

The German Information System on Food, Agriculture and Forestry (FIS-ELF) - Tasks and Future Perspectives -

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Abstract

The specialised information system for the sectors food, agriculture and forestry in Germany has its origin in the 50s and 60s. After many years of negotiations, the committee representing the ministries for agriculture of the various Federal States of Germany together with the Federal Ministry for Food, Agriculture and Forestry decided to set up a central administration system to become effective from January 1, 1984.

The specialised information system, known in Germany as the „FIS-ELF-Verbund“ (a partnership between the IT system administration and the government sectors for food, agriculture and forestry) is an important tool for the information and service sectors approaching the next millennium for information, communication and co-ordination among the government, scientific research institutions, the economy and society at large. Its international and European orientation will be further enhanced.

Zusammenfassung

Das Fachinformationssystem für die Bereiche Ernährung, Landwirtschaft und Forsten in Deutschland geht in seinen Ursprüngen auf die 50 er und 60 er Jahre zurück. Nach jahrelangen Verhandlungen hat die Konferenz der Agrarminister von Bund und Ländern den Verbund auf der Grundlage einer Bund-Länder-Verwaltungsvereinbarung mit Wirkung zum 1.01.1984 in Kraft gesetzt. Der FIS-ELF-Verbund ist im Informations- und Dienstleistungszeitalter an der Schwelle zum nächsten Jahrtausend ein wichtiges Informations-, Kommunikations- und damit auch Koordinationsinstrument für Staat, Wissenschaft, Wirtschaft und Gesellschaft in Deutschland. Er wird seine europäische und transnationale Orientierung weiter verstärken.

Introduction

The specialised information system for the sectors food, agriculture and forestry in Germany has its origin in the 50s and 60s. After many years of negotiations the committee representing the ministries for agriculture of the various Federal States of Germany together with the Federal Ministry for Food, Agriculture and Forestry decided to set up a central administration system which came into effect on January 1, 1984.

Frame of Reference

In the developed world knowledge and „Know-how“ as factors of production are more important than the classical economic sectors, i.e. Land, Labour and Capital. In future, both prosperity and social justice can only be guaranteed by those countries which are in a position to recognise the full potential of the power of knowledge, and are able to apply it as broadly as possible.

To be knowledgeable basically means to be informed but this also implies having a knowledge advantage. Access to information plays, and always has played, a key role in achieving this. What has changed is the technology by which information is transmitted and the way communication takes place nowadays. Availability of information is as important as information itself. In the future it will become even more important for research centres, the economy, the government and society in general to have relevant, up-to-date, high quality and affordable information available quickly, at any place and at any time.

We have made considerable progress in this area. The rapid development of information and communication technology has produced large technical and economic changes in our societies, placing us in a position to speak of the Age of Information Society. These structural changes will bring about fundamental changes in the social structures of the main part of Europe. All the signs show us that European society is entering into a new era, in which innovations and changes will happen in smaller steps. This new era, labelled with key words such as „Globalisation“, „IT Society“, „Multimedia“ as well as the increasingly rapid changes generated by science and technology prompts questions, and produces feelings of uneasiness. It is therefore understandable that at this point in time, a few months away from the turn of the century, many people are worried as to how the age of information and knowledge will affect them.

Experience in Europe shows us that when there is a strong urge to progress in Science, Economy and Social Life, people have a great longing for stability and security. As history teaches us, a combination of hope, optimism and a healthy dose of scepticism are not the worst of our human traits and are in fact a prerequisite for the reformations to take place that enhance peoples quality of life. The increase in world trade, scientific advancements and global information and communication methods offer Germany and Europe in general a historic opportunity that must be grasped. The situation is somewhat similar to that episode in history that transmitted the Middle Ages into the „Renaissance“. Or will the next decades be of even greater significance? The process that transferred the Middle Ages into the Age of Enlightenment was fused by discoveries and inventions, and also by confrontations with other civilisations. Today too, attempts to introduce important innovations produce confrontations. Fortunately, however, conflicts are dealt with constructively in co-operation with the United States, Japan and the China of tomorrow.

During the course of the past two thousand years and this induces hope - European civilisation has always been very creative and has overcome periods of stagnation and setbacks. Scientific research and the communication of its results played an important part in this.

The far-reaching inventions and innovations of Johannes Gutenberg, to name just one, give us hope that the Europe of today will also aid and master the Age of Information.

What we are experiencing today are powerful new developments, and fortunately the United States, Japan and the European Union all have the same aim. „Data highways“ are being created to prevent important transmissions from having to cope with „slow country lanes“. New information products are being developed that allow text, visual images and sound to travel on those highways. Improvements are also being made to secure intellectual property,

prevent the loss of data and safeguard data, protected under the Data Protection Act, travelling on those highways. All this added up together makes it possible that, as a prerequisite for future developments, accessibility of essential information by governments, scientific institutions, the economic sector and the society in general can be optimised. Research institutions, without which there would be no innovations, basically take this fact for granted.

The economic sector, which is increasingly focusing its production and marketing onto a global market, has also an essential interest in accessing the needed information.

The government also needs specific information and tailored information systems and networks for its various departments e.g. Health, Employment, Environment, for official statistics and for planning its work. It also needs the ability to access data from the various information databases to be able to care for the needs of its population in areas such as food, agriculture and forestry.

History of Origin

The origin of the information system for the German governmental departments for food, agriculture and forestry dates back to the beginning of the 60s. The Federal Government built up various specific databases within the Ministry for Food, Agriculture and Forestry, specially for its research organisations. The Federal States of Germany also set up specialised databases for agriculture within their Universities and Colleges. In the Federal State of Hessen, an information and documentation centre was established at the Justus-Liebig University in Gießen in 1956. The intention was to make available to all interested parties published knowledge in respect of food sciences in a user-friendly and easily accessible format.

The idea of a co-operation between all documentation centres in relation to food and agriculture became gradually more and more attractive to both the Federal Government and the individual/independent Federal States. The first initiative to put the idea of co-operation into action dates back to 1961. At that time the Federal Minister for Food, Agriculture and Forestry addressed a letter to his colleagues at the ministries of the Federal States asking for their contribution to the costs of setting up a centralised information system. It was not possible for the ministers to react immediately as both the central government and the governments of the Federal States have no direct authority over Universities, just as it is today. But there was, and is, sufficient scope to utilise the different contacts and systems within the Universities. Nowadays the information and documentation centre in Gießen, an institution that has over the past few years experienced a considerable increase in its workload and a change in its work contents, is financially and functionally under the control of the Ministry for the Environment, Agriculture and Forestry of Hessen while the day-to-day management together with the management of the premises is the responsibility of the University of Gießen. It is difficult to imagine who may have the greater influence.

At a government executives' conference on January 27, 1983 an agreement was reached between the Federal Government and the Federal States, after more than 10 years of negotiations, to sign an agreement and define the means of co-operation in the areas of documentation and information for agricultural topics to start on January 1, 1984 at the very latest. This agreement defines and splits the work needed between the Federal Government and the governments of the Federal States and also states how to consider international systems. The agreement was sealed at the conference of agricultural ministers on September 21 to 23, 1983, in Glücksburg and came into effect on January 1, 1984 with the announcement in the „Bundesanzeiger“ (Government Newsletter). According to this agreement, the central government assumed responsibility for the co-ordination and central processing of data, as well as for its documentation. The Federal States accepted as their responsibility the processing of infor-

mation for specific topics, just as the Information and Documentation Centre in Gießen does in collecting relevant information for the food and nutrition sectors.

The agreement offers also the basis for a co-ordination of work with the databases, e.g. data on plant protection, varieties, yield and prices, which for governmental decision and support are extremely important. From the beginning in 1983 and onwards, emphasis was given to the development of new media. The intergovernmental agreement for the FIS-ELF committee, stated in its first paragraph:

Co-operation within the field of Information Technology and Documentation for food, agriculture and forestry was agreed upon with the goal

1. to guarantee the highest use of the implemented capacities for national and international users,
2. to increase the efficacy of the different institutions by using modern data processing techniques,
3. to achieve technical uniformity
4. to create the basis for international co-operations and to secure the importance of national documentation work.

The Federal Government and the Federal States included in this agreement take the lead in demanding that all the output created by the different documentation centres are offered to all groups interested.

From the beginning, 21 documentation centres in 11 Federal States worked together to build up the information system for food, agriculture and forestry.

During 1992, after the reunification of Germany, the agreement was revised to include the 5 new Federal States.

Present mode of operation

The leading authority of the system is a managing committee. It is composed of one representative of each Federal State of Germany (Länder) and one representative of the Federal Government itself. The managing committee is supported by two expert committees.

The bibliographic committee unites the information systems of the Federal States and the Federal Government in order to document data and supply people with information. In the FIS-ELF committee „Facts/Agrarian Informatics“ federal experts and experts of the Federal States responsible for the development, provision and use of data, work together.

What we call information management today is one of the main areas of this work. Decision-makers have to be provided with the right information at the right time. The variety of information resources available at home and abroad and their utilisation requires the expertise of an information manager to deal with special questions and problems. On account of the co-operation of the information systems and their participation in international networks, databases and expert committees, FIS-ELF can guarantee an optimum utilisation of information as well as give advice relevant to the problems.

Bibliography is a further field in this area of work. Co-operation among the information systems guarantees that scientific publications are documented in the national and international databases. The bibliographic committee discusses the methods and procedures necessary and makes proposals to the managing committee to be decided on.

The third area of responsibility is to co-ordinate factual data. In a multiple way, data exist in Federal Government and Federal States authorities and incessantly more are developed. Whether lists of varieties, results of breeding or growing crops are concerned, all have in common that this information is interesting for a large variety of users, producers as well as consumers. It is the task of the committee „Facts/Agrarian Informatics“ to co-ordinate and transfer this kind of information.

When in 1995 at Schmochtitz, the conference of the ministers of agriculture decided to further improve co-ordination in the area of research and development, again the FIS-ELF group was asked to realise the decisions made. The authorities in the Federal State of Hessen put great emphasis in doing so as stated. In the Federal State of Hessen, the tasks of the FIS-ELF and those of co-ordination of research and development are combined in one hand. In order to realise the decisions of Schmochtitz quickly, the research data of the Federal States and of their institutions responsible for the projects in agricultural research were integrated in 1998 into the database „Research projects within the field of agriculture“. This work is continuously updated.

The Centre of Agricultural Documentation and Information (ZADI) which is maintained by the Federal Government authorities, supports all member institutions by means of an on-line system of registration and offers the possibility of up-dating data directly on an individual basis and without any delay as well as enabling the insertion of new projects into the computer. Thus, long and time-consuming ways of transmission can be avoided. The database can provide its data up-to-date which can then be recalled immediately after being inserted. In addition, ZADI processes the data for the Internet. This means that the data of each Federal State are administered separately in the general database. Each Federal State has its own form designed in order to be able to present the data under its own logo in the Internet. Besides that, this provides a better basis for - co-ordinating the works of research and investigation in each Federal State.

The increasing number of access to the database „Research in Agriculture“ reflects the high demand for information regarding -up-to-date topics of research and also the increasing need for co-ordination in research relevant to agriculture.

FIS-ELF is accessible via a direct Internet address, like nearly all those active in the net. The URL is: <http://www.fis-elf.de> and one can, of course, take advantage of these very useful offers via the homepages of the several institutes of documentation, the Federal Ministry of Food, Agriculture and Forestry or via the State Government of Hessen. Of course most of the information can be investigated in the Internet soon, something that I hope will also apply to this lecture as well.

Future Perspectives

What will be the future of the German information and communication system of food, agriculture and forestry?

The author of this paper started an inquiry recently among the member states of the European Union and, at the same time, among the countries entering the EU in the near or more distant future. The author asked them whether and if so, in what way, from their point of view, would closer co-operation of comparable communication and information systems make sense. The answers received were extremely positive and showed unanimous approval. Almost all of the countries mentioned expressed their interest in closer co-operation. With the inclusion of the FAO, the inquiry went beyond the scope of Europe.

Through further correspondence the author informed the institutions responsible in the various countries of the existence of a mutual interest in closer co-operation, even on an official level. A proposal was made for a first meeting to take place possibly this year for an exchange of information and experience. EFITA and IAALD, as well as all those who are active in this field, are cordially invited to give their support. A proposal would be to hold this first meeting of an information system specialised in food, agriculture and forestry on a European level and beyond, where governmental institutions can co-operate and concentrate their forces (efforts) in Hessen, perhaps in the beautiful Rheingau on the Rhine. We will consistently be striving for further development in international co-operation including all the new opportunities.

The Federal Government and the Federal States are presently trying to update the administrative agreement for the communication and information system of food, agriculture and forestry. At the same time, the rapid development of communication and information technologies has to be taken into account to a greater extent than before. FIS-ELF and its member institutions will meet the challenges of the information age and will participate in their fields in an active and determining way. We will keep you informed on further developments.