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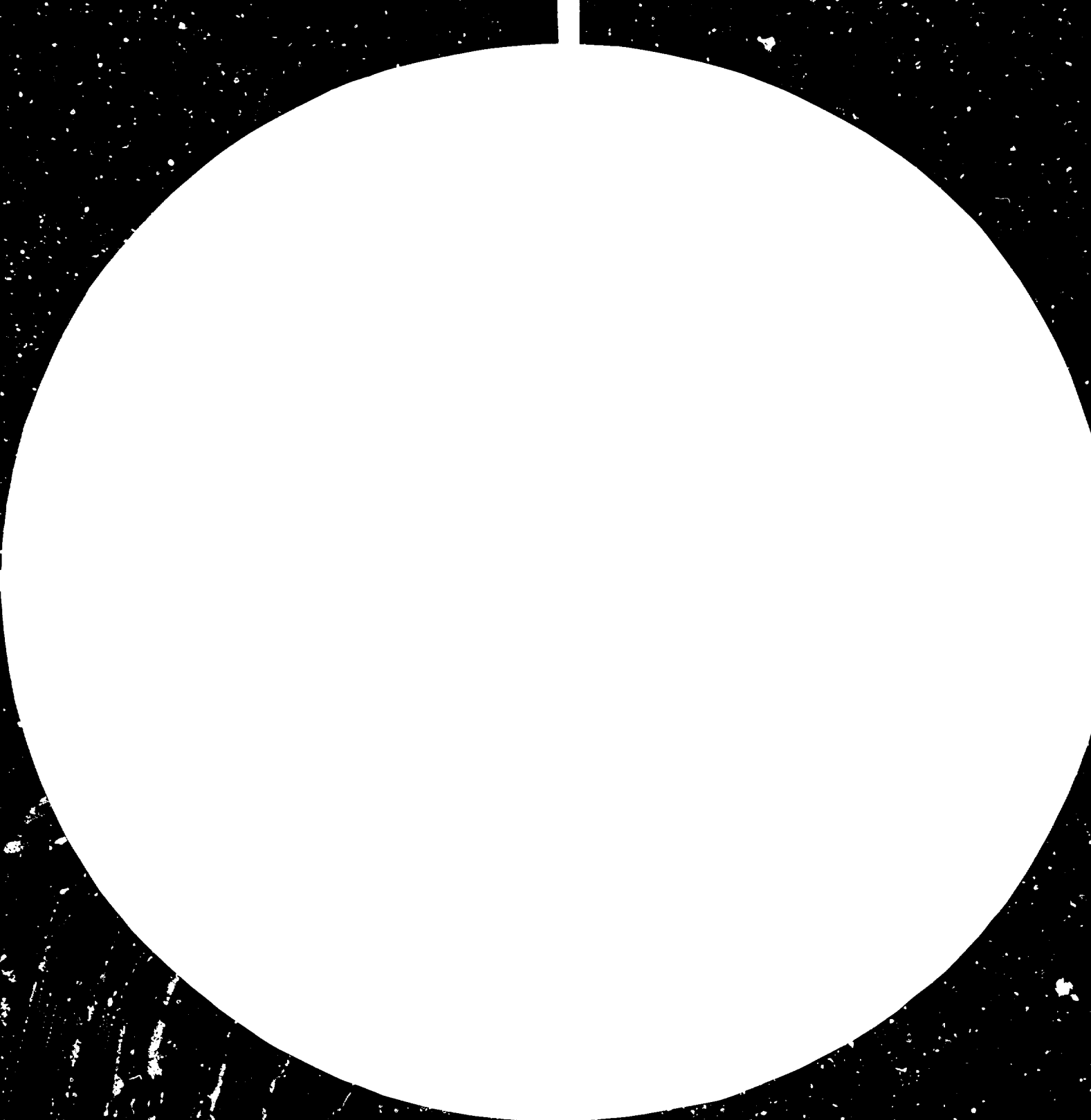
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CONFIDENTIAL

PERMANENT REPORT

CONSTRUCTION OF INTERNATIONAL STANDARDS

BY
E. J. FRENCH

1 TO 21 DECEMBER 1952.

ASSISTANT IN IDENTIFICATION, BUREAU OF METROLOGY, PARIS.

FIELD ASSIGNMENT

12458

Acknowledgements

Successful completion of the mission would not have been possible without the facilities made available and the kind cooperation offered by the President of INMETRO and his staff. Thanks are also due to the management and staff of ABNT and to the Director and staff of the Centro de Informações Nucleares for receiving the Consultant and explaining their information systems and services.

In addition the Consultant wishes to express his gratitude to the UNIDO Project Manager and staff in Rio de Janeiro for the excellent working facilities provided.

1 Object of the mission

The object of the mission was stated as follows:

In cooperation with counterpart personnel and under the leadership of the Project Manager (1) To review documentation on standards; (2) To train and instruct counterpart personnel in the establishment of training programmes and to conduct lectures accordingly; (3) To prepare a final report setting out the findings of the mission and recommendations to the government on further action which might be taken.

During a preliminary briefing the UNIDO Project Manager stressed the growing interest in Brazil in the ISO Information Network, ISONET. It would be important during the course of the Mission to explain the rights and duties associated with ISONET and to explore the possibility of participation by Brazil.

2 Conduct of the mission

The chronological sequence of the mission is given in Annex 1 and a list of persons met during the mission is given in Annex 2.

Discussions were held with the President of INMETRO and with members of his staff, in particular with the personnel of the Documentation Division, in both Rio de Janeiro and Kerem.

Visits were paid to ABNT and to the Nuclear Information Centre of the National Commission for Nuclear Energy. A list of persons met during the mission is given in Annex 3.

Further background information was obtained from a report prepared by Sutter on a mission conducted in September/October 1982, on behalf of UNESCO, the object of which was to study the conditions for establishing a national system of information on standards. (Sutter, Eric. Brésil - Mission auprès de CNPq/IBICT pour la mise en place d'un système d'information sur les normes. 13 Septembre - 12 Octobre 1982. Projet PNUD/UNESCO/CNPq/BRA/76/022).

A lecture was prepared and delivered to more than thirty librarians, documentalists and information specialists representing organizations located in the Rio de Janeiro area and having an interest in information on standards. Those attending the lecture are listed in Annex 3 and the text of the lecture is given in Annex 4.

3 Findings of the mission

3.1 Library holdings

The INMETRO library is divided into two sections, one in Rio de Janeiro (Praça Mauá) and the other in the metrology centre in Kerem. The Rio de Janeiro section is mainly concerned with standards while the Kerem section deals with metrology and technical regulations. There is also a library of standards at ABNT.

The holdings in the INMETRO library, Rio de Janeiro include the ISO and IEC collections of International Standards on microfilm provided by Information Handling Services and a collection of IEC standards in hard copy. DIN standards are received regularly through a special agreement and some are available in Portuguese. Most other collections (AFNOR recueils de normes, ASTM, ISO bibliographies etc.) are becoming out of date. There is of course a full and up to

date collection of Brazilian standards. ABNT in Rio de Janeiro the ISO member body, also holds some collections, but it appeared that the arrangement by which ISO member bodies receive copies of each other's standards by exchange is no longer working well for Brazil. It was said that ABNT had discontinued the mailing of Brazilian standards to some ISO members for financial reasons and had therefore failed to receive those countries' standards in return. It was mentioned several times that a list of ISO Standards in Spanish (failing Portuguese) would be of great help to INMETRO. The INMETRO library in Xerem has a full collection of the Official Journal and can therefore provide information on technical regulations in Brazil.

Other collections available in INMETRO, Rio de Janeiro, include a full set of Codex Alimentarius Standards, other specifications from the FAO and a collection of GATT documents relating to the Agreement on Technical Barriers to Trade.

3.2 Documentation activities

Brazilian standards are being indexed in accordance with ISONET procedures. Although there is as yet no national ISONET member for Brazil, information about ISONET methods appears to have been introduced by a Spanish consultant Sra Josephe Balesteras. The worksheet corresponds very closely with the model given in the first edition of the ISONET Manual. The data is at present being processed by an outside computer bureau, but preparations are well in hand for the installation at Xerem of a Cobra 530 computer, following which processing will be in-house.

INMETRO is using the BSI "ROOT" Thesaurus for describing the technical content of standards. At the time of the mission a documentation expert from the Portuguese member body of ISO (Direcção-Geral da Qualidade, DGQ, Lisbon) was also present at INMETRO. Discussions took place on the preparation of a Portuguese language version of the thesaurus; it appeared that a virtually complete Portuguese version had been prepared by DGQ, in consultation with BSI. Translation work was also proceeding in INMETRO but on the basis of translating descriptors as required for indexing purposes. Some problems had arisen from the differences between the Portuguese used in Brazil and that used in Portugal. There is a need for some organization to represent the Portuguese language in the evolution of the thesaurus, but it appeared difficult to reach a decision on whether the agency should be DGQ or INMETRO.

INMETRO are also indexing regulations and metrology documents. When they cannot identify appropriate descriptors from the ROOT Thesaurus they are backing it up by the Thesaurus of Engineering and Scientific Terms published by the Engineers Joint Council (USA) especially for metrology documents, and the OECD Thesaurus for administrative and commercial terms. There is no exchange of information between INMETRO and BSI, who manage the ROOT Thesaurus, on the need for additional descriptors, which seems unfortunate since this is the only way in which such inadequacies can be detected and corrected.

3.3 Membership of ISONET

There would be considerable advantages for Brazil to be represented in ISONET. This would allow receipt of the documents and attendance as participating member in the meetings of INFCC a Council Committee of ISO which is also the General Assembly of ISONET. INFCC is a forum for the exchange of views and experience between those responsible for the planning and operation of national standards

information centres and is active in the planning of cooperative information activities. INFCO is concerned to give maximum support in the implementation of the Agreement on Technical Barriers to Trade (of which Brazil is a signatory) as regards the clauses concerning information on standards, technical regulations and certification systems. Agreement is necessary between ABNT and INMETRO on how Brazil should be represented.

3.4 Discussion with President of INMETRO

The main discussion concerned the relationship between the implementation of ISONET and the obligations of a signatory of the Agreement on Technical Barriers to Trade, (the GATT Standards Code). The consultant was able to assist the Head of the Documentation Division in the preparation of a brief for the President on this subject and on the steps necessary for Brazil to be represented in ISONET.

3.5 Training Courses

An active training programme is in operation. An ISO seminar for standardization executives had taken place in November 1981 and a course attended by representatives from eleven Latin American countries was held in December 1982. Three courses are planned for 1983 on the subjects of: Standardization and industrial quality, Metrology and Company standardization. Training courses were discussed with the project Manager and with the persons responsible for their organization.

3.6 Documentation on ISO and ISONET

The Chief of the Documentation Division of INMETRO was presented with a collection of up-to-date ISO publications giving information on ISO and ISONET relevant to the activities of his Division.

4 Follow-up action by the Consultant

Certain follow-up action has been, or will be taken by the Consultant on return to Geneva.

The text of the lecture (Annex 4) has been typed in Geneva and sent to INMETRO where it will be duplicated and circulated to all those who were present at the meeting where it was delivered.

A copy of the book "Standardization and documentation - An introduction for documentalists and librarians", due to be published by ISO in February 1983, will be sent to INMETRO as an aid to the planning of courses in this domain.

5 Recommendations

5.1 ISONET and GATT

Steps should be taken as soon as possible to enable Brazil to be represented in ISONET. A national member of ISONET is either the ISO member body of the country concerned or a competent body nominated by the ISO member body. INMETRO is

already working largely to ISONET rules and will soon have its own computer to aid in the storage and retrieval of information on standards and technical regulations. It would therefore seem advantageous for the ISO member body ABNT to nominate INMETRO as national member of ISONET for Brazil, so as to profit from these developments. (The situation would then be similar to that in the USA where the ISO member body, ANSI, a non-governmental organization, has nominated the National Bureau of Standards as the national ISONET member).

In connection with the GATT Agreement on Technical Barriers to Trade, the National enquiry point for Brazil is at present with the Ministry of External Affairs. Since both the GATT enquiry point and the ISONET centre need access to the same sort of information on standards and technical regulations there are many advantages and economies to be gained in locating them together, or at least in establishing very close liaison between them.

Recommendation 1

It is therefore the personal view of the Consultant that the national information system on standards, technical regulations and related matters, including certification systems, should be developed within INMETRO, that INMETRO should be nominated as national member of ISONET for Brazil and should act as, or in very close association with the GATT enquiry point for Brazil.

Recommendation 2

Facilities should be made available for the national member of ISONET for Brazil to be represented at meetings of INFCO so as to profit from the exchanges of knowledge and experience which take place in this framework.

5.2 Thesaurus

A Portuguese language version of the ROOT Thesaurus, taking account of language differences between Brazil and Portugal is essential for both countries and could be useful also to other countries speaking Portuguese. It is important to ensure that the Portuguese language version does not diverge in the course of time from the other language versions of the thesaurus as this would adversely affect international exchanges.

Recommendation 3

ABNT/INMETRO for Brazil and DGQ for Portugal should be encouraged to reach agreement as soon as possible on how to manage the Portuguese language version of the ROOT Thesaurus and also to agree on a means of communication with the British Standards Institution, at present responsible for managing the thesaurus for ISONET, regarding additions and changes found to be necessary. Such communication could be direct or by way of the ISO Central Secretariat.

5.3 Exchanges of standards

A collection of standards catalogues and of the standards themselves, at least those of the more important trading partners, is regarded as an essential element in most national standards information systems.

Recommendation 4

A means should be found to enable ABNT to resume exchanges of standards and standards catalogues with the ISO member bodies of countries which are important trading partners of Brazil, if they have in fact been discontinued. Resources should be provided to enable the collections to be properly organized, kept up-to-date and made available for reference purposes to Brazilian manufacturers and exporters.

5.4 ISO Standards in Spanish

The availability of ISO Standards and of the ISO Catalogue only in English and French hinders the adoption and use of International Standards in Brazil; failing Portuguese, Spanish language versions would be a great help, and useful throughout Latin America.

Recommendation 5

ISO should be encouraged to issue a Spanish language version of the ISO Catalogue and also a list of those ISO standards which are available as authentic translations into Spanish.

ANNEX 1

Time-table of mission

- 7-8 December Travel from Nyon, Switzerland to Rio de Janeiro, Brazil.
Briefing by UNIDO Project Manager.
- 9-18 December Discussions with staff of Documentation Division of INMETRO in
Rio de Janeiro.
Examination of library holdings and documentation activities.
Lecture to group of librarians, documentalists and information
specialists.
Meeting with President of INMETRO.
Visit to ABNT.
- 21 December Visit to Metrology Centre of INMETRO in Xerem. Examination of
documentation activities, discussions with Documentation Division
staff in Xerem and visits to laboratories. Visit to Centro de
Informações Nucleares.
- 21/22 December Travel from Rio de Janeiro to Nyon.

List of persons met during the missionUNIDO

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Dr. Singh

Mr. Bennett

Mr. Bob Toth

Mr. J.M. Zawadzki

INMETRO

Sr. Walter dos Santos Presidente

Sr. Claudio Loewenstein Director of Standardization

Sr. José Eduardo Chief, Foreign Relations

Sr. Ricardo Nóbrega In charge, seminars and courses

Sr. Aldroaldo M. Florido Chief, Documentation Division

Sr. Adriano Braga de Melo Codex Alimentarius contact point

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Sra. Claudia C. Alves General information

Sra. Solange Coureiro Brazilian standards

Sra. Miriam F. Menezes " "

Sra. Clelia M.T. Melo Metrology

Services to users (SDCI):

Sra. Isabel Loureiro Standards (Rio)

Sra. Maria de Lourdes Santos (Kerem)

Sr. José Agostinno Assistant to Chief, Documentation Division

Sr. Antonio Carlos Systems analyst.

Laboratory staff at Kerem.

DGQ (Portugal)

Sra. Maria Odette Fernandes On visit to INMETRO and took part in thesaurus discussions

ABNT

Sr. Paulo Mauricio G. Pereira Acting General Secretary
Sra. Matilde Maddock Lobo Chief librarian
Sra. Matilde Cinira and other
ABNT staff.

Commissao Nacional de Energia Nuclear - Centro de Informaçõs Nucleares

Sr. Altair Carvalho de Souza Director
Sra. Gilda Gama de Queiroz Librarian

Meeting of librarians organized by Documentation Division of INMETRO

In the Chair: Sra. Gilda Massari Coelho (Instituto Brasileiro de Siderurgia)

Speakers: Dr. Maria Odette Fernandes (DGQ)
Mr. E.J. French

Present:

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and the staff of the Documentation Division of INMETRO



ANNEX 4

THE EXCHANGE OF INFORMATION ON TECHNICAL STANDARDS

E.J. French.

ISO Central Secretariat, Geneva.

Prepared as part of UNIDO project reference DP/BRA/75/003/11-21P/31.8.C for a lecture to documentalists and librarians organized by INMETRO, Rio de Janeiro.

December 1982

The exchange of information on technical standards

Abstract

Standards and technical regulations are closely related and information about both should be included in standards information systems. Problems in setting up and operating a standards information system arise from the variety of users and the multiplicity of organizations responsible for issuing the documents and also from the peculiarities of standards and technical regulations as documents. The development of the ISO Information Network (ISONET) and the entry into force of the GATT Agreement on Technical Barriers to Trade (the Standards Code) offer a solution to the information problem. ISONET is an agreement between standards bodies to combine their efforts to make information on standards and technical regulations universally available. The national members of ISONET are the ISO members or, alternatively, bodies nominated by them. Organs of ISONET are INFACO, the ISO Council Committee on information and also the General Assembly of ISONET, and the ISONET Management Board. The Standards Code is an agreement between governments which includes the requirement to establish an enquiry point in each country capable of responding to enquiries on standards and technical regulations. There are many advantages in establishing the national GATT enquiry point and the ISONET Centre together. Close cooperation exists in the implementation of the Standards Code and of ISONET. The tools developed for ISONET, which include an indexing manual, thesauri and guides, can also serve the needs of GATT.

NOTE: Much of the material used in the following has already appeared elsewhere.

1 Introduction

The main purpose of this talk is to introduce two examples of international cooperation in the exchange of information on standards. One of these, ISONET is at the non-governmental level while the other concerns the implementation of what has come to be called the GATT Standards Code, an agreement between governments. As will be shown later, these systems are in no sense competing with each other, but are cooperating with the common aim of encouraging coordination on standardization and the implementation of standards, based on the improved availability of information about standards. However, before describing them in more detail it may be useful to consider what types of documents should be included when developing information systems to serve the needs of ISONET and GATT.

2 Standards and technical regulations

Standards concern many different groups of people; to take a particular case the exporting manufacturer needs information about the standards which apply in his own country and also in his market countries. But he needs more than this: he needs to know about every rule that may affect the form, shape, size, content, packaging, marking, transportation, documentation etc. of his product. Could his requirements be covered by the term "technical specifications"? This term is defined in ISO Guide 2 as follows:

technical specification: A document which lays down characteristics of a product or a service such as levels of quality, performance, safety, dimension. It may include terminology, symbols, testing and test methods, packaging, marking or labelling requirements. A technical specification may also take the form of a code of practice.

A little consideration will show that this is too broad in one sense and not broad enough in another. It is too broad in the sense that the definition could include documents of an ephemeral or confidential nature, as for example a technical specification for a one-off product or a publicity brochure giving technical details. So-called company standards would come into this category, but would have no place in a general information system since they would concern only the particular company and its suppliers. The term "technical specification" is not broad enough in the sense that it excludes certain standards which are of importance in exchanges within and external to a country. Examples are the international standards defining the SI system of units (ISO 31), or the codes for the representation of the names of countries (ISO 3106).

Perhaps, then the term "standards" could define the required scope for the exporting manufacturer or producer. This term too has been carefully defined, as follows:

standard: A technical specification or other document available to the public, drawn up with the cooperation and consensus or general approval of all interests affected by it, based on the consolidated results of science, technology and experience, aimed at the promotion of optimum community benefits and approved by a body recognized on the national, regional or international level.

This definition excludes the ephemeral, or confidential documents, but it does not include, for example, rules which may be imposed for the greater public good but against the wishes of some of the interests involved. So the scope of an international information system must be expanded to include both standards and technical regulations. ISO Guide 2 gives the following two definitions which together define what is meant by "technical regulation":

regulation: A binding document which contains legislative, regulatory or administrative rules and which is adopted and published by an authority legally vested with the necessary power.

technical regulation: A regulation containing or referring to a standard or a technical specification.

So an international information system dealing with the technical requirements for exchanges must include both standards and technical regulations.

3 The information user

It must not be forgotten that the whole of the machinery set up to ensure the efficient flow of information is intended for benefit of the final user. In the case of information on standards and technical regulations the "user" may take a number of different forms, for example:

- governmental departments and regulatory bodies: they need the information for enforcement purposes (health, safety, environment etc.) and also to ensure that systems of standards and technical regulations remain compatible. They also need to know if they decide to apply the principle of "reference to standards" in their regulations, as described in ISO/IEC Guide 15;
- industry and commerce need information in order to comply with standards and technical regulations in their own country and in their markets;

- information systems and services need to be fed with information about standards in order to include it in their specialized or general services with the information on the other literature;
- standards bodies themselves need information about the standards of other standards bodies and about technical regulations; this is for reasons of compatibility, economy of labour and in order to deal with enquiries;
- trade unions need to know about standards which may affect the health, safety or working conditions of their members;
- the consumer and the general public are developing a growing interest in standards which affect the quality of products and the environment.

All these groups and many others have an interest not only in the published documents but also in work in progress in order that they may ensure that their special interests are represented.

4 The information problem

Thus there are many different groups of users requiring information about standards and technical regulations. There are also many different organizations preparing them, and the pattern varies from country to country. In the centralized state there is generally one body with the responsibility for issuing standards, but even then there are ministries issuing their own technical regulations in specialist fields. At the other extreme there are countries with many standardizing bodies - the USA has more than four hundred different organizations which prepare voluntary standards. The situation is almost as complex internationally; ISO has identified more than forty international organizations which have issued documents of a "normative" nature. The situation is further confused by the fact that a standard will often appear in a language which the user cannot understand and may even be written in a different script.

A further complication arises from the peculiarities of standards and technical regulations as documents. Research reports, articles from technical journals, books and even patents can be entered into an information system and then forgotten until the need arises to retrieve the information about them. This is not the case for standards and technical regulations which are frequently amended and up-dated. The user must have up-to-date information and the information system which serves him must therefore keep up-to-date. Standards and technical regulations often refer to other standards and technical regulations. Hence if one is amended or withdrawn it may affect others. These peculiar aspects of standards and technical regulations as documents mean that they need special treatment and amply justify the need for a national information centre, specializing in this area. Out of date information, or incomplete information on standards and technical regulations can be dangerous and expensive, especially for the exporter.

5 Towards a solution

Two important developments in recent years offer a solution to the problems outlined in previous paragraphs. One of these developments is at non-governmental level and this is the development by ISO of an information network for

standards and technical regulations, ISONET. The other is the coming into operation of the GATT Agreement on Technical Barriers to Trade, an agreement between governments.

5.1 ISONET

ISONET is an agreement between standardizing bodies to combine their efforts in order to make information on standards, technical regulations and related matters, including certification systems, readily available whenever and wherever it is required. ISONET depends on the principle that in nearly every country there is a body, usually the ISO member body, with a wide knowledge of standardizing activities in the country concerned. As a party to ISONET this body agrees to expand to the maximum its fund of information about standards and technical regulations in force in its own country; it also agrees to make its knowledge and experience available to other members of ISONET.

ISONET is therefore a network comprising the national standards information centres and the links between them. It includes the ISO Information Centre in Geneva which has a responsibility for international standardizing documents similar to the national responsibility for national documents. Preparations for ISONET really started with the formation of the ISO Council Committee. INFECO in 1969; INFECO was given the task by ISO Council of resolving the problems of information regarding standards.

5.1.1 The members of ISONET

The parties to the agreement mentioned in the previous paragraph are known as the members of ISONET. A national member of ISONET is either the ISO member body (or correspondent member) for the country concerned or another competent body nominated by the ISO member. In total there are fifty-two national members of ISONET, including three from the Latin American countries Colombia, Peru and Venezuela,

National members of ISONET may nominate as associate members other organizations in their own countries if they consider that this would be helpful to them in achieving the aims of ISONET. Actions taken by an associate member within the framework of ISONET remain the responsibility of the national member. So far no national member has found it necessary to nominate an associate member.

A third type of member of ISONET is the international affiliate. This is an international or regional body with an interest in ISONET which has joined by invitation of the ISO Secretary General, following a decision by ISO Council. There are now two international affiliates: the International Trade Centre UNCTAD/GATT and the International Commission on Illumination (CIE).

To accede to ISONET a body must agree to the terms of the ISONET Constitution. This is available as a booklet which also includes the "Conditions for participation in ISONET" - as a national member, as an associate member or as an international affiliate.

5.1.2 INFECO - the General Assembly of ISONET

INFECO is the Committee on information of the ISO Council; it is also the general assembly of ISONET. As such INFECO constitutes a forum for the exchange of knowledge and experience between the persons in different countries who are responsible for operating centres of information on standards and technical regulations.

The value of INFECO in this respect does not yet seem to be fully appreciated by ISONET members from the developing countries and attendance at the meetings has been mainly from the industrialized countries. Most meetings are attended by delegates from about thirty countries and also three or four international organizations are usually represented. The national members of ISONET constitute the participating membership of INFECO, while associate members, international affiliates and ISO member bodies which are not members of ISONET may be associated with INFECO as observers.

The main task of INFECO is to further the development and implementation of ISONET. To aid the development of national standards information centres and to facilitate exchanges between them INFECO has prepared a number of guides and procedures which may be regarded as the tools of ISONET and which will be considered in more detail later.

At its most recent meeting in November 1982 INFECO established a study group to examine the special needs of the developing countries with respect to ISONET.

5.1.3 The ISONET Management Board

The ISONET Management Board is the chief executive organ of ISONET. It is responsible for administrative, procedural and accounting matters and for the implementation of policy decisions taken by INFECO. The Board consists of nine members and a Chairman, all appointed by INFECO; the appointment of the Chairman is subject to confirmation by ISO Council.

5.2 The Agreement on Technical Barriers to Trade

The Agreement on Technical Barriers to Trade is one of the multilateral agreements, or codes, within the General Agreement on Tariffs and Trade (GATT); it is also referred to as the GATT Standards Code. It aims to ensure that when governments or other bodies adopt technical regulations or standards, for reasons of safety, health, consumer or environmental protection, or other purposes, these should not create unnecessary obstacles to trade. It also provides for measures of assistance to developing countries in the application of technical regulations or standards.

One of the important provisions of the Standards Code is that signatories agree to take account of international standards in their own national technical regulations or standards. Whenever a relevant international standard does not exist or the technical content of a proposed technical regulation or standard is not substantially the same as the technical content of relevant international standards, and if the technical regulation or standard may have a significant effect on the trade of other signatories, the signatory concerned is obliged to publish a notice and to notify other parties through the GATT secretariat. Another provision is that signatories shall ensure that enquiry points exist in their countries able to answer enquiries from other signatories about standards and technical regulations adopted or proposed in the country concerned.

The Agreement on Technical Barriers to Trade entered into force on 1 January 1980 and has so far been signed on behalf of more than thirty countries and the European Economic Communities.

6 Cooperation in the implementation of ISONET and the GATT Standards Code

With the large measure of common objectives it is natural that those responsible for the implementation of ISONET and of the Standards Code should work closely together. The cooperation starts with the secretariats. The GATT secretariat and the ISO Central Secretariat (in which is located the ISONET Secretariat) are both in Geneva, about ten minutes' walk apart. There are frequent consultations and exchanges of information between the two secretariats. A GATT secretariat representative is invited to all meetings of INFECO and ISO is invited by the GATT to send an observer to meetings of the GATT Committee on Technical Barriers to Trade.

Equally close liaison is essential at national level. Many countries have recognized the advantages of locating the information centre of the national member of ISO and the GATT enquiry point together in the same place. Nineteen of the signatories of the code have located a GATT enquiry point with the national ISONET member and in ten of these cases this is the only enquiry point with complete responsibility for all information activities concerning technical regulations, standards and certification systems in the framework of both ISONET and the GATT Standards Code.

The fact that the GATT Agreement involves governments, while the national ISO member body may be either governmental or non-governmental has had different effects in different countries. In some countries the government has delegated responsibility for the GATT enquiry point to the ISO member body which is also the ISONET member. This is the case, for example, in Canada, Germany, F.R., France, and Norway amongst others. In contrast, the ISO member body for the USA which is private organization has nominated the National Bureau of Standards (NBS) as the national member of ISONET. The NBS is also responsible for the GATT enquiry point. Both these methods have the same satisfactory result of bringing the two information activities together with a consequent economy of effort and greater efficiency.

Unfortunately, in a number of countries obstacles have arisen to prevent the merging of the two activities. In such cases it is very important that the two centres (usually one for voluntary standards and the other for technical regulations) should maintain close contact with each other.

It is clear that the tools and techniques developed by INFECO as aids to the setting up and operation of standards information centres and to exchanges between centres will also be helpful in the framework of the GATT Standards Code. Some of these aids will now be examined.

7 The tools of ISONET

7.1 The ISONET Guide

The ISONET Guide begins with an introduction to the network concept and then gives guidelines for setting up and operating a national standards information centre. The first edition of the ISONET Guide was published in 1980 and its contents are now under review preparatory to the publication of a second edition.

7.2 The ISONET Directory

A first (experimental) edition of an ISONET Directory was issued in March 1981. It gives the names and addresses of ISONET members as well as certain additional details which may help members of ISONET to have access to each other's information.

7.3 The ISONET Manual

In the storage and retrieval of information about documents there are two aspects to be considered. The first is the description of the document and the second is the description of the subject content of the document. The ISONET Manual deals mainly with the former; it identifies those data elements which are required to describe a standard or a technical regulation. The data elements are classified as essential, or optional, depending on their importance in the identification of the document and of items of information concerning it. Examples of essential data elements are the document identifier (e.g. the number of a Brazilian Standard such as NBR 5425), the title of the standard, the publisher etc. Fields are included for recording related documents, the importance of which has been emphasized in an earlier paragraph.

The ISONET Manual reserves a field for the description of the technical content of the standard or technical regulation. ISONET members are encouraged to use a post-coordinate system of indexing and the entry in this field will consist, for each document, of a set of descriptors selected from a thesaurus in such a way as to describe all important concepts covered by the document.

7.4 ISONET approved thesauri

In information exchanges it is helpful if all parties to the exchanges make use of the same thesaurus for indexing purposes. Work on a thesaurus for ISONET began in 1970 and resulted in 1976 with publication of the ISO Thesaurus, first (experimental) edition. Work continued to improve the thesaurus with many members of INFCO contributing but with the major effort coming from the French and British members, AFNOR and BSI.

Eventually in 1980 it was not found possible to resolve certain technical differences of opinion which had arisen regarding the content and presentation of the thesaurus. The result was the recognition of two thesauri for use in ISONET. The Thesaurus international technique (TIT) was developed by AFNOR from the original ISO Thesaurus while the ROOT Thesaurus was developed by BSI, based on the same source but considerably expanded and presented differently.

Each of these thesauri is in use in a number of different countries and various language versions have been prepared, while others are in preparation. The ISONET member for Portugal, DGQ, and INMETRO are working on the development of a Portuguese language version of the "ROOT" Thesaurus.

8 Implementation of ISONET

Under this heading it is proposed to consider first of all that part of the work of ISO which has an application in any international information system and consequently in ISONET. Secondly, the work of the ISO Information Centre in Geneva, an ISONET Centre, will be considered and finally the implementation of ISONET at national level.

3.1 ISO aids to information exchange

One of ISO's major contributions to the exchange of information is the preparation of international standards in library science, documentation, terminology and documentary reproduction. With the increasing use of computers the ISO standards for data processing have also become important. All these standards are available separately, and for convenience, also in the form of handbooks.

Other important aids to international communication are the multilingual vocabularies for various technical fields, published as international standards. They are listed in ISO Bibliography 3: International Standard vocabularies. Mention should also be made of the international standards for graphical symbols listed in ISO Bibliography 11: International Standards for technical drawings and graphical symbols.

International standards are meant to be adopted, preferably without change in national standards systems. Hence it is very important for ISO and IEC to communicate their standards widely throughout the world. The fact that a national standard is based on an international standard is an important item of information in itself and ways of identifying the fact through double numbering systems have been recommended by ISO. Two ISO/IEC Guides have been prepared in this area: ISO Guide 3: Identification of national standards that are equivalent to international standards and ISO/IEC Guide 21: Adoption of international standards in national standards.

3.2 ISO Information Centre

The ISO Information Centre, as well as providing the INFCO/ISONET Secretariat, is itself an information centre operating within ISONET. The task of the centre is to make available to the world all available information on international standards and normative documents, whatever their source.

ISO, almost from the beginning, has published an ISO Catalogue listing all ISO international standards and other publications. The catalogue is now prepared by computer and updated quarterly by a cumulative supplement. ISO also publishes twice a year its technical programme. This is a list of draft proposals and draft international standards indicating the stage reached by each and the target date for publication. The ISO Bulletin includes each month lists of new ISO standards and drafts and it also carries lists of translations of ISO standards into other languages.

The ISO Information Centre has prepared a Directory of International Standardizing Bodies. This is a useful guide to the standardizing activities of about fifty international organizations. The next step to be taken will be the publication in February 1983 of a KWIC index of the international standards of more than twenty international organizations. This index should be a great help to signatories of the GATT Standards Code in meeting their obligation to take account of international standards in their own national standards and technical regulations.

Other methods used by the ISO Information Centre to transfer information include the preparation of bibliographies in selected fields, the preparation of handbooks of standards and the operation of an enquiry service.

The ISO Information Centre will complete the preparation of the file of standards information so as to include all essential ISONET elements as soon as data processing priorities allow. It should then be possible to exchange information with other ISONET members on-line or otherwise in machine readable form.

8.3 Implementation of ISONET at national level

The principal method of transfer of information on standards on a world-wide basis is through the exchange between ISO members of their national catalogues and their national standards. In every country which takes part in these exchanges it should be possible to find a comprehensive library of national standards and standards catalogues, and of course the international standards of ISO and the IEC.

Apart from this many developments have taken place in the various national members of ISONET, towards its implementation. Thirty-four national members of ISONET have provided statements which are gathered together in a document ISO/INFCO 367: Implementation of ISONET at the national level. Most members of ISONET now have lists of their standards in English and/or French, the ISO working languages, and this is a great help to international exchanges. More and more members are developing computerized information systems with access on-line available to their users and to other national members.

9 Other information networks and services

It is important to take advantage of every channel of communication for information about standards. National members of ISONET are encouraged to provide information on their national standards for inclusion in national specialized and general information services (including libraries). They should also ensure that the national contact points for international systems such as INIS and AGRIS are made aware of national standards in their specific technical fields. As far as international standards are concerned, this is already being done through the ISO Information Centre.

Many commercial information services are beginning to operate in the area of standards and technical regulations. They can provide a useful service and should not be discouraged. INFECO has studied the implications and a document will shortly be published summarizing the advantages and disadvantages of such services. INFECO recommends members to avoid exclusive agreements with commercial information services.

10 Communication between members of ISONET

As already mentioned, INFECO meetings provide a possibility for exchanges of views and experience between ISONET Members. Unfortunately not everyone can attend and there are many people working in the information centres who know ISONET only through the documentation. For this reason the ISONET Secretariat circulates an occasional ISONET Communiqué. It is hoped that each country will request sufficient copies for everyone concerned to be able to see one. Members of ISONET are asked to provide short notes of items of interest for inclusion in the ISONET Communiqué. Progress by INMETRO in implementing ISONET procedures could soon warrant an interesting contribution from Brazil.

11 The ideal

The ideal situation is clear from what has been said above. In each country there should be an information centre capable of acquiring, storing and retrieving information about the standards and technical regulations in force in the country concerned and in preparation. The centre should be capable of receiving and handling information from similar centres in other countries.

It is not important whether the centre is located in a governmental or a non-governmental organization but it is very important that it should receive the support and recognition of the national government. For reasons of economy and efficiency the centre would use methods established for ISONET in order to meet both ISONET and the GATT Standards Code requirements concerning technical information. While a single national centre is to be recommended the use of sub-centres located regionally can often be helpful in very large countries such as Brazil, Canada or the USSR.

The ISONET/GATT centre would receive and organize information about all national standards, technical regulations and certification systems in operation in its own country. It would receive information on request from equivalent centres in other countries and from the ISO Information Centre in Geneva. It would provide information to users in its own country in response to enquiries and by more positive means, e.g. by publishing bibliographies and catalogues. It would respond to requests from equivalent centres in other countries. It would feed appropriate information to specialized information services in the country and to the national contact points in international systems such as INIS (nuclear energy), AGRIS (food and agriculture), IRRD (road research) etc.

A national centre could arrange for exchanges of information "in bulk" with other centres, on a bilateral basis if so desired. Such exchanges would be facilitated if both centres concerned followed the ISONET Manual. Equally, with the development of modern telecommunication links and networks, exchanges on-line, as the need may arise, become more and more feasible. Both methods have been used between ISONET members in Europe.

The will to cooperate already exists, and once efficient information centres for standards, technical regulations and related matters, including certification systems, have been established in all the countries represented in ISONET it should be easy to retrieve information on these subjects anywhere in the world where it is likely to be needed. The objectives of ISONET will then have been largely achieved and those of the GATT Standards Code greatly facilitated.



Bibliography

ISO Guide 2: General terms and their definitions concerning standardization and certification. 3rd ed. ISO, Geneva, 1980. Addendum 1 - 1981.

ISO/IEC Guide 3: Identification of national standards that are equivalent to International Standards. 2nd ed. ISO, Geneva, 1981.

ISO/IEC Guide 15: ISO/IEC code of principles on "reference to standards". ISO, Geneva, 1977.

ISO/IEC Guide 21: Adoption of International Standards in national standards. ISO, Geneva, 1981.

ISONET Constitution, 2nd ed. ISBN 92 67 01019 0. ISO, Geneva, 1980.

ISONET Guide, ISBN 92 67 20042 9. ISO, Geneva, 1980.

Agreement on Technical Barriers to Trade. General Agreement on Tariffs and Trade, Geneva, 1979.

ISO/INFCO 346. ISONET Directory. First (experimental) edition. ISO, Geneva, 1982.

The International Technical Thesaurus (Le Thesaurus International technique) (TIT). AFNOR, Paris, 1981.

BSI ROOT Thesaurus. ISBN 0 905877 57 8. BSI, London, 1981.

ISO Catalogue. Annual. (Quarterly cumulative supplement). ISSN 0303 3309. ISO, Geneva.

ISO Technical Programme. Twice yearly. ISO, Geneva.

Directory of International Standardizing Bodies. 3rd ed. ISBN 92 67 01026 3. ISO, Geneva, 1982.

Directory of Certified Reference Materials. ISBN 92 67 01027 1. ISO, Geneva, 1982.

ISO Bibliography 7. International Standards for documentation and terminology. ISBN 92 67 10046 7. ISO, Geneva, 1981.

ISO Bibliography 8. International Standard Vocabularies. 2nd ed., ISBN 92 67 10043 2. ISO, Geneva, 1981.

ISO Bibliography 11. International Standards for technical drawings and graphical symbols. ISBN 92 67 10069 6. ISO, Geneva, 1982.

ISO Standards Handbook 1. Information transfer. ISBN 92 67 10058 0. ISO, Geneva, 1982.

ISO Standards Handbook 8. Data processing - Hardware. ISBN 92 67 10059 9.
ISO, Geneva, 1982.

ISO Standards Handbook 9. Data processing - Software. ISBN 92 67 19960 2.
ISO, Geneva, 1982.

ISO Standards Handbook 10. Data Processing - Vocabulary. ISBN 92 67 01024 7.
ISO, Geneva, 1982.

Sturen, Olle. Responding to the challenge of the GATT Standards Code.
ISO, Geneva, 1981.

ISONET Manual. 2nd ed. (in preparation). ISO, Geneva.

KWIC index of international standards. ISBN 92 67 10072 6. ISO, Geneva, 1983.

ISO/INFCO 367. Implementation of ISONET at the national level.
ISO, Geneva, 1982.

ISONET Communiqué. 2 or 3 times a year. ISO, Geneva.

Standardization and documentation - An introduction for documentalists and
librarians. ISBN 92 67 10071 8. ISO, Geneva, 1983.

