



A company presentation

DataCentralen

Gain from our experience

To truly understand government administration, you have to work for a government. Datacentralen does.

The data processing needs of the public sector are special. Unless you actually work in the public sector, it is hard to imagine the sheer size and complexity of some of the systems needed for administration and information.

A different kind of consultancy

The big advantage of dealing with Datacentralen is that we fully understand the public sector and the workings of government.

We have the right background and experience. Our organization handles most of the data processing needs of the Danish Government.

We base the work we do for international clients, such as government ministries and international organizations, on the work we have done in Denmark. We can also draw on considerable experience gained over the last ten years on international projects; a list of clients is given on page 7.

No company can offer you as much experience in government administration as Datacentralen.

A staff of 1,500 employees makes us one of the largest data processing and consultancy companies in Europe. We can even call upon experts working for one of the Danish



A view of the Danish Parliament building. For 30 years, Datacentralen has played a central role in developing efficient systems for public administration in Denmark.

ministries or councils to assist on projects. In the past, Danish government officers with specialities in tax, customs and accounting have been members of Datacentralen's project teams.

Furthermore, unlike other companies, we are a government-backed centre and are independent of hardware suppliers. So we can give you truly independent advice.

A unique DP centre

In 1959, the Danish Government created a single data processing centre to meet the needs of all government ministries, county councils and local council authorities.

Datacentralen was born. Today, Datacentralen has a bank of computers and a concentration of computer expertise all dedicated to information systems for public administration.

Denmark's modern administration system

Denmark, with a population of around 5.2 million people, has one of the most computerized and integrated public administrations in the world. For more than 30 years, Datacentralen has played a central role in its modernization. The high level of efficiency in the public sector has been achieved by close co-operation between public authorities and Datacentralen.

Through the extensive work in Denmark, Datacentralen has gained unequalled experience in the development, maintenance and operation of large information systems for government use.

Datacentralen has developed many systems for the Danish Government and some of the major ones are listed here (see box on the right).

In addition to these very large systems, Datacentralen has developed many smaller systems for both centralized, decentralized and distributed operation.

Large systems developed by Datacentralen

- Civil registration
- Government financial management
- Taxation
- Customs information
- Police information
- Legal information retrieval
- Parliamentary information
- Defence information
- Chemical information
- Gas supply
- Land information
- Personnel and payroll administration

Specialist skills available

Datacentralen has a large, well-qualified staff. Besides all aspects of computer science, our areas of expertise include business and public administration, engineering, statistics, sociology, jurisprudence, organizational management, accounting, auditing and planning. Great emphasis is put on training and keeping employees up to date on the latest developments in their fields. Datacentralen's personnel are frequently involved in national and international research projects.

With such a large staff and the wide variety of skills available, the most suitable professionals can be chosen to work on a particular project.

Flexible approach

Datacentralen has one of the largest computer installations in Northern Europe with mainframes and a variety of mini and micro computers. We use a number of operating systems, database management systems, programming languages, word processing systems and standard software packages. This provides a high degree of flexibility for systems solutions.

We are not tied to one type of system or one supplier of computer equipment. We can choose the best solution for the client.

Key facts

- A partnership founded in 1959
- No. of staff: approx. 1,500
- Annual turnover: approx. US \$150m
- Independent and non-profitmaking
- Backed by the Danish Government.
- Partners:
 - The Danish State,
 - The Municipality of Copenhagen,
 - The Municipality of Frederiksberg,
 - The National Organization of Local Authorities,
 - The Federation of County Councils.

Who can offer a wide range of consultancy services for public administration?

Datacentralen can.

In recent years, Datacentralen's expertise has been applied outside Denmark. An increasing number of governments, ministries, public and international organizations and computer centres have benefited from our experience.

Our experience enables us to offer support during all phases right from the planning stage to development, implementation and maintenance of systems.

The services we offer international clients are outlined briefly here.

ORGANIZATION AND MANAGEMENT CONSULTANCY

We can assist in preparing both short- and long-term development plans for data processing systems and in establishing guidelines for administrative procedures. In general, we can advise on the most cost-effective development of the client's data processing facilities and services.

Advice on the system itself is one thing, but another important consideration is the impact that the system will have on an organization. What changes will have to be made to accommodate the system? The field of "institutional development" is of growing interest to many of our clients. This is a field where we can

draw on our wide experience of implementing systems in Denmark and other countries.

SYSTEMS DEVELOPMENT

Adapting our systems for your needs

Datacentralen has already developed a wide range of systems such as a Civil Registration System and a Customs Information System.

The needs of government data processing systems differ from country to country. Nevertheless, a number of functions are similar. We have utilized our experience from Denmark and abroad to develop a number of standard modules and framework systems which can be adapted to cater for the individual requirements of a particular country.

Organization and management consultancy

- Modernization of administration
- Administrative procedures
- Feasibility studies
- Technology assessments
- Preparation of systems specifications
- Tender preparation and evaluation
- Long-term planning of needs
- Strategic analyses
- Project planning and management
- Implementation of legislation

Systems development

- Application development work:
 - Analysis and design
 - Software development
 - Testing and implementation
 - Documentation
 - Maintenance and improvement
- Systems engineering services:
 - Hardware and software evaluation
 - Database design
 - Development of networks and distributed systems
 - Installation and commissioning of hardware/software
 - Establishment of computer centres
- Turnkey projects

Integrating different systems

Government administration systems should be interconnected so that relevant information in one system can be used in another. A simple example is an accounting system and a wage system, but there are many other examples of areas where integration and standardization would be of great benefit.

Usually governments have been unable to achieve the benefits of integration because ministries and

local authorities have different approaches to data processing and use different suppliers. In Denmark, on the other hand, most of the information systems have been developed by Datacentralen and are integrated. Datacentralen has built up a complete "information infrastructure". In other words, we have developed a single framework into which all the information systems for government fit. We can do the same for other countries.

Technology transfer

An important aspect of implementing systems in developing countries is the transfer of technology. In order to do this, systems are normally developed with a high level of involvement with the customer and their local DP centre. Datacentralen takes care to develop systems adapted to the local operating conditions. Where skilled staff are in short supply, Datacentralen can provide training.

Turnkey projects

Datacentralen can deliver turnkey systems including software, hardware and system installation as well as training of technicians and operators. We can even supply our own staff to operate the system.

OTHER SERVICES

Training

Datacentralen provides staff training in information technology and systems development at all levels within client organizations. In this respect, Datacentralen can draw on the experi-



With 1,500 staff to choose from, Datacentralen can select a team of people with the right expertise and skills for a particular international project.

ence and resources of its own Training Centre which runs about 2,200 courses a year for about 25,000 participants. Datacentralen also holds seminars for senior people working in government administration around the world.

Establishment of a training programme is very often an integral part of Datacentralen's systems deliveries. However, Datacentralen can also assist in the establishment of complete training centres. We can give

advice on equipment, administrative procedures and training courses for instructors.

Bureau services

Though most of our clients outside Denmark are interested in using their own computers for operating their systems, some clients may want to use Datacentralen's computer capacity. In that case, the client can access their system via the telecommunication network.

Who has excellent international references? Datacentralen has.

To illustrate the types of services Datacentralen provides, five projects are presented here. All projects have been won in open international competition.

Systems for taxation and customs in Jamaica

In 1981, the Jamaican Government embarked on a reform of the tax administration system. At the outset of the programme, the problems included arrears in tax collection, tax evasion, abuse of customs and licensing procedures by importers and inadequate and out-of-date records on tax liabilities and payments.

In 1986, a new computer system was installed in a purpose-built computer centre in Kingston, Jamaica. Contracts were signed with Datacentralen in 1986 to provide technical assistance to design, develop and implement software for development of the taxation and customs systems.

The first contract was subsequently extended to cover staff training. Training consultants from Datacentralen helped in establishing a training department to carry out some basic training courses for technical staff.

The systems have been developed with a high degree of user-involvement and in close co-operation with local computer consultancy compa-

nies. Officials from the Danish tax and customs authorities have participated in the Datacentralen team. Funding was provided by the Commission of the European Communities, the World Bank and USAID.



Civil registration systems for Kuwait and Malaysia

The Danish Government has developed a unique concept for civil registration, which has been studied in a number of countries around the world. In short, the concept is that a civil registration system should not be seen as an isolated system but as a tool for rationalizing the overall work of the public sector.

Based on a previous masterplan study, Datacentralen entered into a contract with the Government of Kuwait concerning development and implementation of a civil registration system.

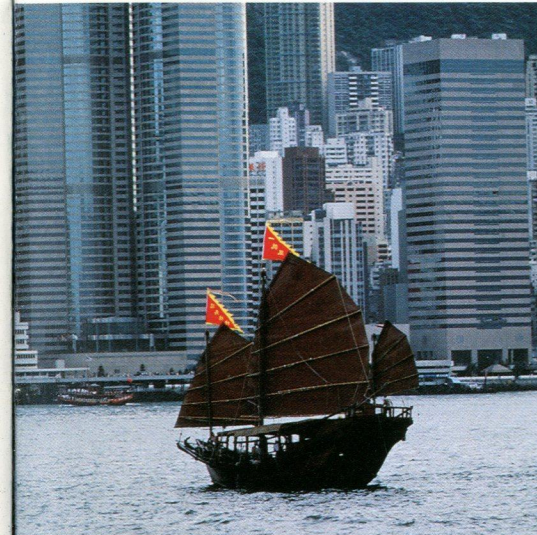
The system was developed from 1984–1986 in close co-operation with the Kuwait Public Authority for Civil Information (PACI). This ensured that the system was developed in accordance with the

needs of Kuwait, and that PACI personnel were trained to such a level that they could maintain the system.

Apart from the software development, Datacentralen provided consultancy on training, security, administrative procedures and on the establishment and operation of PACI's computer centre. One member of Datacentralen's team was an official from the Danish Ministry of the Interior.



In 1990, Datacentralen implemented a similar system for the Government of Malaysia. The system which was developed in 18 months provides on-line updating and enquiry functions for the Malaysian National Registration Authorities. In addition, there is a service module for automatic extraction and distribution of information to other public service agencies and a module for the issue of ID cards.



Organization and management study in Hong Kong

In conjunction with two other Danish companies, in 1988, Datacentralen undertook a six-month "Strategic Review of Computerization in the Hong Kong Government". The study started with an assessment of and recommendations on strategic goals, organization and procedures. It concluded with detailed strategies on staffing, hardware and basic software.

Most of the consultants' recommendations were implemented immediately after the study. A few were postponed awaiting co-ordination with other governmental activities.

Database management and maintenance for the European Communities

Datacentralen has carried out several projects, both large and small, for the Commission of the European Communities (CEC). One of these is AGREP (the Permanent Inventory of Agricultural Research Projects). This project is noteworthy because of the long co-operation with Datacentralen and the range of services provided.

Datacentralen's first contract for AGREP was won in 1973. The contract concerned design, development and operation of software for automatic production of photoset catalogues with a number of indexes. Later, Datacentralen was entrusted with the job of co-ordinating all the administration work, for example, contacts for data input at national level in all member states. The technology used in connection with AGREP has been steadily improved. At the beginning of the 1980s, Datacentralen started to provide public on-line access to the information via the international telecommunications network.

Recently, a PC-based system has been developed for local use in the member states and with a central host at Datacentralen. The system is based on the latest standards of the CEC and includes an expert system to help the work of the indexers. The result is an up-to-date information retrieval and management system for agricultural research.

International clients include:

- The Commission of the European Communities
- The Statistical Office of the European Communities
- European Port Data Processing Association
- Organization for Economic Co-operation and Development (OECD)
- The World Bank
- North Atlantic Treaty Organization (NATO)
- United Nations Development Programme (UNDP)
- United Nations Industrial Development Organization (UNIDO)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Department of Technical Co-operation for Development (UNDTCD)
- Nordic Council of Ministers
- Ministry of Greenland
- Greenland's Technical Directorate
- Greenland's Fishery Investigation
- Guyana State Corporation (Guystac)
- Jamaican Revenue Board
- Jamaican Ministry of Finance
- Kuwait Public Authority for Civil Information
- Kuwait Ministry of Planning
- Kuwait National Computer and Microfilm Centre
- Kuwait Ministry of the Interior
- Kuwait Civil Service Commission
- Kuwait Ministry of Finance
- Abu Dhabi Finance Department
- Iraq Scientific Documentation Centre
- Jordan Arab Organization of Administrative Science
- Hong Kong Government Data Processing Agency
- Malaysian Ministry of the Interior
- Malaysian Ministry of Finance
- Greek Ministry of the Interior
- Swede Gas AB
- Sweden Post

You too can gain from our experience

No other data processing or systems development company can offer such a depth of experience or range of services as Datacentralen can in the field of public administration.

We can offer clients a total solution to a problem and we tailor our services to the client's specific needs.

We would be pleased to provide further information on our expertise in specific areas where your organization wants assistance. We would also be pleased to discuss your present requirements and future plans.

Please write or phone. You too can gain from our experience.

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