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**INTIB Energy and Environment
Information System:**
Hungary

July 1992

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INTIB Energy and Environment
Information System:
Hungary

May 1992

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Position:	<u>Director</u>
Date:	<u>7/5/92</u>

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DEMAND FOR ENERGY AND ENVIRONMENT INFORMATION IN HUNGARY

In general, there was a highly sceptical response to the question whether a commercially operating energy and environment information system would be a feasible proposition in Hungary at this time. Hungary is perceived as undergoing a period of transition where environmental issues are of secondary importance to management and decision-makers in companies. It was frequently said that there is an objective need as well as general interest among entrepreneurs, but no demand, particularly if the information has to be paid for. The following quotations, mainly from business organisations, are indicative of the downbeat assessment of this situation:-

Companies are not ready to pay for environmental information. Environmental information is not marketable (CL).⁽¹⁾

We would only expect low levels of demand for the INTIB/EEIS (HCC).

I am certain that VOSZ members would not pay for environmental information. The underlying problem is the lack of managerial skills. There is a need but no demand (VOSZ).

There is currently no demand for commercially provided information in Hungary (EGI).

We have never received any queries concerning technology and environment (KKK).

Environmental considerations are always secondary in Hungary, even though there is interest (OKISZ).

Demand for environmental technology type information is currently constrained by three main factors:-

- Ineffective regulations and enforcement. It is less penalising to pay pollution fines than to make the investment required to comply with environmental and discharge standards.
- The general macro-economic situation. SMEs, like other companies, find their revenues and cashflow severely restrained, while high real interest rates and the general illiquidity of the economy work as factors against investments of any sort. For this reason, R&D budgets have been seriously cut.
- Lack of entrepreneurial skills and education. As a result, entrepreneurs are not used to thinking of environmental investments as a form of investments that brings returns, even if only in the long-term.

⁽¹⁾ For acronyms, see Chapter 3. All quotations are in italics.

However, entrepreneurs do use external information, and are in the habit of seeking (if not directly buying) information from the business organisations contacted. They generally know where to direct their information needs. Most queries to business organisations - as in Western countries - concern the availability of advantageous credits, the preparation of business plans, set-up procedures for companies and offers of and requests for new business partners. *Environment is not a typical question* (OKFI). However, the perceived lack of environmental interest reflects this information awareness of entrepreneurs. Environmental queries are directed to other sources of information:-

There is a definite demand for environmental information. Institutions that provide this type of information, such as the Regional Environmental Centre and the EC Energy Efficiency Initiative, are positively flooded by requests, even if none come to SEED. Technological information is still provided mainly through universities. (SEED)

We receive hardly any environmental queries from our members. This is because they go to institutions that specialise in this field of this kind of information (OKISZ).

Other indications that the creation of a widely available EEIS can build on a latent but existing demand include the following:-

- There is a general perception that the cut of R&D budgets will only be temporary, and that companies urgently need information on Western development and suppliers to 'catch up'.
- OMK perform 800 charged searches for technical information for Hungarian companies per year.
- REC report considerable interest from companies, even if mainly from multinationals and from companies that sell solutions to environmental problems. However, they also said they provide information to Hungarian manufacturing companies. In response to unexpectedly high demand levels from the private sector, they propose to set up a commercial (non-profit) Private Sector Information Service.
- The Local Enterprise Agency visited said they urgently need technical environmental information, which would have helped a local consortium to win a contract for improved wastewater treatment in the local dairy.
- Other organisations said that once entrepreneurs are educated, they will require environmental information and will pay for it, provided it is useful.

Factors that drive this demand, and which will grow in importance, are mainly the following:-

- Companies recognise that a tightening of environmental regulations is imminent, and aim to be technologically proactive.

- Many state-owned companies invest in Western technology before privatisation, to turn themselves into more attractive investments.
- Many technologies and materials usages are objectively sub-standard and inefficient. Decisions for process improvements which would bring about environmental improvements are likely to be supported by the recognition of attractive financial returns on investments that improve process efficiency.
- Many companies are recognising the environment as 'good business'. They seek relevant environmental information and sell it on to end-users. These consultants are important customers of information systems.

UNIDO aims to gain a dominant position as information supplier to a market that is bound to increase sharply over the next 2-5 years. To achieve this, UNIDO should establish the system in cooperation with an institution with some degree of financial stability and hence a medium to long-term outlook. This institution should provide services in an unbureaucratic, flexible way, and be willing to promote the system together with other information and advisory services. Institutions with these characteristics do exist in Hungary, among the associations that have been formed or reformed and whose role is to represent the interest of business.

This consideration affects the role of OMK, the INTIB Focal Point for Hungary, within the system. OMK undoubtedly are among the technically most sophisticated providers of technical information in Hungary. However, their approach to disseminating information is extremely supply-led, and supposes that customers come to them as *the obvious place*, knowing that the information is available within their system. They do little to promote their information resources, and would be unwilling to promote or give prominence to the INTIB/EEIS. My recommendation is to give them open access to the data along the established INTIB communication channels and mechanisms, but to build a parallel system that integrates environmental and business information and which is more likely to reach target customers who do not use the resources available in academic information centres with a predominantly technical outlook.

Once a primary contact point has been nominated and a network been built, the INTIB/EEIS can make use of existing communication channels between second-level contact points and their customer base; most of these institutions are willing to promote the INTIB/EEIS free of charge in their newsletters, videotext facilities and other media. Once entrepreneurs recognise the availability of environmental information in information systems they currently use for other purposes, and the usefulness of this information for their purposes (*a sine qua non*), the system will grow its own market. Once the information is available, it will be used.

Lastly, many interviewees voiced doubts whether companies are willing to buy environmental information, be that because they are not in the habit of buying information, because environmental considerations are secondary to

the question of mere survival, or because there are currently no markets or command-based mechanisms to enforce environmental clean-up investments.

Yet there was a consensus that entrepreneurs are willing to pay for information that is perceived to further their business interests. Doubts about opportunities for providers of environmental information come mainly from organisations who do not provide commercial and/or computer-based information services. Others with experience in this field are far more optimistic about the potential of the proposed information system, and interested in complementing their own, business-orientated systems. In addition, organisations like EGI and OMK already do sell environmental consultancy and information to Hungarian companies.

The environmental information could be priced along with other services provided. Commercial opportunities are mainly perceived in trade and other business associations who almost without exception aim to - and often already do - complement their income from membership contributions by pay-as-you-use services. On the other hand, academic-based information centres will not charge royalties-type fees for usage of the UNIDO information; they treat information as a resource financed through their budget, and charge only if the provision of information involves their own labour. Current prices for information services, where available, are given in Table 3. As an example, a database output of 50 records could fetch \$30-35, a technology offer \$15-20.

The question whether the INTIB/EEIS will be a commercially successful venture within the financial parameters set will therefore be decided not by the willingness or unwillingness in principle of Hungarian entrepreneurs to pay for information, but by the usefulness of the UNIDO information to entrepreneurs and intermediaries.

2

CRITERIA FOR SELECTING FIRST AND SECOND LEVEL CONTACT POINTS

The success of the INTIB/EEIS will hinge on choosing the most appropriate primary contact point for the system. The choice of this focal institutions needs to be made on the basis of an assessment by means of key criteria. These are as follows:-

- Political acceptability to second level contact points (and endusers), and commitment to free dissemination of information.
- Existing expandable network of relevant customers, or capability to build a comprehensive network.
- Existing information handling capabilities.

- Existing information technology infrastructure.
- Experience with UNIDO-type information items (technical information).
- Commitment to environmental issues.
- Commercial interest in information system and financial constraints.
- Existing marketing mechanisms.

Table 1 considers the candidate institutions for the role of the primary contact point by means of this roster of criteria.

Secondly, the INTIB/EEIS needs to build an effective network of intermediaries or second-level contact points who will need to meet the following criteria:-

- Large customer base
- Commitment to disseminating information to their customer base.
- Translation and consultancy capabilities.
- Existing marketing tools and willingness to promote EEIS through these tools.
- Commitment to commercial provision of information services (directly or indirectly).
- Willingness to cooperate with the chosen primary level contact point.

Table 3 considers the candidates for network membership by means of these criteria.

3 **RECOMMENDATIONS FOR NETWORK MEMBERSHIP**

3.1 **CANDIDATES FOR PRIMARY CONTACT POINTS**

There are four serious candidates to become the primary INTIB/EEIS contact point for Hungary.

- Central Library, Technical University
- Hungarian Chamber of Commerce (HCC)

- Hungarian Small Business Administration (OKFI)
- National Technical Information Centre (OMK)

The key advantages and disadvantages of using any of these organisations as primary contact points are shown in *Table 2. Annex B* presents in more details descriptions of these organisations, as well as of other organisations met, and lists key points made in meetings with these organisations.

We recommend that UNIDO use OKFI, the Hungarian Small Business Administration. OKFI is the principal government agency charged with the coordination of SME development and assistance to the SME sector in Hungary. It was set up at the beginning of November 1990 and reports to the Ministry of Industry and Trade. However, it is not part of that ministry but is nominally controlled by an inter-ministerial committee. In addition to its policy making and coordinating function, it also has an executive role.

Currently, OKFI has a staff of about 30 and a total budget of HUF 60m (US\$ 770,000). Of these, 7 staff and HUF 10m (US\$ 130,000) are for information services. OKFI IT infrastructure consists of an AT&T StarServer micro-computer using the UNIX operating system. Within OKFI, there is a LAN with 20 workstations. OKFI have on-line links to Hungarian and foreign users, and operate an information network that receives 300 direct queries per week. In addition, network members hold OKFI information and receive queries which they answer in-house.

The key advantages of using OKFI as primary contact point are as follows:-

- OKFI are widely endorsed as primary contact point by other business organisations.
- Although close to the government, OKFI are a technocratic rather than political organisation.
- The Head of OKFI Information Services, Dr Marko, was the Director of OMK and has expertise in information handling.
- The OKFI mandate includes the provision of business information services to Hungarian companies.
- OKFI information services are currently financed through government funding for the organisation. OKFI therefore has sufficient funds to subsidise the start-up of INTIB/EEIS.
- In the medium term, OKFI plan to provide information services on a commercial basis.
- OKFI is the Hungarian input/output station for the 'hexagonal' country data system and therefore has international data exchange experience and capabilities.

- OKFI recently launched an information network, JOINFO, that functions along the lines of the proposed INTIB/EEIS (ie through currently 50 second-level contact points that are allowed to operate along commercial lines). All network members will be connected on-line to OKFI.
- INTIB/EEIS could be included without much additional costs into the network.

There are a number of disadvantages and uncertainties in using OKFI in this role:-

- The JOINFO system has been operational only since late 1991. Many network members have not yet used the JOINFO facilities, or have reported a scarcity of data.
- The membership of JOINFO is incomplete from the UNIDO point of view. Associations that represent important sections of the Hungarian business community are not members. In particular, the Hungarian Chamber of Commerce has not been invited to join the system, even if its affiliate, KKK, is a member.
- OKFI are principally a policy-making organisation. They might be perceived as too close to the government, and as lacking information handling and technical expertise.
- Government-funding might also mean that SMEs are suspicious of OKFI and might be unwilling to use their services.
- Recognition by other business organisations, particularly those in opposition to the government, might be a problem.

However, after careful consideration of the advantages and disadvantages of using OKFI against those of using the other candidates, OKFI appear the strongest contender for this role.

OKFI are very interested in the UNIDO initiative and would be able to operate along the lines of the proposed INTIB/EEIS. In particular, they gave the following assurances:-

- OKFI have an *open system* philosophy and do not envisage problems with the MicroISIS software used by UNIDO. If conversion is necessary, this can be done by SZTAKI or the Central Physical Institute, to both of which OKFI have good relations.
- OKFI can incorporate the INTIB/EEIS into their system and service it through their JOINFO network and through INFOSYS, a commercial supplier of network services which are used by OKFI on a peripheral basis.

- OKFI are prepared to coordinate the network of second level contact points, and to include other key organisations into the network. In their eyes, the problem is not the exclusion of certain organisations from the network, but the refusal by other organisations to recognise OKFI. However, this conflict potential is less in the case of OKFI than with other candidates, particularly the Chamber of Commerce.
- OKFI are in the process of automating their services and delegating query response functions to network members and subcentres that hold the same information. This will create spare capacity at OKFI which can be used for the INTIB/EEIS.
- OKFI already monitor the usage of their system by means of an administrative block in their software. This block can also be used for monitoring usage of the UNIDO data.

The second most serious contender to become primary contact point is OMK, the INTIB National Focal Point for Hungary. The INTIB/EEIS should be placed within OMK if the data are not considered as unique, and if they should be used in conjunction with other data sources rather than as a freestanding resource. However, if the INTIB/EEIS were placed with OMK (who have access to the data anyway, in their function as INTIB Focal Point), it would not be possible to build a network, adopt a demand-driven and dissemination-orientated strategy, and to promote the INTIB/EEIS as a 'product'. For this reason, it is recommended that OMK be given access to the data but that a parallel, business-orientated network be built around the OKFI resources.

In addition, UNIDO should coordinate closely with the following international programmes:-

- The Regional Environmental Centre Private Sector Business Information.
- The European Commission-funded Hungarian Energy Conservation and Efficiency Centre (HECEC).
- The Hungarian Euro-Info Centre.

3.2

CANDIDATES FOR SECOND LEVEL CONTACT POINTS

The following organisations should be included into the INTIB/EEIS network as second level contact points:-

- National Association of Entrepreneurs (VOSZ)
- Chamber of Commerce and Industry of Hungarian Entrepreneurs (MVK)
- Information Agency of the Ministry of Industry and Trade
- IPOSZ (artisans' association)

- OKISZ (Hungarian cooperatives' association)
- EGI (engineering consultants)
- Chamber for Small and Medium-Scale Enterprises (KKK), the SME organisation within the Hungarian Chamber of Commerce
- Local Enterprise Agencies (LEAs), of which there are currently 11. It is planned to extend the LEA network to all 18 non-metropolitan counties. Most of the LEAs are coordinated by the Hungarian Foundation for Enterprise Promotion (MVA).
- SEED, the Foundation for Small Enterprises Economic Development.

Details of these organisations and their capabilities are presented in *Table 3* and *Annex B*.

UNIDO should seek to involve the three candidates rejected for primary contact point status into the network as secondary contact points. HCC have already agreed to cooperate with OKFI if OKFI are chosen.

The following presents three summary tables:-

- *Table 1 Evaluation Criteria*

Evaluation of candidates for primary contact point and network coordinator by means of the criteria listed above.

- *Table 2 Disadvantages and Advantages*

Summary of major advantages and disadvantages of the candidates for primary contact point.

- *Table 3 Capabilities*

Network and dissemination capabilities of candidates for primary and secondary contact points, describing where available the following items:-

- Customer Base
- Marketing Channels
- Information Services
- Technical Expertise
- Translation and Consultancy Capabilities
- Budget and Commercial Interest.

Table 1
First Level Contact Points: Evaluation Criteria

	Technical University Central Library (TU/CL)	Hungarian National Technical Library (OMK)	Hungarian Small Business Administration (OKFI)	Hungarian Chamber of Commerce (HCC)
Political Acceptability/ Information Policy	<ul style="list-style-type: none"> • Information dissemination mandate. • Politically acceptable/neutral. 	<ul style="list-style-type: none"> • Information dissemination mandate. • Politically neutral but 'old regime' associations. • Say that information sources don't matter for customers; unwilling to promote any one database. 	<ul style="list-style-type: none"> • Widely endorsed throughout Hungarian business. • Perceived as neutral and technocratic even if close to the government. 	<ul style="list-style-type: none"> • 'Old regime' image. • Commitment to free dissemination of information.
Existing/Expandable Network of Organisations	<ul style="list-style-type: none"> • Good contacts but no experience with links to business organisations. • No formal network. 	<ul style="list-style-type: none"> • No formal network. 	<ul style="list-style-type: none"> • JOINFO launched in 1991, as a network of commercial second-level contact points. • Many important organisations are not yet JOINFO members. 	<ul style="list-style-type: none"> • 5000 companies. Access to large sections of Hungarian industry, not only SMEs. 80% of Hungarian output. • Many non-HCC associations unwilling to use HCC services. • Even within their organisation, their role as information supplier is not firmly established.
Commercial Interest/ Financial Constraints	<ul style="list-style-type: none"> • Little commercial interest. • No major budgetary constraints in building INTIB/EEIS into existing systems. 	<ul style="list-style-type: none"> • Little commercial interest. • Willing to charge only if INTIB/EEIS use involves their own resources/ opposed to royalties-type payment to UNIDO. 	<ul style="list-style-type: none"> • Government funding, hence no immediate commercial interest. • Medium-term plans for commercialising information service. • Network members already sell JOINFO information. 	<ul style="list-style-type: none"> • Need to handle all projects as profit-making and want to <i>sell</i> information.

Table 1
First Level Contact Points: Evaluation Criteria

	Technical University Central Library (TU/CL)	Hungarian National Technical Library (OMK)	Hungarian Small Business Administration (OKFI)	Hungarian Chamber of Commerce (HCC)
Information Handling Capabilities	<ul style="list-style-type: none"> • Strong dissemination experience. • Integration of INTIB/EEIS with other information resources. • Ecodome project. • Back-up/consultancy services. 	<ul style="list-style-type: none"> • Strong dissemination experience. • Large menu of databases; multi-database searches. • Supply-side rather than demand-side orientated. • Additional back-up services. 	<ul style="list-style-type: none"> • OMK experience. • Information mandate. • System is currently being built. • Consultancy/translation services in JOINFO member organisations. • INTIB/EEIS could be included without much additional costs. 	<ul style="list-style-type: none"> • Small information system currently being built. • No back-up, translation or consultancy facilities.
Information Technology Infrastructure	<ul style="list-style-type: none"> • Strong technical and computing capabilities; international networking. • 2 VAX 6000. • Active on-line capabilities. 	<ul style="list-style-type: none"> • CD-ROM based information system. • Active on-line capabilities. 	<ul style="list-style-type: none"> • AT&T StarServer, UNIX operation system. • WAN. • On-line capabilities currently being built. 	<ul style="list-style-type: none"> • PC LAN. • CD-ROM facilities.
Technical Information Experience	<ul style="list-style-type: none"> • Obvious place to go for technical information. 	<ul style="list-style-type: none"> • Obvious place to go for technical information. • Sceptical about value of UNIDO information. 	<ul style="list-style-type: none"> • Some JOINFO members have technical expertise. 	<ul style="list-style-type: none"> • None. Current information implied is business information.
Environmental Commitment	<ul style="list-style-type: none"> • Strong (Ecodome Project) 	<ul style="list-style-type: none"> • Medium; environment is one of a number of technical areas. 	<ul style="list-style-type: none"> • Medium: some JOINFO members have environmental expertise. 	<ul style="list-style-type: none"> • None.
Marketing Resources	<ul style="list-style-type: none"> • No formal marketing channels to customers. • No prominence can be given to INTIB/EEIS. 	<ul style="list-style-type: none"> • No formal marketing channels to customers. • Unwilling to give marketing support as customers know where to go. 	<ul style="list-style-type: none"> • Existing links to all SME organisations in Hungary. • JOINFO network with newsletters/regular meetings. 	<ul style="list-style-type: none"> • No established marketing channels to members. • Printing and marketing support would be required from Vienna, as well as financial support.
Network Coordination Capabilities	<ul style="list-style-type: none"> • Not interested in coordinating a network. 	<ul style="list-style-type: none"> • Not interested in coordinating a network. 	<ul style="list-style-type: none"> • Existing network. 	<ul style="list-style-type: none"> • Would have human resources and financial difficulties in coordinating a network.

Table 2

First Level Contact Points: Summary of Key Advantages/Disadvantages

Organisation	Advantages	Disadvantages
Hungarian Small Business Administration (OKFI)	<ul style="list-style-type: none">• Widely endorsed.• Technocratic rather than political organisation.• Director has OMK experience.• Information mandate.• Sufficient funds to allow subsidised start-up of INTIB/EEIS.• Medium-term commercial interest.• Existing network that functions along the lines of the proposed INTIB/EEIS (eg commercially operating second-level contact points).• INTIB/EEIS could be included without much additional costs.	<ul style="list-style-type: none">• JOINFO system operational only since September 1991.• Incomplete JOINFO membership.• OKFI are principally a policy-making organisation, possibly too closely allied with the government.• Government-funding might mean that SMEs might be unwilling to use their services.• Recognition by other business organisations might be a problem.
Hungarian Chamber of Commerce (HCC)	<ul style="list-style-type: none">• Need to handle all projects as profit-making and want to <i>sell</i> information.• Access to large sections of Hungarian industry, not only SMEs.• Supported by HCC governing body.	<ul style="list-style-type: none">• Seek political legitimisation.• Maybe politically unacceptable to many potential second-level contact points. Also, many of the new organisations (MVK, VOSZ) don't have good connections with HCC.• Communication channels mainly with HCC member associations.• Even within their organisation, their role as privileged information supplier is not firmly established.• Printing and marketing support would be required from Vienna, as well as financial support.• HCC information system is small, business-orientated and not yet fully operational; lack of information handling capabilities.

Table 2
First Level Contact Points: Summary of Key Advantages/Disadvantages

Organisation	Advantages	Disadvantages
Technical University Central Library	<ul style="list-style-type: none"> • 'Obvious' place to go for technical information. No need for marketing support • Information sources don't matter for customers. • Technical and networking capabilities. • Integration of information with other information resources. • Commitment to dissemination of information, and strong dissemination expertise. • Additional back-up services • Politically acceptable/neutral. 	<ul style="list-style-type: none"> • No marketing support or privileged data usage can be given to INTIB/EEIS. • No regular communication channels to customers (eg for marketing INTIB/EEIS). • Might take too much on board (in addition to Ecodome project). • Lack of established marketing channels. • UNIDO experience with Director. • Little commercial interest.
Hungarian National Technical Library (OMK)	<ul style="list-style-type: none"> • Customers know where to go. There is no need for marketing support. • Information sources don't matter for customers. • Technical capabilities. • Large menu of databases; multi-database searches. • Additional back-up (translation, information consultancy) services. 	<ul style="list-style-type: none"> • Seek to retain dominant position in Hungarian information market. • No regular communication channels to customers (eg for marketing INTIB/EEIS). • Can't give prominence to INTIB/EEIS in usage or promotion. • Cannot charge for customer searches. • Sceptical about UNIDO information. • Little commercial interest. • Opposed to network concept and unwilling to coordinate a network. • Supply-side orientated. • System is not easily accessible from outside.

Table 3
Network Members: Capabilities

	Customer Base	Marketing Channels	Information Service	Technical Expertise	Consultancy/ Translation	Commercial Interest
FIRST-LEVEL CONTACT POINTS						
CL/TU	<ul style="list-style-type: none"> • 12,000 students; collaborative R&D with industry. 	<ul style="list-style-type: none"> • None. 	<ul style="list-style-type: none"> • Technical information services. 	<ul style="list-style-type: none"> • 2 VAX 6000 computers. • High-speed optical network. • CD-ROM. • Computerised library system. 	<ul style="list-style-type: none"> • Translation, customised information retrieval, document retrieval. 	<ul style="list-style-type: none"> • Little.
OMK	<ul style="list-style-type: none"> • 800 industrial companies/year commission tailored searches. 	<ul style="list-style-type: none"> • None (except for leaflets in library, adverts in OMK bibliographies and abstract journals). 	<ul style="list-style-type: none"> • 1000 charged searches per year. 	<ul style="list-style-type: none"> • CD-ROM facilities. • Computerised library system. • State-of-the art technology. 	<ul style="list-style-type: none"> • Translation, customised information retrieval, document retrieval. 	<ul style="list-style-type: none"> • Little (only OMK labour and special services, on cost recovery basis).
OKFI	<ul style="list-style-type: none"> • 50 JOINFO members. • Government-nominated hub of SME policy coordination 	<ul style="list-style-type: none"> • Monthly network meetings. • Biweekly information packs. 	<ul style="list-style-type: none"> • 7 information staff. • JOINFO business information network. • Hexagonal country databases. • 300 queries/week (direct) and queries to network members (unmonitored) 	<ul style="list-style-type: none"> • AT&T StarServer (2 processors), UNIX operating system. • LAN within OKFI. • Aim at computer-supported on-line network. Currently, only 10 members have on-line access. 	<ul style="list-style-type: none"> • None in-house. • JOINFO members sell tailored information and have back-up facilities. 	<ul style="list-style-type: none"> • Total budget: \$780k (1991). • \$130k budget for information (1991).
HCC	<ul style="list-style-type: none"> • 53 member organisations with 5000 companies, accounting for 80% of Hungarian output. Not only SMEs 	<ul style="list-style-type: none"> • Experimental fax newsheet. • Videotext/Bulletin Board Service. • Meta-database. • No newsletter. 	<ul style="list-style-type: none"> • 4 in-house databases (business information). • 14 information staff. • 1000 queries/month 	<ul style="list-style-type: none"> • In-house LAN. • Potential on-line capabilities. 	<ul style="list-style-type: none"> • None. 	<ul style="list-style-type: none"> • Total budget: \$2.6m (1991). • \$130k budget for information (1991). • Charge \$.30-\$.65 per record retrieved.

Table 3
Network Members: Capabilities

	Customer Base	Marketing Channels	Information Service	Technical Expertise	Consultancy/ Translation	Commercial Interest
SECOND-LEVEL CONTACT POINTS						
VOSZ	<ul style="list-style-type: none"> • 6000 member companies with average of 70 staff, partly organised in 40 branches. Claim to cover 90% of private companies with 70% of output. 	<ul style="list-style-type: none"> • 10 teletext pages with daily bulletin service. • Monthly VOSZ news, free for members. 3-4 mailings to members per month. • Entrepreneurial evenings. 	<ul style="list-style-type: none"> • No information staff. • 4-600 queries/ week, 30% from members. 	<ul style="list-style-type: none"> • Plan on-line <i>business network</i> with 45 peripheral units, connected into BC-NET. This will be accessible to all, not only VOSZ members. 	<ul style="list-style-type: none"> • Business but no technical advisory services. 	<ul style="list-style-type: none"> • Total budget: \$650k (?1991). No information budget. • Commercial services delegated to National Entrepreneurial Enterprise and Trade Centre.
MIT	<ul style="list-style-type: none"> • Open-access/no captive client base. No monitoring of customers. 	<ul style="list-style-type: none"> • Adverts in trade journals, presence at fairs: erratic. 	<ul style="list-style-type: none"> • 2 information staff. • 3 business databases. • 200 queries/ month. 	<ul style="list-style-type: none"> • In-house LAN. • On-line capabilities. 	<ul style="list-style-type: none"> • None. 	<ul style="list-style-type: none"> • Information budget: \$25k (1991). • Charge \$.50/record.
IPOSZ	<ul style="list-style-type: none"> • 286 corporations (by trade and/or regions) with 130,000 member companies, most of them small (3-5, up to 15 staff). 	<ul style="list-style-type: none"> • One monthly, one biweekly newsletter 	<ul style="list-style-type: none"> • 4 information/PR staff. • Currently no information service 	<ul style="list-style-type: none"> • Siemens MX300 with UNIX o/s. • Corporations have 400 PCs but only some LANs. • Plan on-line facilities and 1000-strong nationwide computer network w/in 5-yr timeframe. 	<ul style="list-style-type: none"> • Plan regional computing units with information specialists. 	<ul style="list-style-type: none"> • No revenue-generating activities.
MVK	<ul style="list-style-type: none"> • 1000 members with up to 100 employees and two trade associations. 	<ul style="list-style-type: none"> • Monthly newsletter. 	<ul style="list-style-type: none"> • JOINFO membership. • Considering joining additional INFOSYS business services. 	<ul style="list-style-type: none"> • Considering INFOSYS WAN or radio-based system. 	<ul style="list-style-type: none"> • Regional computing centres with information specialists. 	<ul style="list-style-type: none"> • No revenue-generating activities.

Table 3
Network Members: Capabilities

	Customer Base	Marketing Channels	Information Service	Technical Expertise	Consultancy/ Translation	Commercial Interest
EGI	<ul style="list-style-type: none"> •Consultancy customers (eg Hungarian SMEs for energy efficiency business). 	<ul style="list-style-type: none"> •Advertising in trade journals/no in-house channels. 	<ul style="list-style-type: none"> •No information services apart from consultancy services. 	<ul style="list-style-type: none"> •Preexisting PCs run on EGI-developed software. 	<ul style="list-style-type: none"> •Technical/env'l consultancy skills but sceptical about UNIDO information. 	<ul style="list-style-type: none"> •Profit-orientated (privatisation!)
KKK	<ul style="list-style-type: none"> •150 SME members that are also HCC members. •Impact beyond their immediate membership. 	<ul style="list-style-type: none"> •Biweekly newsletter. 	<ul style="list-style-type: none"> •7 staff in associated information co. •In-house business database. •200 queries/month. 	<ul style="list-style-type: none"> •In-house LAN. •On-line facilities. 	<ul style="list-style-type: none"> •None beyond business capabilities. 	<ul style="list-style-type: none"> •Charge \$.30/record, \$15.5/partner offer.
REC	<ul style="list-style-type: none"> •NGOs and business throughout CEE, accessed through RECnet. 	<ul style="list-style-type: none"> •Quarterly newsletter. 	<ul style="list-style-type: none"> •Clearing-house/referral system under development. •Plan Private Sector Information Service. •CEDAR. 	<ul style="list-style-type: none"> •In-house LAN. •On-line link to CEDAR/Vienna for access to int'l databases. 	<ul style="list-style-type: none"> •In-house and access to external expertise in all areas. 	<ul style="list-style-type: none"> •Currently no revenue-generating activities.
OKISZ	<ul style="list-style-type: none"> •760 cooperatives (out of 2,500 in the country), with 10-100 members, organised in 19 district and 4 professional federations. Membership includes many industrial coops. 	<ul style="list-style-type: none"> •Videotext •Biweekly newsletter. 	<ul style="list-style-type: none"> •2 staff for videotext input. •Business information services. •100 queries/week. 	<ul style="list-style-type: none"> •IBM compatible PC network, linked to 20 member organisation. •JOINFO membership. 	<ul style="list-style-type: none"> •Some technical expertise and translation facilities. 	<ul style="list-style-type: none"> •Total budget: \$1.3m (1991). •Information budget: \$130k (1991). •Information services free to members and charged on non-profit basis to non-members.

Table 3
Network Members: Capabilities

	Customer Base	Marketing Channels	Information Service	Technical Expertise	Consultancy/ Translation	Commercial Interest
LEA (Szolnok)	•Potentially all companies in Szolnok county but to date contact with only 50 companies.	•Newsletter •Sub-regional offices.	•2 information staff (out of five) •International partner-matching. •Building database of all companies in the county.	•Part of SZUV network and on-line link to Italy.	•Mainly business expertise, some translation facilities.	•Information services envisaged to fund LEA activities.
SEED	•300 small and micro consultants and Hungarian SMEs	•Occasional mailings to consultants registered with SEED	•None	•PCs	•Business expertise	•None

During the series of meetings in Hungary, a number of important points were made that should be considered by UNIDO:-

Format of Information

- Information should be provided in Hungarian. As a minimum requirement, summary of records should be in Hungarian. It is therefore important to insist on translation and data interpretation capabilities within the network. These can be charged to information users.
- Full-text information back-up is required.

Medium of Dissemination

- Hungary has a number of small but expanding videotext systems, both in the public and private sector. OKFI and other organisations use the system to inform about their services, and provide bulletin board services (BBS). Videotext is considered an effective medium to convey relevant information to business users. UNIDO should suggest that existing videotext facilities in primary and secondary network members be used to inform potential users of the availability of the UNIDO information, and make use of BBS facilities for technology offers and requests.

Requirements for Primary Contact Point

- To minimise the risk of the UNIDO information being used as a political tool, open access to the information to all potential users and audit procedures should be written into the contract.
- UNIDO should insist that all suggested second level contact points be approached for participation in the network.

Euro-Info Centres

- The European Commission is setting up an Euro-Info Centre (EIC) which will deal primarily with regulatory and legislative issues. MVA is currently receiving tenders from Hungarian companies and organisations to act as EIC. The selected organisation must have characteristics similar to those of the INTIB/EEIS primary contact point. In particular, it must have a network or capability to start a network, and should be open to deal with LEAs. There are only three serious contenders for this role:-
 - OMK
 - HCC
 - OKFI

It will be stipulated that EICs should not be levers of power, eg by serving only regular members. Indiscriminate access to EIC resources will be written into contracts.

System Logistics

- The system should start up in Budapest which has the highest concentration of SMEs in absolute and relative terms, as well as the best information infrastructure. Local partners should tap in as soon as the system is up and running.
- Finally, it was suggested that UNIDO nominate more than one focal point, for instance OKFI and HCC and/or a private sector provider of networking services who if nothing else would be highly effective in marketing and commercialising the information. However, for reasons of logistics and political considerations, this should be a last resort solution, to be considered only if UNIDO and the nominated primary contact point fail to convince key organisations to become network members.

Annex A
Schedule of Meetings in Hungary

**UNIDO Energy and Information System
Annex A: Meetings held 21-24 April 1992**

Tuesday, 21 April 1992

Mr Vasarhelihy
Director
Central Library, Technical University

Tamas Koltai
Head of Information Department
Hungarian Chamber of Commerce

Wednesday, 22 April 1992

Eamon Croke
Technical Assistance Unit
Hungarian Foundation for Enterprise Promotion (MVA)

Dr Peter Szirmai
Co-Chairman
National Association of Entrepreneurs (VOSZ)

Thursday, 23 April 1992

Dr Andras Vertes, Director
Nora Esti
Economic Research Institute

Szilard Solit, Head, Department of External Economic Affairs
Katalin Farkas, Head, Information Agency
Ministry of Industry and Trade

Janos Fekete, Head of Training
Peter Racz, Head of Information Department
IPOSZ

Friday, 24 April 1992

Dr Miklos Bene, Secretary-General
Chamber of Commerce and Industry of Hungarian Entrepreneurs (MVK)

Mr Janos Sudar, Multilateral International Relations
Ministry of Environment and Regional Policy

Dr Imre Marko, Head of Department Networking
Hungarian Small Business Administration (OKFI)

Tuesday, 28 April 1992

Dipl.-Eng. G.B. Wenzel, Divisional Director

Zoltan Lontay, Project Manager
EGI Contracting/Engineering

Mrs Lazlone Lazkovich, General Secretary
Ms Andrea Hubay, Chief Executive
Chamber of Small and Medium-Sized Enterprises (KKK)

Peter Szanto, Director
Hungarian Central Technical Library (OMK)

Mr Rasvan-Teodor Negoita, Information Resources
Regional Environmental Centre for Central and Eastern Europe

Wednesday, 29 April 1992

Mr Zoltan Bitto, Director
Mr Andras Kemerli, Marketing Manager
Hungarian Industrial Association (OKISZ)

Dr Lazlo Lafferton
Szolnok Local Enterprise Agency

Monday, 04 May 1992

Peter Nagy, Director
Foundation for Small Enterprises Economic Development (SEED)

Dr Imre Marko, Head of Department Networking
Hungarian Small Business Administration (OKFI)

Mr Pal Endrody, Managing Director
RAXON Informatic and Commercial Ltd

Tamas Koltai
Head of Information Department
Hungarian Chamber of Commerce

Ms Ferencne Printz
INFOSYS National Information Network Foundation

Annex B
Minutes of Meetings in Hungary

The following presents notes from meetings held in Budapest and Szolnok between 21 April 1992 and 4 May 1992, with the purpose of identifying candidates for participation in the proposed INTIB Energy and Environmental Information System, both at primary and secondary level. The meeting notes are presented separately for candidates for primary and secondary contact points and other organisations. Within these groups, they are given in chronological order.

1 CANDIDATES FOR FIRST-LEVEL CONTACT POINTS

1.1 CENTRAL LIBRARY, TECHNICAL UNIVERSITY

General Information

- The Central Library is the second biggest technical library in Hungary, after the National Technical Library (OMK). They claim they focus on more expensive and higher quality information sources than OMK. They teach in Hungarian, English and German, recently joined the network of French-speaking universities and have hexagonal country links.
- Mr Vasarhelihy, the Director, has a UNESCO-background. He is also Director of SZTAKI, the Computer and Automation Research Institute of the Hungarian Academy of Science. SZTAKI has ISIS capabilities.
- They think they are the ideal focal point: *we know everyone involved. It is our common purpose to disseminate and make the best possible use of information.*

Motivation

- Free dissemination of information is their mandate.

Political Acceptability and Information Policy

- Perceived as a neutral organisations. Endorsed by MVK, VOSZ who were aware of the new VAX computer in the University of Economics which will be accessible to CL via optical cable, and by ERI who said they are *good from the technical information side*. They say they are willing to supply information to whoever needs it.

- They see themselves as the interface between data and customers, assisting in information retrieval (information consultants).

Technical Infrastructure

- Two VAX 6000 computers. They are part of a high-speed optical network that is currently being created. They have a computerised library system and on-line capabilities (x.25 lines, part of the Government information infrastructure programme).
- Capabilities will be strengthened by ECODOME project with environmental data exchange network to promote environmental and clean technology (see below).
- CD-ROM interest.

Information Handling Capabilities

- They define themselves as the interface between data and data users.
- In-house information consultancy capabilities (eg for information retrieval and translation).
- Mutual access to university network databases. Other organisations can access their databases directly.

Existing Customer Network and Marketing Channels

- Mainly for teaching (12,000 students) and research. Contact with industry seems restricted to companies which undertook collaborative R&D with the Technical University. They say that through such R&D, they have close links to companies (the *technical elite*).

Experience with UNIDO-Type Technical Information

- High. They are also very interested in getting INTIB databases on their computer, and say that they have in the past provided input to INTIB databases.

Commitment to Environmental Issues

- Environment is an area of major interest to them.

Commercial Interest

- Little.

Perception of Demand

- *Companies are not ready to pay for environmental information. Environmental information is not marketable. Currently, R&D budgets are decreasing but this is a temporary problem.*
- *Information should be provided in Hungarian.*
- *Full-text information is required.*

Ecodome Project

Situated on Csepel Island south of Budapest; part of the Expo '96 programme, including also a business park and incubator units. It is funded by the UK Government, EIB and IFC. There will be a computer centre for satellite images, and World Ecology Centre. The project will include an environmental data exchange network to promote environmental and clean technology, and on-line database services. It aims to make available relevant UN databases and integrate them with own information. The range is Europe-wide.

1.2

HUNGARIAN CHAMBER OF COMMERCE

General Information

- *They are keen at highest level to undertake the task if UNIDO can provide sufficient marketing support. They see sound financial arrangements and a preparation period (software, training) as key success factors. They would also be happy to work with OKFI but asked whether it is possible to have more than one focal point, possible one institution and one private company.*
- *Total budget: HUF200m (GBP1.5m; 1991), HUF250m (GBP1.9m; 1992). Sources of funds: Membership fees 25%, payment for services (mainly certificates of origins for foreign trade) 75%.*
- *Fees: Fixed sum plus % of annual turnover above a fixed floor. 25% goes to HCC, 75% to regional chambers/associations.*

Motivation

- *Legitimation. They are looking for a new role and function.*

Political Acceptability and Information Policy

- *Acceptability is questionable. HCC are considered by many organisations as a remnant of the old system. They are politically in opposition. Many of the new organisations (MVK, VOSZ) don't have good connections with HCC.*

- However, they consider themselves more professional and *in focus* than VOSZ; and they don't have a policy of supplying information only to members. The problem would be rather to convince other organisations to come to HCC for information.

Technical Infrastructure

- In-house PC-based LAN with a number of company databases. They are currently building up on-line capabilities. They have CD-ROM capabilities but cannot magnetic tape.
- Access to x.25 lines/on-line but usage is too expensive. They prefer local access/downloaded information. Their network is accessible by phone but this service is experimental and has not yet been used; they have not yet sold passwords and rights of access.
- 4 main in-house databases:
 - 1 HCC members (companies/organisations/interest lobbies)
 - 2 Company profiles (for external use); bilingual, with search filters. 4,900 records.
 - 3 Multilingual company database, considered the best in Hungary with 45,000 records.
 - 4 Ministry of justice periodicals (company registrations) reference on ISIS.

They also have some general information databases with *lexicons* and searchable by key-words.

Information Handling Capabilities

- Cost of information services: HUF4m (GBP 30k; 1991). Information investments; HUF6m (GBP45k; 1991).
- Information department has 6 staff, customer service department 8.
- They handle 1000 queries per month which arrive mainly by letters and phone.
- Fax service and fax newssheet. This will be a subscription service because they have *reached the limit of what we can afford*.
- There is no newsletter, and they have problems with translating information into Hungarian. A direct mailing to all 5000 members costs HUF100k (GBP 750).
- Small bookshop and library.

- Three principal outputs
 - 1 Company information
 - 2 Partner matching
 - 3 Membership information

Existing Customer Network and Marketing Channels

- Their direct members are 53 trade associations and regional chambers of commerce who in turn have 5,000 company members who account for 80% of total national output. Number of direct and indirect members is increasing.
- Supposedly there is no direct communications between HCC and individual members but there some informal links (eg direct mailing).
- Information handling is not regulated in the memorandum of association but they are dealing with this through their governing body. Currently, some regional chambers and trade associations also provide information services so that they are competing with their members.
- Foreign business offers are fed into a Business Bulleting Service (BBS) through a private company who would probably be happy to take on the EEIS, and would be highly effective in marketing the system. BBS works on a pay-as-you-use basis is therefore more appropriate than videotext which works on a subscription fee.
- Videotext currently has only 300 subscribers in Hungary (PTT system). HCC also use videotext (<10 pages), through a company called Muszi who make updates.
- HCC are currently compiling a meta-database to which UNIDO or OKFI would need to provide information. This will be available online through ASZSZ (computer services for state administration, previously concerned with census and other statistical issues), and in hard copy and on floppy disk through HCC. There will be a nominal subscription fee.
- *If the information is really useful, there is no use for marketing.*

Experience with UNIDO-Type Technical Information

- None.

Commitment to Environmental Issues

- None.

Commercial Interest

- Currently small charges for business information so'd (HUF24 per label for non-members; direct and indirect members receive a 50% discount. CD-ROM data cost HUF50. They give quantity discounts).
- They don't achieve cost recovery but had a good year in 1991 and could invest in information equipment.
- Very high commercial interest. Due to budget limitations, they need to handle all projects as profit-making. However, they would need considerable financial and technical help in marketing the EEIS.

Perception of Demand

- They expect low levels of demand.

1.3

HUNGARIAN SMALL BUSINESS ADMINISTRATION (OKFI)

General Information

- OKFI have a staff of 30, and a total budget of HUF 60m.
- Dr Marko is Director of the Information Department and was Director of OMK (National Information Centre).
- OKFI are organising a conference in Budapest of ESMU (European Small and Medium Enterprises Union), in June 1992, jointly with MVK, OKISZ and KKK. OKFI will give a presentation of JOINFO, their information network. *UNIDO should have a stall there* and present the EEIS.

Motivation

- OKFI aim to build a professional, widely accepted information network that reaches SMEs. The new system has been recognised as a necessity because existing information systems are based on individual ministries and were used mainly for internal purposes.

Political Acceptability and Information Policy

- High. Staffed by technocrats, aiming to overcome the departmentalisation of information systems in Hungary. They aim to provide a valuable, general SME information service.

Technical Infrastructure

- Computer resources: AT&T StarServer (2 processors), UNIX operating system. LAN within OKFI (Novell software; 20 workstations), otherwise WAN. They aim at a computer-supported on-line network. Currently, only 10 members have on-line access, other queries come via PTT channels.
- Information needs include sourcing, processing and the organisation of databases. Putting a system in place is more important than automation.
- Dr Marko has experience with Microsis and says their system can use it (*open system philosophy*). If conversion is necessary, this can be done through SZTAKI or the Central Physical Institute, to both of which they have good links.

Information Handling Capabilities

- Information handling department has a staff of seven (one secretary, 2 data collectors, 2 computer technicians, 2 information service staff). This is too small for their ambitious plans.
- Information budget in 1991 was HUF 10m (to set up LAN/WAN). Future investment plans include Oracle database software (HUF 5m), stabilised electricity supply (HUF 3m), laserprinters, CD-ROM and x.25 facilities. They have applied for hexagonal moneys.
- OKFI are the Hungarian input/output station for the hexagonal countries databases (country, assistance companies = JOINFO members, entrepreneurs willing to cooperate), developed and supported by Italian ICE.
- Usage levels: 300 direct queries per week (to OKFI). JOINFO members also have information on floppies but usage levels are not monitored centrally. In the long term, they aim at on-line answers to standard queries (credit, partner matching, investments, company registrations, free capacities) and personalised answers/direct consulting service for more complicated queries.
- Increase in number of queries would be compensated by increasing automation of the system, and by the creation of on-line connected subcentres.
- Monitoring of data usage currently happens through an administrative block in their software. They say they have to know how their information is used.
- No use of commercial external databases other than the INFOSYS network.

Existing Customer Network

- OKFI operate JOINFO, an integrated two-way information system (Private Business Information Network) with European links (including Eastern Europe, Ukraine, Russia) which might host the EEIS or in any case should be a second level contact point. This network is built along the lines of the EEIS proposal, with commercially oriented second-level contact points who sell the information. It is to provide a *living connection with entrepreneurs*.
- It has c50 members (mainly consulting companies) which function as interface to end-users. Many of the most relevant organisations are not members of JOINFO. OKFI consider their members as end-users but they further disseminate the information. They are prepared to include other key organisations and serve them through JOINFO and INFOSYS.
- They are happy to expand and coordinate the network. Recognition of OKFI as an appropriate focal point might be a problem. However, HCC said they would be happy to participate.
- Members have (or should have) information specialists to translate and tailor information.
- Data sources:
 - 1 JOINFO network and information collected through groups within OKFI.
 - 2 Government information.
 - 3 Hexagonal country databases.
 - 4 ICE<--external databases.
 - 5 INFOSYS<--external databases.
- Network organises monthly meetings and sends biweekly information packets.
- OKFI are sometimes perceived as failing to reach their target customers as they are government-funded.

Experience with UNIDO-Type Technical Information

- None. Most queries concern credit, business plans or set-up procedures for companies.

Commitment to Environmental Issues

- None.

Commercial Interest

- JOINFO information is currently free but long-term commercial interest. Second-level contact points already sell the information provided to them by OKFI on floppy disks.

Perception of Demand

- Most queries concern credits, business plans, set-up procedures for companies. Environment is *not a typical question*. There is a definite interest in environmental information, but environmentally compatible production is not a priority. R&D has virtually stopped, and most new entrepreneurs are in the service sector. The macro-economic situation determines entrepreneurs' interest in technology. He was highly pessimistic about the prospects of industry in Hungary.
- OMK would be a better place for technical information. However, they are in crisis because no-one needs this information.

1.4

HUNGARIAN CENTRAL TECHNICAL LIBRARY (OMK)

General Information

- Mr Szanto was rather aggressive, talked down the use of OKFI, HCC or similar organisations as unqualified to provide information services of any type, and did not give much concrete information.
- OMK is the INTIB NFP. They are very keen on taking the EEIS system on board but only *if databases are free of charge*; they would then solve the charging problem. However, they do not want a network coordinating function (*For me, they are just customers*).
- The gist of their argument is that unless EEIS is truly unique and comprehensive, it should go to them so that they can co-search with other databases. However, the INTIB/EEIS would then not be a special product. No harm would therefore be done in letting them have the INTIB data but building a separate network.
- OMK is strongly endorsed as EEIS focal point by MIT but seen in crisis by OKFI (dissemination issues); however, the OKFI person was a former director of OMK and is probably biased.

Motivation

- Struggle to retain their dominant position in the information market.

Political Acceptability and Information Policy

- Commitment to free dissemination of information. Considered as neutral but also as part of the old, departmentalised set-up.

Technical Infrastructure

- CD-ROM orientated information system.

Information Handling Capabilities

- IDA on magnetic tape but it is never used. They say that once it is downloaded, no-one knows it is there.
- OMK answer INTIB network requests from other countries. Requests from Hungary would be addressed through recourse to UNIDO databases but this is seldom done. *Up to now, there have been very few queries to INTIB, but INTIB is getting more organised and more useful.*
- Additional services include translation facilities and primary document delivery.

Existing Customer Network and Marketing Channels

- There are about 1000 charged searches per year, of which 80% come from industry, R&D and management (the *technical intelligentsia*), 20% from education. Their business customers are all Hungarian companies.
- No marketing other than leaflets in the library. They see no point in having INTIB/EEIS marketing materials as customers are not interested in the source of information: *You have to think in the mind of the customers. Therefore, we have no time or money for promoting any one database.* In the end, they offered to have INTIB leaflets and to place adverts in their own publications (bibliographies, abstracts journals).

Experience with UNIDO-Type Technical Information

- They see themselves as the obvious point for technical information in Hungary: *Everyone who needs to search can come to us. It is obvious that they come here.*

Commitment to Environmental Issues

- One of a number of technical areas covered.

Commercial Interest

- They do not charge for INTIB information.
- In principal information services are provided free of charge unless OMK incurs labour costs (eg for tailored searches). Off-line prints, mailing and translations are also charged extra. No royalties could be charged on the use of UNIDO databases.

Perception of Demand

- Despite their 'hand on the pulse' of information demand in Hungary, they do not consider demand-side questions. Their approach is entirely supply-side led.

2.1

NATIONAL ASSOCIATION OF ENTREPRENEURS (VOSZ)

General Information

- Umbrella organisation for private sector business; competitor organisation to HCC. Founded 20 February 1988. VOSZ cover larger companies than SME organisations.
- Membership fees are HUF10,000 pa (GBP75k) of which 30% go to branch. Total budget was HUF3m (1991) but there is a discrepancy somewhere (should be closer to HUF50m). No other budgeted income but occasional grants from Hungarian Trade Fund.

Customer Base

- 6000 direct (private sector) members, mainly medium-sized and 26 regional/12 professional branches. Members choose whether they want to be branch members (50% are branch members). Membership organisations can be created at the initiative of members. Average size of member companies is 70 staff. 30 associate organisations.
- Claim to cover 90% of private sector companies, with 70% of output and staff.
- President, 3 Co-Presidents, 15 other Board members, all elected. Main function is representation. Some administrative staff.
- 60-member Assembly (with 1 or 2 members from each member organisation)

Information, Translation and Consultancy Capabilities

- Member database
- 6 or 7 branches are computerised, with company/business information on disks from the centre.
- Information services are delegated to the National Entrepreneurial Enterprise and Trade Centre.
- They receive 4-600 letters per week, 30% from members.
- Over the next 12 months, VOSZ plan an on-line *business network* with 45 peripheral units, connected into BC-NET. This will be accessible to all, not only VOSZ members, but VOSZ do the feasibility study. The Network will cover needs and capacities, company information, regulatory and impex information. They have not thought of environmental information.

It is Government of Italy funded (soft loan for purchase of Italian equipment), and will be an independent legal entity/non-profit business. Connection to focal point is technical issue but probably feasible.

Marketing and Promotion of EEIS

- 10 teletext pages with daily bulletin service.
- Monthly VOSZ news, free for members. 3-4 mailings to members per month.
- Entrepreneurial evenings (8 in March 1991 with 100 participants each).

Commercial Interest

- They provide no business services (eg contacts) but channel requests through the recently founded Enterprise and Trade Centre.
- NAEIETC provides computerised business partner seeking system (impex, JVs etc; CONTACT programme) plus legal, accounting, insurance, credit, taxation, book-keeping and market advisory services.

Perception of Demand

- Not SMIs but joint ventures are the environmental problem. SMIs are the wrong focus as there are very few medium-sized companies and small-scale companies are in the service sector.
- He was certain that VOSZ members would not pay for environmental information. 'Proof' is that the proposed environmental protection fee (*on top of total company taxation of 70%*) will not work. The underlying problem is the lack of managerial skills. *There is a need but no demand.*
- Low level of R&D investment in the private sector.
- However, the existing information networks (eg MIT, OKFI) do not reach the private sector.
- He was *optimistic* that the Government would be supportive of the initiative in its efforts to make Hungary a Eastern European subcentre.

General Assessment

- Useful as second level contact point (but doubtful that they would cooperate with HCC).
- Good marketing mechanisms.
- Considered as very political and rather small in pragmatic terms (Their Director is VOSZ. VOSZ are the *Government favourite* (Ministry of International Economic Relations)).

General Information

- MIT has an environmental department but does not provide environmental information.
- They themselves cannot serve as focal point for the EEIS, for political reasons, but are interested in a CD-ROM product.
- They are interested in becoming part of the EEIS network (second level contact point).

Information, Translation and Consultancy Capabilities

- The Information Agency within MIT was established in 1991, has 2 staff and a budget of HUF 1-2m.
- They have 3 databases with industrial (technical/company and business) and statistical information, sourced in-house and from CSO:
 - 1 List of companies
 - 2 Catalogue of companies
 - 3 Products/ exports/imports.
- They receive 200 queries per month from companies (industry, financial companies). Queries are for business information.
- They have on-line capabilities (through the telecommunications network) and an in-house network of over 50 PCs.
- They also publish economic bulletins, mainly for MIT use.

Marketing and Promotion of EEIS

- They have no computerised list of customers.
- The Information Agency is advertised through adverts in journals and books, in trade fairs and through personal contacts.

Commercial Interest

- Prices are nominal, eg HUF100 for a book-type output, HUF40/label.

*IPOSZ**General Information*

- IPOSZ is the Hungarian Association of Craftsmen, corresponding to the German *Handwerkskammer*. They are an NGO with a clear function and structure.
- They are interested in the EEIS for reasons of political legitimisation. They were very keen on selling themselves to UNIDO as focal point for Hungary.

Customer Base

- IPOSZ organises 286 corporations (by trade and/or regions) which in turn have 130,000 member companies, most of them small (3-5, up to 15 staff). Few of these are likely to require environmental information.
- IPOSZ has a clear structure and could guarantee the wide diffusion of the EEIS.

Commitment to Free Dissemination of Information

- They would be more acceptable as the focal point than HCC. They see themselves as politically neutral but there is also a perception that they are promoting now what they previously had to suppress.
- They could guarantee open access to all users.

Information, Translation and Consultancy Capabilities

- No information system. Corporations have 400 PCs but only some LANs.
- They plan to improve their information system and creating a 1000-work stations nationwide computer network is among their major aims. This will come about within a 5-year timeframe.
- They have acquired a Siemens MX300 minicomputer which can support 300 workstations simultaneously. Multiprocessing/multitasking facilities on UNIX/SIENIX operating system. The computer has excess capacity.
- 1 information person, 3 PR persons (out of 46 IPOSZ staff).
- Providing information is becoming an increasingly important part of IPOSZ activities.
- The new system will also connect on-line (through DAFFEY) with the *Zentralverband der deutschen Handwerkskammern*. They could also access other systems in Hungary.

- No experience with UNIDO-type technical information or with environmental issues.

Marketing and Promotion of EEIS

- Current outputs: 2 newspapers (one monthly, one weekly) with business and political information and IPOSZ activities that go to the corporations in multiple copies.
- They plan for 5-6 regional computing units with information specialists.

Commercial Interest

- They currently have no revenue-generating activities but aim to introduce them after the change of status to a Chamber.
- In the long term, information will be sold. There will be open access to all users.

2.4

CHAMBER OF COMMERCE AND INDUSTRY OF HUNGARIAN ENTREPRENEURS (MVK)

General Information

- Founded in 1991, they seek to represent *real entrepreneurs*. MVK is an alliance of autonomous organisations.
- They consider themselves as independent but are MDF-oriented, stress their links and good contacts with the Government (they have several MPs as members), seek to influence the legal and governmental environment of enterprising (eg leasing privatisation programme), and work actively in the reformulation of the Law of Chambers.
- Members elect an assembly which elects a presidency (20+1 members) that meets in monthly intervals and includes 4 MPs.
- In the longer term, they seek membership of the Hungarian Association of Chambers, and aim to pursue a long-range chamber activity of the West European type.
- MVK have close links to OKFI, OKISZ (cooperatives) and the HCC/KKK which covers the same kind of companies, but not with HCC.
- MVK are the Hungarian partners of the Europartner conference in Thessaloniki/Greece, and co-organisers of the ESMU conference in Budapest in June 1992.

Customer Base

- 1000 members with up to 100 workers, including also a couple of corporations (opticians, small farmers).
- They are relatively small but strong in the provinces (not in Budapest). They aim at an integrated national network, and are already organised by counties. MVK are quickly building up an organisation and are recruiting heavily.

Commitment to Free Dissemination of Information

- MVK pay special attention to the development of entrepreneurial skills in Hungary.

Information, Translation and Consultancy Capabilities

- Central office represents members' interests, and offers legal, customs and taxation advice, business information, contacts with foreign markets and company information.
- No information systems yet. They are considering an offer by INFOSYS. With INFOSYS, there will be one computer centre per 250 members, constituting a nationwide phone-based computer network. INFOSYS is independent of MVK. The system will have business news (eg tenders, selling and buying).
- They are also looking at a radio-based system although the technology might not yet be feasible in Hungary

Marketing and Promotion of EEIS

- Monthly newsletter.

Perception of Demand

- Did not give the impression that there is any demand for ET/CT information. Entrepreneurs need to be educated which will create demand. Nevertheless, he said that companies do want environmental information and will pay for it.

General Assessment

- Consider themselves too small to be a constructive EEIS member.
- Should be second-level contact point. They think the EEIS should be with OKFI (JOINFO), or else OKISZ or the Central Library of the TU (in that order).

General Information

- EGI are a medium-term research centre and were an ENCONET project office, focusing on energy efficiency and aiming to act as a *catalyst* on energy efficiency issues.
- They are to be privatised but insisted that they won't be broken up (this is not true).
- CEC are setting up an energy and technology transfer centre (HECEC; contact Ian Brown, DG XVII; DG I seem to be also involved).

Customer Base

Five divisions with specific customer structures:-

- Drycooling large foreign power stations
- Power Engineering Hungarian power plants
- Energy Efficiency Hungarian SMEs, local and central government, foreign customers
- Coldstores foreign food manufacturers
- Environment Hungarian industry and government

Information, Translation and Consultancy Capabilities

- EGI have data on over 100 projects carried out over the past five years (most of these were fed into ENCONET).
- In-house databases with 40-50 *experiments*, and on Hungarian energy consumers (industrial and agricultural companies, public institutions, power plants; energy contacts; energy efficiency manufacturers and service companies) and some information on foreign energy efficiency manufacturers.
- No EGI-wide PC network. Some departmental networks (eg for CAD) but mostly freestanding PCs running in-house software.

Commercial Interest

- They kept stressing that they were *clearly profit-orientated*.
- As a consultancy company, they do not sell information but buy it (eg abstracts journals).
- They insist that initially, free provision of information is a KSF.

Perception of Demand

- Currently no demand for commercially provided information in Hungary.

- In the past, demand for UNIDO data has been very little. *We are disillusioned with UNIDO.*
- However, there is a scarcity of data on Western developments and suppliers.

General Assessment

- They are highly critical of UNIDO information capabilities, based on their ENCONET experience:
 - Network data *were not very interesting.*
 - Network of contacts *was the greatest benefit from ENCONET.*
- Extremely sceptical about the financial viability of the EEIS. Particular points:-
 - Marketing and advertising costs will be high (need at least 2 pages in a trade magazine per month).
 - Marketability of the system. Urgent need of market research.
 - Value, up-to-date-ness and uniqueness of UNIDO information. This would need to be evaluated carefully. OMK, the Technical University and the Academy of Science were cited as direct competitors with UNIDO. The system will only succeed if it has got *the best data.*

They see their job as selling services, not information. UNIDO information will only be useful if it can improve their services.

- Want a test-search on rice husk incineration.

2.6

CHAMBER OF SMALL AND MEDIUM-SIZED ENTERPRISES (KKK)

General Information

- KKK are the SME chamber within HCC. They see themselves as representing their own members and SMEs in other HCC chambers. They are very small but professional and keen. They have 5 staff, 9 voluntary Board members and 2 one-person regional offices, and an information company, Hunginfo.
- They have international links and are co-organisers of the EMSU conference with OKFI, KKK and OKISZ (one-day conference for organisations representing medium-scale companies with ministerial involvement).
- PHARE support for coordinating SME interests throughout HCC.

Customer Base

- 150 members (growing). Membership fees are from HUF500 to HUF60,000. Their largest members have 200 employees.

Information, Translation and Consultancy Capabilities

- Hunginfo, their information company, has 3 full time and 4 part-time staff.
- IT infrastructure: PCs 386 (IBM-compatible) with a networking software, on-line links through modem (eg to OKFI/JOINFO).
- Hunginfo kft has a database with 50,000 records (companies, business information). This is collected in-house and through an exchange agreement with HID (trade development firm supported by MIER).
- Their main objective is partner matching, both for members and non-members. Other advise functions include taxation and financial advise, seminars and training, publications, presentations at trade fairs.
- 100-200 offers and requests per month.

Marketing and Promotion of EEIS

- Biweekly newsletter.

Commercial Interest

- Fees: HUF25 per address, HUF1200 per partner offer.

Perception of Demand

- They have never received queries concerning technology and environment.

General Assessment

- Second level contact point.
- Stressed need to exclude discrimination through contract formulation.
- OKFI is preferred focal point (neutral), then HCC, maybe MVK.

General Information

- They showed me the Clearing House sample diskette and talked in general terms about their constituency and activities, the lack of resources in CEE etc etc. Nothing concrete.

Customer Base

- Mainly NGOs.

Commitment to Free Dissemination of Information

- Part of their mandate.

Information, Translation and Consultancy Capabilities

- Placing of Clearing House with UNIDO was a human resources issues. They still have free access to the clearing house and told of plans to open it to the EC and create a joint European/US clearing house.
- REC has its own clearinghouse system under development which will build on their current informal referral services. They provide 26 categories of services and are currently organising their data. They use MICROISIS for country profile information.
- The Government of Austria donated CEDAR (Central European Environmental Data Retrieval Network). IBM donated for three years its dedicated Budapest-Vienna data line (x.25). CEDAR executing body is the Society for the Operation of CEDAR (SOC), including Austrian Ministry of Environment, REC and International Society for Environmental Protection (ISEP), responsible for planning, construction, operation and evaluation of CEDAR. Will use modern IT and communication channels to serve as data link between East and West. Will cooperate with environmental protection institutions.
- Plans for a Private Sector Information Service' designed to meet commercial interests and satisfy reasonable data requests without unduly burdening the current staff.

Marketing and Promotion of EEIS

- RECnet: up to 20 local centres (Focus Centres) throughout CEE, each connected directly to Budapest through REC to Vienna (CEDAR) from where international data banks can be accessed. Focus Centres will also be capable of direct communication with one another. REC will be a hub for an international data and environmental information network in the region. Focus Centres will function as antennae and as operational response systems. Will be staffed by 2 persons each.

Commercial Interest

- Private Sector Information Service will be self-sustaining and supported by nominal fees to cover actual costs incurred by the Centre.

Perception of Demand

- There is considerable interest from companies, but mainly it appeared from multinationals, and from companies that sell solutions to environmental problems. However, they also said they provide information to CEE companies.

General Assessment

- REC appeared quite unfocused and too wide-ranging to be of much use in the INTIB/EEIS. However, they expressed interest in the network and are prepared to refer queries to whoever the focal point will be.

2.8

HUNGARIAN INDUSTRIAL ASSOCIATION (OKISZ)

General Information

- OKISZ are the association for Hungarian cooperatives. Their mandate is to safeguard the interests of their members *against the government*.
- They have 45 staff and an annual budget of HUF 100m.
- Endorsed OKFI as focal point. They were suggested by MVK as the focal point for Hungary because they have money, good connections and an information infrastructure but are unsuited (too restricted customer base, limited resources).

Customer Base

- 1760 cooperatives (out of 2,500 in the country), organised in 19 district and 4 professional federations. The number of members is increasing.
- Industrial member organisations from light industry, chemical industry, machinery sectors.
- Member organisations are medium-sized (10 to 100, up to 500 employees).
- Links with members are usually through member federations but sometimes direct.

Information, Translation and Consultancy Capabilities

- Information is an important part of their activities (2 staff responsible for videotext input, HUF 10m for information, public relations and their newsletter).
- Their information activities are concerned with organising marketing information for cooperatives and providing the interface between Western companies and their members. They are not concerned with technical developments, eg for environmental protection, but have policy guidelines and make recommendations for technologies and ministerial presentations on such issues.
- Current services include foreign trading contacts, marketing and other professional advice.
- They receive over 100 queries per week, mainly on PTT channels and through videotext.
- Limited translation facilities and technical expertise.
- IBM compatible PC network, linked to 20 member organisations.
- Linked to JOINFO/INFOSYS business information which they describe as a 2-way information system. It still has *small technical problems* linked to modems.

Marketing and Promotion of EEIS

- Videotext facility.
- Biweekly newsletter in which they offered to include EEIS information. It reaches all members, and has c.35 pages.

Commercial Interest

- Services are free to members and charged on a non-profit basis to non-members.

Perception of Demand

- Environmental considerations are always *secondary* in Hungary, even though there is interest. However, even OKISZ members go to specialist institutions for environmental information. They rarely serve a referral function.

General Information

- Dr Lafferton had worked for UNIDO/ENCONET in Pilsen, and is interested in long-term environmental work at the local level.
- The LEA was founded on 01 September 1991 and has 5 full-time staff, including an information and computer adviser, and some part-time staff. It is PHARE/MVA funded.
- They want to become the EIC for Hungary.
- Their service range focuses on general advice and retraining of the unemployed (KHF consultant), and on information services.
- They thought HCC, OMK and the TU are unsuitable because they are being reorganised, but strongly endorsed OKFI. They also suggested MVA as the hub of the LEA network but acknowledged that MVA would have to develop information capabilities.

Customer Base

- All private companies in the country.

Information, Translation and Consultancy Capabilities

- They are building up a comprehensive database of all SMEs in Szolnok county (up to 1000 employees). Currently, they have data only on 45 companies for which they seek international links. There are c10,000 companies in Szolnok.
- Survey of real estate in Szolnok useable for business purposes.
- Partner-matching services and new markets: 'twinning' contact with ERVET spa to bring about JVs between Szolnok and Italian firms. Other international contacts include the Reutlingen Industrie- und Handelskammer, the Hanover EIC and the Kontaktbörse.
- Information on new technologies. They identify important international fairs and new technologies.
- Hungarian National Computer and Accounting Company (SZUV) network. State-owned; they haven't used the network yet.
- Telephone/modem link to ERVET computer in Bologna.

Marketing and Promotion of EEIS

- Six sub-offices throughout the country, of which 4 have computers. On-line links to Szolnok are planned.

- Newsletter.

Commercial Interest

- *We are preparing to be self-financing.* Revenue will be generated through information and consultancy services.

Perception of Demand

- They said they urgently need technical environmental information, which would have helped a local consortium to win a contract for improved wastewater treatment in the local dairy.

General Assessment

- Genuine need for environmental information.
- Provide valuable geographical coverage to complement functional coverage by other organisations.

General Information

- Foundd in early 1990 by Hungarian Ministries, the private sector and educational institutions. The purpose of SEED is to support and educate Hungarian entrepreneurs, to increase the number of small enterprises, and to encourage and economic and business atmosphere conducive to entrepreneurship. Main activities are training, foreign exchange programmes and *first-aid and investment consulting*.
- 6 staff but uncertain funding and possible moribund.
- They strongly endorsed the use of OKFI, principally because they have access to funds and operate multidirectional databases, even if there are still problems with connecting to Italy. The fact that they are government-funded might also mean that SMEs are reluctant to cooperate with OKFI. However, they are better than VOSZ who are *too limited*.
- Other possible network members are the US-funded Small Business Development Centres, accessible through OKFI, and TALENT, a nationwide, Szeged-based information network for larger enterprises.
- JOINFO is new and has not yet enough data. SEED have not actively used it.

Customer Base

- Network of 300 small and micro consultants. They would be able to provide a list of consultants with environmental interests/expertise. Few direct links to SMEs.

Information, Translation and Consultancy Capabilities

- Provide information and advice to entrepreneurs by mail, telephone or appointment, mostly on financial issues.
- Seek to establish a nationwide entrepreneurial and enterprise supporting system, including held for local authorities in their enterprise supporting activities.
- Workshop on the SME information network, attended by database owners and users (February 1991).
- Initiated Forum of domestic enterprise supporting organisations and ministries, which established the Enterprise Promoting Council.

Marketing and Promotion of EEIS

- There are regular information exchanges with the consultants registered with SEED (materials sent).

Commercial Interest

Perception of Demand

- There is a definite demand for environmental information. *Institutions that provide this type of information are positively flooded by requests, even if none come to SEED (eg REC, REC). Technological information is still provided mainly through universities.*
 - Demand is driven by future environmental regulations.
 - Many companies want to be technologically proactive.
 - Investment in Western technology before privatisation.
 - Objectively substandard and ineffective usages.

General Assessment

- Happy to serve as referral point/second level contact point.

3.1

HUNGARIAN FOUNDATION OF ENTERPRISE PROMOTION (MVA)

Not a candidate for either first or second level contact point but useful for contacts, particularly to Local Enterprise Agencies, and for current implementation of Euro-Info Centres.

Euro-Info Centres

- EICs are to support communications between SMEs and the Commission, are concerned with the internal market and provide mainly legislative information.
- There are several 'central' databases on community but the EICs function mainly as a network.
- Funding: running costs met by host (eg chamber of commerce, regional development agency). Some of the EIC activities are revenue-generating.
- There are 200 regionally based EICs throughout the EC
- Extension to CEE has proven politically sensitive (DG 23 vs DG 1).
- MVA financed a feasibility study. PHARE will fund ECU 75k in year 1, ECU 50k in year 2 and ECU 25k in year 3 which amounts to less than 50% of total costs.
- MVA are currently receiving tenders from Hungarian companies and organisations to act as EIC. Selected organisation must have a network or capability to start a network, and should be open to deal with LEAs. Only three serious contenders;-
 - 1 OMK (active information centre with proven information handling capacity).
 - 2 HCC
 - 3 OKFI
- MIT has ownership of project but won't have more than a useful overseeing role.
- EICs should not be levers of power, eg by serving only regular members. Indiscriminate access will be written into contracts.

Local Enterprise Agencies

- Feher is the showpiece, Miskolc very fragmented, Szolnok *normal*.

- They are *still in a mess*. Focus on legislative issues. This will improve in a few months time.
- LEAs are keen on any information initiatives.

Perception of Demand

- There is awareness of environmental issues but no willingness to pay for it.

Strategy Issues

- Need to write indiscriminate access to data into contract, and audit procedure for free access.
- The system should start up in Budapest. Local partners should tap in as soon as it is up and running.

3.2

ECONOMIC RESEARCH INSTITUTE

- ERI are an independent research institute with the same director as the Central Statistical Office (CSO). They are fully state-owned but are to be privatised. Currently, central government provides 30% of budget, and 70% comes from research contracts (eg Chamber of Commerce, MVA, banks). Their main function is that of a short and medium term forecasting institute. They will have no role in the EEIS.
- SME activities focus on business tendency surveys (ERI aim at updating these in monthly intervals) to help in forecasting activities.
- ERI have the Hungarian lead of the first and current second international, independent multi-expert Blue Ribbon Commission (US financed). BRC 2 has a special private sector project (to be published in late 1992). This will include six private sector surveys, including a statistical sub-project of KFT (limited liability) and RT (joint stock) companies. To date, there are no statistical sector codes for companies.
- ERI said that SMEs are strictly profit orientated and will not pay for environmental information.

3.3

MINISTRY OF ENVIRONMENT AND REGIONAL POLICY

Endorsed by IPOSZ as a neutral body. They also have a good information system, but no information agency, and were not interested in the UNIDO initiative. They are not connected to any international databases.

Attended the Copenhagen conference and were aware of its decision to strengthen UNEP IEO in Paris.

RAXON INFORMATIC AND COMMERCIAL LTD

Mr Endrody arranged a meeting with me to sell his videotext capabilities to UNIDO. His proposal in itself was not very useful as he envisaged a fully commercial, multi-database system (5-10 databses) which would require considerable investments. However, the use of videotext or business bulleting services should be considered by UNIDO or the focal point, as they are highly effective means of electronic information dissemination to business people.

- Several competing videotext systems in Hungary.
 - MATAV (PTT) operates the largest one (300 subscribers) on an antiquated GEC system. However, the lack of x.25 lines means that the system has no access to external computers.
 - RAXON sells a competing system (HCC thought they have not more than 12 subscribers) which is based on a freestanding VAX computer. It uses Open Communication Systems, an Austrian-made btx-software that costs ATS 500k.
 - OKFI micro-computer could not support videotext.
- Bulletin Board Services, operated by RAXON on Major software that costs HUF 100k and works with ASCII files. It can support up to 1000 users. RAXON could install and service the system which would not need PTT support (not clear whether it could go through their computer).
- Videotext investment and first year operating costs: HUF 28m (\$ 360k).
 - VAX HUF 10m
 - Software HUF 5m
 - 10 Phonelines @ HUF 100k HUF 1m
 - 10 staff @ HUF 1m/month HUF 12m

He also made the point that OMK have good technical information but cannot easily be reached from outside.

INFOSYS NATIONAL INFORMATION NETWORK FOUNDATION

This was a non-interview as I arrived too late and no-one was there who spoke sufficient English to answer questions. However, they are an interesting organisation that operate a nation-wide network, based on 10 sub-centres. Their main purpose is to provide enterprises with information by means of multiple media, but mainly through a telephone-based computer network. A number of organisations contacted by me were members of INFOSYS. They also found and maintain databases and information networks, and run information services on behalf of other organisations. They use an UNIX operating system.