

THE MEETING OF THE ICSU COMMITTEE ON DATA FOR  
SCIENCE AND TECHNOLOGY

UNESCO HOUSE, PARIS, 16<sup>th</sup> AND 17<sup>th</sup> JUNE 1966

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The compilation of critically selected numerical and other quantitative scientific data is a definable and important part of the larger problem of the evaluation, storage and retrieval of scientific information. Because of the need for international collaboration and effort in this field, the International Council of Scientific Unions has established a Scientific committee to supply the leadership necessary to deal with this problem. The name of this committee is the Committee on Data for Science and Technology.

The general purpose of The Committee is to promote and encourage on a world-wide basis, the production and distribution of compendia and other forms of collections of critically selected numerical and other quantitatively expressed values of properties of substances of importance and interest to science and technology. To do this, The Committee includes the following points in its mission :

a) to increase awareness among all scientists of the importance of the problem, and, in particular, to encourage young scientists to appreciate and participate in compilation work;

b) to point out the need for improved status, salaries working conditions, and facilities for compilers;

c) to point out that evaluation and publication of numerical and other quantitative data is inherently expensive and that subsidies from various sources may be required to promote both their production and fullest utilization;

d) to increase personal contacts among workers in this area by encouraging and arranging periodic meetings of specialists in the various fields and exchange visits between related compilation centers; and

e) to encourage programmes of precise experimental determination to fill in gaps in knowledge and to extend and complete compilations in important areas.

To accomplish the foregoing aims The Committee shall direct its attention to the following tasks;

a) To ascertain on a world-wide basis through the appropriate Unions and national bodies (i) what work on critical compilation of evaluated numerical data is being carried on in each country; (ii) what work is being sponsored by each Scientific Union or by other international groups; and (iii) what the needs of science and industry are for additional compilations of evaluated data.

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b) To achieve coordination among, and strengthening of, existing programmes in such a way as to maximize their effectiveness, to minimize unintentional or undesirable overlap, and to recommend new compilation programmes when necessary.

c) To encourage the support of needed work by appropriate private, governmental, and intergovernmental agencies; and to encourage needed experimental work.

d) To encourage the use of nomenclature, symbols, units and constants advocated by the responsible Unions; and, when desirable, uniform editorial policy and procedure for presentation of information.

e) On a world-wide basis, (i) to stimulate wider distribution of compilations of high quality; (ii) to maintain and distribute a directory of continuing data compilation projects and related publications; and (iii) to encourage adequate indexing of the substances and properties covered by all such compendia.

f) To encourage and coordinate research on new methods for the preparation and dissemination of tables of critically evaluated data generally in numerical form or other.

The administration of the numerical data programme is :

- a) The International Committee on Data for Science and Technology.
- b) The Bureau.

The Committee is composed of three kinds of Members :

- a) Members representing international scientific unions.
- b) Members representing the scientific committees of countries with substantial programmes in numerical data compilation.
- c) Members coopted because of their special competence in the area.

The Committee elects from among its members a Chairman, two Vice-Chairmen, and a Secretary-Treasurer. The appointment of the latter shall be subject to confirmation by the Executive Committee of ICSU.

The above officers constitute the Bureau of The Committee, together with the Executive Director of the Central Office.

At the first meeting of The Committee held in Paris on June 16 and 17 at the UNESCO house were present :

Prof. Harrison Brown	(Chairman; ICSU)
Prof. Boris Vodar	(France and IUPAP)
Prof. Dr. W. Klemm	(Germany and IUPAC)
Prof. Masao Kotani	(Japan)
Sir Gordon Sutherland	(U.K.)
Prof. F. D. Rossini	(USA)
Dr. Charlotte M. Sitterly	(IAU)
Prof. E. Courtois	(IUB)
Prof. J. Wyart	(IUCr.)
Prof. M. Caputo	(IUGG)
Dr. Pierre Laffitte	(IUGS)
Prof. J. W. Duyff	(IUPS)

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Prof. M. Roy	(IUTAM)
Mr. B. Decaux	(URSI)
Prof. A. M. Monnier	(IOPAB)
Madame J. Poyen	(IAB)
Dr. Guy Waddington	(Executive Director)
Ing. Gén. G. Laclavère	(ICSU and FAGS)
Mr. F.W.G. Baker	(ICSU)
Dr. A. Perez-Vitoria	(UNESCO)

Prof. M. A. Styrikovich (USSR) and Dr. W. L. Garrison (IGU) sent their regrets for not being able to participate in the meeting.

The constitution of the Committee, after minor modifications, was unanimously approved.

Then the National representatives, the Union representatives and the representatives of the ICSU permanent services gave report on major compilation activities of their organizations.

After discussion on various matters such as identification of unfilled needs for data and research on improved methods of storage and retrieval, disseminations, indexing and ordering systems; the following four resolutions were adopted :

Resolution 1

"The Committee on Data for Science and Technology resolves that the highest priority among its tasks should be given to the production of a Directory of existing compilations and of the current work on data compilations in all branches of natural science. The Directory should give a clear and critical view of the present situation, including the value of the methods employed to assess data, indicating how and at what cost access can be obtained to these compilations, i.e., whether the dissemination takes place through national, international or private publishing organizations. This Directory should be distributed as widely as possible, especially to Libraries and scientists all over the world with a request for suggestions. In this way unfilled needs will become known to the Committee and its position may be strengthened in preventing undesirable overlapping of activities in the compilation of critical data. The Directory should probably be updated and reissued every two years".

Resolution 2

"The Committee recommends that ICSU and each of the Scientific Unions should collect from their associations, commissions, sections, etc., reports on all their available compilations of data and associated current work, and that these should be compiled into an integrated statement for inclusion in the Directory".

Resolution 3

"It is recognized that in the generation, evaluation, storage, retrieval and dissemination of quantitative data, increasing use will be made of computers and other aids. Paralleling this development will be the need for the associated software to accomplish such tasks as coding, indexing, correlating, storing and transmission of numerical data. To

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assure the orderly development of the foregoing matters on a world-wide basis, it is recommended that the Committee establish a small Task Group composed of experts of the highest competence from different countries and disciplines to seek ways of achieving maximum exchange of information about the methodology of handling data, including software, and to stimulate new work in this field".

### Resolution 4

"The Committee recommends to national scientific bodies of countries adhering to ICSU and particularly to those scientific bodies of countries represented on the Committee that they extend the maximum scientific and financial support for the encouragement of compilations of data for science and technology, thus showing their recognition of the ever-increasing importance of this work in the promotion of scientific research and industrial development".

A review of funds for support of the Central Office revealed the following favorable situation : The National Academy of Sciences of the U.S.A. has agreed to contribute \$ 31,00 per year for a two year period. France, through C.N.R.S., has contributed 20,000 Frs for 1966. Germany, through the Deutsche Forschungsgemeinschaft, has allocated \$ 5000/yr. for the period 1966/1967. The United Kingdom is making an application for approximately \$ 5,600 (£ 2000) for the current year and the reafter \$ 11,200/yr. (£ 4,000). ICSU has granted \$ 10,000 for the period 1966/1967 to support the work of the Committee, including travel expenses for Bureau meetings. Japan will consider a contribution for the fiscal period beginning April 1967.

The Committee then elected for four years term its Chairman (Prof. F. D. Rossini), two vice Chairman (Prof. B. Vodar, Prof. W. Klemm) and a Secretary Treasurer (Sir G. Sutherland) who shall constitute the bureau together with the Executive Director (Dr. G. Waddington) of the Central Office which will be in Washington.

It was suggested that the Bureau meeting would be held in Europe early in 1967. The subsequent Committee meeting, together with the Bureau meeting, would be held a later date which would be decided by the Bureau.

Before adjourning the meeting, the new Chairman expressed the gratitude and indebtedness of the Committee for all the efforts made by Prof. Brown in this venture.

He also thanked, on behalf of the Committee, UNESCO for housing the meeting and making available the facilities for the smooth organization of the meeting, and Mr. Laclavère for his hospitality and assistance in the organization of the meeting.