S&T INFORMATION SYSTEMS AND SERVICES IN HUNGARY

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The library and information system of Hungary has been developed according to socio-political and economic environment of the country. The S&T information system is part of the total library and information system. The recognition of information as the basic input for socio-economic development resulted in the organization of S&T information network which is linked with other library and information networks especially the public library network. The Hungarian Academy of Sciences is the central node of basic sciences information system. Each industry has a network of library and information system. OMIKK is at the apex of S&T (industry) information system. Discusses the organization pattern and various functions of scientific and technological information system of Hungary.

INTRODUCTION

The organization of S&T information system of any country is dependent upon its sociological, political and economic environment. The People's Republic of Hungary is located in central Europe, covering 93,000 sq km with a population of about 11 million. The country's national economy is an effective combination of central economic planning and a decentralised competitive market system, the supreme organ of the state power being the single chamber National Assembly.

After World War II, the country had to be rebuilt for the development of a new society. In this transformation of society, in which library is the base, the overall library system was also to be rebuilt. The Library Acts of 1956 and 1976 formed the basis of the Hungarian library system. Since then many changes have taken place to keep pace with the changing needs of the society. The Acts were significant in the context of research and special libraries in the sense that, these recognised the library network as a system and assigned the responsibility of documentation work to the research and special libraries. The principle that the literature of basic importance of individual branches of science and scholarship should be collected somewhere in the country to avoid duplication, resulted in a fundamental library for each branch of science and scholarship. The number and types of libraries were increased.

The demand of research, education, industrial and agricultural production necessitated more up to date methods of information dissemination. The demand for information required increasing efforts to build up separate information institutions. The National Conference of Librarianship (1970) was significant as it recognised librarianship and the information field “as a uniform and integrated system of institutions being interrelated and complementary to each other” [5]. The main contribution of the conference was the emphasis that it laid on methodological, coordinating and servicing activities. The second Library Act was a further development. It recognised the main library in each subject area as a nodal information centre in that area and entrusted it with the responsibility to acquire, maintain, disseminate information and to coordinate the activities of libraries within the individual network.

LIBRARY AND INFORMATION SYSTEM – AN OVERVIEW

The social needs of the country necessitated the development of libraries and library services in the country. The role of libraries in the country's education, research and production activities has been recognised and very clearly defined. “Library policy of Hungary aims at making it possible for every citizen, every educational, economic, research or administrative institution to have easiest possible immediate access to required documents” [5]. This is endeavoured through reasonable level of cooperation. The library network has become the organizational form of cooperation. The largest library in the particular network serves as a nodal point.
The activities of these nodal points are more on coordination than on administration of sub-systems of the network. Three types of networks are functioning for overall library and information systems of Hungary [5].

(i) Network of libraries attached to public administration activities such as public libraries of councils and trade unions.

(ii) Network of libraries serving identical fields, such as medicine, agriculture and industry.

(iii) Network of libraries working with the framework of institutions such as universities and academies.

The basic premise on which the library and information system has been built up is the realization that information is the basic input and most important power of the country. The so-called information explosion has affected the organization of information activities of the country also. The realization that information has greatest value for the country i.e., economic and capital value, has eventually resulted in the organization of information systems of the country so that it reaches all walks of life, in every aspect of work particularly scientific and technological work.

The detailed exposition of total library and information system is beyond the scope of the paper. While the organization of S&T information system and the activities of some of the nodal centres are described in this paper, the S&T information system is closely linked with the public, academic and school library system to form an integrated library and information system for the country.

SCIENTIFIC AND TECHNOLOGICAL INFORMATION SYSTEM

The rapid development of science and technology during recent past resulted in a number of organizations, each having its own special library/information centre. Some of them have developed themselves into large information agencies forming network in their individual areas. The S&T information network covering information network of various industries, medical and public health information network, agricultural and food sciences information network, information network for basic sciences including social sciences constitute the Information System for Research. There are national information centres on S&T (OMIKK) and individual industries, Medical and Public Health (Medical Information Centre, Agriculture and Food Sciences (Agroinform) and Sciences (Hungarian Academy of Sciences). Each is having a network of library & information centres spread all over the country.

NATIONAL TECHNICAL INFORMATION CENTRE AND LIBRARY (OMIKK)

Developed from a small special library established in 1883, the OMIKK the largest scientific and technical information centre and library of the country, caters to the need of applied science and industry through variety of services, like publishing, disseminating information produced in the country and providing on line access to foreign data bases. The services of OMIKK are based on “more emphasis on cooperation”. For this they make use of the collection of about 500 libraries of research institutions, factories, technical high schools, etc. The functioning of OMIKK can be grouped in six broad areas (fig 1). The basic objective of OMIKK is to provide information mainly on what is done in Hungary and other socialist countries with certain restrictions to USA. This is achieved through collection, analysis, synthesis of the literature and by making them available through various services like abstracting, digest, SDI, translation, publication and copying. The National Technical Library is the backbone of OMIKK, which is at the apex of S&T information system including information system of various industries.

National Technical Library

The National Technical Library, founded 105 years ago is the backbone of all services and serves as a backup centre. The services are provided with a collection of 450,000 books (5000 annual additions), 100,000 science reports (7000 annual additions), 300,000 volumes of periodicals (annual subscription of 6000 titles including 4000 foreign), 600,000 translations (10,000 annual additions). The library has a membership of 16,000 and serves 75,000 readers annually. The reading room consultation is to the tune of 300,000 yearly.
Besides the routine operations, the library caters to its users through a variety of services grouped under Readers' Service, Reprography & Micrographic Service, and Translation Service. The Readers' Service includes reference, lending & interlending and document delivery & photocopy. 0.5 million page copies are supplied every year.

(a) Computerised Catalogues:

i) The Union Catalogue of Periodicals of 500 technical libraries in Hungary has been brought out. Every year a new edition is published.

ii) Since 1982, it has computerised the book collection.

iii) At present, it has a COM catalogue of periodicals of OMIKK library holdings. Later on, it will cover the holdings of three other libraries attached to the Technical Universities at Budapest, Vespern, Miskolc.

iv) Union catalogue of technical reports (R&D) of 14 libraries, mostly being NTIS reports in microfiche.

(b) Announcement Service:

The library publishes the following announcement services:

i) Monthly Printed Catalogue of Books & Reports.

ii) Abstracts of Hungarian Scientific Literature containing abstracts of periodicals, translations and conference proceedings.

Publication Services

OMIKK is the largest publisher of secondary periodicals in Hungary. About sixty regular secondary publication series, brought out by OMIKK in various areas of technology are prepared by scanning 6000 periodicals received from all over the world. The unique feature of these publications is that these are prepared by outstanding experts of the country, who select, analyse and prepare the document. OMIKK only edits, compiles and prints these publications.

The publications activities are organised in three different areas:

i) Department of Abstracting:

(a) Abstract Journals in 21 subject series are published mostly monthly covering an annual of 250,000 abstracts of world literature.

(b) KWIC Index (monthly) is published in 2 series, viz Building Industry, and Data Processing & Automatization, covering only foreign literature. The titles are translated into Hungarian with expansion of contents.

ii) Department of Publishing in Digest Form:

The Digest information Service started in 1952 with the publication of Digests of Plastics & Technological Materials. At present, this service is brought out mainly in three groups -- a) Digest Information on Technological Information, covering 17 technical fields (mostly monthly), b) Digest on Technoeconomical Information, (5 series), mainly meant for middle level managers and decision makers, and c) The other series, consisting of Technical and Economic Information specially meant for higher management, and provides technoeconomic information for managers.

Apart from the above, to support the central R&D programmes, it brings out a mixed series -- viz., Biotech Info, Biotechnology of Today, Economic Utilization of Materials and Computerised Technical Planning.

These publications are prepared based on foreign literature.
iii) Department of Irregular Publications:
Within this area, irregular documents like books and monographs on various topics such as writing techniques and ergonomics are published in the form of reviews.

Information Services
Apart from routine literature search, OMIKK's main information service centres around online search, consolidation service and SDI services.

i) Online Service: Started in 1982, this service operates as a commercial service. It accesses 200 databases on various subjects through Dialog, Datastar, Infoline (Pergamon), Orbit & STN International. The search area includes patent and business information also. Users are served by online and offline printing and electronic post (Dial Mail Service). The online access is made through Hungarian PTT which has line switched Data Transmission Network (NADIX). This network has seven lines connected to the Radio Austria - an entry point for several packet switched networks for Austrian Datex P, through which all National Packet Switched Networks in Europe may be connected. Radio Austria has connection with Tymnet, Telenet and Uninet, by which it is possible to access US Databases also (Appendix 1). About fifty searches per month are conducted.

ii) SDI Service: Basically a manual service, this service is based on the resources of National Technical Library. A list of 2000 topics covering all technical fields like energy, mining, electronics, agriculture is circulated to Hungarian industries for selection of the topics, by which users' profile is created. Enterprises may also suggest topics of interest.

The experts who receive the documents for abstracting and other consolidation work mark the topics, which is matched with the users' profile and monthly information package with short abstracts are supplied.

iii) Consolidation Service: This important service is in the form of (a) bibliographical service, (b) summary from European Reviews (sold to industries), (c) state-of-the-art/trend reports, - (d) forecasts on various areas such as Trends in Microelectronics, Robotics, etc. (e) speculatory service on the basis of facts and figures, and (f) reports on special subjects.

Computerised Service
Though the computerisation started in late 1960s, in 1977 only it could have its own computer. At present, there are Ryad 85, Ryad 36 and IBM 4341 computer systems. The main function is processing of bibliographic information, writing software and offering service for other institutions.

Bibliographic information processing includes editing of indexes & bibliographies, assisting in SDI service based on tapes from foreign databases, assisting library for its various activities, viz. computerisation of union list of periodicals, research reports catalogue, COM catalogue and library catalogue.

For other institutions the centre scans databases like CAB, Food Science & Technology Abstracts, Packaging Science Abstracts, received by the individual institutions.

Shared online cataloguing system, initially for 4 libraries — OMIKK, University of Budapest, Chemical Industry University and Heavy Engineering Industry is in process for development.

Translation Service
The translation work is done by outside translators mainly. Contents of various newspapers & periodicals are translated and sent to industries.

Under Translation Register Law (1952), translation of every item is maintained. The National Translation Register Centre, located at OMIKK, receives copies of translations from branch libraries. The main office is at Budapest and there are eight other branches in big cities of Hungary. A computerised database consisting of status of translation, and a list of translators is maintained.

Education and Methodological Service
To make information effectively usable, OMIKK organizes educational programs for library and information personnel and users. The courses which it organizes are: 1) Courses for librarians' education. About 80 to 100 students are trained each year with 200 course hours. 2) Special courses for information experts in Hungary. The courses are on specific topics and generally of a week's duration. 3) Users education for secondary schools, universities, industries, etc. The organization makes direct contact with factories.
and conducts such courses. 4) Special courses on information specialities in foreign languages.

The services of OMIKK are regularly publicized through exhibitions at various places, video, films and teletext services.

**INDUSTRIAL INFORMATION SYSTEMS AND SERVICES**

Hungary has a very well-organized information system for industries. Much emphasis is given on dissemination of information in various forms and packages to industries at national and local levels. Individual industry has their own information network with ultimate link with OMIKK. Such networks are basically designed to cater to the need of individual industries such as packaging industry, dairy industry, building industry and others. They function under different Ministries to which they belong, particularly in respect of administration and finance. Nevertheless, they form part of total Scientific and Technological information system with OMIKK at apex.

**The information system for building:**

The Housing and Public Construction Information System (ETK) is just one of many such networks in the overall industrial information scene of the country. The organization and activities of the ETK discussed below will give an idea of organization of industrial information system of the country.

**The Housing and Public Construction Information System**

The industry functions under the direction of concerned Ministry, being indirectly a state property, but directly it is not. The industries can be grouped in three main categories. a) state-owned, b) cooperative type and c) council type. There are a few private building industries also, mainly engaged in housing. About one third is state-owned.

The Information Centre for Building (ETK), the focal point of the network and other centres in the network cater to the needs of its users comprising Hungarian industries/enterprises/research institutions/private persons. ETK functions as professional institution for building information and propaganda, and disseminates information through its library comprising of 50,000 books, 100,000 research reports and 1000 serial titles.

The network consists of

- Information Centre at Budapest (1)
- Country Bureaux (7)
- Base Bureaux (43) (They do not belong to ETK, but to several other institutions, and provide service on contract basis).

Besides maintaining document collection and making them available in paper and microforms, the centre renders following services.

**Information Services**

- Processes and publishes abstracts, reviews from domestic point of view, based on inland and foreign literature.
- Provides survey reports according to special fields about the developmental result, trends, based on most important technical communications.
- Provides information services to the managers of directing organs and top company managers.
- Provides products information services such as foreign and domestic products, equipments and structures.
- Operates a permanent building and exhibition.
- Produces audiovisual materials like films and videos on building and construction.

**Publication Services**

About 40 publications on different aspects are brought out by ETK. The objective is to publish those books which are easily understandable by general public. Apart from magazines, it brings out professional publications on various themes such as Information on Building Policy, How to make investment (collection of rules) and publications on architecture, etc. Outside specialists prepare these publications but editing is done at ETK. Every year it publishes a plan for publications (only books) which is sent to Ministry for approval. The publications are based on studies undertaken for specific areas. Before undertaking such studies, the topics are advertised to assess the consumer needs.

There are about 1200 private designers in the country, for whom it publishes Information for Private Builders (4/12).

Every two months, it publishes Review of Themes on several building technology such as engineering and heating systems. It also publishes Selective Theme Review (on demand). The
link between these two are world labour studies, based on materials from western countries and socialist countries.

**Computerised Information Services**

The main objective of this service is to build up database for technical literature of the country and provide SDI service and online search service to its users.

The database consists of 1) Special literature (150,000 records), 2) Database on building regulation (4,000 records), and 3) International database on ongoing building research from sixty countries. Every year it publishes a Catalogue of this ongoing research database.

SDI service is based on the COMECON and western databases. Computerised retrospective searches are made from ICONDA (German), Compendex and NTIS databases.

**AGRICULTURAL AND FOOD SCIENCES INFORMATION SYSTEM**

**AGROINFORM**, the Information Centre for the Ministry of Agriculture and Food Science, established in 1948 has undergone several changes since its inception, the last one being in 1987, involving changes both in structural and financial aspects. Now, the Centre is to manage its fund for various information activities which resulted in the change in its structure also. Nevertheless, it is the sole professional information agency for Hungarian agricultural production, “Its main task is to collect, process and publish domestic and international research and development results and advanced practical experiences serving for the development of agriculture, food industry, forestry and the primary wood working industry” [1].

**AGROINFORM**

The AGROINFORM functions in four main dimensions:

- **a) Library Services**
- **b) Publication Services**
- **c) Organizational Services (organization of meetings, exhibitions, etc)**
- **d) Agricultural & Food Industries R&D work**

**Library Services**

The agricultural information services are rendered through National Agricultural Library (NAL) at Budapest and a library network consisting of 141 libraries of different kinds such as agricultural universities' libraries and libraries of large and small research institutions. There are nine agricultural universities in the country. The NAL by virtue of Library Act of 16/1976 is designated as special scientific library of national importance. The functions of university and college libraries are supervised by the Ministry of Culture. All centres are independent having their own budget and plan for acquisition. Some kind of cooperation exists in acquisition, particularly foreign periodicals.

The Library services include computerised information service, documentation services, and methodological service apart from normal library routines.

i) **Documentation Services**

The documentation services mainly include abstracting service, digest service, current awareness service which are disseminated through various publications.

- **a) Abstract Journals**
  - Hungarian Agricultural Bibliography, containing 8000 items per year
  - Hungarian Agricultural Review, published in English, Russian and German, containing selected work of Hungarian agricultural science.
  - Abstracts from Foreign Literature (monthly), covering 30,000 items per year
    - Agricultural Review, on foreign agricultural literature covering about 36,000 per year.
  - Review on Food Science and Food Industry, based on domestic and foreign literature covering 9000 items per year. It contains individual studies, previews on progresses, a list of translations and titles of articles published in Hungarian periodicals.

- **b) Digest Service**
  *Regular digest services in 48 areas such as...
cattle breeding, and meat marketing are published. It consists of two parts: the first part covers Hungarian literature and the other provides review of foreign literature.

c) Other Publications

*List of new acquisitions based on the information of the NAL and other libraries in the network

*Agricultural, Food Industry and Forestry Study Tour Reports, containing extracts from the reports of foreign tours of experts.

*Quick Release, containing new research results, based on national R&D work. It also covers quick information on agricultural markets, based on foreign literature.

Individual libraries in the network have their own publications like dairy industry and meat industry. Various publications are produced specially for management. For example, for dairy industry, Dairy Science Abstracts are used for selecting, translating and processing the publications.

ii) Computerised Information Services

Started in 1979, Agroinform offers selective current awareness service from AGRIS, CAB, IFIS and Packaging Abstract tapes. Online search facilities are also provided to users.

iii) Methodological Service

It covers all kinds of methodological work of library network, such as providing special advice and organising meetings workshops, etc. It publishes Journal for Agricultural Librarians.

Agropropaganda Service

The aim of this service is organization and propagation of information relating to technical development novelties, based on domestic & foreign literature and practice, which are suitable for adoption in the country. This is done by films, video tapes, exhibitions and consultations.

MEDICAL INFORMATION SYSTEM

A considerable development has taken place in the country in the field of medical sciences. There are four medical universities and a number of institutions concerned with medical sciences. Medical libraries & information centres spread throughout the country constitute the network. From this point of view the country is divided into six regions, the centre of each having a library. In addition to the National Institute for Medical Information and Library (NIMIL) (including Semmelweis Medical University), Budapest, three universities at Pecs, Debrecen, and Seged are the three regional centres. The other two centres are the county hospital libraries at Szemathely & Gyor and MiscoIc. Apart from these, national research institutes in different branches are part of the network. The network of libraries consists of five tiers with NIMIL at the apex (Appendix 2).

1st tier – National Institute for Medical Information and Library

2nd tier – Six library regions

3rd tier – Libraries of the county hospitals and sub-centres

4th tier – Research libraries with national responsibilities

5th tier – Member libraries/Libraries of Municipal hospitals

National Institute of Public Health at Budapest is the depository of WHO publications. The National Institute for Medical Information Centre and Library (NIMIL) is the node of the network. The country does not have a national medical library, but NIMIL provides services required at national level, based on the resources of the Medical Institute Library at Budapest.

National Institute for Medical Information Centre and Library (NIMIL)

From a small institution named Medical Documentation Centre of Hugarian Academy of Sciences, established in 1949, the Institution grew and christened into the present name in 1980, consequent upon the order of Ministry of Health regarding organizational status, tasks and structure of the Institute (Appendix 3). In 1957, the Institute was attached with the Ministry of Health. On the basis of 1956 Libraries Act, the
Institute began to develop as an organizing centre of medical libraries and took the shape of Hungarian Medical Library and Documentation Centre. In 1957, it started *Hungarian Medical Bibliography*, in addition to publication of retrospective bibliographic series and four abstracting journals. An important change in information services took place in 1965. On the basis of users' need survey of the country, the abstracting journals were discontinued and abstracting services called *Signal Information Services* on various topics on fly sheets or cards were started.

The main functions of NIMIL are

1. to coordinate and organize the activities of the libraries in the network.
2. to coordinate the acquisition of foreign books and periodicals in the country.
3. to provide information services by way of translation, abstracting, digesting, compiling, bibliographies and conducting online search.
4. to provide publication services to make the Hungarian research results internationally known.
5. to maintain work contacts with similar institutions of socialist countries.
6. to act as the national agency for MEDINFORM of COMECON countries.

The centre maintains a union catalogue of all books available in the network. It also has a computerised union catalogue of periodicals covering about 2800 medical periodicals received in the country.

Information Services

1. *Abstracts of Professional Medical Journals in National Centre* (in Hungarian), meant for general practitioners published jointly with the Hungarian Association of Medical Societies.

2. *Signal Information Card Services* on seventy different topics. There should be at least ten requests for inclusion as a topic.

a) Bibliographical Services

i) *Hungarian Medical Bibliography*. Separate volumes for conference lectures are published.

ii) *Hungarian Medical Bibliography* (in English), containing the abstracts of selected publications of Hungarian special literature for international circulation.

iii) *Pharmaceutical Spectra*

iv) *Pharmaceutical Spectra* (in English)

v) *Hungarian Medical Journal* (summary in English)

vi) *Health Management Review*

vii) *People's Health* (deals mainly with health policy)

viii) *Quick Information Service for Health Managers*

Apart from the services mentioned above, NIMIL has other publications covering various areas, such as, accession lists, union lists, journals, etc.

Online Search Service

Online search service based on about thirty two databases like BIOSIS, MEDLINE, EXCERPTA MEDICA, etc is also provided. The Centre is connected to DATASTAR (Berne) through Radio Austria. The database of COMECON countries (MEDINFORM), in Bulgaria containing majority of literature in Russian is also searched.

Content Copying Service

The contents of foreign medical journals are provided to subscribers.

Retrospective Literature Search Service

This service, provided on request covers the Hungarian and foreign literature.

Translation Service

This service is provided for translation from...
foreign language to Hungarian and vice versa. The list of translations made from foreign languages are published in “Our Drugs”, for subsequent ordering.

SCIENCE INFORMATION SYSTEM

The science information system covers the basic science disciplines of natural sciences, earth sciences, engineering sciences, biomedical sciences and social sciences including arts & humanities. The system is organised on decentralised network of libraries attached to 150 research institutions covering various topics. The Hungarian Academy of Sciences plays a major role in the scientific research policy of the country and obviously the library of the Academy is at the apex of the science information system.

Hungarian Academy of Sciences

The library of Hungarian Academy of Sciences, one of the most important public collections in the country is 162 years old, established in 1826. Initiated with a collection of 30,000 volumes donated by Count Josef Telki from his family library, the library grew in size, disciplines, services and responsibilities over the long period of history and assumed the present position of the apex centre of science information system.

The first forty years of its existence is marked by mobilization of resources from various sources and development of collection by subscription, international exchange and donation by members of the academy.

In the second phase till the liberation of the country, though the development effort continued, the library had to suffer set-back, particularly during the period of two world wars. The most valuable collection including manuscripts were deposited in the air raid shelters of the academy’s building, National Bank and in the Care Cellars under the Castle Hill.

The third phase of development from the time of country’s liberation to the present time witnessed a series of development. The Governmental support came in different ways. In pursuance of Act XXVII of 1949, the Academy became the supreme scientific body of the country, being responsible for top level management of research work. Within the framework of the Academy, a network of institutions were created. The library’s role in the nationwide library system was also defined by the orders of 1958 and 1968 by the Ministry of Education. The library also reorganised itself to meet the responsibility imposed on it. The Library Act of 1956 made the library, the centre of research library network. It fulfills its task by “assisting in matters of organising, building and investing, of gathering and conveying experiences and new methods which are exploitable in institutional research libraries, of taking charge of training and extension training of librarians, of giving – as a professional advisory body expert opinion about the basic problem of institutional libraries to the Academy’s scientific department, of recording and analysing trends and new demands which emerge in library activities” [7, p.28]. It gives support to the institutes by sending the publications received on exchange basis and through various services.

The information service is based on manipulation of big databases. The main database it uses for the services is the SCI database in magnetic tape, by which it provides weekly current awareness service, providing nationwide quick information on offline mode. All services are in English. It uses the concept of satellite database also, wherein it processes smaller databases viz, CA, EM, METADEX etc.

i) ASCATOPICS -- a minicard topical search, consisting of about 7000 topics. The list is circulated and users select the topic.

ii) ASCA Personalised, a special search on specific interest of users.

iii) Personalised Current Contents -- Contents of 4000 journals received in ISI (USA) are received in tape and the library provides the service on the basis of selection of titles by users. 85% of the journals are accessible in Hungary.

iv) Monitoring the publication of specialists

Type I - Customer gives the details of specialists and subject areas. They are intimated the papers published by the scientist.

Type II - Customers are intimated about the citation received by a particular author.

For social sciences, and arts & humanities, it uses SSCI (1968) and AHCI (1970-) respectively. It publishes R & D Digest for science management, which is a translation from world literature.

OVERALL PERSPECTIVE

A look at the organization of library and infor-
formation system of Hungary reveals that there is a conceptually well-organised network of library and information system in the country. Two realizations made great impact on the organization of the total system. Firstly, the realization that information is the basic resource for development has resulted in the organization of library and information system such as Research Information System (covering science and industry) (Fig 2), Public Library System, School Library System and Academic Library System. Each of them is closely interrelated. Much attention has been given to provide information services to the industries and sciences including social sciences and arts & humanities. In this effort the help of public library system has been taken because of the realization that, the information can reach the grassroot level only through public library network. Though there is no clear cut demarcation among the systems, but all functions in an integrated way to form a total system. There are national information centres such as S & T (Industry), Medical & Public Health, Agricultural & Food Sciences, Sciences, etc. Each serves at the apex of the individual network.

Second and most important fact that made tangible impact is the realization by the Government and the people that information has cost. As a result, all the information services provided by various centres (excepting public libraries), particularly to industries and intelligentsia are priced. Most of the information centres particularly the ones in the industrial sector generate

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**HUNGARIAN SCIENTIFIC AND TECHNICAL LIBRARY AND INFORMATION NETWORK**

(Fig.2)

OMIKK - National Technical Information Centre & Library  
ETK - Housing and Public Construction Information System  
NIMIL - National Institute for Medical Information Centre and Library  
HASC - Hungarian Academy of Sciences  
AGROINFORM - Information Centre for the Ministry of Agriculture and Food Science
funds from the information services to support their budget adequately, if not entirely. An example will be proper at this place. The National Technical Information Centre & Library (OMIKK) had a budget of one million Forint in 1980, out of which 0.5 million was Government grant. In 1987, the budget is three million Forint. Government grant remaining the same. In other words, more and more emphasis is given to the type of services and products really needed and the institution has to generate sufficient funds to sustain the services.

The access to foreign literature/information is considered as a basic necessity for proper information support. A well-organised translation services from foreign languages to Hungarian are rendered within a very short time. To achieve this, they make use of outside experts on part time basis.

Though the full-fledged automated system is not available (in most cases manual), adequate provision has been made to develop communication link facilitating online search of foreign databases and, most institutions provide this facility.

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2. Information Centre of Building. Budapest, ETK, [n.d.] (handout)
Appendix 1

OMIKK online information service

(Ref 7, p.2.3)

Appendix 2.

NIMIL as a network centre

(Ref.3, p.20)
THE STRUCTURE OF NIMIL

The organizational units of NIMIL:

1/ Directorate;
2/ Department of Network and Methodology;
3/ Library Department,
4/ Department of Documentation and Information;
5/ Bibliographic Department;
6/ Department of Medinform;
7/ Department of Reprography;
8/ Finance Office

(Ref 3, p.7)

Appendix 3(b)

Professional Council
Advisory board of the director of NIMIL

Director

Directorate

Professional Deputy Director

Network and Methodological Department
Professional supervision
Training and postgraduate training
Central catalogs of books
and periodicals
Edition of "The medical librarian"
Microfiche

Library Department
Local reading /xerox copies/
Lending
Records on scientific researches
Copy of contents
Information on foreign medical books

Department of Documentation and Information
Hungaria Medical Bibliography
/English version/
Abstracting service
Retrospective literature search
Translation service

Secretary
Personnel administration
Central registry
Mailing

Medinform
Computerized information
Medperiodik base
International relations

Deputy director
Financial director

Financial department
Administration
Subscription records
Invoices

Department of reprography
Reproductions
Minery

Department of bibliography
Edition of the Hungarian Medical Bibliography
Review of Pharmaceutics and drug treatment
Spectrum Pharmaceuticum
Current bibliographic information
Medline

The scheme of NIMIL

(Ref 3, p.8)