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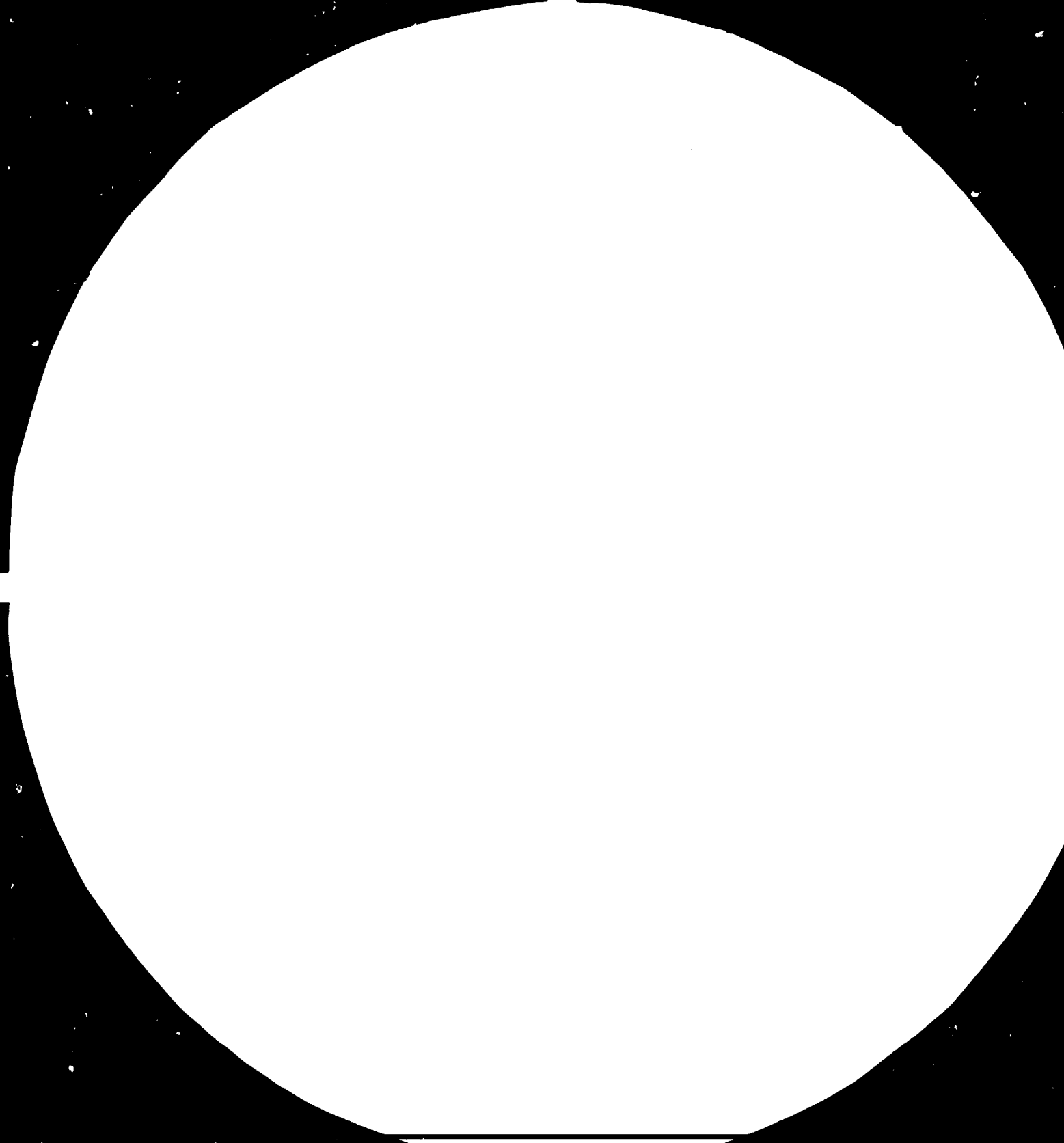
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ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE .

DP/RAB/83/020

MOROCCO

Technical report: Documentation and Information*

Prepared for the Arab Industrial Development Organization (AIDO)
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

Based on the work of Mahmoud A.H. Zayed, Consultant in
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United Nations Industrial Development Organization

Vienna

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INTRODUCTION

A. Duration of the Mission

The duration of this mission was three months in two periods. The first period from 6 October 1984 to 3 December 1984 in Casablanca (IMEC/ARPAC) and from 3 December 1984 to 15 December 1984, traveling to Jordan, Qatar and Saudi Arabia.

The second period was from 21 January 1985 to 17 February 1985 in Casablanca.

B. Background Information

The Arab countries have realized the importance of developing the packaging industry for its role in promoting exports beside protecting food and reducing its loss. Therefore, it seems essential for these countries to develop and modernize this industry.

For achieving this goal, the Industrial Development Centre for Arab States (IDCAS) and UNIDO organized an expert group meeting in Cairo in March 1973. UNIDO experts as well as Arab representatives and experts participated in this meeting to discuss necessary resolutions for developing the packaging industry in Arab countries.

The second recommendation of this meeting proposed to the Arab countries to set up national packaging centres in every Arab country for developing this industry, and until the erection of such centres the Arab countries should organize national packaging committees with representatives of all those engaged in this industry (producers - consumers). Such committees, as a first step, had to collect available information and statistics on this industry in each country. Among the recommendations was one concerning the establishment of an Arab Regional Packaging Centre (ARPAC) for offering its services to the packaging industry in Arab countries.

The third recommendation stated that IMEC in collaboration with IDCAS had to fulfil the task of documentation and information in the field of packaging industry.

Continuing the efforts made in this respect, the Arab national packaging committees (after having been organized) held their first meeting in Alexandria in October 1975. The meeting was organized by IDCAS, UNIDO and EDPA. According to the third recommendations of the meeting, IDCAS was assigned to prepare a comprehensive study on the requirements for establishing ARPAC including its mode of action, financing, etc. IDCAS was asked to submit the study to the second meeting of the Arab national packaging committees in Casablanca.

IDCAS prepared the study and submitted it to the second meeting held in Casablanca in October 1977.

Recommendations were made for setting up ARPAC and considering IMEC as a nucleus of this Centre and converting it into an Arab Centre subordinate to IDCAS.

Based on the above recommendations, the Arab Industrial Development Organization (AIDO) in its meeting in September 1981 took the decision to establish ARPAC as a technical apparatus to offer its services to all Arab countries (Order Nr. 13).

According to the above decision efforts were made by Morocco, AIDO, UNDP, UNIDO and Arab countries represented by their national packaging committees for setting up ARPAC. A protocol was signed with UNIDO and a programme of work for 1984/1985 was proposed to cover all activities, especially training, sectorial studies, documentation/information and dissemination. This programme is now being executed and revised by IMEC in collaboration with other partners.

The information problem has been given special attention and importance since the first meeting in 1973 due to the following reasons:

- The large and continuous development in the technical fields of packaging industry;
- the increasing interest in the production and utilization of packages;
- the lack of information and statistics at the Arab level.

Therefore, it seems necessary to focus all interest on making information and data available through an integrated and developed system for the Arab packaging industry. This will promote Arab trade and co-operation between Arab countries.

It also seems essential to find an effective and rapid means for information dissemination to Arab countries through the documentation centre of ARPAC. Such a means could be to issue a bulleting in Arab language unifying the technical terms in packaging for the sake of easy dealing among Arabs specialized in this field, i.e. preparing a special thesaurus.

1. OBSERVATIONS

A. Means and Systems of Documentation and Information in IMEC/ARPAC (targets - activities - equipment - personnel)

Owing to the important role played by the information and documentation in the industrial development in general and in packaging industry in particular, this activity has been given special attention since the time of IMEC's setting up. It has been mentioned that the role of information and documentation at the Arab level has been assigned to IMEC since the first meeting of packaging experts, held in Cairo in 1973.

It is quite natural that the targets of the documentation and information department of IMEC were directed towards serving the Moroccan Industry in first turn, and the Arab industry in second turn through providing them with technical information and statistics.

The main targets of the documentation department could be summarized as follows:

(a) putting technical and statistical informations at the disposal of the different departments of IMEC upon request to help them in performing their role in the field of researches, testing, standardization, training, etc.

(b) providing the producers of packages in Morocco as well as those working in this field such as the Ministry of Industry, Commerce, O. C. E. and users of packaging materials with technical information and statistics through enquiry services and carrying out tests as well as publishing technical and statistical information;

(c) advertising IMEC activities and services in the Arab packaging industry;

(d) helping the packaging industry in Arab countries through providing it with information and enquiry services.

These targets could be achieved through:

(a) lending documents to IMEC staff;

(b) selective dissemination of information;

(c) suggesting resolutions for the problems of investigators and workers in the field of packaging inside IMEC and Morocco as well as in Arab countries;

(d) offering various bibliographic services;

(e) issuing a bimonthly bulletin covering the activities of the packaging sector in Morocco and the most important news about this industry abroad;

(f) making information about packaging available to those benefitting from the documentation department, such information including:

- technical informations concerning the means of utilization of packaging materials, equipment and their development in both the traditional and modern techniques;
- addresses of producers of packaging materials, packages and equipment used in production, transport and distribution in Morocco as well as abroad, and services they can offer;
- laws, legislations and standards of packages and raw materials, means of transport and handling which are in force at international and Arab level;
- programmes and dates of meetings, conferences, exhibitions (international and Arab) to be organized in the field of packaging.

1. Facilities available at the documentation department of IMEC

The following facilities are available at the documentation department:

(a) Wide variety of documents:

- more than 900 books and references in the different fields and activities of packaging;
- more than 700 reports and studies made by Moroccan, Arab and foreign investigators on what had been achieved at the national level or within IMEC;
- more than 80 periodicals from different resources and in different languages and specializations that cover all activities and fields of packaging industry;
- all reports submitted to conferences and meetings that had been organized in Morocco, Arab countries and abroad, in addition to reports on the meetings organized by IMEC on packaging and relevant activities;
- a complete set of standards (national, Arab and international) in the field of packaging;
- miscellaneous statistics and data on the packaging sector;
- different files for industrial enterprises, organizations and national, Arab and international unions working in the field of packaging;
- a thesaurus for the terms used in packaging industry in French (which is being translated into English and Arabic).

(b) Some modern stationary facilities and fittings such as a microfilm reader, auditory and visual tools.

(c) A microprocessor for processing, registering, storage and retrieval of information.

(d) In addition to the above mentioned IMEC put all available equipment and tools of design, photographing and printing at the disposal of the documentation department.

2. Personnel

The following personnel are available at the documentation department of IMEC:

- Manager (Head), specialized in documentation and information with a good command of technical work in this field.
- Technical assistant for library works with good experience in dealing with the micro-processor.
- Assistant librarian, recently appointed, being trained on abstracting.
- Selection is being made now for a specialist in documentation and information to be appointed as Head of the documentation section.
- Editor, to help in issuing the IMEC Bulletin.
- Engineer (abstractor), to prepare abstracts.

3. System of filing and cataloging at the documentation department of IMEC

IMEC has adopted the system of cataloging by subject due to the nature of technical information, in order to facilitate the classification of subjects and continuous supplementation. Such system also facilitates finding terms in the frame of their meaning. The system of alphabetic cataloging was eliminated since it entails difficulties in classification into certain chapters, and consequently leads to overlooking of some information of certain interest to the investigator. The adopted procedure could be summarized as follows:

- (a) Acquisition: There are two means to express the need for books, references, periodicals and others:
 - (i) Filling a special form designed for this purpose by the technicians and specialists of the different departments of IMEC.
 - (ii) The documentation department of IMEC prepares lists of periodicals, books and references in the field of packaging with the help of catalogues and indexes of publishers and passes them to the different departments to indicate their needs.

Here it should be mentioned that the subjects of interest have been classified from the beginning in the light of monthly reports of the different departments that reflect the main activities. Such classification has been based also on the needs of the owners of packaging plants in Morocco (through a specially designed questionnaire).

Periodic review is carried out on the periodicals coming to IMEC so as to make sure that they are suitable to its activities and also to avoid repetition.

(b) Registration: All books, periodicals and documents arriving at IMEC are registered according to the following:

(i) Books, periodicals and reports are registered in special records with serial numbers according to the dates of arrival under three main categories:

- reports, under letter R
- books, under letter L
- printed matters (publications),
under letter T.

(ii) Magazines (periodicals) are recorded in cadex cards.

(c) Processing: All books, periodicals and reports arriving at IMEC are processed after registration as follows:

(i) Filling a form specially designed for this purpose and including the following main items:

- code number (the serial number and date of arrival, e.g. 83/750)
- the letter indicating the type of document (book L)
- the serial number in the registration record (L 750)
- address in French (otherwise translated into French)
- in the case of periodicals, the title of article and the name of periodical should be specified
- summary of document
- key words as given in the thesaurus
- remarks

(ii) Formerly, the system was to record the above mentioned items in a card (subject card), whereas now all items are fed directly into the microprocessor and can be retrieved at any time.

(iii) Another card called reversed catalogue card is filled with keywords given in the document abstract and the codes of every document (book, report, etc.), e.g. L750, are written on the card. All keywords must be taken from the thesaurus. This card and keyword system makes it possible to find the numbers of cards on a given subject and consequently retrieve them from the microprocessor (printed) at any time. Conclusively, it could be said that all cards on packaging terms of the thesaurus have a reversed catalogue card (i.e. a card for each word and term in the thesaurus; about 2000 terms at present).

In future the system of processing, filing and retrieving will be converted into a completely computerized system. A great deal of work has been done on this way. However, this largely depends on the rate of abstracting.

(d) The documentation and information of IMEC offers enquiry services to those benefitting from documentation services in the field of packaging, either in Morocco or in Arab countries. The department has designed a special form for this purpose. Enquiries must be made by phone, mail or telex. Questions must be formulated in a manner that enables IMEC to find out the keywords according to the terminology of the packaging thesaurus and then to find the answer considering subjects relevant to the questions, following the procedure mentioned in the following:

- (i) specification of the subject (e.g. paper or plastic)
- (ii) further specification (e.g. rigid plastic)
- (iii) using reversed catalogue card to find out the number of documents (abstracts) concerning the subject
- (iv) obtaining the abstracts from the microprocessor
- (v) in case the abstracts are not satisfactory for the information required one may refer to the original document according to its number on the shelf.

4. IMEC Bulletin

The Bulletin of IMEC is edited according to the following steps:

(a) Suggestion of subjects: The subject is suggested by the documentation department of IMEC. Selection is made in accordance with the activities of the Institute.

(b) Publishing Committee (editing board): The documentation department conveys the suggested subjects (including its content) to a publishing committee in IMEC to

- discuss the suggested subject;
- make a final decision about the included items.

(c) Documental review: After approval of the subject (subjects) a review is made, including:

- scientific and academic aspects of the subject (from relevant publications and periodicals available in the library);
- aspects relating to local interest and Moroccan industry (through visits to factories, official authorities interested in the subject under investigation, and sending questionnaires).

(d) Writing and preparing articles for publication: Articles and items are often given to specialists of IMEC for preparation. They are then revised by the documentation department and given a suitable form for publication.

(e) Printing: Printing involves the following:

- Preparing subjects on the microprocessor in the documentation department (editing in one, two or three columns); spaces for photos and diagrams are also prepared;
- subjects and columns are adhered on carton sheets and arranged according to the desired design (which is done by the design department with the help of the editor);
- titles are designed and written separately (which is done by the editor in the documentation department);
- pages are then photographed (in pairs) on metal sheets, then printed on offset paper in the required amount (at present 1000 copies);
- the printed copies are collected in IMEC;

- at the same time the cover sheet is designed for the suggested subject (this is done in the design department of IMEC); the designed cover sheet is put on a carton sheet (in two pages as is the case with ordinary pages); after putting the titles, the cover sheet is sent for printing in colour outside IMEC.

(f) Covering: The copies are sent to a printing office where they are bound, covered, stapled and prepared in their final form. (Such operation will in future be carried out in IMEC since all facilities are now available.)

(g) Writing in Arabic language: Subjects written in Arabic are sent to a printing office outside IMEC to be printed by photo-composition on special paper. Revision and other operations are carried out in IMEC as with French literature.

From the above mentioned it is clear that all operations are performed inside IMEC (since all facilities are available) except

- cover preparation;
- writing of the Arabic part of documents (due to a lack of photo-composition facilities).

B. Packaging Thesaurus

Registration, processing and retrieving all information as well as enquiry services depend entirely on the keywords that have been taken from the original document, written on the processing form and stored in the microprocessor. The keywords used for abbreviating the document must be identical with the terminology of the thesaurus prepared for this purpose. The thesaurus is considered as the main guide in documentation and all operations pass through its terminology. Therefore, one should refer here in the steps of preparing this thesaurus in IMEC.

1. Why a thesaurus?

The main purpose of compiling a packaging thesaurus is to find a means for classifying different subjects. From the functional aspect, the thesaurus is a means for controlling terms (the group of keywords) used in expressing a document in brief. From the content's

point of view, the thesaurus represents a group of dynamic terms related to each other closely (wider and narrower term).

The thesaurus is an intermediate, transferring informations from a document to the researcher, since it represents a list of words (key and non-keywords) under which all terms given in the thesaurus are involved by elucidating the relationship between a given term and a word.

2. Selection of keywords

Technical and scientific terms in the field of packaging were selected from documents, periodicals, books and reports available in IMEC in addition to questions of researchers in this field.

A primary list was established for terms and words covering all aspects of packaging. This was done by primary cataloging of samples of documents dealing with different subjects of packaging. Such a list was gradually supplemented and then classified into a number of sections as required.

All terms used in the thesaurus were compiled according to the following rules:

- (a) words and terms having the same meaning only, such as pallets;
- (b) if a word has a synonym only one is selected;
- (c) non-synonymous words should be explained by identifying their application respectively;
- (d) the use of abbreviated forms should be avoided except in case of wide spread and clear abbreviations (e.g. PVC, HDPE, LDPE).

3. The relation between terms

For precisising each term and to avoid any possibility of "silence" either on cataloging or on retrieval level, or of overlooking some aspect of a subject, three types of relations were identified in the thesaurus:

- (a) Equivalence relation
e.g. "use" and "use to"
- (b) Narrower (pyramidal) relation: There are two types:
a general (wider) type and a narrower type, i.e. through investigation a definite term may lead to a general one and a general question to definite terms.

- (c) Related terms: This type of relation exists between terms having almost the same meaning without being synonymous.

The thesaurus will be updated and supplemented with additional terms. Such terms will be subject to thorough investigation prior to addition.

C. ARPAC Bulletin

1. Why ARPAC Bulletin?

Such a bulletin is of great importance since it helps to transfer technical, economical and statistical data. It is known that most of the documents available in IMEC are in French language, and this seemed quite enough for the activities of IMEC.

However, when establishing ARPAC within IMEC and depending before all on its facilities, an effective means must be formed for transferring information and services offered by ARPAC to Arab countries.

Issuing a bulletin in Arabic language may be the best way for this purpose.

2. Bulletin objectives

ARPAC Arabic bulletin must represent a comprehensive reference for technical, economic and informational aspects and should reflect the activities of ARPAC in simple and clear language, especially since all available information on packaging is in foreign languages (English, French, German etc.).

Therefore the Arabic bulletin aims at:

(a) Reviewing all developments of packaging in the world and the recent trends in this industry comprehensively and continuously. This review must cover technical and economic aspects including prices of equipment, raw materials, products, etc. Such information would be a helpful guide in investment decisions in Arab countries.

(b) Reviewing the role of packaging industry in the Arab countries, problems and development. This will help coordination and co-operation as well as trade exchange between Arab states.

(c) Supplying information and technical and economic data.

(d) Acquainting with the packaging industry and creating consciousness in producers and users of the following areas:

- promotion of exports;
- reduction of losses and waste;
- improvement of production;
- maintenance of public health;
- reduction of pollution, etc.

3. Essential steps for issuing the ARPAC Arabic bulletin

For issuing the Arab bulletin of packaging some aspects should be considered as follows:

(a) Name and symbol (logo): The name of the bulletin should be expressing the activity (packaging) and the issuing organization (ARPAC) and countries benefitting from it (Arab countries). A number of suggestions have been made. A symbol (logo) designed for ARPAC must be readable and must express the activity. Designs have been submitted by the design department of IMEC for choice of the most suitable one.

A common cover is being designed; the background should preferably be of unique colour. This will help in giving the bulletin a characteristic identity. The colour of each edition should refer in a clear manner to its main subject. The cover design is the responsibility of the design department of IMEC.

(b) Contents of the bulletin: For achieving the Arabic bulletin's target, it should permanently contain columns and sections dealing with the most important subjects and activities, and satisfy, if possible, the requirements of producers, consumers, and other interested persons. The following main columns and sections are suggested:

(i) Editorial: It concerns a technical or economic subject of current interest, and at the same time it outlines the policy of the bulletin. It is always signed by the chief editor (i.e. Director of ARPAC).

(ii) Technical - academic subject: It deals with one of the main branches of packaging industry (raw materials, packs of different commodities, etc.).

(iii) Sectorial study dealing with a packaging sector in one or more Arab countries: In this connection helpful would be some studies already available at the documentation department or compiled from reports and papers submitted to meetings. Such studies are analyzed and presented in complete file in the bulletin. The items to be involved are:

- role of the industry, number of enterprises, their types, activities and productivity;
- problems facing the industry, such as those of raw materials, labour, marketing, technological aspects, etc.;
- the countries' need of technical assistance and its source in Arab countries if available;
- the need of the co-operation of ARPAC;
- others.

The budget of ARPAC may take into account the preparation of a number of sectorial studies in Arab states each year. The results of such studies should be included in the bulletin to the benefit of people working in the field of packaging industry in Arab states. This could be achieved through coordination with AIDO and UNIDO.

(iv) Recent trends in packaging industry: This important item of the bulletin aims at reviewing and transferring what is suitable for Arab countries, especially in relation to

- new raw materials, their uses, development and economic aspects;
- new equipment and their suitability for the Arab conditions;
- new packages.

(v) Agenda: This involves:

- industry news in the world;
- industry news in the Arab world;
- meetings, symposia (either Arab or international) on packaging;
- Arab and international exhibitions;
- news and activities of ARPAC.

- (vi) Consultation services: ARPAC is expected to provide consulting services to the Arab states in the field of packaging. Therefore, this item of the bulletin should include the type of services IMEC/ARPAC could offer at each stage of its development. Reference should also be made to the mode and cost of consultation, specially in the following fields:
- consultation (technical, economic, administrative, etc.);
 - pre-investment studies;
 - pre-feasibility studies for new projects or for expansion of already existing ones;
 - solution of technical problems facing productive units in the Arab countries with the help of experts from ARPAC or even foreign countries.

(vii) Training:

- Training at ARPAC in the form of current training programmes organized by IMEC/ARPAC. Dates and costs of such programmes should be announced.
- Helping in organizing suitable training opportunities in factories, either in Arab states or in developing as well as developed countries.
- Organizing so called "tailor made" training programmes to satisfy some needs of Arab states according to their desire. Such programmes may be realized in requesting countries or at ARPAC.

- (viii) New projects: This section of the ARPAC bulletin throws light on new projects or such under construction in the field of packaging in Arab countries, taking into account
- main activity;
 - scale (size);
 - capital;
 - type of investment;
 - anticipated date of production beginning;
 - other necessary information.

- (ix) Investment opportunities: This is one of the most important section of the ARPAC bulletin. It requires efforts and studies from the side of ARPAC. It refers to investment opportunities in the field of packaging in Arab states. This helps to attract Arab capital. Preparation of industrial profiles in packaging through co-operation and coordination with AIDO would be helpful in this respect.
- (x) New books: This part of the ARPAC bulletin refers to the most interesting recent books and printed matters in packaging. It offers abstracts and notes their price and publishing house.
- (xi) Advertisements: This activity is considered important since it secures
- income covering part of the printing costs;
 - promotion of Arab projects and consequently, realization of some Arab co-operation through product exchange.
- Therefore such an activity should be supported and favourable conditions for advertising should be secured.

The above mentioned represents the main contents and items (permanent) to be included in the ARPAC bulletin for the sake of the Arab industry. Of course, parts may be omitted and others may be added to its content according to current need. Also special numbers of the bulletin may be issued to cover some branches of the industry or some relevant meetings. Some of these special editions may be devoted to statistics of world and Arab production, its development in the field of packaging.

4. Issuance periods

It is suggested to issue the ARPAC bulletin every three months (four editions per year) at the first stage. Later the bulletin would be bimonthly and finally monthly in order to go parallel with the rapid and continuous development of this industry at both the Arab and the international level.

5. Requirements for preparation and issuance of the ARPAC bulletin

A bulletin of such size and with such goals requires devotion of every effort and facility. The main contribution at the initial stage will be made by IMEC and later by ARPAC. IMEC will provide technical, economical and other information besides designs and diagrams. An active staff for translation (from English and French into Arabic) is required.

An agreement should also be made with experts in Arab states for sharing in providing the bulletin with researchers and consultants. Suitable incentives for the experts must be determined. Considering the above mentioned the following procedure is to be adopted:

- Determination of material facilities available at IMEC for the issuance of the bulletin in definite size and shape;
- appointment of two translators (from French and English into Arabic). Technical revision of translations will be made by experts of the Institute;
- appointment of a linguistic revisor.

6. Main sources of material and information required for the ARPAC bulletin

The main sources of information required for successful issuance of the bulletin are:

(a) Researches, studies and results of tests carried out on raw materials and packages by ARPAC. Economic studies and researches concerning the design of packages are also included.

(b) Sectorial studies carried out by AIDO in the field of packaging. For example, studies concerning food, chemical, paper, plastics, petrochemical and tin industries in Arab countries in relation to their role in packaging.

(c) Researches, studies and country papers submitted to meetings, symposia or training programmes organized by ARPAC. Therefore, the proper and timely organization of such meetings is of great importance from the point of view of selection of submitted subjects, and frame and items of researches.

(d) Books and periodicals concerning packaging that come regularly to the ARPAC library. Interesting subjects can be chosen, translated and prepared for publication. The periodicals represent a main source of news from world industry, meetings, exhibitions and new books.

(e) Reports, researches and statistical bulletins published periodically by Arab states.

(f) Some Arab experts may be asked to prepare researches or studies on definite subjects to be published in the bulletin.

(g) Furthermore, some individuals may be appointed as regional correspondents in some Arab states to provide the bulletin with relevant information on packaging.

7. Organization aspects

(a) Technical apparatus: There must be a technical apparatus whose only job is the preparation and edition of the Arabic bulletin. This apparatus will be subordinate to the documentation department of IMEC. All other departments (design, printing and others) will co-operate with this apparatus.

(b) Editorial board: The editorial board will include:

- the Director of IMEC and Manager of ARPAC Project as chief editor;
- Heads of technical, economic and documentation departments of the Institute as well as some experts from outside as members.

The board will hold regular meetings for discussing the publication policy, subjects and their priority and other topics. The board also has to suggest some Arab experts to participate in the preparation of subjects of peculiar interest in return for reasonable incentives for securing a good level of published material.

8. Distribution policy

The bulletin will be distributed through the following main channels:

(a) All specialized Arab organizations according to the distribution list known at IMEC/ARPAC.

(b) Arab organizations, public and private, as well as individuals in return for an annual subscription fee payment.

(c) Agreement with some distribution firms in Arab states to "sell" the bulletin like any printed periodical. Such firms will play the role of advertising it in Arab newspapers in return for part of the profit. This part will represent 40 - 50 % of the profit, but the gained benefits will be:

- Advertising ARPAC and its activities, particularly in the field of consultations as a specialized apparatus;
- creation of consciousness in Arab citizens in relation to packaging and its importance to national economy and protection of both consumer and producer;
- expanding the base of those benefitting from ARPAC's services through different information included in the bulletin.

C. Work Carried out and Comments Made During the Mission

1. Present systems of documentation and information at IMEC

One of the first tasks was to get acquainted with the present systems and means prevailing in the field of documentation and information at IMEC and the role of these activities at the national and Arab levels through the ARPAC Project. For this purpose numerous meetings were organized with the Head of the documentation department of IMEC to state the role played by the department, its activity goals, present and future facilities, means of processing, cataloging and other subjects. Discussions were held with the personnel of the department within the frame of their tasks to find out their qualification. Another aim of the visit was to see the means of preparation, printing and edition of the IMEC bulletin, how subjects are selected, what facilities are available for printing, binding and design. The mission allowed to see the efforts made for compiling the packaging thesaurus in French language, the system adopted in such work, etc., as given in detail under (3.).

From the discussions and meetings the following could be reported:

(a) IMEC possesses good facilities in the documentation department concerning technical books, documents, periodicals, reports; the system of document processing and all is quite sufficient at the present stage. The system of continuous follow-ups for supplementing books, references and periodicals will lead to satisfying the demand for lacking references and at the same time will help to get rid of unnecessary ones, according to the interests at each stage of activity expansion of IMEC/ARPAC.

(b) The system of document processing adopted at present goes with the nature of technical information and subjects IMEC is concerned with.

(c) As regards the personnel in the documentation department, they are well experienced in the concerned field. However, it is necessary to support the department by employing some specialists in the field of information and libraries. In this connection, it should be remembered that many changes have occurred among those working in the department, including the Head himself. This creates troubles in work and loss of some links of the documental chain. Therefore, it is important to secure settlement for the personnel and, moreover, to try to attract more experienced elements in this field. It is well known that the human factor will remain playing a vital role; lack of it has already resulted in the absence of many fundamental documents from the library.

(d) The process of making abstracts and keywords is considered as one of the most important operations in the documentation procedure in IMEC. However, the present capacity of this work does not exceed 65 abstracts per day; in other words it is not proportional to the number of documents already present in the library and arriving daily. Therefore, it is necessary to employ sufficient personnel for such purpose. Some specialists in other departments of the Institute may share in this work against a suitable incentive. In addition, other specialists in packaging from outside may be asked to accomplish such work in order to benefit from all available documents. The department must be provided with a microprocessor working in Arabic language within the frame of the ARPAC Project.

(e) There is an undeniable lack of information and studies on packaging in Arab states while there is a surplus of those on the international level. This could be attributed to factors like translation, lack of studies on the Arab world. Here the necessity of integration of information on packaging on the whole should be emphasized. Such an integration could be achieved through:

- Securing information, either bibliographic or statistic, on the packaging industry, or securing sources of information on this industry in Arab states, such as different indices of industry sectors related to packaging, sectorial studies, index of Arab experts, and documentation centres with a relation to packaging;
- providing information to packaging industry through:
 - (i) compiling data on recent technology,
 - (ii) enquiry services,
 - (iii) translation of some selected books in the field of packaging into Arabic. The latter activity must be added to the objectives of the documentation department of IMEC and included in the frame of the ARPAC Project;
- securing all information regarding IMEC and ARPAC such as all reports and recommendations since the time of its establishment; in this connection, the reports of direction boards of IMEC, AIDO and other relevant organizations should be included. Therefore, a microprocessor operating in Arabic language is needed;
- preparing country files (a file for each state) containing statistics, sectorial studies, comprehensive industrial surveys and others in the field of packaging.

(f) Enquiry services in the last stage were still confined to Moroccan industry and in some cases to some Arab countries (Sudan, South Yemen and Jordan). Such services represent the frame measures of the ability of the documentation department to secure information at the Arab level within the frame of the ARPAC Project. Concerning the development of such a service at the national or Arab level the following should be pointed out:

- Information services to packaging industry in the Arab states should be offered in a positive manner, i.e. the services should not be offered upon enquiry only but at such time and in such form so as to benefit those interested anywhere. This could be achieved through getting acquainted with the needed information on this industry and then publishing it in the Arab bulletin, periodicals, abstracts, etc.
- Compiling as much information as possible on the packaging industry including such on raw materials, uses, technical development, equipment, world prices, and others. More than just gathering the documents themselves should be done.
- Users' requirements should be determined and their interest in obtaining information should be aroused. This could be achieved through field visits, personal communication or other means of advertising.
- Keeping the answers to received enquiries as documentation in the Institute to be used for similar forthcoming enquiries. Such answers are considered a good technical and statistical reserve.

2. Preparation for issuing the ARPAC Arabic bulletin

Within the frame of efforts made for issuing an Arabic bulletin aiming at characterizing packaging problems in Arab states and reflecting the activities of ARPAC as well as providing information and consultation services and paving the road for setting up ARPAC, the following main tasks were fulfilled within the short time of the mission:

(a) At first, a general outline was made for the modes and necessary procedure for issuing the Arabic bulletin. Included were the impetus behind the bulletin, its aims, procedures, contents, main items (columns), financial support possibilities, personnel, information sources, organizational aspects and editing policy. All of this has already been mentioned under number (C.). This general outline was discussed with the Project Manager and Head of documentation department of IMEC.

(b) All documents in Arabic available at IMEC were reviewed. They include researches, studies and technical reports made by experts during the last period. Among the reviewed papers were all studies and country papers submitted to meetings and conferences on packaging held either in or outside IMEC/ARPAC, organized by IMEC/ARPAC or by any other Arab organization. The aim of such review was to select good material for the bulletin. In this connection, seven subjects were selected, reformulated and put in an adequate form for publication. In addition, some linguistic aspects were considered in accordance with the terms used in packaging in most Arab countries.

(c) Again all magazines and periodicals available in English at IMEC library were reviewed (beginning from 1980). About fifty subjects were selected. The selected subjects deal with some important problems in packaging such as the use of raw materials, packs, equipment, recent trends of the industry, etc. The subjects were arranged in the order of their priority to be translated into Arabic and kept as a reserve for future publication in the bulletin. About fifteen subjects were translated, revised and prepared for publication.

(d) All editions (ten) of published IMEC bulletins (in French with a brief Arabic summary) were reviewed. The aim was again to select some important subjects for re-publication. Two subjects were selected, translated from French into Arabic, revised and prepared in a suitable form for publication.

(e) The design department of IMEC was asked to design some models for the symbol of ARPAC to be put on the cover page of the bulletin. They were also asked to prepare some samples of the cover page to select one. The one selected should be unique among other publications.

(f) The procedure followed for preparing and issuing the IMEC bulletin and facilities to do it were revised, as stated under (C.4.). In the light of these efforts and on the basis of what was revealed through comprehensive discussions with the Project Manager and Head of the documentation department of IMEC, and bearing in mind the facilities available at the Institute, some points and remarks can be made:

- (i) There is an undeniable lack of information on the packaging industry in Arab countries. It should be noted that the main task of the Arab bulletin is to inform on the status of the packaging industry in Arab states. The achievement of such a task requires planning of an ambitious programme for surveying all aspects of this industry in Arab states. Moreover, the survey must be repeated at suitable intervals by IMEC and ARPAC through a work programme of AIDO and with the help of UNIDO and other Arab organizations. This way there will be a continuous and up to date flow of information on the status of this industry in Arab states, in addition to comparative and feasibility studies concerning the establishment of a packaging industry, depending on local raw materials.
- (ii) There is also a lack of statistical data and trends in relation to consumption, prices, plans and activities in the field of packaging at the Arab level. For supplying with information in this concern the following could be suggested:
- Co-operation with specialized Arab and regional organizations working in the field of packaging. Protocols and agreements could be made for exchanging information and experience at the level of documentation centres and departments. The ground for this purpose was paved during field visits to some organizations in Jordan, Qatar and Saudi Arabia.
 - Co-operation with some specialized Arab federations in the field of information exchange of such unions as the Arab Federation for Food Industry, the Arab Federation of Fish Producers, the Arab Federation for Paper and Carton.
 - Close co-operation between the documentation department of IMEC/ARPAC and that of AIDO and its regional bureau (e.g. the Algerian bureau).
 - Studying the possibility of adopting a correspondent system for providing ARPAC and the bulletin with needed information. Correspondents should be thoroughly selected, and not according to their post in a given state.

- (iii) Contrary to the status of information on the Arab industry, there is a surplus of information on world industry, its recent development and current activities such as meetings, symposia, conferences, exhibitions and academic studies and researches (both in English and French language).
- (iv) As regards facilities required for preparing and issuing the bulletin, IMEC is capable of issuing the Arabic bulletin with its present facilities. Its personnel have gained experience from issuing the IMEC bulletin and all necessary facilities (design, photographing, printing, binding) exist already in the Institute, except lettering in Arabic. As mentioned the letter operation is performed outside the Institute for the Arabic part of IMEC bulletin. In future this problem could be solved through
- acquisition of a photocomposition facility;
 - acquisition of a dual purpose microprocessor, i.e. operating with Arab and Latin letters in addition to its main function (processing and storing of Arab documents available at the Institute).
- This seems to be the ideal solution.

As regards the manpower needed for the Arab bulletin, it is suggested to appoint:

- a journalist;
- an editor and assistant editor having good command of Arabic.

Translation into Arabic may be one of the most important problems facing the bulletin. Thus, most subjects and studies related to packaging are available in English and French only. Therefore, translation of some of them is necessary prior to publishing them in the bulletin. The translation problem could be solved through

- appointment of one full time translator from French and another one from English into Arabic. The translator should co-operate with IMEC specialists in relation to used terms. The thesaurus with its three languages will be helpful in this respect;
- asking some Arab packaging specialists to prepare and translate some interesting subjects for publication;
- encouraging some Arab specialists to write articles for the bulletin in return for suitable incentives.

- selecting some good subjects for publication, prepared to be submitted to meetings and seminars organized by IMEC/ARPAC. Good results would be obtained through successful preparation of such meetings and appropriate selection of subjects and experts.

(g) The efforts made during the mission resulted in the preparation of the first number of the Arabic bulletin of ARPAC. Moreover, materials were prepared for the issuance of the subsequent three editions for 1985, provided that all previously mentioned requirements are secured.

3. Translation and revision of the thesaurus into Arabic

Within the framework of actions aiming at a packaging thesaurus translation from French the following activities were carried out:

(a) The preliminary work undertaken by IMEC documentation and information staff to translate the thesaurus into Arabic and English was studied and revised. This thesaurus which includes about 2000 terms can be seen as a serious attempt in general.

(b) The United Nations Industrial Development Organization (UNIDO), particularly its Translation Section, carried out the thesaurus translation into Arabic as its contribution to this action. I have revised, studied and corrected this translation as a first step before submitting it to Arab countries for distribution to concerned specialists in the field of packaging industry to give their own remarks at the special committee meeting in Casablanca at IMEC. This meeting is due to discuss and adopt the thesaurus translation in its final form so as to constitute a unified packaging terminology reference in Arabic and also a basis for any possible addition in the light of new terms and progress in this industry.

4. Visits to some Arab countries (Jordan, Qatar, Saudi Arabia)

(a) Purpose of visits: Within the framework of the documentation and information programme of the ARPAC Project, particularly with regard to the Arabic bulletin publication and the translation and revision of the packaging thesaurus, a field tour was undertaken

to Jordan, Qatar and Saudi Arabia in addition to such actions as exchange of packaging data and studies, co-operation and coordination between the ARPAC Project and concerned Arab organizations. These visits, undertaken from December 3 to 15, 1984, aimed at:

- (i) Studying the co-operation possibilities and means between the ARPAC Project and different concerned organisms and institutions in these countries other than specific Arab organizations and federations;
- (ii) studying and getting informed about the existing systems used by these organizations and institutions in the field of documentation and information and the possibilities of co-ordination between them and the ARPAC Project;
- (iii) acquiring knowledge about the methods used in Arab bulletin publications concerning provision with articles and studies and ways of distribution, etc.;
- (iv) contacting Arab experts who are likely to contribute in the Arab packaging bulletin editions;
- (v) other fields of co-operation in documentation and information.

(b) Jordan, Amman - December 3 to 7, 1984

(i) Arab Standards and Metrology Organization (ASMO)

Due to the absence of Dr. Mahdi Hannouch, the Secretary General of ASMO, we could meet Mr. Abdallah Fadlallah, Assistant Secretary General, with the participation of Mr. Hamid Ilm Ed-dine, Head of Technical Service Department and Mr. Ihsane As-saoudi, Quality Control Responsible. The meeting started with a review of the visit purpose, an account of IMEC activities, the ARPAC Project mid-term programme and what had been achieved in this field, and also the future programmes and the efforts made to prepare the packaging thesaurus; this was followed by a discussion on co-operation fields between IMEC/ARPAC and the Organization and a visit to the Documentation Department and the library. The ideas, opinions and suggestions which arose can be summarized as follows:

- ASMO is carrying out a translation of a glossary of packaging terms issued by the British Standards Institution (2 Park Street, London W1A 2BS) into Arabic. The whole work is divided into six parts: 1. general, 2. paper and board packaging,

3. glass containers and closures, 4. metal containers and aerosols, 5. plastics and flexible packaging (excluding paper), 6. wooden packaging.

The first part which is general has actually been translated and is being printed; a copy of it will be submitted to IMEC/ARPAC. The translation is done by a professional who carries out the drafting of a preliminary version which he forwards to the quality control responsible who revises it, adopts it and advises its printing.

- ASMO prepared a standardization of transport package sizes. The final version of this has already been promulgated and will be sent to IMEC/ARPAC.
- ASMO has started giving packaging standards and terminology and increasing interest in the last period. However, the shortage of facilities and staff inhibits the rapid advance in this field as per the amount of achievements.
- ASMO is disposed to participate in the thesaurus translation revision prepared by IMEC/ARPAC and is willing to take part in the expert meeting which is to be held for its promulgation.
- With regard to the common seminar which is to be organized by both IMEC and ASMO in 1985 on packaging terminology, the Organization believes that it would not be possible to hold such a seminar during 1985 due to its work programme for this year which was already adopted; this seminar could still be held in 1986 provided that IMEC submits an official proposal to ASMO on due time that includes a preliminary conception of the seminar and other necessary formalities.
- It is suggested that TC 19 should be the work basis in the field of packaging standards and technical terminology so as to provide it with more efficiency in this area and also to promote its activities including its role in revising and promulgating the thesaurus.
- In order to increase benefit from IMEC/ARPAC Project programme activities, it is suggested to elaborate and print a volume including all works and studies presented to different seminars and sessions organized by the Institute and distribute to the concerned organisms and institutions in the Arab countries.

(ii) Ministry of Industry and Commerce

During this visit we could meet Dr. Akram Jamil Karmoul, Director of Industry with the presence of Mr. Salama Al Katarna and the Engineer Mrs. Souhir Amadi.

In the light of this discussion, the different opinions and remarks expressed can be summarized as follows:

- The Director of Industry requested to find a rapid and simple form of direct contact between ARPAC and the concerned organisms and institutions on both official and private level so as to provide a full and rapid benefit from the center services, particularly in documentation and information.
- The Director of Industry expressed his appreciation of the efforts made in the elaboration and translation of the thesaurus as well as Jordan participation in the activities aiming at its revision and promulgation.

(iii) Jordan National Packaging Committee

A meeting was held with Mr. Ali Dajjani to discuss the results of the efforts made for the Committee's reactivation, particularly in the field of documentation and information.

- Mr. Ali Dajjani expressed his welcome of an ARPAC Project expert visit under these circumstances. This visit, said Mr. Ali Dajjani, is a stimulus to strive towards the reactivation of Committee activities which have known a period of inactivity due to several reasons.
- A suggestion was made to prepare a larger meeting in order to discuss the means likely to reactivate and establish the Committee, and also to specify its role and ensure its resources which will enable it to carry out its various duties.
- He also promised to send a copy of the Committee meeting and the new establishment minutes as well as names of members and its future programme. A list of packaging industry experts and industrialists in Jordan would be enclosed to the minutes six weeks later.
- Mr. Dajjani asked to provide the Committee with different documents mailed by ARPAC Project to official organisms and authorities, particularly those concerning documentation and information, training courses and meetings, so as to be acknowledged and therefore to be able to participate in these activities in the best conditions.

(iv) Royal Scientific Society (RSS)

A meeting was held with Dr. Arafat R. Altamemi, Technical Advisor of the Director General of RSS during which he explained the Society's work fields and activities in technical areas, economic studies, documentation and information as well as technical terminology arabisation.

I gave him a resume of the different IMEC/ARPAC Project activities, the discussion focussing on the following items:

- In the field of terminology RSS elaborated the computer use terminology and is now preparing a terminology concerning other technical areas (chemistry, biology, etc...), however, nothing was undertaken as for packaging terminology and therefore can contribute to the thesaurus revision and promulgation.
- RSS assists the Jordan Linguistic Academy in its effort to translate different terminology items into Arabic, mainly in technical areas.
- RSS disposes of a chemistry-, construction materials-, textile- and plastics laboratory that may be used for packaging training and research purposes.
- RSS may participate in any sectorial studies or industrial surveys in the field of packaging either on Jordan or other Arab countries level, both directly or through the participation of experts. RSS is willing to carry out a collection of Jordan Packaging information and data.

(v) Jordan Linguistic Academy

I visited Mr. Abdelkrim Khalifa, Director of the Jordan Linguistic Academy, who expressed his welcome and disposal to undertake a co-operation in the field of packaging technical terminology translation into Arabic. He reminded us that his organism is assisted in this way by experts from different Jordan universities and by RSS.

(c) Qatar, Doha - December 7 to 11, 1984

(i) Gulf Organization for Industrial Consultancy (GOIC)

Several meetings were organized with the Organization officers, mainly with those in charge of packaging, documentation and information. These actions were concluded by a meeting with the Organization's Secretary General, Dr. Abdallah Hamad Al Moagul, and different contacts were undertaken with the following people:

- Mr. Nassif Jassim Dabdab, Assistant Secretary General
- Dr. Mohamed Wagih Badawi, expert
- Dr. Mohamed M.R. Amin Baban, Sectorial Development Director and Packaging Study Responsible
- Dr. Ibrahim Saad Elmiligi, Databank Director.

The discussions mainly dealt with the various ARPAC Project activities, the work programme for 1984/1985 and achievements that have been made as well as possible fields of co-operation between GOIC and the ARPAC Project, particularly in documentation and information.

Some remarks may therefore be made as follows:

- We could visit GOIC Documentation and Information Department which is regarded as the most advanced system in the region and contains: a data bank, a library and a publication unit which publishes the "Industrial Co-operation" term bulletin besides its monthly bibliographic bulletin. GOIC data bank includes:
 - data collection and processing unit
 - computer implication unit
 - computer operating unit.

The data bank includes six data bases:

1. Gulf General Industry Data Base: This data base contains all industrial companies data on a general basis such as information on the company's name, address, main activity, production capacity, capital, number of workers etc.; and it actually includes packaging firms without classification (I obtained a copy of the list of firms working in packaging in the Gulf region in order to provide IMEC/ARPAC documentation department with it).

2. Gulf Large Industries Data Base: This data base contains more detailed information on major industries in Gulf countries such as production growth during the last five years, raw material consumption and any change in production in addition to data on capital, manpower, industrial processing, etc.

3. Social and Economic Data Base: This data base contains basic information on the whole social and economic environment of GOIC's members besides a base for each country member (7 bases) used as a social and economic background in order to help studies and planning in each country benefit from a good co-ordination and co-operation in matters of analysis and decision making.

4. Technology Data Base: This data base contains information on technology sources all over the world. Petrochemical industries were given priority, at present technology suppliers data are being prepared mainly in the field of steel, aluminium, cement and some food industries. This will undoubtedly have an indirect influence on packaging industries.

5. Market Data Base: This data base aims at supporting Gulf countries' market studies and deals with matters of supply and demand during the last ten years in specific goods so as to be able to predict changes that may occur in this field within the next ten years. These data will certainly be of great help to planning of establishment of new industries, through a specification of future requirements.

6. Gulf Trade Data Base: This newly established data base aims at knowing the region's trade facts and conditions. For this purpose, international trade information sources such as OECD (representing 24 countries exporting to the Gulf region) were contacted for information supply. These data are not complete yet and should be furnished with local information.

In addition to this different data can be supplied through:

- periodical reference services
- multi-agent studies contribution
- contact with international data bases and benefits from their services. Contact is engaged with three international sources, UNIDO being one of them.

- Data bulletin and processing

Data are collected from their original sources (field surveys mainly in basic industries). They are processed and referred to different bases through specialized work groups. The manual files are the last resort for all data and information which cannot be classified in the bases.

- How the users are provided with these data

- Direct reply to enquiries after an analysis process;
- direct enquiry of the computer;
- a newly established data network that enables the countrymen to enquire directly of data bases through terminals;
- electronic post system;
- the replies themselves will be stored to benefit from them in future.

In the light of this advanced data system GOIC is willing to co-operate with ARPAC in the following areas:

- provision with packaging information;
- specific training on GOIC information systems;
- participation in the packaging thesaurus translation revision;
- It is possible to link the Institute's Documentation Department with GOIC Data Bank within a unified data network in the future, after provision with necessary equipment and unification of used systems.

A demonstration was made for us on the ways of obtaining information through the computer, among which a data list about packaging firms in the Gulf region (name, address, activity, etc.).

(ii) Industrial Development Technical Centre

A meeting was held with Mr. Abderrahman Mohamad Jabr Al-Thani, Deputy Director General of the Centre (the Director General was abroad) and the participation of Mr. Hamad Sa'ad; the discussion focussed on ARPAC/IMEC activities and the Technical Centre's achievements and activities.

- The Centre is carrying out various studies on packaging such as studies on press paper and paper waste recycling and use for producing paper and egg trays.
 - The Centre has no objection to acting as National Packaging Committee co-ordinator, however only upon receipt of an official request.
 - The Technical Centre has not received any document with regard to ARPAC activities, but mainly the work programme for 1984/1985 and training fellowships. Full explanation was given about ARPAC actions and activity programme in different areas, however, this requires an official record explaining the Project activities. It could be benefitted from its services, particularly in the field of technical information and statistics.
 - The Centre has no experience in the field of terminology translation; nevertheless it is willing to participate with a candidate in this field in case of request.
- (d) Saudi Arabia- December 11 to 15, 1984
- (i) Saudi Arabian Standards Organization (SASO)
- During this visit we had the opportunity to undertake several meetings with SASO Management staff as follows:
- Dr. Nabil Amine Molla, Director of Specification Department
 - Mr. Badr As Saad, Standardization Director
 - Mr. Abdel Muhsen M. Al Youssef, Head Technical Follow-up Section
 - Mr. Faouzi Hakim, Head Computer Section
 - Dr. Mohamad Al Asar, Chemistry Department
- In addition to contacts with specialists in documentation library and laboratories we could not meet the General Director because of his absence. Visits were organized to all organization departments in addition to laboratories of natural, chemical and biological standards from which we learned the following:
- SASO disposes of great possibilities in the field of testing and standards owing to its very well equipped halls and laboratories which are appropriate to a wide range of experiments and tests including such for packaging materials like plastics, textile, food products laboratories. In

addition to this, the Organization disposes of enough specialists and experts in analysis and testing.

- SASO is provided with a specialized library regarded as the only reference in the Gulf region in standards and metrology, including all international, Arab and local standards; they are kept on microfilms. The microfilm library has a rapid system of data and information photographing and restoring.
- SASO also has a computer system mainly used for administrative and financial purposes; it will gradually also be used for standard storing and retrieving.
- SASO is now elaborating and translating its standards within the framework of TC 19. The results will be submitted to IMEC.
- SASO Standardization Director requested IMEC/ARPAC assistance for the organization of a training session on packaging standards and related terminology. The Organization is disposed to provide all necessary means for this purpose, IMEC/ARPAC is expected to prepare the training materials, documents and talks and invite the lecturers either from its own specialized staff or Arab experts. The Director believes that this matter is urgent and expects over 50 persons from Saudi Arabia to participate. This Training Course will be held in Ryad for about 10 to 15 days.
- SASO is willing to participate in the thesaurus translation revision, however the Organization experts are of the opinion that the volume of this work requires longer time for preparation and foresee the necessity of experts assistance from every industry branch as well as translators and linguistic experts in order to achieve the best results.
- Some problems and enquiries encountered by industrialists in Kingdom of Saudi Arabia concern mineral water packaging in small plastic packages; in this respect, it is possible to benefit from enquiry services in IMEC/ARPAC.
- I obtained a complete list of what has been achieved by the Organization in the field of Saudian standards preparation besides other information on the Organization's activities, and given it to IMEC's documentation department.

(ii) Saudi Conculutig House (S.C.H.)

A meeting was held with Dr. Ahmed Twigri, Director General of S.C.H.. The discussions covered the co-operation between IMEC/ARPAC and S.C.H., other meetings were held with responsables within this Institution as follows:

- Mr. Abdelaziz A. Khathan, Vice President Economic and Adm Consultancy
- Dr. Bahaa Ed-dine Chafie Darwish, Chemical Industries
- Mr. Mohamed A. Al-Hwairini, Economic Administration Consultancy Department.

During these meeting IMEC/ARPAC purposes, activities and services were fully explained; the following findings may thus be formulated:

- IMEC/ARPAC's role and activities are not clear in the S.C.H. responsables' mind; this is due to a lack of information and contacts.
- S.C.H. is now carrying out a study on plastic substitution for paper and carton in packaging some products, since the raw materials for plastic are available in the country.
- There are several factories working in packaging; their activities are sometimes interferent. I could obtain a list of the country's factories with their activities and production which I provided to IMEC/ARPAC's documentation department within the framework of Arab plants and factories listing undertaken by IMEC.
- S.C.H. disposes of information on material and equipment importers from different international sources, mainly in the packaging industry.
- IMEC/ARPAC may assist S.C.H. and industrialists by providing them with necessary information and enquiry response on the condition that the answers be given promptly and that it be explained how this service could be obtained in the easiest way and on a large scale, including the private sector as well.

5. Other Tasks and ad hoc advice upon request of the Project Director

Following up discussions with the IMEC Director who is at the same time the ARPAC Project Director and in the light of his instructions different actions were taken as follows:

(a) Studies and survey programme

A general planning was set up with regard to the programme of global and sectorial packaging industry studies and surveys in the Arab countries as well as the ways of implementation to be used as a reference while planning for the Arab Industrial Development Organization (AIDO) work programme in packaging and for future ARPAC Project programmes.

This programme also aims at setting up the necessary data and statistics concerning the conditions and reality of packaging industry in the Arab countries, its problems and need for technical assistance and information, etc. These programme findings will constitute a basic source of the necessary material for the Arabic bulletin.

(b) Expert roster

A preliminary expert roster in the field of packaging has been prepared to be used as a reference when required. This roster preparation took into account the contributions on Arab level in this field from 1973 up to this year.

The data included experts' names, nationalities, addresses and field of specialization. The list contains about 120 names; it is regarded as a basis to be gradually updated with more recent data concerning activities and addresses.

It is also a basis of what was recommended during all past seminars concerning the establishment of a roster including experts' names working in this field.

(c) Meetings with department heads and specialists in the Moroccan Packaging Institute (IMEC)

Several contacts have been undertaken with different department heads, specialists and service chiefs in the Institute in order to discuss the work system and get to know:

- detailed functions of each department as well as its past achievements, future plans and available potential;
- needs of each department with regard to information and its nature (technical, economic, statistic,...) and its sources (from other departments, from Morocco, from Arab countries, from foreign countries ...);

- role of the department in providing home and foreign institutions and IMEC's other departments with various information;
- problems encountered by each department in the acquisition of such information.

(d) Participation in some activities of the training course on technical specifications, economic analysis, packaging materials and packages, and quality control, held in IMEC for trainees from Arab countries from 19 November to 28 November 1984, through discussions about packaging problems, economy and functions and the role of information and documentation in this field.

(e) Provision of documentation department (library) with some documents

I provided IMEC's library with some packaging documents and publications as follows:

- a packaging terminology list in English that includes about 5000 terms alphabetically classified;
- all documents that concern Arab National Packaging Committee meetings (3) held in 1973, 1975 and 1977;
- several Arab periodicals specialized in packaging, in Arabic language;
- some technical dictionaries in the field of printing, metal forming, steel and iron, because of their close relation with packaging industry;
- a thesaurus of social and economic development terminology in Arabic, French and English;
- a dictionary of manpower (Planning - Development - Employment, Cairo 1984) in Arabic, French, English;
- a list of Gulf packaging firms addresses and specializations.

(f) Assistance for the establishment of training fellowships forwarded by UNIDO to some specialists in the Institute within the framework of the mid-term programme. This assistance was given through suggestions and proposals according to each candidate's specialization, as well as suggestions concerning training areas which seemed to be appropriate in accordance with the regular duties of the candidates' posts at IMEC.

2. FINDINGS AND RECOMMENDATIONS

In the light of the previous activities we can gather the following conclusions and recommendations, taking into consideration that detailed remarks and recommendations concerning each subject are mentioned in the appropriate section of this report.

1. The documentation system in the Moroccan Packaging Institute (IMEC) is appropriate for its role, basically as a technical instrument; however, the documentation and information department should be re-inforced so as to enable it to fulfil its role at the Arab level as follows:

(a) Provide the documentation department with a microprocessor for Arabic documents processing and recording in order to benefit from its performance such as data storing and analysis and recording all recommendations, resolutions and documents produced within the framework of the Arab Regional Packaging Centre (ARPAC) since its first concept. This instrument will be utilized mainly to help the publication of the Arab packaging bulletin to avoid dependence on foreign sources in its preparation.

(b) Interest should be concentrated on developing a service of replies on enquiries and encouraging those who may benefit from this service in the Arab countries to do so; this assistance may also be provided in the form of field visits.

(c) Emphasis should be put on the collection of technical and statistical information with regard to packaging industry in the Arab countries and the world from its actual sources, rather than just collecting documents.

(d) Work should carry on toward the achievement of the findings that concern all the documents (abstracts) available in the Institute to benefit from their computerized processing and recording. This should be achieved through deploying more efforts by recruiting experts from outside in addition to IMEC staff.

(e) Re-inforce the documentation department by recruiting a library assistant and a documentation department chief.

(f) Improve the level of the documentation department staff through training programmes, either inside Morocco or outside, and inform them of recent and new documentation methods to keep up with any evolution in this field (see Annex 1).

(g) Co-operate with Arab organizations and institutions in the field of information exchange by establishing a unified technical information network.

(h) Carry on with the efforts to complete and translate the thesaurus and also provide it with new technical terminology of the packaging industry.

2. The material possibilities to publish the Arab packaging bulletin (equipment and instruments) are available in IMEC. The Institute also disposes of the technical know-how due to the experience acquired through publishing the current IMEC Bulletin.

However, IMEC/ARPAC staff should be re-inforced by the recruitment of:

- a translator from French into Arabic,
- a translator from English into Arabic,
- a journalist and Arabic language corrector.

An Arabic microprocessor should be purchased.

3. The concerned documents, studies and periodicals are available in IMEC's library in French and English and cover all packaging activities on an international basis. However, there is still a shortage of technical and statistical studies and information that deal with the packaging industry in the Arab countries, which would be necessary to provide the Arab bulletin with information on the situation of the Arab industry and also to carry out the service of replies on enquiries that we consider as one of the main functions of this bulletin. This shortcoming could be overcome as follows:

(a) The establishment of an ambitious and continuous study programme including a total survey on the Arab packaging industry as well as a comparative study on the use of local raw materials available in the Arab countries (or at least some of them), and feasibility studies on the establishment of projects that would use these raw materials and produce packaging materials and packages. These studies should be put at the disposal of people concerned with the packaging industry in Arab countries by publishing them in the Arab bulletin or other mass media.

(b) The appointment of a number of experts and researchers in packaging industry in the Arab countries to undertake studies on the most important subjects and sectors of this industry to be published in the bulletin. The elements and the frame of these studies should be determined beforehand so as to bear in mind the importance of the problems, the recent developments and tendencies in this industry. These activities are to be materially encouraged.

(c) A careful preparation of meetings and seminars in which people concerned with the Arab packaging industry participate; this preparation should focus on the presented subjects and papers so as to provide good material for publication.

(d) Setting up close relations with organisms and institutions concerned with the Arab world to allow co-operation in exchange of know-how, studies, research work and statistics that deal with packaging industry.

3. RECOMMENDATIONS TO THE ARAB INDUSTRIAL DEVELOPMENT ORGANIZATION (AIDO)

The role of documentation and information as a means of transferring packaging-technical know-how, data and statistics within the Arab countries is well established, and one can benefit from the activities and services provided. Priority was given to this area since 1973 in the activities of both Arab National Packaging Committees and the Moroccan Packaging Institute. However, one must clearly distinguish between the role and functions of information and the activities undertaken by the Moroccan Packaging Institute and the ARPAC Project on a technical basis in this concern; the role of information is mainly the reflection and expression of these technical activities both on international and on Arab level.

In the light of these points and following the above recommendations and suggestions the recommendations to AIDO will concentrate on the requirements for the next period so as to consolidate the Arab Packaging Centre (ARPAC) to assist it in carrying out its tasks on the Arab level concerning various technical, documentation and information areas. This would be possible through the following activities:

(a) Carry on supporting ARPAC and supply it annually with the necessary funds to enable it to execute its programme in various fields, particularly in documentation and information.

(b) Provide the project with a microprocessor in Arabic language.

(c) Provide training opportunities for documentation department staff either in Morocco or in another country.

(d) Re-inforce the ARPAC staff, allow the project some independence and appoint administrative and technical staff to work permanently for the project such as two to three persons from IMEC staff and two to three persons from other Arab countries besides a translator and a journalist and corrector; such staff will be able to face the requirements of the next period and render good service to Arab countries.

(e) Provide IMEC with a pilot plant within the framework of the project so as to support research and study process on the one hand and provide technical information and semi-industrial experiments for the service of replies on enquiries, in addition to its role in training on the other hand.

SUGGESTED TRAINING COURSES IN INFORMATION DOCUMENTATION1. BASIC LIBRARY SKILLSCOURSE SPECTRUM:

Objective: To train a cadre of paraprofessionals in general library functions for careers in information service units.

Expected outcome: Ability to assist, under supervision, with the organization and use of physical information resources in information service nodes, libraries, and similar agencies.

Methods of delivery: Lectures, readings, laboratory assignments, role-playing.

Duration: 20 days (120 contact hours over a month's period).

COURSE OUTLINE:1- LIBRARIES:

- Types of Libraries
 - National - public - etc....
- Library functions
 - x Selection
 - x Organization
 - x Services

2- DATA AND INFORMATION SERVICES:

- The user demands of information
- Available Information Services
- Information Resources
- Coordination between different information Institutions
- Types of Information Services
 - × Circulation / current awareness / reference
 - × SDI/ON-Line Search / interlibrary loan

3- ORGANIZATION OF PHYSICAL MATERIALS:

- Acquisition
 - × Policy
 - × Planning
 - × Tools
 - × Procedures
- Cataloguing
 - × Definition / levels
 - × General Rules
 - × Maintenance
 - × Union Catalogues
- Classification
 - × Definition/use
 - × Different Systems
 - × Applications

4- REFERENCE TOOLS FOR FACT IDENTIFICATION:

- Concepts of reference services
- Dictionaries
- Encyclopedias
- Yearbooks
- Handbooks
- Biography sources
- Bibliographies
- Statistical References
- Query Negotiation
- Characteristics of Reference Sources
- Practical application

5- PERIODICAL INDEXES & ABSTRACTING SERVICES:

- Indexing concept
- Indexing Tools
- Controlled Indexing
- Free Indexing
- KWIC - ISVOC
- Applications
- Abstracting concept
- Types of Abstracts
- Procedures & Application
- Quality Control
- Ready made D.B.
- Machine Readable - Database

6- GOVERNMENT DOCUMENTS:

- Characteristics
- Laws / Types
- Organization

7- THE REFERENCE INTERVIEW:

- Information as communication media
- Listening technique
- Telephone Interview
- Reference
- Analysis of user demand
- Reference record-keeping

2. TEXT PROCESSING AND DOCUMENT PREPARATION

COURSE SPECTRUM

Objective: To train paraprofessional personnel in the use of document preparation software on a specific multiprocessing microcomputer system.

Expected Outcome: Ability to use editor and formatter utilities of 'different types' software

Method of presentation: Guided study of appropriate instruction manuals; hands on practice on actual terminals

Duration: 10 days (60 contact hours over a period of 15 days)

COURSE OUTLINE:

1- INTRODUCTION TO TEXT PROCESSING FUNDAMENTALS:

- 1.1 What is an editor?
- 1.2 Formatter Vs. Editor.
- 1.3 Typical formatter functions
 - Margin
 - Headings
 - Underlining
 - Centering
 - Paragraphing

- Paging
- Indenting
- Undenting

1.4 Some known formatters

- Wordstar
- NROFF
- RUNOFF

2- TRAINING:

2.1 Interacting with a real machine:

typing commands, correcting typing mistakes, logging in and out mail, inter-terminal communication.

2.2 Creating Files and the text editor "ed".

Basic editor commands (append, change, delete, edit, file, global, insert, move, print, quit, read, substitute, exclude, write, context searches, escape).

2.3 NROFF text processors: Command syntax and options file. Options description (o list, n N, s N, m name, raN, i, q, T name.)

Document preparation and formatting packages.

3- ARABIC TERMINALS.

3. DATA ENTRY

COURSE SPECTRUM:

Objective: To secure trained data entry personnel for information service nodes.

Expected outcome: Ability to use appropriate DBMS facilities and command for efficient, error-free entry of English and Arabic textual and numeric data into a data base environment.

Method of presentation: Guided study of appropriate instruction manuals; hands on practice on actual terminals.

Duration: 5 days (30 contact hours)

COURSE OUTLINE:

1- INTRODUCTION TO ED:

- 1.1 How to read through a manual.
- 1.2 Relation between DBMS Facilities and editing.
- 1.3 Editing functions (ED).

2- DBMS FACILITIES

3- SCREEN FORMATTING:

- 3.1 What is screen formatting?
- 3.2 Screen formatting programs.

4- ENTRY OF ARABIC TEXT:

- 4.1 Arabic Terminals.
- 4.2 Arabic Text & Codes.
- 4.3 Entry of Arabic Data.

4. INFORMATION SERVICE DEVELOPMENT

COURSE SPECTRUM:

Objective: To prepare professionals for information service functions provided by service nodes and other large organizations.

Expected outcome: Ability to attain the professional position of "information specialist", with competence in the design and operation of one or more of the following functions: documentation, database searching, reference work.

Method of delivery: Lectures; video; practicum in document work; database retrieval practice. Examinations and formal evaluation of participants.

Duration: 60 days (300 contact hours over a 3 months period).

COURSE OUTLINE:

1- THE RATIONALE FOR A NEW PROFESSION:

1.1 Data and Information as problem solving resources:

- The Information Era - The Intelligence Explosion

- The Information Carriers
 - x Data
 - x Information
 - x Expertise
 - x Knowledge
- The Problem - Solvers
 - x Decision - Makers
 - x Professional Practitioners
 - x Researchers
- Data and information needs.
 - x Information ON & Information For
 - x The Written Word & The Factual Data
- The Primary Information Sector & the Secondary Information Sector
- The Information Technology
 - x The Micro-Processor
 - x Microforms

2- INFORMATION ORGANIZATION AND MANAGEMENT:

2.1 Data and Information Categories and Sources.

- Information Categories
 - x Policy and Management Information
 - x Scientific and Technical Information
 - x Operational Information

- Information Sources
 - x Formal Information Sources.
 - x Informal Information Sources
 - x: Specialized or Negotiable Information Sources

2.2 Acquisition

- The Acquisition Policy
- Sources of Materials and Services
- Acquisition Procedures

2.3 Cataloguing

- An Overview
- The International Standard Bibliographic Description (ISBD)
- Cataloguing Procedures

2.4 Classification

- Rationale for the use of classification schemes
- Classification Schemes
- Classifying Techniques
- Reclassification: When does it occur, the rationale, the procedures

2.5 Subject Headings and Title Enrichment

- Subject Headings Extraction
- Verification of headings.
- Selection of headings in the classification scheme
- Comparison of primary and secondary subject headings

- Procedure for classifying under secondary subjects
- Significance and purpose of titles
- Title Enrichment Techniques

2.6 Abstracting

- Types of Abstracts
- Main Contents of an abstract
- Successive steps of abstracting
- Abstracts Evaluation
- Who makes the abstract
- Abstracting of arabic material
- Performance of various types of abstracts for various types of documents (English and Arabic)

2.7 Vocabulary Control

- why a Thesaurus
 - * The concept of subject analysis
 - * Keywords and descriptors, their role and use
- Thesauri, versus dictionaries and glossaries.
- Types of thesauri
 - * monolingual vs. Multilingual Thesauri
 - * Specialized Thesauri vs. Macro-Thesauri
- Thesauri Structure
 - * Hierarchical relations between terms
 - * The scope notes

- How to develop a thesaurus
 - x General aspects
 - x How to develop an arabic thesaurus

2.8 Indexing and Subject Access

- Fundamental concepts of Indexing
- Indexing Principles and Methods
- Evaluation Criteria for Indexing results
- Rules for Coordinate Indexing with Descriptors
- Criteria pertinent to the selection of descriptors
- Basic features and types of indexes

2.9 Data Handling and Formatting

- Generation and presentation of data
- Collection and evaluation of data
- Units, symbols and nomenclature
- Facets for describing data
- Data tabulation
- Machine formats

2.10 Standardization

- Definition of standardization and of standards
- Kinds of standards
- Problems in Standardization
- Sources of Information on Standards
- Specific Areas of Standardization:

- * **Cataloguing and Content Representation.**
 - **The Card Format**
 - **Principles for Entry.**
 - **International Standard Bibliographic Description (ISBD)**
 - * **for Monographs (ISBD(M)).**
 - * **for Serials (ISBD(S))**
 - **International Serials Data System (ISDS).**
 - **International Standard Serial Number (ISSN)**
 - **International Standard Book Number (ISBN)**
- * **Transliteration**
- * **Standards Relating to Computers and other Equipment**
- * **Standards for Index Languages, Thesaurus construction, etc.**
- * **Standards for Loan of Materials**
- * **International Standardization of Library Statistics**
- * **Standards for Directories and Inventories of Information Facilities**

3- INFORMATION SERVICES:

3.1 The Users and their Information Requirements

3.2 Interaction with users

- **the Information Officer**

* **His profile**

* 3.2 Job description

- establishing a dialogue
- acquiring the user's confidence
- Field extension services

3.3 Reference services

3.4 Data/Literature searching and reporting

3.5 Document reproduction

3.6 Translation services

3.7 Information Analysis/Synthesis

3.8 Information Networks

- Information Network Components
- Information Network Configurations
- Overview of networks functions
- Examples of Networks:
 - * on the International / Regional Levels
 - * on the national level

4- INFORMATION MARKETING

- Basic Marketing Concepts
- Information as a commodity
- The Information market Infrastructural pre-requisites
- The information marketing Officer
- Pricing of Information services

5- DATA BASE SEARCHING

- what is data base
- History and development of on-line literature searching

- What makes a searchable query
- How to use a thesaurus
- Search analysis and profile writing
- Keyword searching vs. free-text searching
- Dialog Commands
 - x Select
 - x Expand
 - x Combine
 - x Print
- Steps in On-Line Searching
- Database Description: Predicasts System
- Code Searching
- Comparing Thesauri
- Searching the same topic in more than one database in order to obtain information on different aspects of the same problem.

6- ORGANIZATION OF INFORMATION SERVICE

- Facilities and Equipment
- Financing, expenditures and cost analysis
 - x Expenditures
 - x Budget and Financial Control
 - x Financing Information Services
 - Subsidies vs. revenue from sale of products
 - Types of charge for information services

- x Membership subscription
- x Charges for documents
- x Charges for translation.
- x Charges for reproduction of documents
- x Charges for responses to inquiries
- x Charges for training programmes
- x Charges for symposia, seminars and conferences
- x Cost-Sharing arrangements
- x User Charges as a means of discouraging nuisance request
- x User Charges as a valorisation of the services
- x Advantages and disadvantages of service charge for information services

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

U N I D O

PROJECT IN THE ARAB STATES

JOB DESCRIPTION

DP/RAB/83/020/11-54/31.7.E

Post title Consultant in Documentation/Information

Duration Three months (in two periods)

Date required The first mission as soon as possible,
the second one after 15 September 1984.

Duty station Casablanca, with possibility of travel
within the Arab States.

Purpose of project/The purpose of the project as a whole is the conversion of the Moroccan Packaging Institute -IMEC into the Arab Regional Packaging Centre ARPAC. The specific purpose of this mission is the development of its department of documentation/Information.

Duties The consultant will be assigned to the Moroccan Packaging Institute and organize his activities in consultation with the Project Manager, who is also Director General of IMEC . The consultant will be specifically expected to :

1. Get acquainted with means and systems already available in IMEC/ARPAC for documentation/Information purposes.
2. Translate the existing thesaurus for the classification of packaging information into Arabic.
3. Co-operate in the elaboration of a quarterly packaging bulletin in Arabic.
4. Give ad hoc advice and co-operate in specific subjects within the fields of packaging documentation/information whenever specifically requested by the Project Manager.

The consultant will also be expected to prepare a mission report setting out his findings and recommendations to AIDO on further action which might be taken.

