, commercial activities were considered anti-social. Fast forward only four years to the fall of 1997, and such a discussion seem arcane. Technology commercialization is pervasive. The Russian Federal Government supports it in spirit and with budgets, regional governments have embraced it as a critical element in economic development strategies, and it has become part of the Gore-Chernomyrdin Commissions recommendations.

III. USAID Grant Support

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The purpose of the second phase grant was to continue development grant funding for some of the most promising IBTI supported firms, and continue supporting the associated IBTI infrastructure.

Dr. Frederick Krimgold was assigned as Virginia Tech Project Director, with the responsibility for overall project monitoring. Dr. Alistair Brett, who had left Virginia Tech employment, was assigned as a consultant and Project Manager with responsibility for Virginia Tech field operations in Russia and Virginia Tech - subcontractor liaison. The Project Manager was also responsible for development of the IBTI training programs and relations with foreign co-donors. Dr. Brett spent extensive time in Russia.

IV. IBTI Project Goals and Objectives

The IBTI project goal was to create and support the formation of small and medium size technology oriented enterprises and create new employment opportunities. A secondary objective was to demonstrate a workable, replicable, and self-sustaining model for supporting the creation and growth of technology based companies out of Russian R&D institutes.

V. Key Project Results

It was early recognized that it would be more effective to keep the technology entrepreneurs in their inventing environments at R&D institutes, rather than bring them to a traditional physical new business incubator. Thus, the concept of a "virtual" or "distributed" incubator was developed. Such and incubator provides central support services to distributed new, developing companies. During the first two phases of this program a basis for future sustainability has been built.

Key results from the first two phases of implementation of this concept accomplished by the Subcontractor are included in the attached Subcontractor Final Report. Other, more general results, include:

- The IBTI initiative has been, and continues to be, one of the most successful technology-intensive USAID supported projects.
- A replicable distributed incubator model has been demonstrated. Over 20 regions of Russia are modeling business support activities after IBTI. These include three new private consulting companies in Nizhni Novgorod, Tomsk and Ulianovsk initiated by IBTI.
- It has been found that there are more similarities than differences in commercializing technology in the USA and Russia, and that Western best practices in technology commercialization and management are relevant to Russia.
- Recognizing IBTI's value to the economic recovery of their country, elements of the Russian federal and regional governments have provided additional funding, often on a matching basis and sometimes exceeding the USAID budget for particular projects. A considerable amount of new Russian money is currently awaiting the opportunity to match any new funding provided by investors.

VI. The IBTI Training Programs

Of importance to the successful start-up of new businesses is the two-week Technology Commercialization Training Program provided to all potential seed money recipients. This IBTI-sponsored program has also attracted members of the Russian Government and institutes to enable these individuals to understand and develop Western style business plans. The program modules stress new business formation and business plan development. The training is administered by experts from the ANE, the USA, and European institutions. Teaching is mainly in Russian.

Modules include:

- Foundations of Contemporary Marketing
- Pathways to Efficient Marketing
- Legal Aspects of Small Business
- Evaluation and Analysis of Investment Projects
- Administration of Innovative Activities
- Protection and Commercialization of Intellectual Property Rights
- Business Plan Development

The IBTI in cooperation with the University of Texas at Austin, the IC^2 Institute, and the Academy of National Economy is preparing to teach, in Moscow, a modified version of the Master of Science degree in Technology Management and Commercialization developed by the IC^2 Institute. The first year set of preparatory courses began in October 1997. The program is supported by several Russian funding sources, including the Fund for assistance to Small Innovative Enterprises (FASIE), Fund for Support of Basic Research, and the Ministry of Science. The Eurasia Foundation has provided partial support for the program development phase. This will be the first Western program of its kind adopted for the Russian environment.

VII. Other High Profile IBTI Activities - Support from Other Donors to Russia

In response to USAID encouragement to seek support from other foreign donors to Russia, the IBTI rapidly sought and received financial support amounting to some $250,000 from foreign donors for specialized activities organized by the IBTI.

The Eurasia Foundation (Moscow) provided partial funding for a Workshop on Intellectual Property Strategy in Znamenka (St. Petersburg), 1996.

The British Council (Moscow) and the United Kingdom Know How Fund funded a two week Seminar on Technology Assessment (Audit) in Oxford, UK, 1996 and supported the adaptation of Oxford Innovation materials on innovation management. The Seminar provided training to several IBTI employees, employees of FASIE, representatives of the Ministry of Science and Technology Policy, and representatives from regional technology business support organizations. Several Russian R&D institutes, such as the All Russian

Eletrotechnical Institute, are now using the knowledge acquired at the above seminar, to train selected staff to assess technologies for their commercial potential and move them to the market. The UK Know How Fund is currently reviewing a request for additional development.

Warwick Science Park, UK, and the Dutch company Licentech funded the adaptation of innovation management training materials developed by the European Bank for Reconstruction and Development.

The Tacis-Bistro Program of the European Union, the IC^2 Institute, and the British Council provided partial funding for TechnoCon'97 - the First International Conference, Technology Development and Commercialization: Russian and World Experience, July 7-10, 1997 in St. Petersburg. (See subcontractor report for details).

Early in the project it became apparent, however, that the unique set of capabilities residing in IBTI could provide other badly needed services throughout the Russian Federation. The impact of these activities, not originally planned and budgeted by the grant, is difficult to estimate in real numbers of new jobs created and new businesses formed.

Anecdotal data suggest that IBTI publishing and educational activities have provided hundreds of central and municipal government officials with significant information that supported their influence on federal and local levels for creation of new legislation for the support of small technology businesses in Russia. This includes five published handbooks under the title "Library of Technology Business. As a result, potentially hundreds of new companies have been formed through indirect impact of IBTI, and thousand of new jobs created. Several regional funding organizations for support of technology businesses were started under the direct influence of IBTI activities. One of these examples is the recent formation of a regional small business technology venture funding organization in Tomsk with initial preliminary commitment for funding of over $6 million.

VIII. The Future of the IBTI: Sustainability

The IBTI is moving towards sustainability. Details are provided in the final paragraphs of the Subcontractor Report (Expenditure Summary) It was difficult to accomplish this in 1995-97 due to inability of most of small businesses to pay for IBTI services and need to prove that IBTI is a viable partner and a reputable organization to receive funding from various foundations and other sources. Now that the IBTI has demonstrated its capabilities, Russian organizations are providing support, and revenue generating activities are increasing. Significant investment in IBTI businesses by Western venture capital groups remains elusive, but two or three current negotiations look promising and are expected to produce investments in the next month or so.

Other IBTI activities which contribute directly to its goals and objectives are included in detail in the subcontractor section of this report, but include the following revenue and capital generating initiatives:

- Training programs have been developed which are completely supported from Russian and Western sources (non-USAID).
- The IBTI is being contracted by FASIE to provide support for FASIE funded small companies, including technology assessment and monitoring.
- The Russian Fund for Basic Research has included IBTI assistance in its budget for support of their funded projects in the areas of business plan development, patents and intellectual property protection.
- The IBTI is in the process of negotiation with the Ministry of Higher Education and Ministry of Science, as well as the Moscow City Committee on Science and Technology to assist in providing methodology for early stage innovation business development.
- Contacts are established with a number of technology brokers in the US and Europe, which in cooperation with Fenix Technology could expedite commercialization and licensing of projects supported by IBTI, which will mean additional revenues for IBTI.
- The IBTI participated in the Hanover World Trade Show in 1996 and in 1997 and presented more than 50 projects (Russian new technology companies) for marketing these technologies in the West and for potential joint ventures. Several companies, as a result, are currently conducting negotiations on joint ventures with companies in the United Kingdom, Germany, France, Turkey, and the United States. One Russian company signed a licensing agreement with AGFA as a result of this IBTI activity.
- The IBTI is beginning to gain a reputation as a consultant to investment companies providing due diligence and business plan development for their clients.

IX. Conclusions

The work performed under this grant has been well received by the USAID Moscow Mission, as well as other agencies within the US and Russian governments. All major objectives have been met or exceeded. Several activities, such as an expanded training program and support from foreign donors, not anticipated in the original proposal, have produced positive long term results. The IBTI is well into the difficult transition to self sustaining status and Russian support.