

Polish-Japanese Institute of Computer Techniques Project



Project Sites **Warsaw**

1. Background of Project

Since 1989, Poland has been experiencing a transition to a market economy. Accordingly, in view of enhancing efficiency and productivity in various sectors, they have started applying computer technology such as automatic production systems and information processing systems.

To cope with the rapid computerization, development in human resources of computer engineers is essential. However, existing universities, where theoretical and mathematical approaches have been emphasized in the field of information science, were not able to provide practical education for computer engineers who would satisfy the social demand.

The Government of Poland requested a project-type technical cooperation to Japan, a country with rich experience in the field of information technology, to establish the Polish-Japanese Institute of Computer Techniques (PJICT) and to train practical-minded computer engineers.

2. Project Overview

(1) Period of Cooperation

8 March 1996 – 7 March 2001

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organization

Polish-Japanese Institute of Computer Techniques (PJICT), Ministry of National Education

(4) Narrative Summary

1) Overall Goal

Computerization in Poland is advanced.

2) Project Purpose

Computer engineers that meet the demands in Poland are educated at the PJICT.

3) Outputs

- Education program for the basic course and three specialized courses are developed.
- Teaching/learning materials are developed.
- Facilities and equipment are set up in seven laboratories.
- High level teaching staff is developed, based on research at the Institute.

e) Demands in Poland for computer engineers are surveyed.

f) Management of the PJICT is strengthened.

4) Inputs

Japanese Side

Long-term experts	12
Short-term experts	44
Trainees received	17
Equipment	515 million yen
Local cost	36 million yen

Polish Side

Counterparts	55
Land and facilities	
Local cost	710 million yen

3. Members of Evaluation Team

Team Leader/Management of the Institute

Kenji OSHIMA, Professor, Faculty of Engineering, Saitama University

System and Network Software:

Ryoichi URAO, Professor, Faculty of Engineering, Ibaragi University

Information, System Engineering/Application of Artificial Intelligence:

Hitoshi MAEKAWA, Professor, Faculty of Engineering, Saitama University

Cooperation Planning:

Kazuro SHIBUYA, Second Social Development Cooperation Division, Social Development Cooperation Department, JICA

Evaluation Analysis:

Makiko KOMASAWA, Sekkei Keikaku Ltd.

4. Period of Evaluation

3 December 2000 – 15 December 2000

5. Results of Evaluation

(1) Relevance

This project is relevant to Poland's national policy, which aims at the establishment of an IT nation. The PJICT is considered as the organization that will play a key

role in reaching the nation's objective. This project is also consistent with the Japanese ODA policy toward Poland, which aims to further support the transition to market economy. Moreover, it is relevant since Japan has competency in cooperation in the field of information technology.

(2) Effectiveness

The number of PJICT students increased steadily from 572 in FY1996/1997 to 1,337 (incl. master's degree students) in FY2000/2001. Approximately 80% of the graduates and students seeking jobs has got places in IT-related jobs. The number of undergraduates proceeding to a master's degree was 26% of the total in FY1998/1999, increasing to 35% in FY1999/2000. It can be said that the graduates are receiving sufficient education of an undergraduate level.

Both students and graduates are satisfied with the practical curriculum the PJICT is providing. Around 80% of the graduates have appreciated the teaching methods of the instructors, equipment in the laboratory and the specialty of the course.

Thus, the PJICT has come to regularly supply computer-related engineers who meet the needs of society; and therefore this project has successfully achieved its purpose.

(3) Efficiency

Inputs from both Japanese and Polish sides were appropriate in terms of quality and quantity, contributing greatly to the achievement of project outputs.

As for procurement of equipment, there was a case where the technology transfer was slightly affected. This was due to the delay of the delivery of the supercomputer, which was not delivered within the dispatch period of the expert in charge. However, this was solved by sending a short-term expert after its installation.

In the early stages of this project, both parties had difficulty in sharing technology transfer, because Polish counterparts had served concurrently in other universities. With the efforts of the PJICT, fulltime teaching staff is gradually increasing in numbers.

(4) Impact

PJICT graduates has been contributing to the progress of computerization with their remarkable efforts in IT-related business. The result of a self-evaluation questionnaire for graduates asking whether they are "contributing to the progress of IT" in their offices indicated that 54% believe that they are. Result from interviews with graduates and their employers also implied that they are contributing to the progress of IT in their companies, and the growth of the IT industry in general.

Although a master's degree program was not included in this project, it was newly established by efforts of the Polish side in 1998 to further develop human resources in the IT field.

(5) Sustainability

Although private universities such as the PJICT are not subject to direct financial support from the government, the Ministry of National Education has promised to support the PJICT by giving research consignments and support through scholarship fund systems. Since full-time



Robotics laboratory

teaching staff has been increasing in number, the technology transferred by the project will be sustained in the PJICT.

Thus, from technical and institutional aspects, it is expected that the PJICT can sustain itself as well. From the increase in the number of students and acquisition of a research grant, the financial basis is being established well. However, since computers need to be upgraded on a constant basis to cope with rapid progress in the IT area, it can not be too optimistic in terms of finance.

6. Lessons Learned and Recommendations

(1) Lessons Learned

In the IT field where technology progresses rapidly, the overall plan of the project should be carefully reviewed periodically in close collaboration with the project supporting committee in Japan, and it should be modified flexibly when needed.

(2) Recommendations

It is important to balance practical and new academic education in the future. Since the number of students has increased, the PJICT should sustain the level of students' learning environment, such as securing enough space for classrooms and laboratories, and the adequate ratio of teachers and students. Equipment maintenance and the renewal plan should have a long-term perspective, and efforts should be made to realize the plan. The PJICT should also build an administrative structure with a long-term vision, personnel and financial management system.

7. Follow-up Situation

In order to strengthen the sustainability of the PJICT, follow-up experts working on the "Establishment of a Doctoral Course" and "Cooperation with Private Enterprise," areas indicated as part of its future vision, are being dispatched.

A third-country training program begun in 1999 called "East Europe Information Engineering" is being carried out with a five-year schedule. The training aims at development of human resources who will play an important role in the computerization of Eastern European countries.