SUSTAINABILITY DEVELOPMENT PROGRAM

Since the 19th Governing Board meeting in February, the Sustainability Development effort has begun to take shape. Taken in the same order as the 2005 Budget Presentation, following are the main activities of each group within the Department:

Partnership Promotion

We have taken an entirely new approach to selecting the participants in our road shows – that of competition. In a new section of the STCU website, we advertise major, upcoming technology events and solicit candidates based not only on their professional experience, but also on whether they are, on their own initiative, able to arrange meetings with prospective commercial collaborators in the days surrounding the main event (e.g., a high-tech trade show).

- The first such road show will take place June 4 – 9 in Munich and Berlin. Organized in cooperation with the Kiev office of the International Bureau of the German Federal Ministry of Education and Research and the German Embassy, Dr. Lyubov Taranenko will take five Ukrainian scientists to the Nanotrends Conference. We will host a training session (May 23 – 24) for the participants to help hone their presentations. STCU also will have a small booth at this conference. The scientists represent institutes in Kyiv, Donetsk, Lviv and Kharkiv and all have had contacts with firms in Europe, Japan and the U.S.
- Preparations are underway for the second road show event, the NATO Advanced Study Institute on Photon-based Nanoscience and Technology, which will take place in Sherbrooke, Canada, September 19 - 29. It appears that the Government of Canada, through CIDA, will support the travel of six scientists to the workshop and exhibition, in addition to the four which we have already selected.
- In cooperation with the Kyiv office of the Otto von Guericke Foundation (AiF), Mr. Boris Komarov is leading a group of five Ukrainian scientists to matchmaking meetings in Dusseldorf and Berlin, as well as participating in the INTEC trade show, May 29 – June 4. German companies are helping to defray some of the travel costs. The scientists represent the Kharkiv Aviation Institute, the Institute of Material Science and the Odessa Filatov Institute of Eye Diseases. Two of the participants will join the Nanotrends delegation in Berlin for joint meetings with companies.

To expand our ties with the Ukrainian technology transfer company, Scientific Industrial Concern “Nauka,” Mr. Komarov accompanied their Technical Director and a technology transfer specialist to the conference, “Technology Innovation Information 2005,” held in Fribourg, Switzerland in late April. “Nauka” presented ten new technologies to the conference and is pursuing the follow-up matchmaking opportunities. The organizers of TII2005 have given “Nauka” access to a specialized database: we may want to build our relationship with this organization centered on the database as a means to promote Ukrainian technologies developed by STCU recipient scientists or institutes.

The first Science and Technology Entrepreneurship Program (STEP) seminar, arranged by the U.S. Civilian Research and Development Foundation (CRDF), was held in Tbilisi in March. STEP brought together researchers and prominent members of the Tbilisi business community (e.g., the Federation of Businessmen of Georgia and the Association of Banks of Georgia) to review R&D proposals with commercial potential. The second seminar in early June will cover two days and concentrate on bringing ideas closer to the marketplace and in addition, lay the foundation for a new high-tech, business

association. The final seminar is planned for September. STCU contributed $40,000 to support these three STEP seminars.

Since the previous Governing Board Meeting, our new Partners are Michigan State University (U.S.), Photon Control, Inc.(Canada) and Intel (U.S.). We also are preparing for visits of large delegations from Boeing, Intel and Pratt & Whitney.

Market Analysis

As of February 2004, prospective Program Managers for all regular project proposals were required to fill in a new sustainability section in the Full Form. Of the projects approved for funding by the 19th Governing Board, four were evaluated by STCU staff as appropriate for sustainability planning assistance in advance of writing the Project Agreement. That is, for the first time STCU is helping scientists to develop sustainability strategies for regular projects. In practice, this means that the Sustainability Development group reviews proposals, conducts preliminary market analysis (in order to test scientists' assumptions about their market), and provides recommendations about fruitful paths of investigations to the Senior Specialists. The Science Excellence Group or the Technology Advancement Group then work with the Program Manager to strengthen the work plan included as part of the Project Agreement. The goal is to ensure that promised deliverables are both meaningful and "audit-able."

As an example, the sustainability section for Project 3514 noted that the Ukrainian research group intended to establish a spin-off company to market a new probiotic preparation. The group claimed their new product would have no competition and they provided scant justification for establishing a new company. The SD group determined that competing products already exist and recommended to the project team that it expand the workplan to include a detailed, three-stage approach: the preparation of a competitive analysis of markets for probiotic products in Ukraine and in the near abroad (Year 1); development of a full business plan for the spin-off company (Year 2); and, development and implementation of a contact plan for potential investors and/or licensees (Year 3).

Sustainability Development

In mid March, as a result of the integrated recommendations from the Process Action Teams, we sent the Parties a message which outlined how we intended to pursue our sustainability promotion effort and in particular, presented a list of institutes which we felt were well positioned to benefit from the type of specialized support and training which we can now offer. Based on the institute survey undertaken in autumn 2003, we had refined an original grouping of some 60 organizations down to 14, which we concluded were most promising. In addition, we included another 21 which we did not believe to be on the cusp of transition, but which might be of interest to the Parties. Out of this collection of organizations, we asked the Parties to give us their priority 5 – 7 institutes on which we should center our sustainability efforts. In particular, these efforts would include establishment of tech transfer officers, development of business plans, training and inclusion in STCU-sponsored activities.

The U.S. Party responded with its list of priority organizations. We then re-examined the question of how closely we had tailored our institute list to the funding levels requested last winter and following a lengthier analytical process, offered the Parties an expanded sustainability program in late April (with a request to increase funds over the 2005 budgeted amount), one which would have an even greater likelihood of success. We presented the Parties with the possibility of selecting 10 or more institutes from a much longer list. The U.S. and Canada have noted their support for the expanded initiative, and we are preparing to engage our consultants in developing a workplan for the initiative.

Meanwhile, we have advertised twice for the new position of Sustainability Development Officer; the first round was inconclusive and the deadline for applications for the second round is the end of May.

Patent and IPR Support

In mid March, we sent the directors of Ukrainian institutes and research organizations with which we have active projects a standard Non-Disclosure Agreement (NDA), along with a cover letter from the Executive Director. In the letter, we noted that an NDA between STCU and an institute would allow us to work with them more effectively. Moreover, we observed that this type of agreement is a common business practice among scientific and commercial organizations in the Funding Party nations and one which will be instrumental in developing enhanced commercial relations among the Ukrainian S&T community.

Subsequently, the Director of the Center for Intellectual Property and Technology Transfer at the National Academy of Sciences of Ukraine sent us a letter proposing that we add relevant legal definitions to text of the NDA. Drawing from the STCU Statute and regular Project Agreement (Annex II), we incorporated many of his proposed changes and met with him to discuss them. The NDA and cover letter will be resent to the institute directors.

Separately, we have also attempted to meet with the appropriate senior official at UkrPatent, the Ukrainian state patent agency, to discuss the procedures which the Government of Ukraine follows in clearing a patent application for foreign review. This issue was raised during the IPR Workshop held in September 2004, and the STCU feels that a more clear understanding of the Ukrainian regulations on the foreign patent application process is needed before Ukrainian scientists will feel comfortable in allowing the STCU Financing Parties to review their invention disclosures for possible patenting within the Financing Party territories.

We have been unable to make progress in obtaining comments from all of the Parties on the draft IPR Handbook. An attempt to arrange a meeting the last week in May in Brussels with representatives of the U.S., EU, Canada and ISTC was unsuccessful. The lack of a coordinated Handbook is preventing the STCU from fully implementing a clear and understandable IPR and Patent Support program, putting the Center at a distinct disadvantage to assist scientists in protection intellectual property developed under STCU activities.

Working with Dr. Melnik-Melnikov (Senior Specialist), the Patent Officer developed a follow-up questionnaire for use by patent grant applicants to track how successful they have been in commercializing their project results. In the course of explaining the new form to groups of researchers in Lviv, Kharkiv, Kyiv and Dnipropetrovsk, they came across some new IPR success stories. The following page presents a few of these stories.

IPR Success Stories

Following is a summary of new success stories which Dr. Melnik-Melnikov, Senior Specialist, and Mr. Zalozhenkov, STCU Patent Officer, uncovered in their meetings in Ukraine:

- Dr. Komarov, Kyiv Institute of Electrodynamics was the program manager for an STCU regular project. He developed engineering designs and specifications which are used to produce and manufacture power supplies at a Kyiv plant for purchase by Western customers. The manufacturing designs are protected by the Ukrainian patents taken out by Dr. Komarov.
- In the course of Project #2170, scientists from Small Enterprise “Lileya” developed a micromanipulator based on piezoelectric motors. STCU supported their patent applications in Ukraine and the U.S. An American company, which is interested in licensing this technology, became an STCU Partner and is funding a Partner project with “Lileya.”
- Dr. Primisky of the Ukrainian company “Ukranalit” has been the manager of two regular projects and has three patents on a gas analyzer design. Such analyzers – able to detect methane, ethane,

butane and other hydrocarbons – are in demand for emissions testing of automobiles and are widely sold in Ukraine and Russia. Dr. Primisky is receiving royalties from the manufacture of the gas analyzers by Ukranalit.

- The Program Manager of Project #559, Mr. Shovgenyuk, has patents and patent applications covering methods and devices for holographic protection and identification of documents and other objects. He will soon be receiving revenues from the National Bank of Ukraine after signing a licensing agreement.
- Through his involvement with regular and partner projects, Dr. Ushkalov, Dnipropetrovsk, has eleven Ukrainian and Russian patents on a new design for railway car wheels which increase significantly the durability of the wheels and tracks. The patent was licensed by a US-Ukrainian joint venture, "A. Stucki-Rail," and 400 wheel units have been retrofitted using Ushkalov's invention.
- The last example was a little bit unexpected. Mr. Leshchyshyn, the manager of an STCU regular project, holds a Ukrainian patent on a "vacuum washing machine." He claims that his revenues are coming from a court decree following a lawsuit against a Western company for patent infringement in the Ukrainian market. Mr. Leshcheyshyn took out this patent in the late 1980s.

Other than the last case (which pre-dates STCU), all of the other patents were obtained based on research funded by STCU.