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Information Services and Networks**

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## **REPORT**

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## SUMMARY

The Workshop offered the participants an opportunity to exchange views and discuss modalities of future co-operation in the entirely new situation characterized by political, economical and social changes in the central and eastern European countries and the FSU. Particular emphasis was given to the needs of emerging SMEs with respect to industrial and business information services. Although the discussions have indicated some differences and specific problems in countries of the region, the Workshop confirmed that there are common problems which require a similar and co-ordinated approach, making an exchange of experience and international co-operation very desirable and important.

In this context, the participants expressed their opinion that UNIDO is not only fully competent to co-ordinate such co-operation, but under the present circumstances, promotion of the co-operation should be considered as one of the top priority objectives of UNIDO.

The following are the main points of the 25 recommendations covered.

At the national level:

- . Participation in the Instant Business Information System (IBIS) project, which will initially function as a referral system.
- . Strengthen the capacity of existing information centres to provide industrial and business information services to SMEs.
- . Establishment of an international business information centre in Kyrgyzstan to serve all central Asian republics.
- . Establishment of a new telecommunication node in the Trans-Caucasus Region.
- . Continue and expand cooperation for inter-network gateway creation and implementation of new telecommunication technologies for the development of trans-border information exchange.

At the UNIDO level:

- . Prepare a manual on the possibilities and modalities of using the INTERNET for business information activities and transactions.
- . Prepare a training curriculum on the use of INTERNET and offer such training at low cost.
- . Design and implement a pilot version of the Instant Business Information System (IBIS) for central and eastern European countries.
- . Take appropriate steps to support the development of sub-regional projects, including (a) establishment of an information centre in Kyrgyzstan for SMEs in central Asia; and (b) creation of the Caucasian network for Armenia, Azerbaijan and Georgia integrated by gateways with the national networks of

the Russian Federation and Turkey.

. Secure funds for projects that strengthen/upgrade the capacity of existing national information centres, with special emphasis to pipeline projects in Hungary, Moldova, Kazakhstan, Kyrgyzstan and Slovakia.

. Organize a seminar for SMEs and business information agents on "Making business on the INTERNET".

## I. INTRODUCTION

### A. Background

Central and eastern European countries, as well as countries of the FSU, are undergoing radical political, economic, cultural and social changes. These changes affect all parts of their society, industrial enterprises, agriculture, scientific and educational institutions. Availability of highly professional and efficient information services is of the utmost importance to these countries to fulfil the tasks they face in the transition process.

Knowing that the transformation to a market economy goes hand in hand with privatization and that this proceeds primarily through the establishment of small and medium enterprises, the need for efficient and adequate information to make a success of privatization and economic transformation is obvious. In view of this, the technical assistance to information centres that would help bridge the present transition period of transformation from a centrally planned economy to a market one, represents a very significant support to the process of privatization, to small- and medium-sized enterprises and to the success of the entire economic reform in central and eastern European countries.

In the past, many fine and widely recognized libraries and information centres were established and developed in these countries. The services of these centres were, however, primarily focused on the needs of scientists, researchers and university students. There was no information service for entrepreneurs, simply because these hardly existed in these countries and there was consequently no need for such services.

As a result, the present information services for SMEs are far from sufficient, while the undergoing transition to a market economy calls for an efficient supply of the latest information on products, raw materials, technologies, market, prices, potential partners, suppliers, laws, regulations, domestic and foreign companies' directories, standards, in fact a broad range of essential information that may be simply called **business information**.

Realising the need to upgrade and/or extend the information services of existing information institutions in the region of central and eastern Europe, as well as in countries of the former Soviet Union, UNIDO has considered a new programme to better serve the needs of the SMEs. Within the framework of this programme, a project is under consideration aimed at designing and developing an information system/network, which would enable the users at any location of

the region, to access and obtain information required to run their businesses in the region or world-wide. It should be stressed at this point that it is not intended to create new centres, networks and databases for this purpose. In the view of the Workshop, the existing information centres and national/global networks can be utilized. The objective of the project is to initiate and facilitate co-operation and co-ordination of presently functioning national centres to design and develop compatible and harmonized business information databases and information services.

It is assumed that the information be made available in different forms (hard copies, diskettes, CD-ROMs, on-line). The system should provide primary, secondary and referral information. If the requested data is not available, the system should indicate where, how and for how much the data can be obtained. A first approach to the above outlined system with a work title of IBIS (Instant Business Information System) has been elaborated and was presented to the Workshop participants for consideration, comments and recommendations.

## **B. Objectives of the Workshop**

1. To acquire the latest knowledge on:
  - (a) information services and advanced telecommunication technologies;
  - (b) marketing of information services;
  - (c) scientific applications-computer networks in natural risk management;
  - (d) searching in remote databases; and
  - (e) new opportunities in information services offered by modern telecommunication systems (INTERNET) and commercial networks.
2. To consider in detail UNIDO's proposal on IBIS, in view of the present situation of computerised databases, information services and national/international networks, and the future needs of industrial enterprises, particularly SMEs, in central and eastern Europe and FSU countries with regard to industrial and business information services. Formulate recommendations on developing the regional information system for SMEs and define the role UNIDO should assume in co-ordinating and harmonizing national efforts aimed at the establishment and efficient functioning of the above information system in the region.
3. To exchange views, ideas and experience on the organization of national information systems/services for SMEs on existing and/or planned computerized databases on CD-ROM databases and on future ways of possible regional co-operation. Adopt recommendations on the role of the national information centres, institutions representing the SME sector and UNIDO in improving and upgrading the business information services within the region, and establishing efficient links and exchange of business data with the other regions of the world.

### C. Organization

The Workshop, organized by the United Nations Development Organization (UNIDO) and the United Nations Scientific, Educational and Cultural Organization (UNESCO), in co-operation with the Hungarian Central Technical Library (OMK) was held in Budapest from 17 to 19 October 1994. Over 40 participants from 16 countries, two UNIDO and two UNESCO representatives took part in the workshop.

The Workshop was organized into two working sessions, comprising presentations and country reports, followed by conclusions and recommendations.

Annex I contains the programme of the Workshop and Annex II the list of participants. Annex III is UNIDO's proposal to design and develop a regional information system. Annex IV is a compilation of IBIS overheads.

### D. Opening Session

The opening session was held at the Hungarian Central Technical Library, Budapest. Mr. A. Herman, Director-General of the National Technical Information Centre and Library, welcomed the participants and expressed thanks to UNIDO and UNESCO for efforts made in organizing the Workshop in Budapest. In his statement, he emphasized the importance of the industrial and business information services for SMEs, particularly in the countries of central and eastern Europe and the FSU, in view of the present economic transformations.

The representative of the Industrial Information Section of UNIDO welcomed the participants and described the objectives of the Workshop.

#### Election of Officers

The Workshop unanimously elected:

Chairman: Mr. P. Szanto, Director, Hungarian Central Technical Library, Budapest, Hungary.

Rapporteur: Mr. A. Gvishiani, Director, Centre of Geophysical Computer Data Studies (CGDS), Moscow, Russian Federation.

A vice-chairman was not elected

## II. WORKING SESSIONS

### A. Presentations

In his presentation UNIDO's representative informed of the Organization's activities and specifically the work of the Industrial Information Section in its relationship to those of UNIDO's other organizational units involved in generating and/or providing information

materials and services.

The Workshop was also informed in detail of UNIDO's regional programme for central and eastern Europe and the FSU, which is aimed at developing industrial and business information services for the SMEs. Brief information was given on all operationally completed, on-going and pipeline projects in the region. Special emphasis was given to information on UNIDO's proposal to design and develop the regional information system which would enable the SME users to find and obtain the required business information. (Annex III)

The opportunity of the presence of a significant number of participants from central and eastern Europe was taken to present UNIDO's proposal on an Instant Business Information System (IBIS). The objectives, functions, architecture and implementation strategy were outlined. The system is expected to provide SME entrepreneurs, decision makers and other users with reference and factual business information on central and eastern European countries. It is anticipated that the INTERNET will serve as the main access to the IBIS. (In this connection it was proposed that UNIDO elaborate a manual on how to work and do a business on the INTERNET). It is expected that at least one focal point of the IBIS be operational in each participating country. (Annex IV)

A brief history of the design and development of an efficient and powerful computer network for risk management, particularly earthquake monitoring was presented. It was shown that the present status in hardware and software technology enables the linking of computers of different architectures and capacities into a reliable and well functioning local, regional, national or worldwide network. The example presented has shown that even with limited resources one can start the development of an efficient regional computerized information network. It was considered important to start such a project and that it be sufficiently ambitious.

The latest status in developing computerized business information services for SME users at OMK was given, based on a network linked to three CD-ROM towers, each housing seven CD-ROM drives. Participants were very interested to note the information on upgrading the existing system by using a pentium computer with a large capacity hard disk. The system enables the copying of up to 60 CD-ROM single disks to one hard disk and thus considerably increase the number of CD-ROM databases, which are simultaneously and readily available for network users.

The Workshop was informed of Hungary's experience with the INTERNET. The network offers free-of-charge databases that provide business information on eastern European companies. The INTERNET enables clients to be directly linked to the information provider where they are able to find virtually any information required. However, it was considered very difficult to navigate through INTERNET to locate the desired information and that the system is definitely not user friendly. It is very important to train administrators of business information centres to carry out searches on the INTERNET to utilize the network efficiently and provide better information services to clients from the SMEs.



A number of participants from the Russian Federation gave presentations, which were highly informative on the subject of information services, providing information on the Russian Federation's Government policy in developing information services for SMEs by the establishment of The Presidential Committee of the Russian Federation for Information Policy, which is also responsible for the development of information services for SMEs. At present six regional information-consultation centres serving entrepreneurs are operational and it is expected that by the end of 1994 there will be fourteen operational centres altogether. These centres are financed by the Government, but it is anticipated that in future their services will be charged to users. The Presidential Committee is convinced that UNIDO is able to assume a significant role in developing the regional information network for SMEs and is prepared to co-operate with UNIDO in its development.

Information and consultancy centres will be established in each of 89 administrative regions of the Russian Federation. These centres will be instrumental in creating new SMEs, in preparing their business plans, elaboration of marketing studies, provision of information services and in training. It is hoped to transfer information daily in 30 minute sessions from Moscow to each region through local TV channels.

The experience was described of a commercial information company OLVIT that provides information services to SMEs in the Russian Federation. More than 80 per cent of their users are clients from SMEs. While at the beginning mostly commercial information was requested, at present demand is increasing for company information. OLVIT is engaged in information database development and through its own network is connected with the largest international telecommunication networks.

For many years, the International Centre for Scientific and Technical Information in Moscow has played a very important role as a coordinating centre in collecting, processing and disseminating scientific and technical information in the region. At present the activities of the centre are extended to supplying information services to SMEs. To better assist the SMEs, the ICSTI also closely co-operates with UNIDO, e.g. in organizing TECHMARTs, the business fora for SMEs.

The activities of the Institute of Automated Systems in Moscow were explained, as was the overall situation of telecommunication networks in the Russian Federation. A few years ago there was only one network - IASNET but now 100 networks are operational. However, there is a need to further improve information networks in the Russian Federation and other countries of the FSU. In this context, it was proposed to establish an International Information Centre in Kyrgyzstan and establish a regional information system serving Armenia, Azerbaijan and Georgia with an emphasis on the significance of proper training for the administrators of business information centres.

A participant from Austria provided information on activities of the Compass Publishing House in four east European countries, describing his views on the content, quality of company information products, marketing and on the need for a careful selection and training of teams responsible for collecting, processing and marketing of business information. In his view, the

listing of companies in directories should be free of charge in order to avoid any pre-selection.

## **B. Country Reports**

A number of participants took the opportunity to describe the needs of their countries for adequate, timely and easily accessible information, which would not be an economic burden. The most serious obstacle preventing the development of information services in the remoter countries was the low quality and sometimes obsolete local telecommunication systems, which, through lack of financial resources, impedes its modernization. Likewise, the lack of adequate financial resources hampers the upgrading of information services in those countries experiencing a sudden upsurge in the number of new SMEs who place ever increasing demands on the local information suppliers. In most cases, these new entrepreneurs have an insufficient knowledge of a foreign language, making the need for expanded training facilities for information service personnel even more important. With the expected links to the INTERNET, training becomes absolutely essential in how to trace the right information to pass on to the entrepreneur.

Descriptions of how some countries provide their entrepreneurs with business information were given, with explanations of how the national centres for information function, whether state-owned or private institutions.

The participant from the Kyrgyz Republic proposed the establishment of an International Centre for Technical and Business Information, which in the first stage would also serve Kazakhstan, Uzbekistan and Tadzhikistan. At a later stage, the participation of other Asian countries is foreseen.

A number of countries, notably the Czech Republic, Slovakia and Hungary, are developing and extending commercial databases that provide information services to SMEs.

Wide support was expressed for UNIDO's proposal for the establishment of IBIS, with the suggestion that in its initial stage it should be developed as a referral system. The participants from the Czech Republic, Hungary and Slovakia expressed their willingness to act as national focal points, acting as training centres for telecommunication services and on the use of the INTERNET. The National Centre for Information of Slovakia also expressed willingness to provide telecommunication services.

**Note:** Presentations made by some participants are available at UNIDO and copies may be provided on request. Interested parties may also wish to contact the authors directly.

## **III. CONCLUSIONS AND RECOMMENDATIONS**

The Workshop offered the participants an opportunity to exchange views and discuss modalities of future co-operation in the entirely new situation characterized by political, economical and social changes in the central and

eastern European countries and the FSU. Particular emphasis was given to the needs of emerging SMEs with respect to industrial and business information services. Although the discussions have indicated some differences and specific problems in countries of the region, the Workshop confirmed that there are common problems which require a similar and co-ordinated approach, making an exchange of experience and international co-operation very desirable and important.

In this context, the participants expressed their opinion that UNIDO is not only fully competent to co-ordinate such co-operation, but under the present circumstances, promotion of the co-operation should be considered as one of the top priority objectives of UNIDO.

Information services for small- and medium-sized enterprises represent a new category of information services characterized by specific needs. Country reports have shown that each country tries to overcome their difficulties with their own existing or new information systems. The co-ordination of these efforts would be helpful to all countries of the region.

The Workshop has shown that the quality of information has become the most critical factor when dealing with contemporary information systems. Provision of credible, trustworthy, accurate and timely information is of paramount importance when designing, implementing, and especially operating national and regional information systems. It has been agreed that every effort should be made to assure the provision of the highest quality information to the national and regional systems, in particular to IBIS.

#### **Recommendations of the Workshop**

##### **At the national level:**

The participants to the Workshop recommended the adoption of the following resolutions:

1. Participation in the Instant Business Information System (IBIS) project, in particular to identify those IBIS national counterpart organizations to take part in the design and implementation process. IBIS is to be developed initially as a referral system.
2. All information centres and other organizations created to support the Small and Medium Enterprises including new or existing commercial information firms, be invited to co-operate with UNIDO in developing IBIS. It is foreseen that one responsible organisation in each interested country (i.e., focal point), will concentrate on these activities.
3. Establishment of an International Business Information Centre in Kyrgyzstan to serve all central Asian republics.
4. Strengthening the capacity of existing information centres (state-owned or private) to provide industrial and business information services to SMEs.
5. Organization of training in the field of information technology

(accessing databases containing business and industrial/technological information, methods and strategy to promote the use of these databases by small entrepreneurs, use of the INTERNET, etc.) for the personnel of the centres.

6. Establishment of a new telecommunication node in the Trans-Caucasus region.

7. A focusing of efforts and resources towards developing information resources useful for the countries of the region in the fields of data on technology enterprises, data on production, national legislation, the stock market, as well as in scientific and educational data. Special attention will be paid to the development of INTERNET facilities.

8. Endeavour, within the framework of their responsibilities, to promote experience, know-how and software exchange in order to establish the spirit of partnership in the region.

9. Promote the creation of sub-regional information centres and information/telecommunication systems to strengthen the national and trans-border connections of the SMEs.

10. In view of the needs of the SMEs, it is recommended that participants continue and expand the cooperation for inter-network gateways creation and implementation of the new telecommunication technologies for the development of the trans-border information exchange.

11. Continue efforts towards developing tools to tele-access national information resources, taking into consideration the priorities and information necessities of the countries of the region.

12. Recommend that the Former Soviet Union (FSU) and eastern European representatives be invited to participate in the 1995 UNESCO-PCNETs' pilot course for research and educational INTERNET users.

**At the UNIDO level:**

1. Continue to support the establishment of national information centres and focal points in distributing INTIB information.

2. Design and implement a pilot version of the IBIS system (Instant Business Information System) for central and eastern European countries.

3. The IBIS project should be conceptualized as an offer (with national and UNIDO components, action plan for implementation, predicated advantages and benefits) for further submission to national authorities for consideration.

4. In co-operation with the future focal points undertake first steps in this common work, i.e. elaboration of a comprehensive study and organization of the exchange of views on the future steps to be taken (content, structure, technology of access, economic and financial problems, etc.).

5. UNIDO to take appropriate steps to support the development of sub-regional projects, including:
  - i. establishment of an information centre in Kyrgyzstan for SMEs in central Asia;
  - ii. creation of the Caucasian network for Armenia, Azerbaijan and Georgia, integrated by gateways with the national networks of the Russian Federation and Turkey.
6. Promote the step-by-step implementation of the project "Strengthen/establish business information centres for SMEs in Russia and other FSU countries" on the basis of VSAT technology to promote Euro-Asian business information/telecommunication systems, with partial financial support of the Presidential Committee of the Russian Federation for Information Policy.
7. Secure funds for projects that strengthen/upgrade the capacity of existing national information centres so as to provide industrial and business information services to the SMEs. Special emphasis to be given to the pipeline projects in Hungary, Moldova, Kazakhstan, Kyrgyzstan, Romania and Slovakia.
8. Render preliminary support to those national and sub-regional projects for business information exchange systems that have high priority in national programmes and are financially supported by state and business enterprises (trade chambers, banks, SMEs) and also support EDI and EDIFACT standards implementation.
9. Organize a seminar for SMEs and business information agents on "Making business on the INTERNET".
10. Prepare a manual on the possibilities and modalities of using the INTERNET for business information activities and business transactions. An important part of the manual should be lists of hosts addresses, names of directories, databases, etc.
11. Prepare a training curriculum on the use of INTERNET and offer such training at a low cost.
12. Within the INTIB support and development programmes, consider the establishment of teaching materials and databases on marketing of informatics/telecommunication services, tariff policy and the most cost-effective choice criteria, to develop free and fair competition of these services on national SMEs markets.
13. Support the implementation of national and regional projects to establish gateways between different networks, e.g. X.25/IP, as well as of projects for implementation and development of cost-effective networks (satellite, radio-modem, backbone).

#### IV. ADOPTION OF RECOMMENDATIONS

After detailed discussions the meeting adopted the Recommendations. The participants expressed their readiness to assure the implementation of the Recommendations related to their countries and at the same time urged UNIDO to make all efforts to implement those addressing the needs of the whole region and co-ordinate the national activities.

#### V. ACKNOWLEDGEMENTS

The meeting expressed deep appreciation for the efforts made by UNIDO and UNESCO, represented by Earth Data Network for Education and Scientific Exchange (EDNES), for the organization of the Workshop and offered special thanks to OMK for providing excellent host facilities.

**PROGRAMME****Monday, 17 October 1994***Morning:*

- Opening of the Workshop
- Election of officers
- Adoption of the agenda
- State-of-the-art and development of information services and advance telecommunication technologies in central and eastern Europe and FSU
- Marketing of information resources and services

*Afternoon:*

- Scientific applications: computer networks in natural risk management
- Data Management with remote access to business data
- Computer demonstration

**Tuesday, 18 October 1994***Morning:*

- New opportunities in information services for SMEs and science/research/education offered by modern telecommunication systems (INTERNET) and commercial networks.

**Tuesday, 18 October 1994***Afternoon:*

- Business information centres for SMEs in central and eastern Europe and FSU. UNIDO proposal on business information system for SMEs.

**Wednesday, 19 October 1994***Morning:*

- Industrial information centres and services for SMEs in eastern central Europe and FSU. State-of-the-art and experience in particular countries.

*Afternoon:*

- Industrial information centres and services for SMEs in eastern and central Europe and FSU (contd.)
- Adoption of recommendations
- Closing of the Workshop
- Conclusions and recommendations

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**INFORMATION SERVICES FOR SMALL-AND MEDIUM-SIZED ENTERPRISES IN  
CENTRAL AND EASTERN EUROPE**

**Regional Programme  
of the  
Industrial Information Section**

Central- and Eastern- European countries, as well as Asian countries of the FSU are presently undergoing radical political, economic, social and cultural changes. In the economy transformation one of the important objectives is to promote the establishment of new small- and medium- sized private enterprises. The information supply for these enterprises is far from being adequate, while the undergoing transition to market economy calls for efficient supply of latest information on products, raw materials, technologies, market, prices, potential partners, suppliers, laws, regulations, domestic and foreign companies' directories, standards, i.e. a broad range of essential information that we might simply call **business information**.

Realising the need to upgrade and/or extend the information services of existing information institutions in the region of the Central and East Europe, as well as in countries of the former Soviet Union, to serve better the needs of SMEs, IRD/INF has considered a programme aimed at establishing and/or strengthening the existing information institutions to serve the emerging SMEs.

**PLANNED AND ON-GOING ACTIVITIES OF THE REGIONAL PROGRAMME**

**REGION**

*XX/RER/94/XXX Strengthening/establishing business information centres for SMEs in Russia and other selected countries of the FSU.*

First phase of the technical assistance focused on facilitating a worldwide access to industrial and business databases for users in selected FSU countries, particularly those from small- and medium- sized enterprises, through established network of Small Business Information Centres. The assistance is conceived to be implemented in three phases as it was recommended by the joint feasibility study undertaken by UNIDC, General Electric and the Institute of Automated Systems in Moscow. The third phase foresees linking of industrial and business information centres/databases of the FSU, East-and Central- Europe and some Asian countries.

***The following completed, on-going and pipeline national projects represent an indispensable and a complementary part of the above project and of the regional programme.***

**HUNGARY**

*TF/HUN/90/904 Computerized information services, education and consultancy for small-and medium-sized companies in Hungary.*

Technical assistance project financed by the U.K. Know-How Fund strengthened the capacity of the Hungarian Central Technical Library to provide business information services to the SMEs.

*XX/HUN/94/XXX Information services for SMEs.*

Follow up project to the above. (presently under consideration in (UNIDO)

**SLOVAK REPUBLIC**

*US/SLO/92/188 Computerized information services, user training and consultancy for SMEs.*

Project aimed at strengthening the capacity of the Slovak Technical Library to provide information services to SMEs. Project cleared by the PPRC, its financing is presently considered by the government of the Netherlands.

#### **KYRGYZSTAN**

XP/KYR/94/068 Assistance to the Research Institute of Scientific and Technical Information (RISTI)

Advisory assistance on strengthening the capabilities of RISTI to provide technical, technological and business information to industries and on linkage with UNIDO/INTIB and other international databases.

XX/KYP/94/XXX Assistance towards the establishment of the international centre for technical and business information.

Follow up project to the above. (Presently considered by the government, which has already adopted a decree on provision of land and facilities for the planned centre and has allocated for 1995 an amount equivalent to US\$ 15,000 for the establishment of the INTIB Focal Point. )

#### **KAZAKHSTAN**

According to the information communicated from the UNDP Office in Alma Ata the government is interested in the technical assistance similar to that provided for Kyrgyzstan.

#### **MOLDOVA**

A network of business centres is planned to be established with the support of EU-TACIS, UNDP and the World Bank. The Resident Representative, during his UNIDO visit in August 1994, has expressed interest in a technical assistance that would in the framework of the above project establish information services for SMEs

**The objective of all these projects is to establish an efficient information network serving the industrial enterprises and enabling an immediate access to any information, within the region as well as worldwide, SMEs might require for their prosperous functioning.**

UNIDO/UNESCO Regional Workshop to be held from 17-19 October 1994 in Budapest, where information and SME specialists from Armenia, Azerbaijan, Bulgaria, Czech Republic, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Poland, Romania, Russia, Slovak Republic, Slovenia, Ukraine and Uzbekistan will discuss and adopt a Plan of Action for expansion of a system of information services for SMEs and for establishment of a network linking the national centres among themselves, should also be conceived as a logical and inseparable component of the overall IRD/INF regional programme in this field.

**In the framework of this programme is also considered a project aimed at designing and developing an information system/network which would enable users at any location of the region to access and obtain all information required for running his business, in the region, or worldwide.** It should be stressed at this point that it is not proposed or intended to create new centres, networks and databases for this purpose. In our view the existing information centres and national/global networks could be utilized. IRD/INF would like, however, to initiate/facilitate co-operation and co-ordination of presently functioning national centres in designing and developing of compatible and harmonized business information databases and information services.

It is assumed that the information should be available in different forms (hard copies, diskettes, CD-ROMs, on-line). The system should provide primary, secondary and referral information. If requested data were not

available the system should indicate where, how and for how much the data might be obtained. A first approach to the above outlined system with a working title IBIS (Instant Business Information System) has been elaborated.

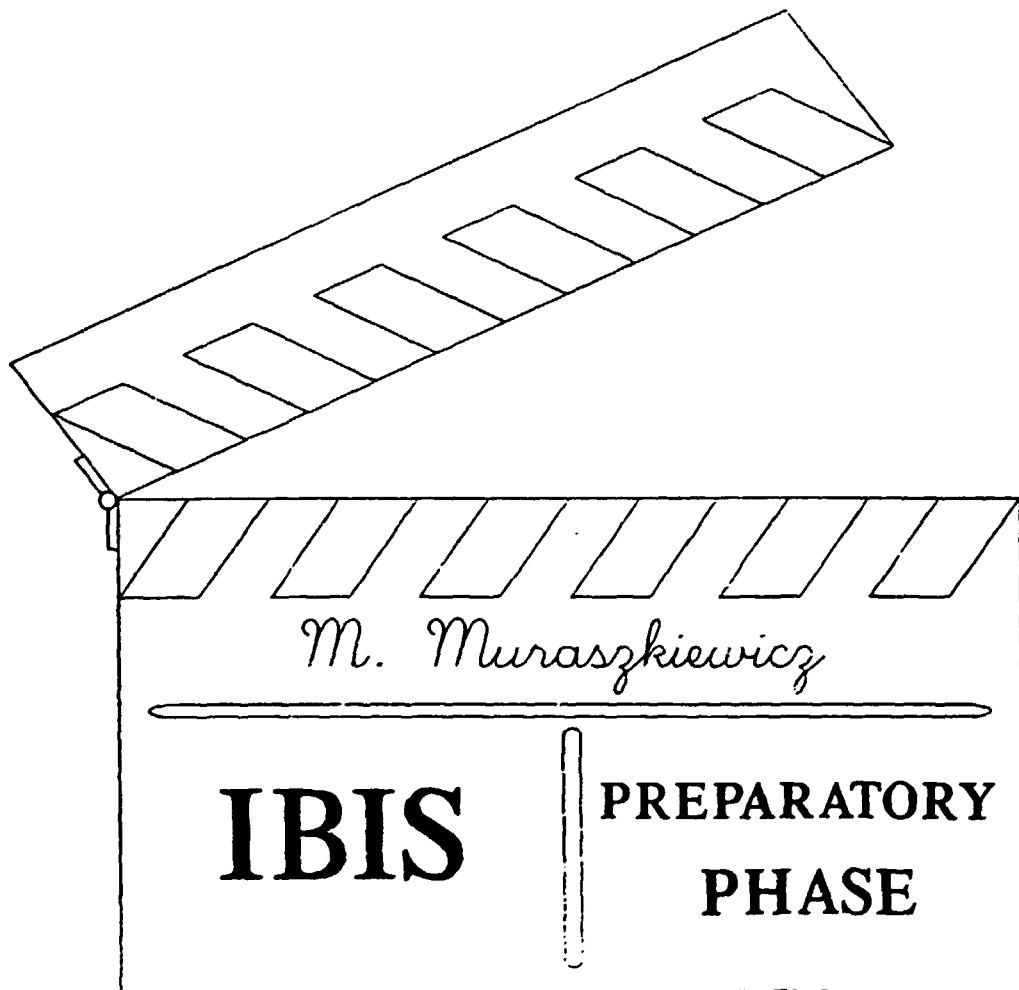
It is anticipated that the Regional Workshop in Budapest will formulate recommendations and a Plan of Action on designing and developing the IBIS and will define the role UNIDO should assume in the co-ordination and harmonization of national efforts in the region.

In elaborating and implementing the technical assistance projects and the outlined regional programme a **close co-operation with other UNIDO organizational units is foreseen in particular with the SME Branch.** Especially close co-ordination would be desirable with their projects aimed at establishing Subcontracting and Partnership Exchange Centres. The role of SPXs, INTIB Focal Points and industrial/business information centres is to collect, process and disseminate information. Therefore the existing SPX offices could in addition assume the functions of information centres and vice versa.

United Nations Industrial  
Development Organization (UNIDO)

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I n s t a n t   B u s i n e s s   I n f o r m a t i o n   S y s t e m



Budapest, 17-19 October 1994

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## Part I

- **Short Information on the Polish Business Information Scene**

## Part II. On IBIS

- **Objectives**
- **Functionalities**
- **Architecture**
- **Implementation Strategy**

## TRENDS

After the breakdown of the centralized information services, positive and negative features have occurred

### *POSITIVE*

- **Growing interest of Polish information concerned agents (companies, R+D, administration, banks, etc.) in information topics**
- **Increasing awareness about the role of information, esp. among SMEs and decision makers;**
- **Better understanding of information acquisition, processing and usage processes**
- **Acceptance that information and information services are commodities and have to be paid**
- **New categories of users shown up**
- **Emergence of new information services, esp. in the business information sector**
- **Highly motivated people working hard for the success of cutting-edge information services**

## ***Negative***

- **The number and structure of information services in Poland, provided by various Polish organizations and/or dealing with Polish topics is relatively small and does not fully meet the growing demand**
- **Electronic information services (on-line, CD-ROM, INTERNET) are still not a commonplace**
- **Legal regulations regarding the production, provision and distribution of information and information services are insufficient and/or obsolete**
- **The Polish information niche is being seized by foreign information agents**
- **Lack of money is a permanent obstacle for faster development of Polish information services**



# **GiGa System**

## **by Business Foundation**

**GiGa will contain**

- **Polish companies database**
- **VAT payers registry**
- **Privatization registry (ventures assigned for privatization)**
- **Transactional Classified Trading Index, the database will contain info on local markets as well as buy-sell offers**
- **Transport services**
- **the Warsaw's Stock Exchange**
- **Foreign exchange ratings**
- **Customs tariffs and other foreign trade charg...**
- **Hotels, Motels, Restaurants, Travel Agencies**
- **Transport timetable**
- **Electronic newspaper**
- **Stolen cars registry**
- **e-mail**

# IBIS Countries

## *Pilot Countries*

- **Czech Rep.**
- **Hungary**
- **Poland**
- **Slovak Rep.**

## *Other Countries*

• • •

## IBIS Objective

**To provide entrepreneurs, businessmen, decision makers, and other users with referral, factual and other type of business related information regarding the Central and East European countries through the establishment of the**

**Intant Business Information System**

**(IBIS)**

## Assumptions

- **Make optimum use of the existing facilities in the countries**
- **IBIS has to be as simple as possible but not simpler**
- **The interested countries have to be involved in the IBIS design, implementation and operation**
- **Basically, information and services are offered at a price within IBIS**
- **Various types of media and access**
- **Standardized, user friendly, modular**

# FEATURES & ARCHITECTURE

## **The major features of IBIS**

- \* **interactive**
- \* **transactional**
- \* **user friendly**
- \* **open to new users**
- \* **modular ("LegoLand")**

## **Access and queries through**

- \* **INTERNET**
- \* **X.25/75 (packet switched networks)**
- \* **phone, fax, telex, mail, in person**

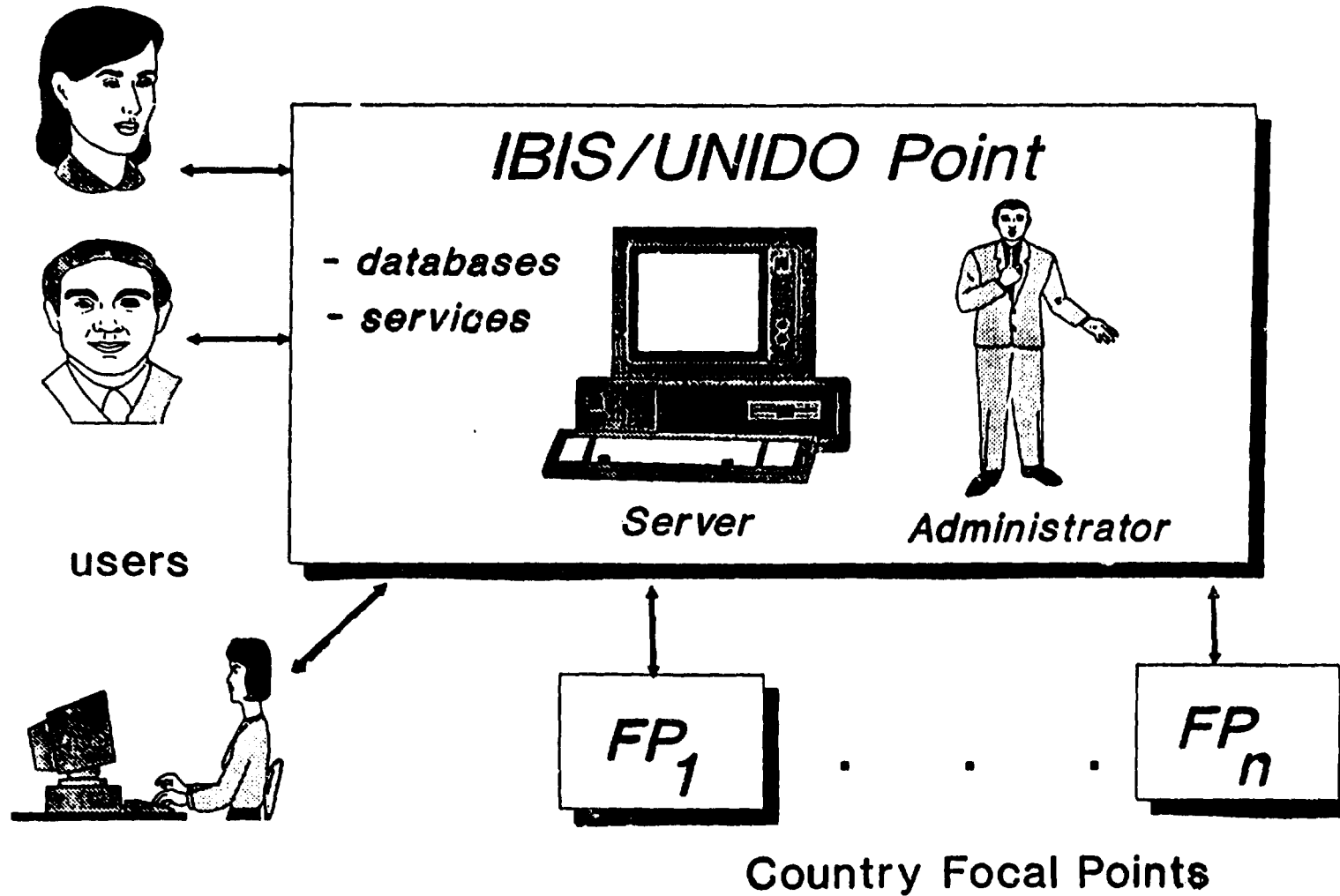
## **Computer Architecture**

- \* **client-server**
- \* **be a part of the INTERNET**

## **Payment Scheme**

- \* **depends on access rights**
- \* **subscription**

# IBIS ARCHITECTURE



# **IBIS**

## **INFORMATION STRUCTURE**

### **IBIS about itself**

- \* **Structure & Services**
- \* **How to Navigate ?**
- \* **What's News ?**
- \* **How to Become a User ?**
- \* **Tutorial**

### **Countries Packages**

- \* **Info about the country**
- \* **Who's Who**  
**individuals, organizations**
- \* **Legal regulations**  
**regarding business, customs, tariffs, etc.**
- \* **Business events (fairs, exhibitions, etc.)**
- \* **Specific databases (to be identified)**

### **UNIDO Databases & Services**

### **Bulletin Board**

### **Trade Blackboard**

**Other .....**

# IBIS STRATEGY

(Methodology: bottom-up; on top of country systems)

## *Preparatory Assistance*

## *Budget*

- 4-6 country reports  
 - Summary report  
 State-of-the-art of business  
 information market in the countries



- IBIS designed and Plan of Action  
 worked out  
 - Seminar

\$ 55 K

\$ 6 K

-----  
 \$ 61 K

## *Implementation*

### *Phase 1*



National Focal Points set up

?



### *Phase 2*

Pilot IBIS set up & operational

?