

Technology Transfer Mechanisms: A Study of International and National Agencies.
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[Industrial research and industrial production in a country cannot be solely based on its own resources. National economy requires borrowing and adoption of technical know-how on a global scale. Such a transfer of technology from one country to another needs the services of several promoting agencies. During the last two decades, several international organisations have come forward to provide technical assistance and dissemination of scientific and technical information to the industry on an international level. Some of the non-commercial international organisations are briefly described. A suitable infra-structure has to be developed by every country in order to absorb the foreign know-how into its scientific and technological stream. This paper describes the infra-structure developed in India to utilise the foreign technical know-how effectively.]

0 Introduction

01 TECHNOLOGY TRANSFER

The economic growth through continued technical innovation in the form of new or improved products and processes cannot be based on what is produced within a country only, but also on what is available outside the country. Therefore, every country attempts to take advantage of both external and internal sources to gain the fullest possible benefits from modern science and technology. This has given rise to the concept of "technology transfer". Technology transfer connotes diffusion of technological know-hows from a generator to a production unit which exploits it. It also connotes the adoption and adaptation of technology by a particular environment. At the international level, technology transfer means diffusion and adoption of technological know-how from one country to another. It may be between.

- (a) Developed countries;
- (b) Developed and developing countries; and
- (c) Developing countries.

Successful technology transfer depends on the correct choice of technical know-how and its quick assimilation and adaptation to suit the local conditions in order to accelerate industrialisation and thereby economic growth. Obviously, technological transfer implies that

- (a) There should be a well developed infrastructure in the recipient country for science and technology with managerial and business capacity, and a social environment to accept the new ideas, products and processes; and
- (b) There should be minimal inhibitions arising out of political, economical and social influences of the donor country.

02 AGENCIES FOR TECHNOLOGICAL TRANSFER

021 International Agencies

During the last two decades, several inter-

governmental and private international organisations have been established for promoting technology transfer between countries. The main objective of these organisations is to reduce constraints in the diffusion of technological know-hows, and help their adaptation in the recipient countries. These agencies can be grouped into the following three kinds:

- (a) Agencies of the United Nations;
- (b) Other international organisations promoting economic development in general such as OECD, ISO, FID, BIRPI; and
- (c) International research centres devoted to particular group of commodities such as IIRI, CIMMYT.

022 National Agencies

The newly developing countries in order to generate a self-sufficient economy have established a net work for scientific research and industrial development. For example, in India, the CSIR institutions, universities and technological institutes have been established for this purpose. The National Research and Development Corporation (NRDC) established in 1953 acts as a clearing house and liaison for identification, adoption and utilisation of technological know-how.

03 SCOPE OF THE PAPER

The objectives, structure, and functioning of several international agencies and in India Research complex of the CSIR and NRDC engaged in the promotion of technology transfer between countries are highlighted.

I United Nations Agencies

The promotion of industry is of concern to several agencies of the United Nations, especially to the United Nations Industrial Development Organisation (UNIDO), the International Labour Organisation (ILO), and to some extent, the Food and Agri-

cultural Organisation (FAO). All these organisations are providing, each in its field of competence, technical cooperation for the promotion of small-scale industry, under both the United Nations Development Programme (UNDP) and their regular programmes of technical assistance. Assistance is also given under the programme of special industrial services (SIS), which is jointly administered by UNIDO and UNDP. Research and seminars in this field are organised by UNIDO and UNDP.

11 UNITED NATIONS INDUSTRIAL DEVELOPMENT

ORGANISATION

The Industrial Information Service of UNIDO was started in 1966. Its primary objective is to tap the technical and industrial knowledge of developed and developing countries. It receives over 60 enquiries a month from developing countries.

The UNIDO acts as an executing agency for the United Nations Development Programme. This includes such programmes as establishing industrial extension services for the promotion of small industries in different parts of the world. It also organises training programmes for industrial information officers periodically in different parts of the world. Some of its recent publications are:

- 1 Industrial development and standardisation, 1967.
- 2 Manual on the use of consultants in developing countries, 1968.
- 3 Report of the International Symposium on Industrial Development, held at Athens, 1967.

12 FOOD AND AGRICULTURAL ORGANISATION; SERVICE AND FACILITIES

FAO's role and responsibility in the field of industrial development is to assist its member-governments to:

- (a) Formulate policies and review plans in order to accelerate industrial development based on renewable natural resources;
- (b) Analyse economic, social, institutional, organisational and administrative aspects required to implement such plans and to examine problems affecting implementation. This includes feasibility studies, raw material assessment, compilation of relevant economic data for the processing industries, such as value added, import content of inputs, optimum size and possibilities of regional economic cooperation;
- (c) Develop programmes for training personnel at different levels in a variety of disciplines so that qualified skills may become more rapidly available for industrial development projects;
- (d) Develop specific demonstration and research projects, leading to pilot processing plants using the most appropriate modern techniques and technologies as determined by the raw material concerned, taking into account new products and marketing development, consumer preference, social habits, and other factors affecting profitable operations; and
- (e) Foster investment in processing industries

through preparation of investment plans, feasibility studies and raw material assessment.

Some of its recent publications are:

- 1 *Provisional indicative world plan for agricultural development: Summary and main conclusions, 1970-2.V.*
 - 2 *The state of food and agriculture, 1968.*
 - 3 *World trends and prospects, Wood, 1967.*
- Besides, FAO is also promoting an "International Information System for Agricultural Science and Technology (AGRIS)"

13 INTERNATIONAL LABOUR ORGANISATIONS (ILO)

ILO's technical assistance to economic and social development began in 1949. Working to raise productivity and living standards in underdeveloped countries, it sought to ensure that "social objectives are not overlooked or sacrificed to purely economic objectives". Fields of assistance include vocational guidance, training and rehabilitation of workers, supervisors, teachers and administrators; methods of production — industrial, agricultural and handicrafts; cooperative organisation; labour management relations and management development; Workers' education; aid in the selection of training, movement, and reception of workers migrating from one country to another. It also provides facilities to visiting experts drawn from different countries, fellowship, study tours, seminars, the supply of equipment and worker trainees. For example, almost 400 Yugoslav skilled workers, foremen and technicians were placed for training in a dozen European countries in the 1950's.

In addition to its own programmes, out of its regular budget, the ILO undertakes many projects under the United Nations Development Programme (UNDP). Some are undertaken together with other UN agencies, such as FAO, UNESCO, UNIDO and WHO. Among its numerous publications, *Service to small-scale industry* and the *Year-book of labour Statistics* are worth mentioning here. In 1968, it published the proceedings of "Inter-regional Technical Meeting-cum-Study Tour on Management of Small Enterprises (Turin, Italy)". The International Institute for Labour studies is an off-shoot of the ILO.

14 UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION (UNESCO)

Among the several objectives of the UNESCO, the following are relevant for the dissemination of information and knowledge:

- (a) Collaborate in the work of advancing the mutual knowledge and understanding of peoples, through all means of mass communication and to that end, recommend such international agreements as may be necessary to promote the free flow of ideas by word and image;
- (b) Give fresh impetus to popular education and to the spread of culture;
- (c) Maintain, increase, and diffuse knowledge;
- (c1) By assuring the conservation and protection of the world's inheritance of books, works of art and

monuments of history and science, and recommending to the nations concerned the necessary international conventions.

(2) By encouraging cooperation among the nations in all branches of intellectual activity, including the international exchange of persons active in the fields of education, science and culture, and exchange of publications, objects of artistic and scientific interest and other materials of information.

(3) By initiating methods of international co-operation calculated to give the people of all countries access to the printed and published materials produced by them.

In pursuance to its objective, the UNESCO'S Department of Documentation, Libraries and Archives, is promoting the establishment of national documentation centres. During the period 1950 to 1970, several national documentation centres have been established with Unesco assistance. Unesco's long-term project, which strikingly illustrates the way Unesco seeks to mobilise intellectual cooperation and inter-governmental backing in order to make the fruits of human genius available to all mankind, is the plan to establish a world wide information system, UNISIST. The Title UNISIST is only a convenient shortened way of expressing a complex idea: through world co-operation will grow an Information System, both scientific and technical, which will eventually pool the knowledge of every nation. There are several Unesco publications on industrial development and development centres. Some of the recent ones are the following:

1 *The Application of science and technology to the development of Asia: Basic data and considerations.* 1968.

2 *CASTASIA. Conclusions and recommendations.* 1969.

3 *Contribution of Unesco to stage II of the World Plan of action for the application of science and technology to development.* 1970.

4 *Science policy and European States; Conference of Ministers of the European Member States responsible for science policy.* 1970.

5 *UNISIST: Synopsis of the feasibility study on a world science information system.* (Jointly programmed with the International Council for Scientific Unions). 1971.

2 Organisation for Economic Cooperation and Development (OECD)

In 1965, the Scientific and Technical Information Policy Group was set up by OECD, with the purpose of bringing together the government officials in its member countries who had responsibilities at policy level for national programmes in scientific and technical information. Its terms of reference were to:

(a) Draw increased national attention to scientific and technical information and the need to allocate sufficient resources for its support;

(b) Identify mechanisms and guidelines for estab-

lishing national policies regarding information systems for science and technology;

(c) Study ways to strengthen national organisations for dealing with mounting and complex problems of scientific and technical information, including strengthening of non-governmental communication systems;

(d) Exchange national experiences with different techniques and mechanisms for more effective handling of scientific and technical information. This could lead to studies of the cost benefit relationships of information systems, and to selected reviews on national scientific and technical information systems;

(e) Identify specific problems for cooperative action, including development of international arrangements for cooperative activities among OECD countries; and

(f) Guide formulation of national policies with regard to the various international organisations concerned with information systems for science and technology.

OECD during the last five years has promoted several international information networks, Chemical Information Systems, the MEDLARS, EURATOM system and INIS are examples. Regional and international conferences on the use of information by and dissemination of scientific and technical information to industry, are organised from time to time.

Some of the OECD publications are:

1 *Conference on policies for educational growth:*

Conclusions. 1970.

2 *Government and technical innovation.* 1966.

3 *Information activities of international organisations.* 1970.

4 *Problems of human resources planning in Latin America and in the Mediterranean Regional Project countries.* 1965.

5 *Does your firm need its own information service.* 1963.

6 *Communication of scientific and technical knowledge to industry.* 1965.

3 Patents and Patent Information

31 UNITED INTERNATIONAL BUREAUX FOR THE PROTECTION OF INTERNATIONAL PROPERTY (BIRPI)

One of the most common forms of technology transfer is through purchase of patents and licences. However, patents are protected documents and their diffusion to other parts of the world is restricted. The earliest and most important international institution for the protection of industrial and intellectual property is the United International Bureau for the Protection of Intellectual Property (BIRPI). It is based on the Paris Convention of 1883 for the protection of industrial property and on the Berne Convention for the protection of Literary and Artistic Works. The Paris Convention includes an important article regarding priorities: a person filing an application for a patent in one State is given a respite of twelve months before he can apply for a patent in another

State belonging to the Union; he claims the date of the first filing as the priority date. The exchange of publications between the patent office which are parties to the Union is also based on the convention. The head office of BIRPI is at Geneva where it has an extensive library. In 1966, BIRPI proposed a World Patent Index to which all patent offices should contribute by entering patents granted. In 1967, a Patent Co-operation Treaty was designed to facilitate the filing and examination of applications for the protection of the same invention in a number of countries. The implementation of this plan relies on the assistance of the International Patent Institute (The Hague).

The most important publications of BIRPI are

- 1 *Bibliography of the official publications of national industrial property offices*. Ed. 2. 1967.
- 2 *Model Patent Law of developing countries*.

32 INTERNATIONAL PATENT INSTITUTE (IPI)

IPI was established in 1947 in the Hague by an agreement signed by the Governments of Belgium, the Netherlands, France, Luxembourg, Switzerland, Turkey, Tunisia, Morocco, and Monaco. The Institute began functioning in 1950 and is located on the premises of the Patent Board of the Netherlands.

It serves the Governments and individuals of the countries who have signed the agreement and also the countries who are members of the International Union for the Protection of Industrial Property. Its services are rendered through the respective national patent offices. The service is charged for.

The IPI provides the following types of services:

- 1 Examination of patent applications for novelty prior to their submission to the national patent agency;
 - 2 Selection of patents and other documents to serve as a basis for placing a claim against a patents application, which has been placed for open discussion;
 - 3 Preparation of list and selection of patents in a narrow specified subject;
 - 4 Selection of patents and other documents relevant to a patent or a patent application; and
 - 5 Compilation of bibliography on specified subject.
- IPI supplied reprograph copies of patents and other documents to which it has access.

33 COMMITTEE FOR INTERNATIONAL COOPERATION IN INFORMATION RETRIEVAL AMONG EXAMINING PATENT OFFICES (ICIREPAT)

ICIREPAT was founded in 1961. Its membership consists of more than twenty World Patent Offices and a number of Treaty Organisations. Its primary objective is to facilitate retrieval of patent literature. For this purpose, it promotes cooperative indexing of documents and use of mechanised systems. This effects economy in respect of indexing identical patent specifications registered in three patent offices namely British, US, and German Patent Offices. The measure of economy in indexing may be realised by the fact that 650,000 patent applications are made per year in the three countries for 200,000 inventions.

The ICIREPAT assigns different subject areas for patent indexing, particularly in the design of mechanised indexing systems. Many subjects such as Glass technology, Process metallurgy, Basic Pulse-circuits, Pharmaceuticals, Electrolysis, Molding, Taps and Valves are now being developed in the ICIREPAT. It also holds an annual convention of its members and its proceedings are published.

4 International Institute of Tropical Agriculture (IITA) and International Centre for Tropical Agriculture (CIAT)

CIAT and IITA were established during 1971 in Columbia and Nigeria respectively, with similar structure, operational strategies, and long range commitments with missions. Both these organisations receive support from the respective national governments and from the Ford and Rockefeller Foundations, but have independent international status and governing boards. CIAT's programmes are directed towards a broad range of animal and crop production and utilisation problems in the lowland tropics, which occupy the greater part of the Latin America. In Africa, there is still no satisfactory replacement for the bush follow systems. As yet, no cropping systems involving annual food crops which are capable of maintaining high levels of sustained productivity have been evolved. Hence IITA is intended to increase the yields and improve the quality of food crops in tropics and to develop soil and crop management practices which will make possible stable, permanent, and productive agriculture. The emphasis will be largely on production-oriented research, training for research and production specialists, assistance to cooperative research, extension and production programmes at regional, national, and local levels and an information service.

5 International Centre for Insect Physiology and Ecology (ICIPE)

ICIPE set up at Nairobi (Kenya) in 1970 aims at creating joint projects involving scientists from both developed and developing countries on topics which are urgently relevant to meeting insect control needs in Africa and the rest of the world.

6 International Bodies Devoted to Research on Specific Commodities

61 INTERNATIONAL RICE RESEARCH INSTITUTE (IRRI)

IRRI was set up at Manila (Philippines) in 1962 to conduct basic research on all phases of rice production, management, distribution, use. The library and documentation centre of IRRI is a well-organised system. Requests are submitted to IRRI library from thirty-two countries with India and Japan in the lead. IRRI has developed intensive short-term training programmes to teach the production specialists (extension worker) the basic skills and some of the fundamental knowledge of tropical rice production. The total expenditure at the International Rice Research

Institute (IRRI) including the initial investment in 1962 and subsequent year to year costs was \$ 15 million in 1968; Sterling Wortman of the Rockefeller Foundation estimated that the 1967-68 rice harvest in Asia was \$300 million higher because of the new IRRI varieties, and possibly a million dollar higher for 1968-69.

62 INTERNATIONAL MAIZE AND WHEAT IMPROVEMENT CENTRE (CIMMYT) (MEXICO)

CIMMYT set up at Mexico has built up general pools covering such factors as disease, insect, and drought resistance, protein quantity and quality, and insensitivity to day-length, providing basic raw materials from which national breeders around the world can develop superior varieties for their specific conditions. The Centre has developed new wheat varieties of which the world acreage in 1968-69 were ten times the area they occupy within Mexico.

7 Other Organisations

71 CENTRAL AMERICAN RESEARCH INSTITUTE FOR INDUSTRY (ICAITI)

ICAITI was founded in August 1952 in Guatemala City, Guatemala, Central America. The main objectives of the Institute are to

(a) Act as consultant to private enterprise in all phases of the study and implementation of industrial projects;

(b) Give practical advice to manufacturers on production problems;

(c) Conduct research on the utilization of regional raw materials on the development of new manufacturing processes and on the adoption of the latest manufacturing methods.

(d) Promote and foster the application and adaptation of advanced production methods by Central American Industry so as to raise productivity;

(e) Act in an advisory capacity for all public and private institutions engaged in industrial and economic development;

(f) Participate in Central American Integration Programme; and

(g) Establish ICAITI standards for the quality of Central American raw materials, intermediate and finished products.

ICAITI has provided many services to small-scale industries and investors in small enterprises. First, it acts as an impartial technical adviser to the Central American Common Market, giving opinion, carrying out studies on regional industrial problems and technological research on the utilization of Central American raw materials and waste products. Second, ICAITI acts as an industrial consultant to local and foreign private enterprises, development banks and other interested sectors. It also undertakes market feasibility studies etc. The experiences gained at the organisation of support services to small industries at ICAITI may be of value to other Regional Centres.

72 INTERNATIONAL FEDERATION FOR DOCUMENTATION (FID)

FID, the oldest and major professional organisation in the field of documentation promotes and organises programs for international cooperation in documentation. The FID collaborates with more than 50 international organizations all over the world. Several specialised agencies of the United Nations have recognized the important work of FID. In 1971, FID had national members in more than 50 countries of the world. FID provides periodically a world-wide forum for exchange of ideas and experience among leading experts and major information centres in various parts of the world. The changing patterns of information needs are reflected in the regular revisions of FID's programme. The new programme, adopted at the Thirty-fifth Conference in Buenos Aires in September 1970, outlines the following fields of study for the ensuing years:

(a) Theoretical foundation of documentation and information science;

(b) Methods and means of disseminating information;

(c) Information retrieval systems;

(d) Linguistic problems in scientific information work;

(e) National, regional, and international systems and net works; and

(f) Training of documentalists and users of documentation.

The FID Programme is to a great extent carried out by 30 International Committee of experts. Among them

"FID/II Information for industry" and "FID/DC Developing countries" are the two main committees promoting industrial information exchange.

721 FID/II "Information for Industry"

The FID/II was constituted in 1959 and reconstituted in 1967. The FID/II committee consists of 22 members representing 21 countries and UNIDO. It operates through sub-committee for the study of "Effective Means of Communicating Scientific and Technical Information for Industry" constituted in 1963. It has several sub-groups, studying the problems of Dissemination, Internal Flow of Information, Motivation for Management, and User studies, FID/II working groups are preparing "National Technical Information Services—world-wide Directory" and "Technical Journals for Industry".

722 FID/DC "Developing Countries"

The FID/DC was constituted in 1966. It consists of 22 members representing 20 countries and OECD and the Commonwealth Agricultural Bureau. In 1968, on FID/DC ad-hoc committee was set up for "Survey of documentation in developing countries and elaboration of draft models for documentation systems in developing countries".

73 INTERNATIONAL STANDARDS ORGANISATION (ISO)

ISO was established in 1947, with the object of promoting the development of standards for facilitating international exchange of goods and services and for developing mutual cooperation in intellectual scientific, technological and economic activity. All industrially advanced countries and a number of newly emerging countries are members of this international organisation. In 1970, ISO had, as its member bodies, most of the representatives of national standards organization in 54 countries. In addition, there are a dozen more countries represented as non-voting correspondent members. ISO has also been actively promoting establishment of national standards institutions in all the countries of the world. The activities of ISO cover a very vast field of subjects ranging from long established agricultural products to new and sophisticated engineering techniques, where the services of mechanical, chemical, hydraulic, metallurgical, transport, textile and mining experts are put to use. All matters of an electrotechnical nature are, however, handled by the International Electrotechnical Commission (IEC) which functions as a Division of ISO. ISO provides newly industrialized countries a means of contracting and benefiting from the technical skills and experience of countries already highly industrialised, offers opportunities of cooperating with other countries to help solve common problems, supplies technical documents containing expert knowledge from all over the world, and helps these countries in establishing the most appropriate standards for their needs at the right moment and at minimum cost.

While ISO and IEC are world organisations in which all countries with organized standardization facilities cooperate, a number of consultative forums have been set up by groups of countries with common economic problems and interest. These agencies implement and develop common standards within the group and contribute to world standardisation effort by resolving many differences that might arise among the members. The Asian Standards Advisory Committee (ASAC) was established in 1967 under the auspices of ECAFE with objective of promoting regional co-operation in standardisation activities.

8 National Agencies

81 INFRA-STRUCTURE FOR TECHNOLOGY TRANSFER

The process of conversion of scientific and technical, know-how into a device which generates new products and processes involves organisations and adaptive mechanisms at different stages. Building up of a science and technology infra-structure is an essential pre-requisite for the efficient use of imported as well as indigenous technical know-how.

82 COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

In a fast developing country such as India, the seeds for building up such an infra-structure dates back to nearly fifty years. The Government of India became aware, with the advent of World War I, of the

need for building up in a systematic manner scientific research, especially applied research. In 1918, the Indian Industrial Commission urged the Government of India to promote applied research. It was only in 1934 that the Government set up the Central Industrial Intelligence and Research Bureau which was later known as Industrial Research Bureau.

In 1940, this was superseded by a Board of Scientific and Industrial Research. Its function was to advise the Government on industrial research and development of Indian Industries. This Board was finally converted into the Council of Scientific and Industrial Research (CSIR) in 1942.

821 Functions

The primary functions assigned to the CSIR are:

- 1 Promotion, guidance and coordination of industrial research in India including the institution and financing of specific researches;

- 2 Establishment or development and assistance to special institutions or departments of existing institutions for scientific study of problems affecting particular industries and trades;

- 3 Utilisation of the results of research conducted under the auspices of the Council towards the development of industries in the country;

- 4 Establishment, maintenance, and management of laboratories, workshops, institutes and organisation to further scientific and industrial research and utilize and exploit for purpose of experiment or otherwise any discovery or invention likely to be of use to Indian Industries; and

- 5 Collection and dissemination of information relevant not only to research, but also to industrial matters generally.

822 Organisation

The CSIR functions as a part of the Ministry of Education. The administration of the Council is vested in the governing body of which the Prime Minister is the President.

By 1968, the CSIR had thirty research institutions, two scientific and technical service organisations for publication and dissemination of scientific and technical information — PID and INSDOC, and two industrial and technological museums. The Council is collaborating with thirteen research institutions — six concern the textile industry and the rest are concerned with Cement, Plywood, Tea, Paint, Rubber Electronics and Automotive industries. It renders assistance to industries by way of technical advice, preparation of plans and procurement of material and experts wherever necessary.

823 Achievements

During the last thirty years, the CSIR laboratories have taken more than 1300 patents, of which 180 are filed in foreign countries. The sustained efforts of CSIR in establishing close links and com

munication with the industry has helped in securing the utilisation of a significant number of products and processes developed through research. Till 1967, two hundred and thirty two processes have been released to industries/user organisation on royalty/premium basis or as technical assistance against payments. Of these 103 processes are reported to be in commercial production, and 129 processes are in various stages of exploitation. Seventeen other processes released free of charge have been utilised by commercial firms. Based on the know-how developed in the laboratories, 58 processes are now in semi-commercial and pilot production stages in the laboratories. More than two hundred and forty processes have been handed over to NRDC for commercial utilisation.

83 NATIONAL RESEARCH AND DEVELOPMENT CORPORATION (NRDC)

NRDC was established in 1953 as a specialised agency devoted exclusively to assess the feasibility, utility, and exploitability of researches and inventions carried out by various laboratories, their field of application and the degree of maturity for their commercial exploitation.

Its functions are

1 To develop and exploit in public interest for profit or otherwise the inventions, innovations, etc. in respect of processes and products generated by government and private agencies in India;

2 To enter into reciprocal arrangements with similar organisations in other countries to exploit Indian inventions in those countries and their inventions in India;

3 To issue exclusive or non-exclusive licences on such terms and conditions regarding the payment of premia, royalties, share of profits etc and ensure commercial production of the products of inventions;

4 To install and work pilot prototype or semi-scale units or full commercial plants to develop a particular invention or inventions and ensure production from them;

5 To afford facilities for advising and assisting government departments, universities, research institu-

tions and individuals in filing applications for patents and prosecuting the same before the Controller of Patents and to frame rules for the purpose and vary them from time to time.

91 Conclusion

The impact of the different international organisation on generation and diffusion of new know-how to different parts of the world has been slow. However, the helpfulness of such centres in overcoming the rigidity of national barriers has been amply demonstrated during the last one decade. The UNISIST programme envisages emergence and co-operation of several such centres. Thus, know-how generated in any part of the world can be made known and available to any other part of the world, with minimum, possible hurdles and timelag.

92 Source documents used

The following documents have been used as sources of information while writing about the different agencies in this paper.

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