



Project Year Two Status Report
PRELIMINARY, May 23, 2003



**U.S. DEPARTMENT OF STATE
EDUCATIONAL PARTNERSHIPS PROGRAM
Grant Agreement No. ASPS-1359**

**"Addressing Environmental Obstacles to Developing a Market Economy
Through a Partnership Program in Environmental Studies"**

**FLORIDA INSTITUTE OF TECHNOLOGY
AND
BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
"Environmental Studies Partnership (ESP)"**

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Academic Fields of Project:

Environmental Studies (including atmospheric sciences, biology, chemistry, civil engineering, environmental economics, environmental sciences, history of science, oceanography, physics, science education, science ethics and space sciences)

Project web-site: <http://research.fit.edu/esp/>

Funding Amounts:

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- Amount awarded by DOS: \$120,000
 - Total project cost: \$496,176
 - U.S. institution's cost share: \$352,626
 - Foreign institution's cost share: \$23,550

Proposed U.S. Faculty exchanges:

- Males: 9 (exchanges to date: 13, 6 planned)
- Females: 2 (exchanges to date: 1, 1 planned)
- (+37 FIT undergraduates to BME, April '03)

Proposed Hungarian Faculty exchanges:

- Males: 9 (exchanges to date: 9, 4 planned)
- Females: 2 (exchanges to date: 2, 1 planned)

Awarded project start date and end date:

5 Sept. 2001 through 4 Dec. 2004 (39 months)



SECOND YEAR STATUS REPORT

A Partnership Between Florida Institute of Technology and Budapest University of Technology and Economics "Addressing Environmental Obstacles to Developing a Market Economy Through a Partnership Program in Environmental Studies: Environmental Studies Partnership (ESP)" U.S. Department of State EPP Program; CFDA 19.406

I. INTRODUCTION

This report describes the second-year of joint activities conducted from 1 September 2002 through activities projected to 31 August 2003 by the Florida Institute of Technology (Florida Tech) and Budapest University of Technology and Economics (BME) under the terms of a USIA Educational Partnerships Program (EPP) grant. The grant has permitted us to accomplish our primary goal of establishing the Environmental Studies Partnership program at both Florida Tech and BME. The ESP program continues to identify and cultivate areas of common interest, to initiate new scientific collaborations and it is now beginning to support several new academic programs of mutual interest. As emphasized in our previous annual report, we continue to follow the basic plan outlined in our original revised program plan. However, in response to new opportunities as well as constraints imposed by differences between the participating institutions' academic calendars, a few changes have been made which have increased the short- and long-term benefits to our participants and institutions.

II. PLANNING

The main working group for the project consists of those listed as participants in our original proposal. Roughly a dozen new faculty have joined our original group since the inception of our ESP program. The ESP working group met approximately bi-weekly throughout the 2002-3 academic year. Meetings tended to be more frequent (weekly) when BME faculty were being hosted at Florida Tech, and less frequent (monthly) between visits. Meeting agendas and other project materials are archived on our project web-site.

II-A. 2002-3 Program Activities

This report focuses on activities since the submission of our revised First-Year Project Report (Oct. 6, 2002). All the second-year objectives outlined in our original Planning Report, and several that were originally planned for Year 3 have been accomplished, viz.:

- (1) Continue to support nascent collaborations begun in Year 1;
- (2) Initiate and facilitate roughly a half-dozen new collaborative connections between Florida Tech faculty and BME colleagues;
- (3) Initiate new student exchange opportunities (originally planned for Year 3);
- (4) Host project-related workshops on related topics such as Ecotourism, Sustainability, and Risk Assessment;
- (5) Support, via project funds and new external grants, the publication of workshop proceedings and academic research papers;
- (6) Secure new funding for collaborative research projects related to Environmental Studies.

Dr. Gordon Nelson continues to serve as the PI on the ESP project, and is responsible for its overall management. Dr. Terry Oswalt serves as ESP project coordinator. Ms. Cyndi Johnsrud, Nelson's executive assistant, makes most travel and lodging reservations for participants. Dr. Imre Hronszky continues to serve as the BME co-PI. He is assisted by Mr. Oliver Kozak at BME.

The basic program plan remains the same as outlined in our revised program plan submitted to the DoS in December 2001. The duration of the typical visit has been 1-6 weeks. This has successfully addressed the differences between the two universities' academic years, the difficulties of finding long-term substitutes for teaching faculty, and the logistics of providing productive collaborative experiences and essential services to visitors. *Shorter visits are clearly allowing more faculty to participate than originally envisioned and we expect this trend to continue into our third year.*

BME co-PI, Imre Hronszky, visited Florida Tech in November 2002 and February 2003. These visits included a number of meetings with Florida Tech administrators, faculty participants and other potential beneficiaries of the project. In collaboration with PI Nelson and project coordinator Oswalt, a visitation schedule for several BME faculty to visit Florida Tech, and vice versa, during the 2002-3 academic year was laid out. The year's activities followed this plan closely and are summarized in the next section.

II-B. Overview of Activities During the 2002-3 Academic Year

Throughout the fall and early winter of 2002-3, the project directors were in constant contact by e-mail and fax. The Florida Tech College of Science & Liberal Arts (CSLA) made most arrangements and provided essential funding for travel, lodging and meeting facilities. Hronszky and Kozak made local arrangements for faculty visiting BME.

The local PI and staff make all necessary travel arrangements for visiting faculty. Participants are provided with fully furnished long-term hotel rooms or apartments. They are also provided an office, phone, computer and e-mail account in the department most closely aligned with their professional activity and/or host colleague. Since the inception of our project a total of 25 faculty have been exchanged (counting Nelson and Hronszky for 2 and 3 visits, respectively). This is roughly twice the number of exchanges originally planned, and reflects the fact that visits tend to be shorter than full academic semesters. Exchanges which took place during the 2002-3 academic year are outlined below. In addition to faculty exchanges, 4 adults and 37 Florida Tech undergraduate students visited BME and Pazmany Peter Catholic University (PPKE) in April 2003, as part of a for-credit humanities course.

Throughout the course of the year, a web site was maintained for the ESP project (see <http://research.fit.edu/esp/index.htm>). This serves as a source of information for prospective participants, as an archive for the resources and reports prepared in the course of the project, and as a public outreach tool. Oswalt moderates the Florida web-site; a BME mirror site is under development in collaboration with Kozak at BME (see below).

TABLE 1. Second Year ESP Program Milestones

19 Sep. - 20 Oct. 2002	V. Sharma visit to BME (water contamination research w/ O. Kozak)
26 Sep. - 7 Oct. 2002	L. Jones visit to BME & PPKE (History/Architecture course prep., self funded)
28 Sep. - 5 Oct. 2002	J. Morris visit to BME (Tisza Lake ecology course prep.)
10 - 24 Nov. 2002	G. Marosi visit to FIT (Nanocomposites, flame retardants, polymer research)
17 - 20 Nov. 2002	I. Hronszky to FIT (TIES meeting in Miami; Sustainability Workshop plans)
22 Feb. - 1 Mar. 2003	I. Hronszky to FIT (workshop, book, & follow-on funding planning)
27 Feb. - 10 Mar. 2003	L. Jones & M. Ruane to BME (37 students in HUM class, self funded)
29 Apr. - 6 June 2003	V. Sharma to BME (water contamination research w/ O. Kozak)
7 May - 31 July 2003	B. Kiss visit to FIT (underwater imaging research and ECE course taught)
10 June - 1 July 2003	L. Baksay visit to BME and CERN (particle physics research, self-funded trip)
20 June - 6 July 2003	M. Slotkin, K. Chambliss, A. Vamosi to BME (Ecotourism/Birding Festival plan)
20 June - 6 July 2003	J. Morris visit to BME (Tisza Lake ecology field course planning)
June 25 - 5 July 2003	K. Molnár (BME Pro Rector for Education) visit to FIT
10 - 31 July 2003	T. Palvolgyi & M. Herczeg visit to FIT
Summer 2003 (TBD)	A. Pandit and/or H. Heck to BME (solid waste civil engineering research)
Aug. - Sep. 2003 (TBD)	O. Kozak visit to FIT (water chemistry research w/ V. Sharma)
17 - 24 Sep. 2003	G. Nelson to BME (project planning w/ I. Hronszky)
Fall 2003 (TBD)	M. Fule and J. Szlavik to FIT
Spring 2004 (TBD)	A. Catanese (FIT President) visit to BME

III. FACULTY EXCHANGES TO FLORIDA

III-A. Visit of Dr. Gyorgi Marosi to Florida Tech, 10-24 November 2002

On the first Monday of his visit to Florida Tech, Marosi met with the College of Sciences and Liberal Arts (CSLA) department heads and received a thorough overview of the structure and activities of Florida Tech. L. Baksay, Head of Physics & Space Sciences, met with him separately to discuss cooperation with Hungarian institutes and students.

A reception on Tuesday afternoon provided the venue for informal discussion with many other new Florida Tech colleagues.

Discussions with Winkelmann led to new ideas for developing of the structure of chemical education in Hungary. Possibilities were discussed for cooperation in the field of intelligent nanostructured materials and environmental aspects of nanotechnologies. Discussions with Chemistry faculty Nesnas and Novak on Thursday established the basis for new project applications targeting the treatment of health problems caused by environmental contamination. The meeting with Nelson's research group reinforced the feeling that the best chance for close cooperation exists in the areas of environmental and fire retardant polymeric systems.

A visit to the Kennedy Space Center suggested a number of chances for further common research related to the space program, especially in the field of special polymers and composites. Environmental and material science aspects of possible life on new planets were also discussed.

The dinner with Nelson, Oswald and Hronsky gave an opportunity for evaluating the results of the first year run of the Partnership Program and defining the key issues for the next period.

Marosi participated in an ASME conference while visiting under the ESP program at Florida Tech. He also participated in several research lectures, viz.: B. Hannegan (Climate Change Response); H.G. Burhin (Charact.of Polyolefin Rheol.); D.C. Angstadt, J.P. Coulter (Orientation via Vibration Injection Moulding); I.C. Finnegan, G.G. Tibbets (Damping of C nanofiber/PP composites). Marosi also met with Y. Dzenis about the possibility of Lincoln University (Nebraska) to joining the BME - Florida Tech cooperation, and attended presentations by A. Mal and F. Shih (Health Monitoring of Composites); P.K. Mallick, S. Gerritsma (Press Forming of PP Composites); and K. Geleich (Manufacturing Methods for Thermoplastic Composites). On the following day he attended lectures in the Non-Destructive Evaluation Methods, Advanced Materials, Noise and Acoustics Open Forum, Trends in Sensing Technologies, and had a discussion with Y. Dzenis about his visit to BME in December 2002.

The Civil Engineering Department gave a valuable overview about their activity in water and solid waste management that matches well to the research program on recycling at BME; this will be considered for collaboration during the next project period.

III-B. Visits of Dr. Imre Hronszky to Florida Tech, 17-20 Nov. 2002 and 1 Feb.-5 Mar. 2003

Dr. Hronszky visited Florida Tech twice during the 2002-3 academic year. In November he briefly visited Florida Tech as a side trip from his attendance and paper presentation at the annual TIES Web meeting in Miami, FL. During Nov. 18-20 he met with Nelson and Oswald to explore ways in which a proposed international workshop on Sustainability in a Technological Society might be funded. He also worked with Oswald, ESP participants and Florida Tech Library personnel to construct a public outreach display for the ESP project. The resulting display was prominently placed in the main lobby of the Florida Tech library for the fall academic semester. Hronszky also met with Slotkin, Chambliss and Vamosi of the School of Management to guide plans for a national Birding Festival in Hungary, proposed for 2004. The proposed festival is one of the recommended projects which resulted from the Ecotourism Workshop held in summer 2002 (see our First Year Project Report).

Dr. Hronszky again visited Florida Tech in February 2003, primarily to consult with Nelson and Oswald on the planning of new faculty exchanges and to complete the editing of a book resulting partly from last year's Ecotourism Workshop at BME. During this visit he consulted with Oswald, who had recently visited the U.S. National Science Foundation International Programs office, to identify ways that an international workshop "Developing Technologies for a Sustainable World" might be funded in 2004. Hronszky presented an evening public lecture on "Life in Hungary: Perspectives on a Decade of Change" during this visit. In addition, a series of discussions occurred with Management Department concerning the outlines of several new courses, possible participation in teaching them, the conditions of announcing new courses at Florida Tech and BME. Initial contacts were also made with new faculty in the College of Engineering. Dr. Hronszky is coordinating a book that will include contributed chapters from many program participants. The book should be published in August in Hungary.

Dr. Hronszky's help has been critical in planning new visits to Budapest as well as visits of colleagues from the BME to Florida Tech during the coming academic year. These plans are

summarized below. He was accompanied by Florida Tech faculty on several excursions, including an antiquities exhibition at Mount Dora and to the Kennedy Space Center.

III-C. Visit of Dr. Balint Kiss to Florida Tech, 7 May - 28 July 2003

At the time of this report, Kiss has just arrived at Florida Tech on an extended visit hosted by the Florida Tech Dept. of Electrical and Computer Engineering (ECE) supported by the ESP program. This is the first full academic term exchange supported by our program. Kiss is teaching a summer course (ECE4231, Control Systems) and performing research on underwater imaging and analysis technologies, for assessing objects and debris in lakes. Dr. Kiss plans to initiate research collaborations with ECE and perhaps also Oceanography/Ocean Engineering (OCE) faculty). Details of the visit will be provided in our final Second Annual Report.

IV. FACULTY EXCHANGES TO HUNGARY

IV-A. Visit of Dr. Virender Sharma to Hungary, 19 September - 20 October 2002, 29 April - 6 June 2003.

Sharma visited BME for an extended period in fall 2002 to develop a new research collaboration with Oliver Kozak of BME that involves remediation techniques for contaminated surface water. This visit resulted in a variety of new contacts and possible collaborations that are outlined below. More complete details are provided in Sharma's trip report, available on our ESP project web-site.

- Visit to BME chemistry department; collaboration with Prof. J. Fekete who is working in environmental analytical chemistry was initiated. Sharma gave a seminar in the department and met with other colleagues in the partnership.
- Worked with a BME graduate student, Oliver Kozak, on a paper "Concentration of polycyclic aromatic hydrocarbons (PAHs) in moss (*Hypnum cupressiforme*) from Hungary" written under the partnership of FIT-BME. It has been accepted for publication in the peer-reviewed journal "Journal of Environmental Science and Health-Part A, and is scheduled for Vol. A38 No. 11 (2003)
- Worked with Prof. Zoltan Homonnay of the Chemistry Department at Eötvös Loránd University, Budapest on higher oxidation states of iron. Sharma gave a seminar in the department.
- Met with Dr. Ferenc Laszlo, director of the Water Resources Research Center (VITUKI), Budapest. Met also with Dr. Péter Bakonyi, Director General of VITUKI. The Center is currently working on pollution problems such as cyanide and heavy metals in Hungary. Sharma also gave a research seminar at the Center.
- Visited Department of Reaction and Environmental Engineering of the University of Kaposvar at Veszprem. This university works on the environmental problem in Hungary. Sharma met with Prof. I. Szabo.
- Visited the Radiation Chemistry Department, Technical University, Vienna, Austria. Presented a seminar titled "Radiation Chemistry of Higher Oxidation States of Iron".

- Visited Institute of Chemical Technology; Department of Inorganic Technology in Prague, Czech Republic and presented a seminar titled “Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV)): Environmentally Friendly Oxidants in Wastewater Treatment” and also the J. Heyrovsky Institute of Physical Chemistry, Prague, Czech Republic and gave seminar titled “Higher Oxidation States of Iron in Aqueous Solution: Thermodynamics and Kinetics”.
- Visited Max Planck Institute, Stuttgart, Germany and presented a seminar titled ““Studies of Hypervalent Iron (Fe(VI), Fe(V), and Fe(IV)) in Aqueous Solution”.
- Visited Johann Wolfgang Goethe University, Frankfurt, Germany.

As of this writing Dr. Sharma is again in Hungary at BME. He and his collaborators have completed and submitted their first research paper out of the BME/Florida Tech collaboration. Proposals have been submitted to the U.S. National Science Foundation and to NATO for related, continuing support of Sharma's collaboration.

IV-B. Visit of Dr. Lars Jones to BME and PPKE, 26 September - 7 October 2002

Dr. Jones visited BME and PPKE (funded by FIT) to choose historically important sites and to arrange essential local support services for a planned Humanities course, HUM 3385-10, "Special Topics in History: Spring Break in Budapest & Vienna: History, Politics, Art, & Architecture". Details of the course are given in Table 2 and section IV-D below.

A secondary objective for the trip was to plan future travel-study courses, specifically one tentatively planned for the summer term of 2003 or later in conjunction with the Florida Tech Biology Department's field ecology course in Hungary. The summer trip is planned to take advantage of better weather and the concomitant opportunities to visit other historical sites normally closed during the winter months. It would take place completely within Central Europe and require approximately three weeks to cover the contact-hour requirement. The summer trip expands on the historical and cultural environment of Hungary and the Austro-Hungarian Empire into adjoining and formerly Imperial and Hungarian lands, now Poland, the Czech Republic, and Germany. At the time of this writing (May 2003) international events appear to be deterring potential student travelers from enrolling. This will most likely delay the launch of the summer field class until 2004.

IV-C. Visit of Dr. John Morris to BME, 28 September - 5 October 2002

The purpose of Dr. Morris' visit was to:

- Investigate the possibility of securing funding to partially support the participation of some BME students in an educational ecotourism course to be conducted in the US and Hungary in July 2003 or later;
- Visit sites in Hungary that would be used during the Hungary portion of the course, and
- Determine the costs associated with the portion of the course conducted in Hungary.

On September 30 Morris met with Dr. Fule to discuss the sites to be visited later in the week. He also contacted vendors and campgrounds to determine costs for usage of equipment and facilities. The next day he met with Ms. Adrienne Terdik Head of the Department of Environmental Awareness Raising and Public Relations Department in the Ministry of Environment and Water. They discussed the possibility of some funding from the Hungarian government to partially support the involvement BME students in the educational ecotourism

course. Morris also met with Dr. Szlavik to discuss funding; he is a member of another group that could potentially provide funding to support BME students.

Later that week Morris traveled with Dr. Fule to Aggtelek National Park in the northern karst region of Hungary. They took a cave trip, visited various regions of the park and discussed the potential activities and housing for students. They also visited the Tisza River, which will be the site for a 3-day canoe trip and visited Tokaj the terminus for the canoe trip. Following this, they visited Lake Neusiedler Ferto at the Austrian Hungarian border. This may be a site used for the course.

On October 4 Morris visited Kis Balaton a wetlands adjacent to Lake Balaton. He met with Lilla Hederics a project manager for Kis Balaton. She gave Drs. Fule and Morris a tour of the area. It is a site that I would like to use during the course. Plans for the summer course are still in progress at the time of this report; because of recent international events this will likely occur in 2004.

IV-D. Students Visit Hungary, led by Drs. Lars Jones & Matt Ruane, 27 Feb. - 9 Mar. 2003

During Spring Break 2003 at Florida Tech, Professors Jones and Ruane led 37 students and several adults to Budapest and Vienna (paid for by student tuition) to attend lectures and to participate in discussions at some of the world's greatest museums and historical sites. The course was designed to introduce students to the history, politics, art, and architecture of the Austro-Hungarian Empire (c. 1700-1918) and 20th-century Hungary. An outline of the course is given in Table 2.

This study-abroad trip allowed students to explore first hand the world detailed in their textbooks and primary source materials discussed before the trip. In Budapest, students attended lectures by Professors Jones and Ruane in the Museum of Fine Arts, the Hungarian National Gallery, Parliament, St. Stephen's Basilica, St. Mary's Church, the Military History Museum, the Terror Museum, and many other important sites. In Vienna, students attended a lecture by Jones and Ruane in Schönbrunn Palace, Hofburg Palace and its treasuries, the Vienna Secession Building, the Leopold Gallery of Modern Art, the Upper Belvedere Palace and Museum, St. Stephan's Cathedral, and the Military History Museum, and other important sites. Students also had time to socialize and to explore these exciting cities on their own. In Budapest, students were afforded many opportunities to socialize with Hungarian students from BME and PPKE. An extended visit to BME was hosted by its Department of Aircraft and Ships.

Dr. Jones and Dr. Morris are collaborating on the development of curricula. Thus, future courses will most likely include an ecological component, as noted above.

Complete information can be found at the course web-site: www.fit.edu/hungary.

Table 2.
**HUM 3385-10, "Special Topics in History: Spring Break in
 Budapest & Vienna: History, Politics, Art, & Architecture"**
27 February - 8 March 2003

Jan. 9:	Organizational meeting, paperwork, syllabus overview, expectations, rules, etc.
Jan. 14	Ruane: Pre-History to the Ottomans: Influence over the Austro-Hungarian region (Historical background to the early 17 th century)
Jan. 16	Ruane: The Long 18 th Century & the Rise of the Hapsburg Dynasty
Jan. 21	Jones: Imperial Architecture under the Austro-Hungarian Empire
Jan. 23	Jones: Imperial Art under the Austro-Hungarian Empire
Jan. 28	Jones: The Rise of Political Ideology in Central Europe during the 19 th Century: Liberalism, Conservatism, Capitalism, Socialism, Anarchism & Communism
Jan. 30	Ruane: Revolutions of 1848: Creating Modernity in Hungary and Austria
Feb. 4	Ruane: Politics, Society and Culture, 1848-1914
Feb. 6	Jones: Modern Art 1: Bohemian Culture and the Vienna Secessionists
Feb. 11	Ruane: WWI and the Collapse of the Austro-Hungarian Empire, 1914-1929
Feb. 13	Ruane: WWII: Central Europe under the Nazis & during the Holocaust, 1929-1945
Feb. 18	Ruane: Behind and Free of the Iron Curtain: Hungary, 1945-2002
Feb. 20	Jones: Modern Art 2: The 20 th Century (Sunday, Feb. 23 rd : Ruane Departs for Budapest)
Feb. 25	Jones: Modern Architecture: The 20 th Century (Last formal Lecture, Midterm examinations due)
Feb. 27	(evening) Jones & Class depart for Budapest
Feb. 28	Arrive Budapest late afternoon local time; Introductory City tour
March 1	Budapest
March 2	Budapest
March 3	Budapest
March 4	Budapest & Environs
March 5	Depart Budapest by coach for Vienna
March 6	Vienna
March 7	Vienna
March 8	Vienna
March 9	Return to Orlando late afternoon

Remainder of Course:

March & April: Discussion of Term Paper/Project through Individual Meetings with Professors

Late April/Early May: Final Paper/Project due

V. FUTURE ACTIVITIES

The revised plan for our partnership program is outlined in Table 3. While this general plan will be followed, as stated in our Planning Report we expect to make continual changes in the program as participants provide feedback on their experiences and new collaborations and opportunities develop. We will keep the EPP program officer fully apprised of, and seek approval for, any substantive changes that may be considered during the remainder of the funding period.

Below are outlined the planned visits for the 2003-4 academic year, as of this report date. We expect several additions and changes as the program continues to evolve and the new academic year gets underway.

TABLE 3.
Summary of BME – Fla. Tech Environmental Studies Partnership (ESP) Plan
(Revised, May 2003)

Year	Spring	Summer	Fall
2001	Pre-award planning	Pre-award planning Phase 1 completed	Grant award 9/11; FL PI Nelson visit BME 10/23-27 Joint ecotourism workshop proposal submitted, 10/15
2002	BME PI Hronszky visit FL, 1/23-2/25; Fule & Szlavik visit FL, 5/6-6/8; Kozak visits FL, 6/4-6/16	Joint ecotourism workshop at BME 6/24-28 7 FL faculty to BME including FL PI Nelson	To BME: Sharma 9/19-10/20; Jones 9/26-10/7; Morris 9/28-10/5; To FL: Marosi to FL 11/10-24; Hronszky to FL 11/17-20
2003	To BME: Jones & Ruane (w/ 37 students) 2/27-3/9; Sharma 4/29-5/29; To FL: Hronszky 2/22-3/5; Kiss 5/7-7/28	To BME: Slotkin, Chambliss, Vamosi 6/20-7/6; Baksy 6/10-7/1); Jones & Morris (TBD); Pandit (TBD); To FL: Molnár (6/25-7/5); Fule (TBD); Prog. Eval.: I. Bogardi	(2-4 week visits) To BME: Nelson (PI, TBD) and 2-3 faculty; To FL: Szlavik & Dept. faculty, Kozak
2004	(2-4 week visits) 2-3 faculty to BME, including FIT Pres. A. Catanese; 2-3 faculty to Florida	Phase 3 begins Each Site Director visits External evaluation Student program planning	(2-4 week visits) 2-3 faculty to BME 2-3 faculty to Florida Student program planning
2005	Phase 4 begins Continued faculty exchanges, as funds permit Expansion of project areas Student program planning	Each Site Director visits External evaluation Final evaluation & report Student program finalized	Post-project development Student exchanges begin

V-A. Visit of Dr. Károly Molnár, BME Pro Rector for Education, to Florida Tech, 25 June - 5 July 2003

The purpose of this trip will be to introduce the senior administrators of BME (Dr. Károly Molnár) and Florida Tech (Dr. Anthony Catonese). A number of collaborative opportunities will be discussed. Florida Tech president Anthony Catanese will reciprocate by visiting BME during our third project year (2003-4). Dr. Molnár's spouse will accompany him to Florida (her expenses will be self-funded).

V-B. Visit of Dr. Michael Slotkin et al. to BME, 20 June - 6 July 2003

Dr. Slotkin and other members of the Florida Tech School of Management, along with Dr. John Morris, will return to BME in 2003 to continue planning efforts and to seek funding for Ecotourism opportunities identified during last summer's workshop. If sufficient sponsorship and governmental endorsement can be obtained, a national Birding Festival will be planned in Hungary for the spring or summer of 2004.

V-C. Other Planned Visits

Dr. Lars Jones will return to BME this summer or early fall to finalize preparations for a planned summer art/architecture/history course and to lay groundwork for next spring's course (see Table 2). Dr. John Morris will return to BME during the summer or early fall of 2003 to finalize plans for a field-based ecology course. Dr. Fule will return to Florida Tech to work with Drs. Slotkin, Chambliss and Vamosi on their Ecotourism and Birding Festival projects. During the summer of 2003, Dr. Istvan Bogard from the University of Nebraska will visit both Florida Tech and BME as part of our external evaluation program. His recommendations will be included in our next Project Report. Dr. Laszlo Baksay will visit BME during a trip to CERN in June to explore the potential for collaboration in particle physics research and to facilitate EPP/ESP activities as needed. Other likely visits during our third project year (2003-4) are outlined in Table 3.

VI. OTHER PROJECT ACTIVITIES

The EPP/ESP project team will continue to meet approximately bi-weekly, except when visitors are in residence; then meetings will generally be weekly. These meetings are the primary way that opportunities are identified, visitors are recruited and problems are addressed.

The Florida Tech library assembled a display featuring our project for October 2002. This display was located in the main lobby of the library. It highlighted our exchange visits via a photo montage and artifacts from our faculty visits to Hungary. Public lectures were arranged for each BME visitor as part of our project outreach effort. These lectures will continue are sponsored by our Humanities Department Public Lecture Series. Each BME visitor has also been interviewed on WFIT, the regional public radio station. This practice will continue.

Dr. Terry Oswalt visited the U.S. National Science Foundation International Programs office on 3 February 2003. Discussions with Bonnie Thompson, Program Manager for Central and Eastern Europe identified several opportunities for funding projects that have been seeded by the EPP project. In particular, Dr. Virender Sharma's NSF-INT proposal for collaborative research with his BME colleague was the first direct outcome of this visit (see IV-A).

Dr. Iver Duedahl of the Division of Marine and Environmental Sciences, plans to adapt his current Internet-based marine environmental science course for use at BME.

As of May 2003, five Hungarian graduate students are pursuing Ph.D. degrees here at Florida Tech. Two are pursuing Ph.D. degrees in physics: Gyongyi Baksay and Viktor Veszpremi. Three are pursuing Ph.D. degrees in Computer Sciences: Tamas Kusza, Lojos Nasy and Attila Ondi. These students are all supported via teaching or research fellowships.

In December 2002, we provided materials to the U.S. Department of State for a new booklet about the EPP program. The booklet "Twenty Years of Strengthening Institutions and Bridging Cultures" has recently been released. We were pleased to see our project is featured on page 22 (see Appendix 1) and in the cover design.

VII. BUDGET

A budget statement reflecting the actual costs of activities carried out to date is appended to this report. As was true for the previous project year, our expenses have totaled less than the projected budget for the current 2002-3 academic year. We will be able to support more visits in the third year, now that the program is established and word has reached new faculty at both partner institutions.

To date, our project has provided substantial leverage towards one grant, the U.S. – Hungary Joint Fund grant that supported the June 2002 Ecotourism workshop in Budapest. Dr. Sharma has submitted a grant proposal to the NSF International Program and another proposal to NATO during the spring of 2003 to support new collaborative research resulting from our faculty exchange. Faculty in the Chemistry Department and Humanities Department are developing an investigation of potential environmental hazards from chemical warfare materials left in central Europe after WWI and WWII that will be based upon an analysis of historical records. This will very likely lead to a new grant proposal to an appropriate agency in our third project year. Such grant efforts will continue. In some cases, it will be possible to secure some support for Hungarian collaborations via existing NSF, NIH or other U.S. funding agency grants. The results of these proposals will be summarized in our final Second Annual Report.

VIII. EVALUATIONS AND PROBLEMS

At the conclusion of a visit, each faculty exchange participant is required to complete a short questionnaire and to prepare a 1-2 page summary of the outcomes of their visit. Each visitor is also debriefed prior to returning home in order to identify the strengths and weaknesses of the program. A sample questionnaire is provided in the Appendix. Below are summarized the most substantive problems identified by our first-year participants. These problems notwithstanding, all participants have reported extremely positive experiences.

The difference between the Florida Tech and BME academic years posed intractable logistical problems for the full semester visits we originally envisioned for our exchange program. This problem has been satisfactorily resolved by allowing shorter more frequent visits. While this approach incurs substantially more travel expenses, it clearly has proved to attract more interest among faculty at both institutions. Needless to say, world events, both issues of terrorism and war, have impacted the willingness of some faculty to participate and the timing of participation of others.

Local transportation, especially in Florida, has been substantially more expensive than originally foreseen. Melbourne does not have an extensive mass-transit system like Budapest. We have accommodated some visitors with a rental car, so that independent weekend travel can be undertaken. We have loaned bicycles to others. We also frequently include our Hungarian visitors in our personal outings and social occasions. In Hungary, visitors have so far been able

to travel via meeting hosts and/or train, but as the visits become more research- than meeting-oriented, the issue of independent travel will have to be addressed.

Suitable short-term housing in Florida turned out to be more difficult to arrange than we originally anticipated. Florida Tech has no on-campus housing, except for student dorms. Our first visitor to Florida (Hronszky) reported that an off-campus apartment complex, originally expected to be the primary facility used by visitors, lacked sufficient local staff and services. We therefore utilized a fully-furnished apartment complex a bit closer to campus for some subsequent visitors and a suites hotel in downtown Melbourne for others. This has proved to be acceptable to all subsequent visitors. Lodging in Hungary is normally provided at the Professor's House on the BME campus. This is not acceptable in the summer due to its lack of air conditioning. It is also substantially more expensive than we originally expected. Fortunately, these additional expenses have been offset by the fact that frequent, shorter visits have incurred travel expenses less than we originally budgeted.

E-mail contact between Florida and Hungary continues to be unreliable for some participants. It is not clear whether this is due to unreliable e-mail connections, cultural differences in the way and frequency e-mail is used abroad, or other factors. Dr. Hronszky's e-mail service is satisfactory and he provides the critical intermediary communication between Florida and Hungarian participants. FAX communications have proven to be a reliable alternative once a firm collaborative link has been made between two faculty.

As outlined in our original DoS proposal, we intend to undertake an external review and assessment of our program at the conclusion of our second project year. Dr. Bogardi has reconfirmed his willingness to perform this service to our project and will visit both Florida Tech and BME during the summer of 2003. His report will be posted on our project web-site and summarized in our final Second Annual Report.

IX. CONCLUDING REMARKS

We are pleased to report that the BME/Florida Tech partnership continues to be successful and is reaching more faculty than originally envisioned. Participants at both institutions eagerly look forward to a long and productive collaboration. In several areas we are a bit ahead of schedule. For example, the development of courses leading to student exchanges were begun in our second project year with self funding (student tuition). Also, new collaborations with other institutions in Hungary have already begun to develop. In other areas (e.g. total duration of visits) we are a bit behind our original predictions. However, the 2002-3 academic year has been busier than our first year in nearly every respect. The word is definitely out about our program and we expect a significant number of new participants at both institutions. The most current information can be found on our project web-site.

APPENDIX 1
Excerpt from EPP Booklet (page 22)
"Twenty Years of Strengthening Institutions & Bridging Cultures"

Florida Institute of Technology
Budapest University of Technology
and Economics (Hungary)
Environment
FY 2001 GRANT AMOUNT \$120,000
SOURCE Exchanges Appropriation

Florida Institute of Technology is partnering with the Budapest University of Technology and Economics on an environmental studies program. The partnership is centered on faculty exchanges to identify areas of common scientific and technical interest, with a goal of developing new programs and enhancing existing programs of relevance to Hungary and Central Europe. Thus far 14 faculty members have paid two- to four-week visits to the respective partner institutions. In

the first year of the program, the universities sponsored an Eco-Tourism Workshop to help develop a type of tourism in Hungary that is already well developed in Florida. The partners secured direct support for the workshop through the U.S.-Hungarian Joint Fund. A planned outcome of the workshop is the creation of a birding and wildlife festival in Hungary in the spring of 2004, based upon the careful study of such festivals in Florida. A second focus of the partnership is a workshop to begin in the fall of 2003 on problems of sustainability under conditions of globalization from the perspective of U.S.-European Union (EU) relations. The discussion will include partners from different EU countries and EU officials. Given the compatibility and commitment of the two partners, numerous areas of collaboration will continue to be discovered.

“I plan to take a group of students to Hungary over spring break. They will get a students’ view of Hungary, not a tourist view.”

– Gordon Nelson, Florida Institute of Technology



Faculty from the Florida Institute of Technology tour Hungary's Tisza Lake as part of an environmental studies partnership with Budapest University of Technology and Economics.

**APPENDIX 2.
Current Florida Tech EPP Budget Statement**

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Report FWR124R 07-Apr-03 06:56 PM Monthly Budget Status Report for March 2003

FLORIDA TECH
Index: 3446

Contract/ Document Number: 09/02/01 to 08/31/04
 Fund: 200457 (A) Dept of State- 8/31/04 Nelson
 Orgn: SGA111 Nelson,G
 P.I.: Gordon Nelson
 Fund Mgr.: Gordon Nelson
 Orgn Mgr.: Gordon Nelson

Account	Account Description	Budget	Current Month Expense	Fiscal YTD	Inception To Date Expense	Budget Reservation	Available Balance
REVENUE							
REVENUES							
52001	Federal Grants and Contracts	120000.00	1444.81	20483.29	33809.52	0.00	86190.48
512	Federal Grants and C	120000.00	1444.81	20483.29	33809.52	0.00	86190.48
	TOTAL REVENUES	120000.00	1444.81	20483.29	33809.52	0.00	86190.48
EXPENSE ACCOUNT CODES							
EXPENSE ACCOUNT CODES -L2							
Supplies - Restricted							
72199R	Supplies - Other - Restrict	2600.00	0.00	100.52	157.06	0.00	2442.94
721R	Supplies - Restrict	2600.00	0.00	100.52	157.06	0.00	2442.94
Operating Expenses - Restricted							
72210R	Telephone & Fax - Restrict	2600.00	0.00	0.00	108.00	0.00	2492.00
72220R	Freight - Restricted	0.00	0.00	163.60	598.43	0.00	-598.43
72253R	Instructional Aids - Restr	10625.00	0.00	1094.27	1044.21	0.00	9580.79
722R	Operating Expenses -	13225.00	0.00	1157.87	1750.64	0.00	11474.36
Operating Expenses							
72256	Merchandise for Sale	1400.00	0.00	0.00	0.00	0.00	1400.00
722	Operating Expenses	1400.00	0.00	0.00	0.00	0.00	1400.00
Travel Expense							
72605	Travel	0.00	0.00	0.00	0.00	0.00	0.00
726	Travel Expense	0.00	0.00	0.00	0.00	0.00	0.00
Travel Expense - Restricted							
72605R	Travel - Restricted	1600.00	85.75	1394.86	3561.05	0.00	-1961.05
72610R	Travel Advance - Restricted	0.00	0.00	-1400.00	1120.00	0.00	-1120.00
72625R	Travel - International - Re	83100.00	0.00	9532.75	14454.92	2316.30	66328.78
72630R	Travel - Auto Rental - Rest	7200.00	0.00	0.00	40.00	0.00	7160.00
72655R	Travel - Meals - Restricted	0.00	0.00	401.00	401.00	0.00	-401.00
72656R	Travel - Per Diem Restrict	0.00	1359.06	5023.39	12009.95	0.00	-12009.95
726R	Travel Expense - Res	91900.00	1444.81	18952.00	31586.92	2316.30	57996.78
Student Tuition Scholarships Restr							
73911R	Insurance Scholarship-Restr	2800.00	0.00	262.90	314.90	0.00	2485.10
732R	Student Tuition Scho	2800.00	0.00	262.90	314.90	0.00	2485.10
Professional Services Restricted							

**APPENDIX 2, concluded.
Current Florida Tech EPP Budget Statement**

Report FWR124R	07-Apr-03 06:56 PM	FLORIDA TECH		Page 686
		Monthly Budget Status Report for March 2003		
		Index: 2546		
Contract/				
Document Number:	09/02/01 to 08/31/04	P.I.:	Gordon Nelson	Fund Mgr.: Gordon Nelson
Budget Period:	(A) Dept of State- 8/31/04 Nelson			Orgn Mgr.: Gordon Nelson
Fund: 200457	Nelson,G			
Orgn: SLA111				

Account	Account Description	Budget	Current Month Expense	Fiscal YTD	Inception To Date Expense	Budget Reservation	Available Balance
74137R	Restrict Outside Services	3150.00	0.00	0.00	0.00	0.00	3150.00
74140R	Outside Services - Restrict	4925.00	0.00	0.00	0.00	0.00	4925.00
741R	Professional Service	8075.00	0.00	0.00	0.00	0.00	8075.00
TOTAL	EXPENSE ACCOUNT CODE	120000.00	444.81	20483.29	3809.52	2316.30	3874.18
TOTAL	REVENUE	120000.00	444.81	20483.29	3809.52	0.00	86190.48
TOTAL	EXPENDITURES	120000.00	444.81	20483.29	3809.52	2316.30	83874.18
TOTAL	NET	0.00	0.00	0.00	0.00	-2316.30	2316.30