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OCCASION

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United Nations Industrial Development Organization

Seminar on Technological Information
Systems and Services for Innovation

Balatonfüred, Hungary
2 - 6 October 1973

Item 8

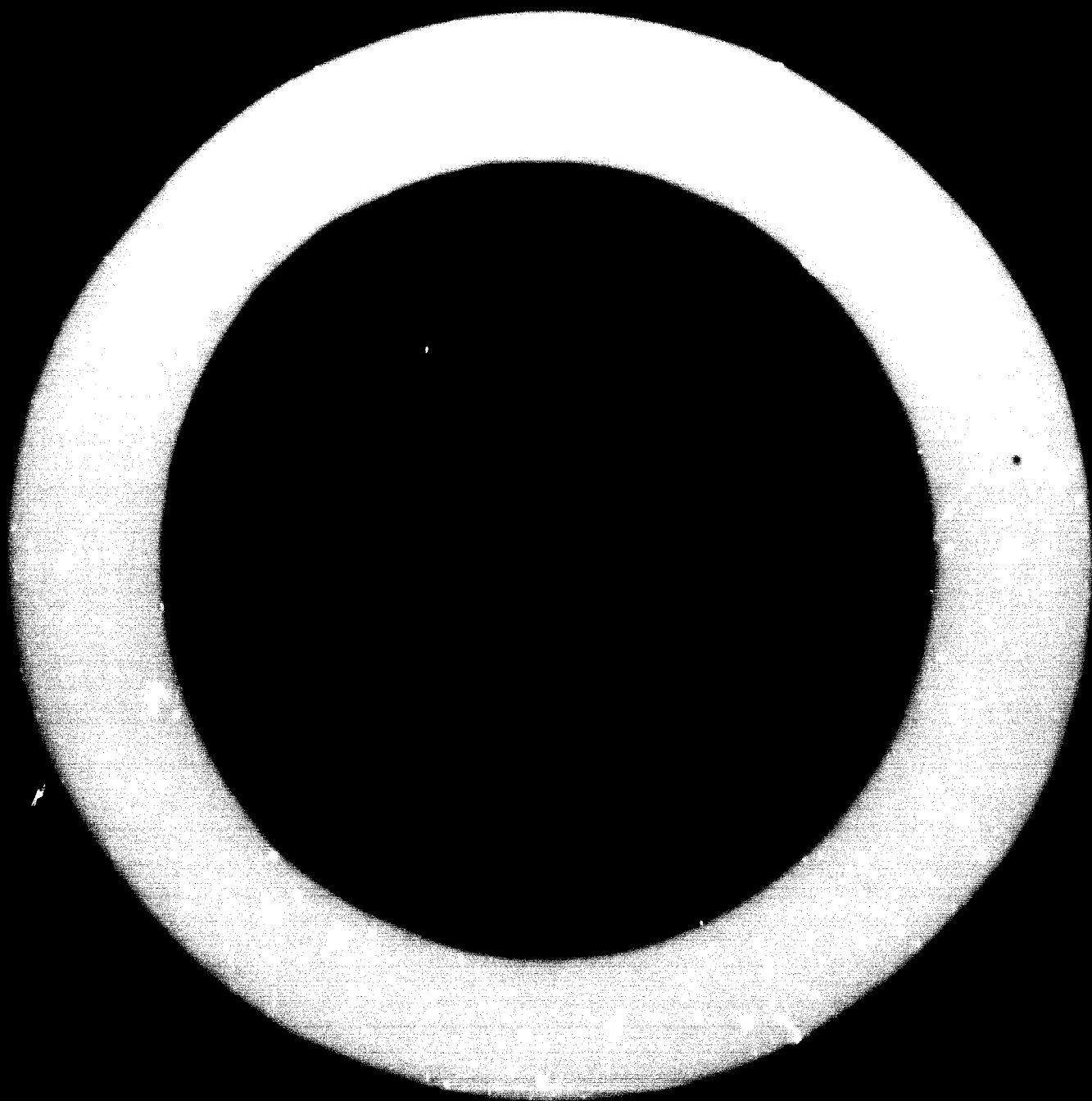
THE UNIDO INDUSTRIAL INFORMATION CLEARING-HOUSE

by

the Industrial Services and Institutions Division

1.73-6933

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.



1. Innovation in the industrial sector in the past had been slow and limited in the not established industrialized countries and is still slow in the developing industrial sector in the developing countries.
2. In the industrialized countries, all sectors of industry had been represented for a long time. The attitudes of engineers, workers and financial circles have been shaped by a series of changes in the methods, equipment and sizes of enterprises. It is basically a question of applying the results of research and development by updating technology to meet new and increased needs. In the developed countries, innovation takes place against the background of a rich industrial tradition, characterized by a process of trial and error and often costly mistakes, in spite of or because of which innovation is linked with a concept of continued over-all progress.
3. In the developing countries, the situation is the more different as they are less advanced on the road to development; on the whole, they are evolving from a situation where industrial tradition, and thus personnel trained in industrial disciplines, is completely lacking to the stage of the initial establishment of plants and the formation of the first teams of industrial workers (who have come from agriculture, artisan industries or small trade) in sectors where conditions most favour and require development along these lines. There is no need to consider whether the technology used in such cases is the most advanced - only to ensure that it is the most appropriate to local conditions. Innovation in the developing countries is related to a concept of progress which is decisive as far as the general context is concerned but relative with regard to the technology used, these countries being on the threshold of what for the industrialized countries was the industrial revolution. The difference is that they can avoid costly mistakes, pitfalls and duplication thanks to the industrial information available concerning knowledge and experience acquired elsewhere. Of course, all the intermediate stages exist between the highly industrialized countries, in which the latest technology has its place, and the least industrialized, where the need for international assistance in organizing industrial information services is felt.
4. To give developing countries access to the information required to bring about the innovations which represent industrialization, at whatever level of technology this may be taking place, is the purpose of the UNIDO Industrial Information Clearing-House, for which the Industrial Information Section of the Industrial Services and Institutions Division is responsible.

6. UNIDO is a United Nations body, established by a resolution of the United Nations General Assembly in 1966. Based in Vienna, Austria, UNIDO aims to promote and accelerate the industrialization of the developing countries, particularly in the manufacturing sectors. A booklet entitled "Functions and Activities of UNIDO" is available to participants for further details.

6. The UNIDO secretariat consists of four substantive divisions: the Technical Co-operation Division, which is responsible at a geographical level; the Industrial Technology Division, with sectoral competence; the Industrial Policies and Programming Division, with political and economic competence; the Industrial Services and Institutions Division, of which the Industrial Information Section is part.

7. The Industrial Services and Institutions Division helps to establish the infrastructure required by way of official services in the competent ministries, planning, patent and licensing offices, training centres, chambers of commerce, fairs, etc., and - which brings us to our subject - industrial information centres. It is a matter of services and institutions, and the Industrial Information Section thus assists in the establishment of institutions in its field of competence and provides services.

8. The primary task of this Section is to promote the establishment or adaptation of industrial information centres in the developing countries. In one form or another, UNIDO has since its inception been called upon to initiate and support many local activities in this regard. In order to promote initiative and alert Governments to their responsibilities in the field of industrial information and to make persons involved in this field aware of the value of having access to industrial information transfer facilities, UNIDO has organized a series of seminars, which are held each year in a different part of the world and which bring together persons responsible for documentation centres or officials working in ministries responsible for industrial affairs. The purpose of these meetings is to persuade participants of the value of establishing or adapting structures which will enable local operators and investors to draw from a central collection point of knowledge culled from the most diverse sources around the world the adequate flow of which cannot be ensured without proper co-ordination. Seminars of this type were held in 1970 in Teheran, Iran, in 1971 in Lima, Peru, in 1972 in Addis Ababa, Ethiopia, and in 1973 in Rabat, Morocco. The interest sparked by these meetings was reflected in an increase in the number of requests for assistance received by UNIDO during the months following the meetings from countries which had been represented, towards the establishment or adaptation of industrial information centres.

9. Another form of direct contact, at the level not of those responsible for setting up information centres or heads of existing centres, but of the personnel intended to operate these centres, is provided by training courses for industrial documentation officers which last several weeks and are organized usually in co-operation with UNESCO under the auspices and with the assistance of the Institute of Scientific and Technical Information (VINITI) in Moscow. These courses are given each year alternately in English, Spanish and French; many participants have since become regular correspondents of the UNIDO Industrial Information Clearing-House and some of them are directors of national centres.

10. Whether at seminars for senior officials or courses for personnel, UNIDO concentrates its efforts on focusing awareness on the specific needs of industrial enterprises - whether in existence or at the planning stage - which can be identified only by contact with authorities and operators themselves. The location, definition and satisfaction of precise information needs must have priority over any documentary compilation which can at best provide only an incomplete solution. This concept of the function of an industrial information centre is very widely accepted and is reflected in the requests received by UNIDO for services other than seminars and training courses.

11. Industrial information centres being set up or restructured turn to UNIDO for the provision of expert services: the entire staff of certain centres which are particularly noted for the high standard of their external relations would not be sufficient to meet the requests for expert missions of varying duration received by UNIDO. The same is true of requests made to UNIDO for training for the staff of newly established documentation services. A meeting such as this provides an excellent opportunity to thank the industrial information centres in industrialized countries which are represented here for their co-operation in appointing experts and receiving trainees, and to beg them to increase their assistance in this field in order to keep pace with the growing demand for such services.

12. So far as equipment (particularly duplicating equipment) is concerned, UNIDO has been able to provide assistance to many information centres in the developing countries. It has extended its efforts to the audio-visual field, giving notice of the availability of many films containing industrial information; since UNIDO does not have sufficient funds to acquire such films, the Organization can supply only those made available free of charge. Any offers of loans will be welcome.

13. The role of national industrial information centres which receive UNIDO inquiries should be emphasized. All centres should join the international network of correspondents and direct exchange of work information centres as far as possible, with a strong recourse to UNIDO as an intermediary in some cases. The heads of national industrial information centres participating in the network should maintain regular contact with colleagues from the developing countries directly, in order to draw some of them out of their isolation and also encourage mutually beneficial bilateral exchanges.

14. National, regional or sectoral industrial development centres should become the point of convergence of information required by local industries and make themselves able to satisfy the needs directly; in the meantime, however, this can be done only through international assistance direct to inquirers themselves.

15. International assistance to the developing countries in the industrial information field is in principle and intention available in abundance; its transfer, however, remains to be organized. The role of the OECD Development Centre and of UNIDO in this field is well known; the inquiry services of both organizations have distributed responsibilities between them over the years until the point now marked by the transfer of the Inquiry Service of the OECD Development Centre to the Society for International Development (SID). In connexion with this transfer, a very substantial fund of documentation on industrial questions, which for a long time previously had been dealt with by OECD, was transferred to UNIDO and, with the delimitation of the fields of responsibility between UNIDO and the SID in this respect, questions concerning industrial information are assigned from now on exclusively to UNIDO.

16. The UNIDO Inquiry Service thus receives from all the developing countries questions relating to all possible aspects and stages of industrial development - questions of interest to industrial development ministries in formulating plans, or heads of industrial enterprises desiring information to improve the operation of their factories, requests for rudimentary descriptions of industrial processes or for information on new breakthroughs in certain advanced technologies.

17. The information requested from UNIDO is not available there in a pre-assembled encyclopaedic form. The role of the Service is to tap existing sources of information and transmit the information to inquirers. Sources of information are concentrated mainly in the industrially advanced countries but may also be, and to an increasing extent are, found in the developing countries themselves. They are national or sectoral industrial information centres, industrial enterprises or professional organizations, which supply the answers requested in the form of photographs of articles, reports, tailor-made studies or merely indications of

UNIDO's Budapest Office provides free of charge, on request, information to reimburse its correspondents for certain expenditures incurred in research, but a large proportion of the replies are now free of charge. The staff assigned to this service was for a long time very small, and had little scope for contact with inquirers, on the one hand, with a view to obtaining more clearly formulated questions, and sources of information, on the other, in order to explain what was expected from them and from the suppliers of information. A great effort is being made to improve this service. This has been rendered possible with a slight increase in staff. Attached will be found copies of the form sent to inquirers and the questionnaire sent to the members of the network of correspondents: participants from information centres represented at Balatonfüred which have not received copies of the questionnaire will be particularly welcome to fill it out and send it back to UNIDO. A list of subjects on which requests for information have been received may also be found attached.

19. In addition to the ad hoc service of replies to a very broad range of questions on technologies, markets, industrial management, etc., the Industrial Information Clearing-House has been given a new task concerning industrial equipment. Various considerations underlie this second category of activities.

20. Nothing would be gained by continuing to urge development aid, with donor Governments no longer requiring recipients to purchase equipment from the donor country alone, or of diversifying trade opportunities through the relaxation of internal constraints in each of the monetary blocs and moving towards the all-round convertibility of funds available for the acquisition of equipment, if the purchasers of capital goods did not take advantage of this to widen their search for new equipment.

21. There would be no gain in accumulating experience on the good or poor adaptation of particular industrial equipment to local climatic, economic, labour, transport, market or other conditions in a given developing country if it could not be turned to account in other developing countries where partially or wholly similar conditions prevail.

22. Lastly, there would be no gain in promoting the development of industries exporting capital goods or even original technology from the developing countries if these new products, often admirably suited to local conditions, were not given access to the international capital goods market.

24. The UNIDO Industrial Information Clearing-house has been invited to conduct enquiries in this area of concern. It will to this end request interested co-operation, particularly through industrial federations, to enable it to disseminate replies to requests for information on producers and industrial equipment of definite specifications which may be acquired throughout the world.

25. In the future, UNIDO will endeavour to develop the capacity to evaluate and assess industrial material among persons responsible for this type of purchase, perhaps through national information centres. UNIDO will compile as full as possible documentation on sources of information, classified according to major categories of equipment. It will invite the developing countries to draw up an inventory of industrial technologies and equipment available for export and will use its facilities to improve awareness of the opportunities for exchanging capital goods between the developing countries themselves. This particular activity is currently being set up and will be reported on as progress is made.

26. The Industrial Information Clearing-House also has a very detailed list of consultant firms which have gained experience in the developing countries and are willing to offer their services. This list is at the disposal of the developing countries.

27. The services of the Clearing-House are, of course available to the staff of UNIDO itself, whether stationed at headquarters in Vienna or posted to the developing countries. The most clearly useful type of service is the selective dissemination of information (SDI) on users' profiles - the processing, reproduction and distribution of relevant textual material contained in the publications, reviews, reports and documents of all kinds received by the UNIDO Library. It is anticipated that this service will eventually be extended to selected national information centres; at least it provides training in this exercise for trainees from these centres.

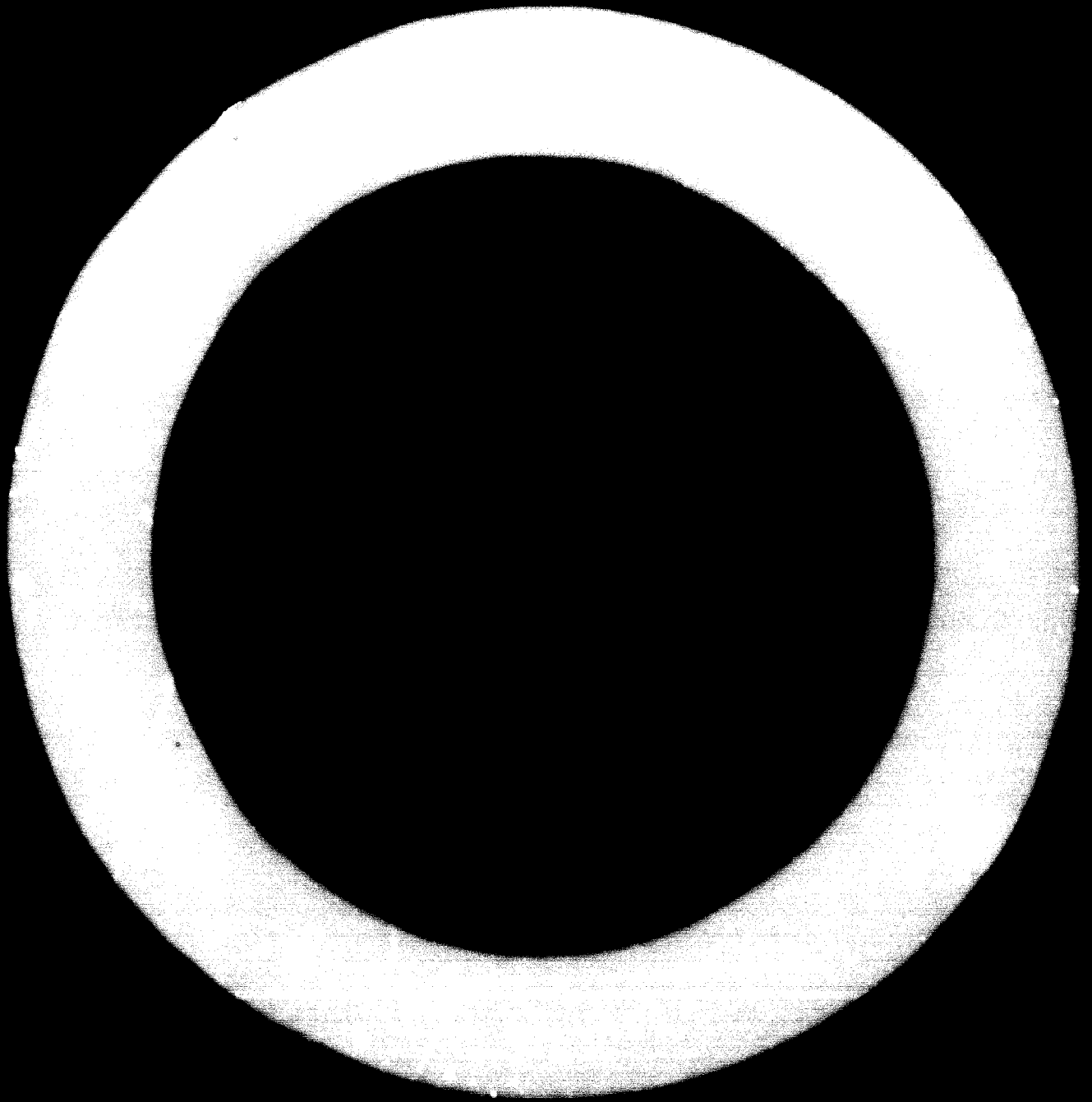
28. The Industrial Information Section also offers services through its publications. The UNIDO Newsletter is a monthly publication which, as its name suggests, provides news on UNIDO's main activities, expert services required, examples of questions sent to the Industrial Inquiry Service, information on assistance sought by enterprises in the developing countries or offered by firms or industrial organizations around the world, on the orders placed and contracts signed by UNIDO, etc. The Newsletter is currently sent to

approximately 10,000 respondents, industrial, financial, and government officials, referred to earlier, according to their specializations. The results of this survey by UNIDO is given the possibility of instituting a more systematic and efficient means of locating the persons who are presumably best qualified to provide fully effective.

28. Another publication is Industrial Research and Development, a new magazine which is issued every two months. This review is basically a report of exchanging experiences on cases of successful industrialization in various fields in the developing countries. UNIDO's industrial information publication programme also includes such series as the Industrial Development Abstracts summarizing the contents of all UNIDO documents and publications according to the terminology of the Industrial Thesaurus, itself aligned with the Macro-Thesaurus published several years ago by OECD and known to everyone.

29. The series of Guides to sources of information has been extremely successful. Each of these guides contains, for a given sector of industry, a list by country of professional organizations, research centres, learned societies and specialized information services, a list of the yearbooks concerning the sector, sources of statistics and other economic data, a list of basic works, periodicals, bibliographies, etc. The series includes guides to sources of information on the meat-processing industry, the cement industry, the leather industry, the furniture industry, foundry, quality control, etc., with more to follow. A manual on the use of audio-visual techniques is under preparation, and it is intended to publish a summary account of the operation of industrial information centres in developing countries.

30. Many participants at the Balatonfired meeting know about this programme and contribute to it. UNIDO's sole concern is to extend its network of correspondents and collaborators and, through their assistance and advice, to provide a more efficient industrial information service to the developing countries. All international conferences on economic and industrial development have emphasized that strenuous efforts still have to be made in this area. UNIDO will not fail to intensify its own efforts in the coming years.



ANNEX I

INDUSTRIAL INFORMATION CENTRES
ASSISTED BY THE INDUSTRIAL INFORMATION SECTION
OF UNIDO

AFRICA :

- Senegal :

Service d'Information industrielle
Société nationale d'Etudes et de Promotion industrielle
(SONEPI)
4 rue Kaouary
B.P. 100
Dakar
Tel : 260-94 et 95

- Sudan :

Industrial Information and Documentation Unit
Sudan Industrial Research Institute
P.O. Box 266
Khartoum
Tel : 76710 76909 76298

- Tunisia :

Service de Documentation et d'Information
Centre National d'Etudes industrielles
Cité Hahrajjne (Immeuble Reyhana)
B.P. 5
Le Belvédère - Tunis
Tel : 281064

- IDCAS : (Industrial Development Centre for Arab States)

- IDCAS Headquarters

Documentation and Scientific Computation Department
The Industrial Development Centre for Arab States
P.O. Box 1297
Cairo
U.A.R.

- IDCAS Sub-centres

- Engineering Industries Information Centre
State Organization of Industrial Design and
Construction
Ministry of Industry
Baghdad
Iraq
Tel : 25121-10

- Textile Industry Documentation and Information Centre (TIDIC)
5 Toloukat St.
Garden City
Cairo
U.A.R.
Tel : 20720 - 26401
 - The Small Scale Industries Information Centre
c/o the Small Scale Industries Institute
El Ahras Avenue
Guiza
U.A.R.
 - Food Industries Information Centre
c/o the Ministry of Industry and Mineral Resources
Khartoum
Sudan
 - Building and Construction Materials Information Centre
c/o the Ministry of National Economics
Amman
Jordan
 - Iron and Steel Information Centre
c/o the Ministry of Industry and Energy
Colisée
Algeria
 - Petrochemical Industries Information Centre
Syria
- Service de Documentation
Centre d'Etudes Industrielles du Maghreb (CESIM)
27, 29, 31 rue de Grenade
B.P. 235
Tanger
Maroc
Tel : 384-5415, 396-68
- Centre Régional de Documentation et d'Informations
industrielles
Organisation Commune Africaine et Malgache et Mauritanienne (OCAE)
Secrétariat Général
B.P. 437
Yaoundé
Cameroun

THE AMERICAS :

- Argentina :

Central Industrial Documentation Centre
National Institute of Industrial Technology (INTI)
Libertad 1235
Buenos Aires
Tel : 44-0011

- Brazil :

Technological Information Centre
National Institute of Technology
Avenida Venezuela 82-4 andar
Guanabara
Brazil - 2005
Tel : 243-0019

- Chile :

Centro de Información
Instituto Tecnológico de Chile (INTEC)
Corporación de Fomento de la Producción (CORFO)
Avda. Sta María 06500 (Bo Curro)
Santiago

- Cuba :

National Industrial Information Service
Scientific and Technical Documentation and Information
Institute (IDIGT)
(Instituto de Documentación e Información Científica
y Técnica)
Academia de Ciencias de Cuba
Calle 15 No 551
Vedado
La Habana

- Ecuador :

- Industrial Information Unit
Centro de Desarrollo (CENDES)
Caracas No 172 y Salinas
Casilla Postal 2321
Quito
Tel : 527100 - 235670

- CENDES
Vélez 131 y Chile
Casilla Postal 5833
Guayaquil
Tel : 510-221, 510-222

- Mexico :

Technical Information Service
Consejo Nacional de Ciencia y Tecnología (CONACYT)
A.P. Post. 70-000
Mexico 70, D.F.

- Uruguay :

Industrial Information Service
Ministry of Industry and Commerce
Montevideo
Rincón 743
Tel : 802 91, 802 31

- Venezuela :

Centro Nacional de Información Científica y Técnica
(CONICIT)
Apdo. 70617
Los Ruices
Caracas

ASIA AND THE FAR EAST :

- Bangladesh :

Industrial Information Service
Bangladesh Small Industries Corporation (BSIC)
Ministry of Industry
Dacca

- Republic of Viet-Nam :

Technical Information Service
Industrial Development Bank of Viet-Nam
40 Nguyen-Hue Boulevard
Saigon
Tel : 23.988 - 25.795 and 25.796

- Thailand :

- Industrial Product Design Centre
Ministry of Industry
Department of Industrial Promotion
Rama 6 Road
Bangkok

- Industrial Information Centre
Industrial Economics and Planning Division
Ministry of Industry
Rama 6 Road
Bangkok
Tel : 819555

EUROPE AND THE MIDDLE EAST :

- Jordan :

Industrial Information and Documentation Centre
Industrial Development Corporation (IDC)
Amman

- Saudi Arabia :

- Industrial Information and Documentation Unit
Industrial Studies and Development Centre
Ministry of Commerce and Industry
Riyadh
- Directorate General of Industry and Electricity
Ministry of Commerce and Industry
Riyadh
- Saudi Arabian Standards Organization
Airport Street
Riyadh

- Syrian Arab Republic :

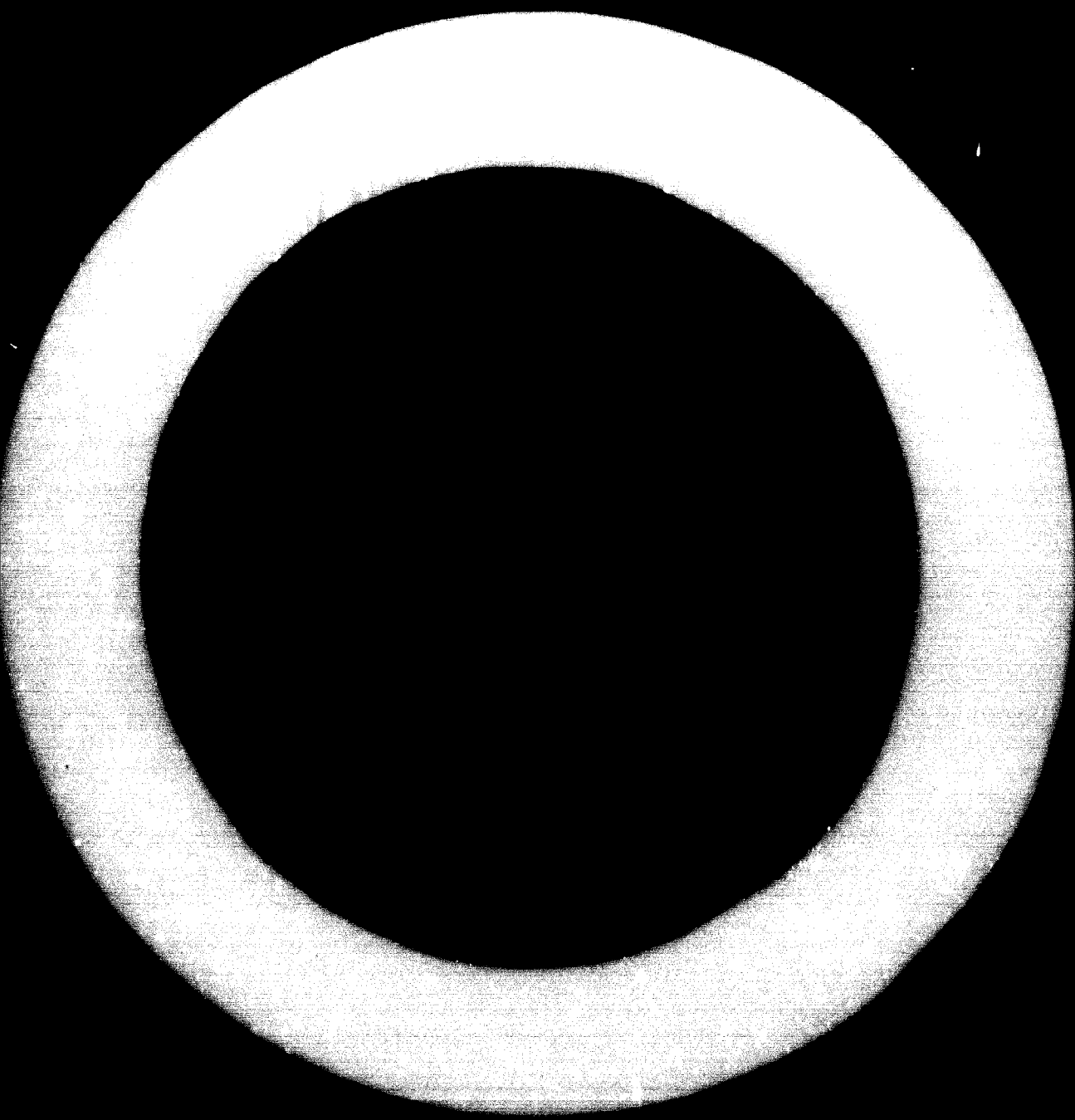
Industrial Information and Documentation Service
Ministry of Petroleum, Electricity and Mineral Resources
Damascus

- Turkey :

Industrial Information Service
Turkish Scientific and Technical Documentation Centre (TUBGOK)
Bayindir Sokak 33
Yenischir
Ankara
Tel : 183155

- Yugoslavia :

Centre D'Information industrielle
Yugoslav Chamber of Economy
11001 Beograd
Terazijske 23
P.O.Box 47
Tel : 339-461



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ANNEX II

HOW TO USE THE REQUEST FORM

Fill in the REQUEST FOR INFORMATION and send it to the following UNIDO address:

Industrial Inquiry and Advisory Services
P. O. Box 707
A-1010 Vienna
Austria

DESCRIBE YOUR PROBLEM as completely as possible, giving precise details. Keep in mind that our answer to your inquiry depends very much on the quality of the inquiry.

WELL FORMULATED INQUIRIES SHOULD

INCLUDE The Subject or Field of Application - please limit to one product, service, process, activity, etc.

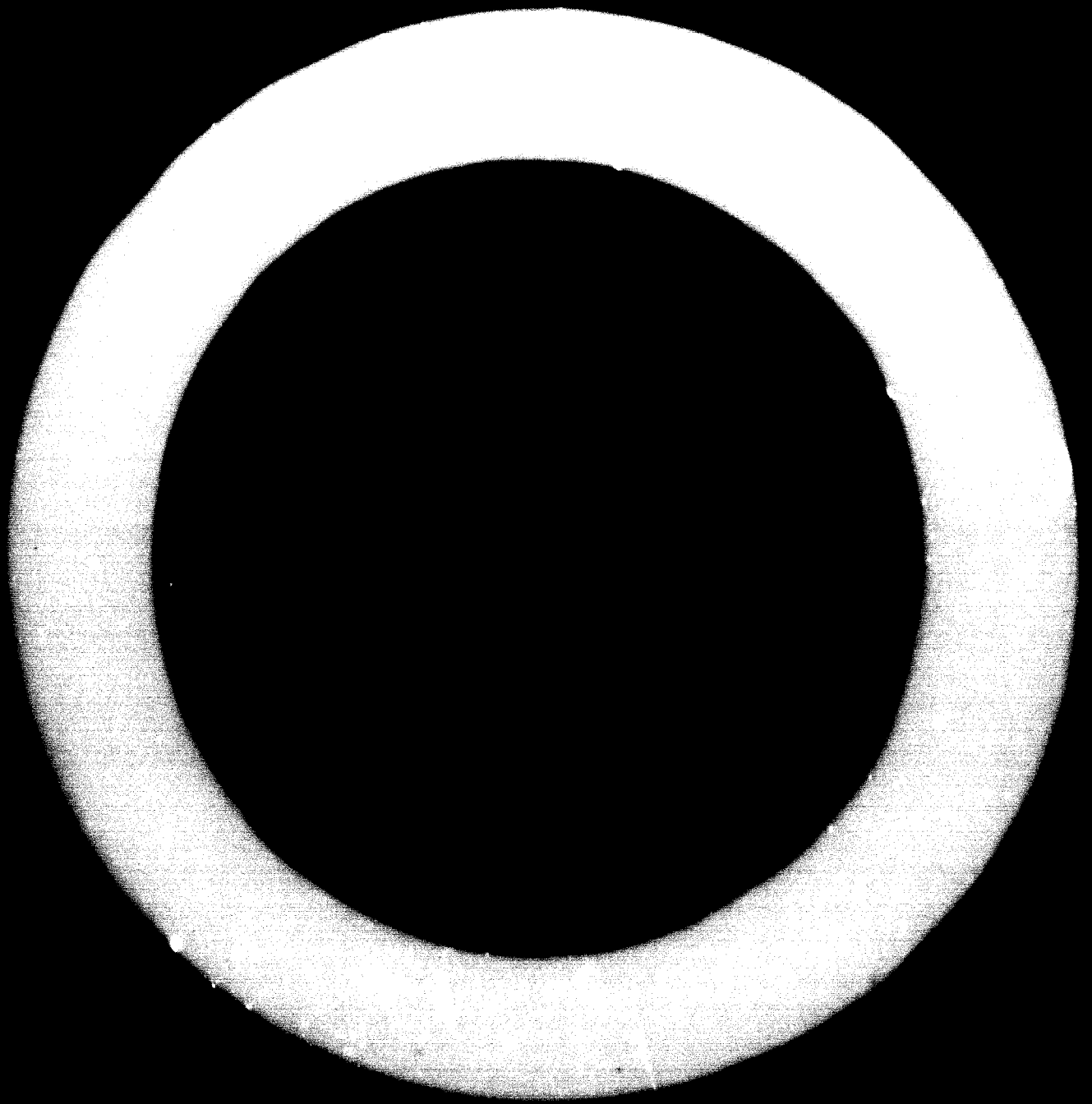
The Type of Information Wanted - what do you want to know - technological processes, vendors, markets, costs, sources, adaptation, manpower and training, etc.

INDICATE Desired Form of Replies - do you want bibliographies, documents, articles, statistical reports, brief surveys, catalogues, reports, industrial profiles, expert advice and/or recommendations, addresses, etc.

STATE The Basic Data - include the qualitative and quantitative data needed to understand your problem, such as raw materials availability, production capacity, initial capital investment, etc. If necessary, include explanatory notes and documents on technical, economic and social factors involved.

INDICATE The Reason - you are asking the question and what you hope the answer will do for you.

STATE Other Sources - you have already contacted or have readily available to you.



REQUEST FOR INFORMATION

Inquirer's Name:

Address:

EXACT STATEMENT OF YOUR QUESTION

Subject matter or field of application

.....
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Type(s) of information wanted

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Desired form(s) of reply(ies)

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Basic data for the problem

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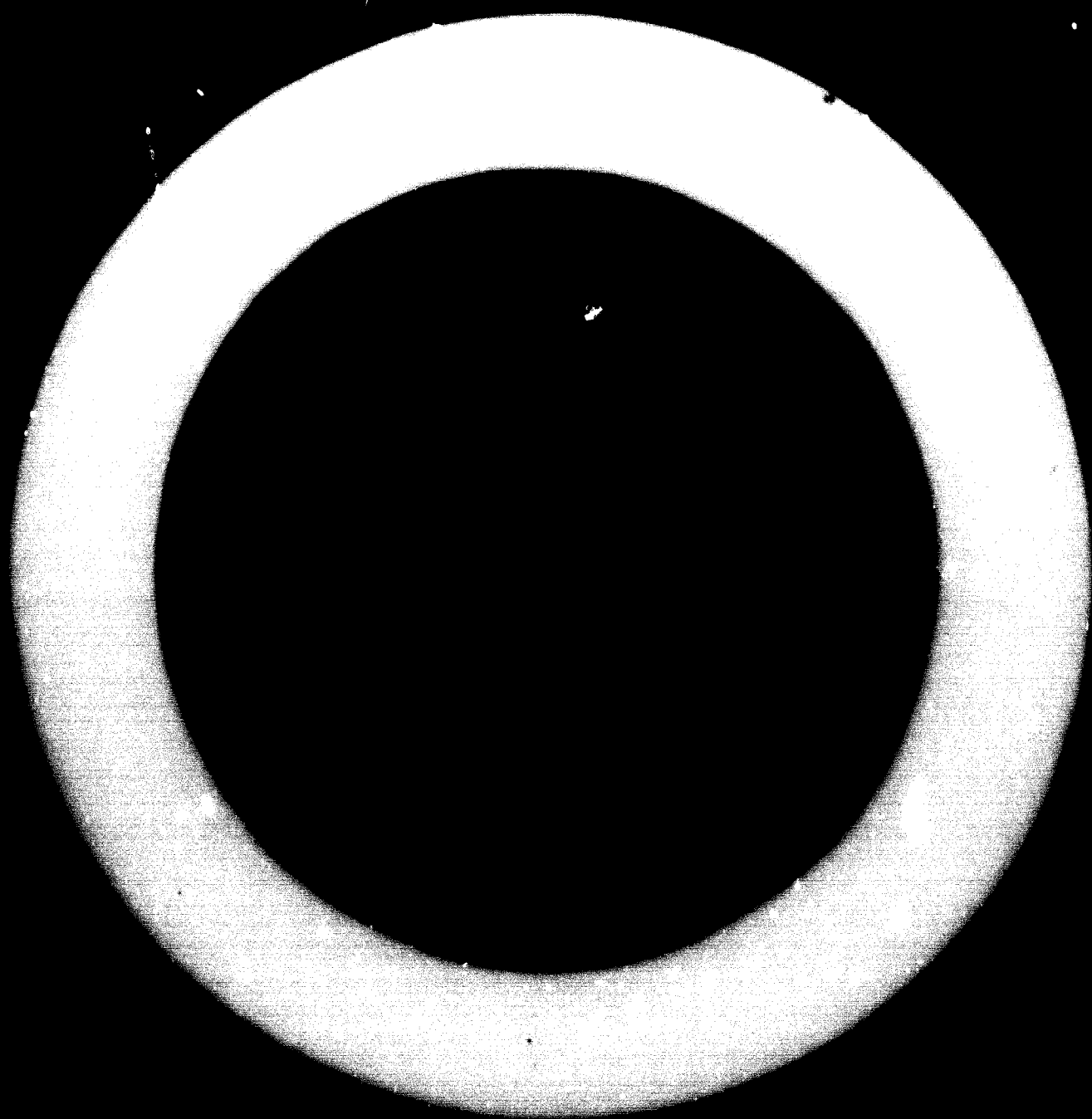
The aim of the question and the result(s) you hope to achieve

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Other source(s) of information already contacted

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.....

Date: Signature:



UNITED NATIONS  NATIONS UNIES
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

LENCHENFELDEN STRASSE 1, A-1070 VIENNA, AUSTRIA
P.O. BOX 707, A-1011
TELEPHONE: 43 800 TELEGRAPHIC ADDRESS: UNITEK TELEEX: 70012

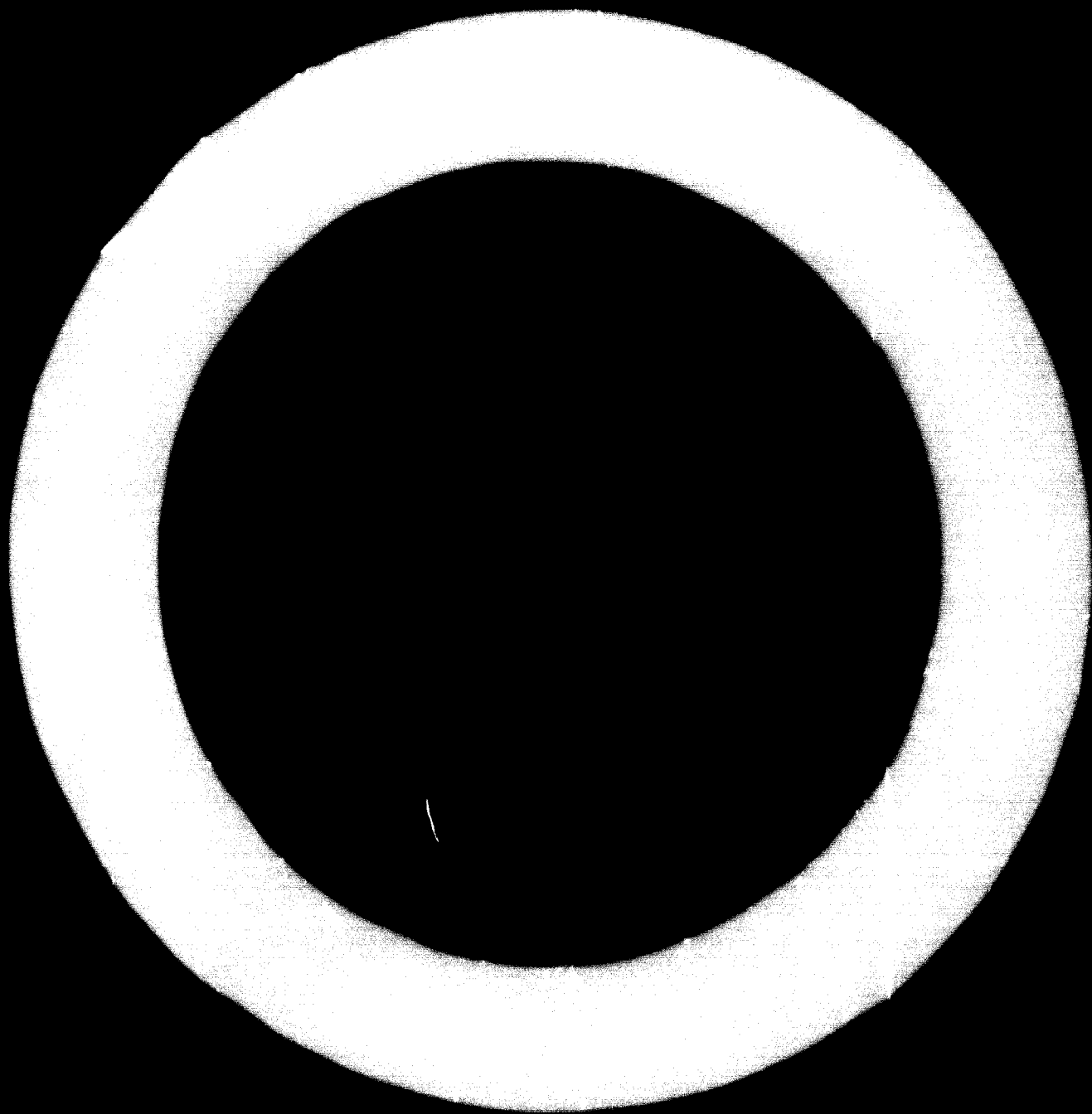
UNIDO CLEARINGHOUSE FOR INDUSTRIAL INFORMATION
THE INDUSTRIAL INQUIRY SERVICE

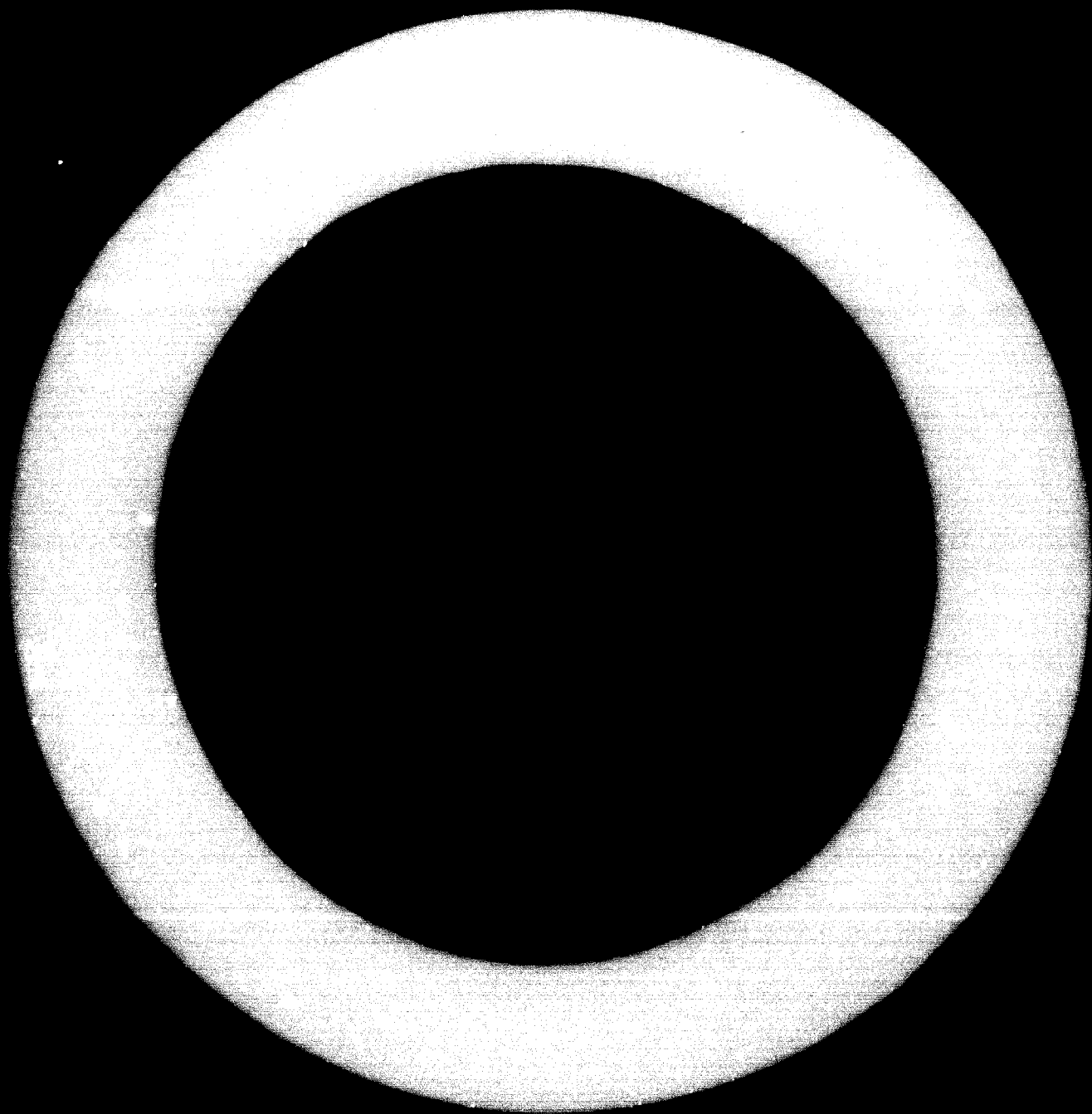
UNIDO established the Industrial Inquiry Service in 1968 to provide industrial information to developing countries, in response to their many inquiries.

These inquiries cover every industrial area. Approximately 50% concern technical know-how and technologies, 20% have to do with markets and statistical data, 20% are about machinery and equipment, the remainder deal with finance, training, manpower, etc.

To answer the more than 2,000 inquiries from developing countries each year, the Service has an international network of correspondents from 30 countries comprising more than 200 organizations, institutions, enterprises and individuals. These correspondents are themselves sources of information or links to such sources.

..... If you or your organisation would like to further help the developing countries by becoming one of our correspondents, please complete the attached questionnaire and return it to UNIDO. We will evaluate your qualifications and shortly begin sending you inquiries in those fields you designate.





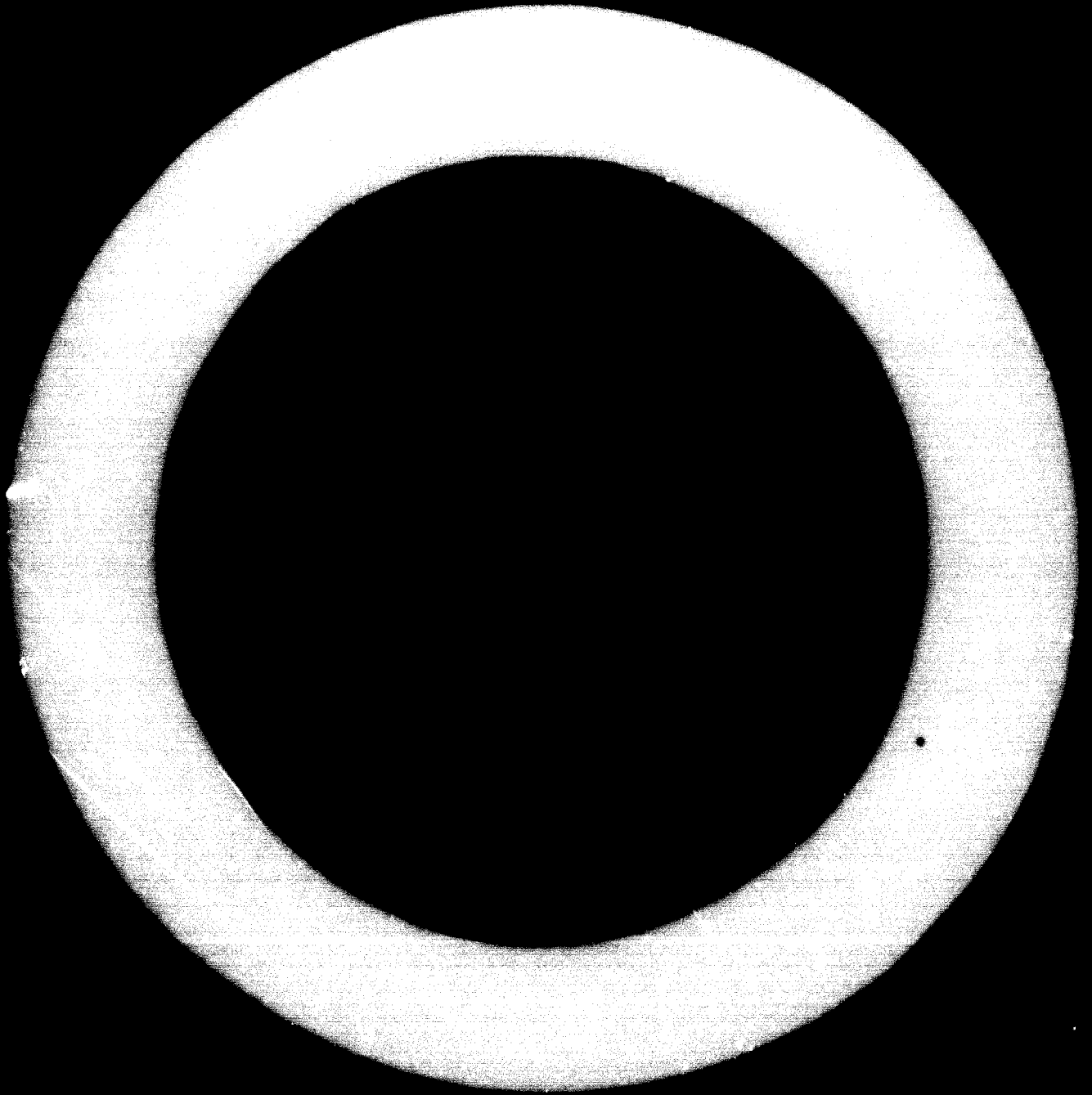
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TYPE OF INFORMATION YOU CAN PROVIDE

- "Tailor-Made" Technical Reports
- Copies of Existing Technical Reports
- Copies of Specialized Articles
- Bibliographies
- Statistics
- Commercial Catalogues/Pamphlets
- Other (Indicate)

REMARKS

DATE _____ SIGNATURE _____



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ANNEX IV

Type of inquiries recently received by the Industrial Inquiry Service
from developing countries

Subject

Power transmission poles - inf. on development of design and manufacturing techniques

Establishment of a foundry plus an associated wiredrawing and cable plant to have an annual capacity of 2,000 to 2,500 tons

Automatic control when processing "Cotton Gin" especially referred to the lever press or cotton bale; mechanical process, operation and maintenance

Aluminium content in paint products - analytical method for determination of and aluminium primer by atomic absorption

Clearing of citrus juice (specially lemon juice), conserving of soft drinks, improvement of essential oils to obtain concentrated oils

Melting practice of copper - nickel alloys, specially about type of addition for dioxidation practice

Fishing terminals and a plant for fishmeal, especially on fishes existing in the Atlantic and Pacific coasts

Manufacture of cottage cheese

Possibilities offered by informatics for the administration of enterprises

Production of chlorates with electrolytic process

Manufacture brick trowels forge in one piece

EG cast iron or steel: present tendency re. replacement of steel by EG cast iron

Injection pumps for Diesel motors: standard equipment necessary for manufacture of factories

Smallest economic scale for plants producing electric dry batteries

Process to keep anchovies in salt

Requirements for the establishment of a plant for the manufacturing of leather clothes for men and women

Machinery for forestry works: power chain saws; two-handed cross-cut saws; caterpillar and wheel-type tractors; mobiles revolving cranes. Machinery for plywood factory: rotary veneer-cutting machines; cont. driers for rotary-cut veneer; gluing machines; hot presses

Subject

Harvesting cotton stalks and the processing of this material

Anionic polymerization of caprolactam using rotomolding: the process in itself + its use to produce heavy sections of nylon-6, such as: containers + tanks.

Utilization of wood residues, manufacturing methods of forage from wood residues in the lab and obtainment of wood proteins

Know-how for the production of nitrocellulose, for use in paints, using cotton and nitric acid

How to make charcoal briquets - raw material used, chemical additives; machinery needed; names and brands of machinery suggest; prices.

Treatment and uses of poultry feathers

Exploitation of iron ore by micro-siderurgy of an artisanal type using modern techniques

Manufacture of electrical condensers

Consultants and Plant Suppliers - to expand and modernize production facilities of dairy products

Manufacture of Fibre-glass pipes Process, equipment, price

Utilization of bauxite waste mud and other by-products of bauxite mining

Factory for tropical wood processing

Dehydrated molasses: market + technology

Industrialization of sisal

Plants for manufacturing components or pre-fabricated buildings

Inf. on work study, cost reduction, and quality control

Establishment of a Garage with service station, spare parts store, petrol station

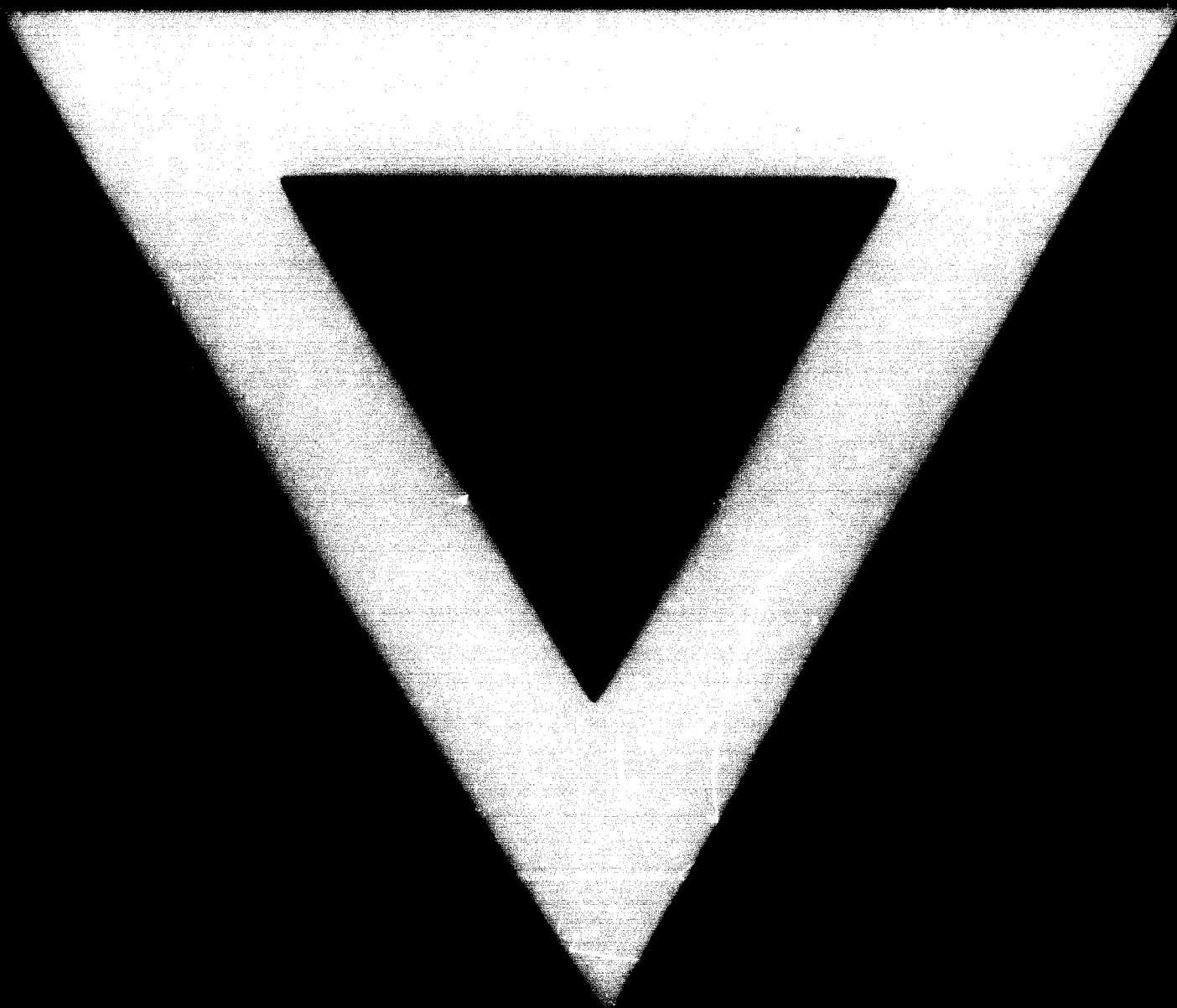
Technology applied for production of caffeine

Suitable equipment for drying breadfruit to be used for stock feed, animal feed

Electric steelmaking using charcoal as a reduction agent; non-ferrous metallurgy using charcoal as a heating agent.

Flotation of Antimony Sulfide - description of the process

Documentation/bibl. on utilization of wood residues as feed for ruminants; methods of forage from wood residues in laboratory; obtainment of wood proteins



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