ANNUAL REPORT & ACCOUNTS 1990
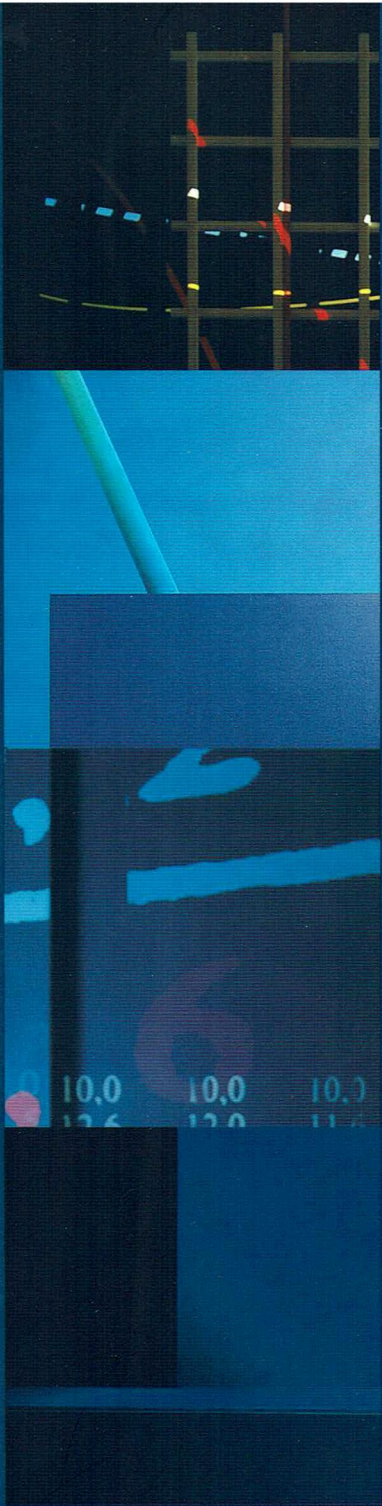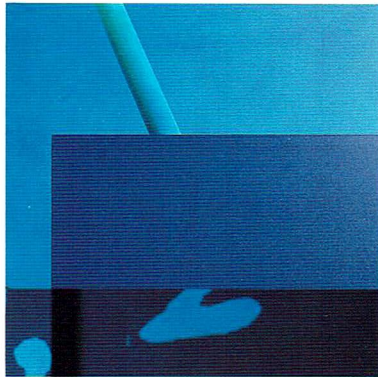
DataCentralen

*Annual Report and
Accounts 1990*

Mr Hans Henrik Østergaard, Managing Director: "1990 was a year which in many ways ushered in a new phase of Datacentralen's development."
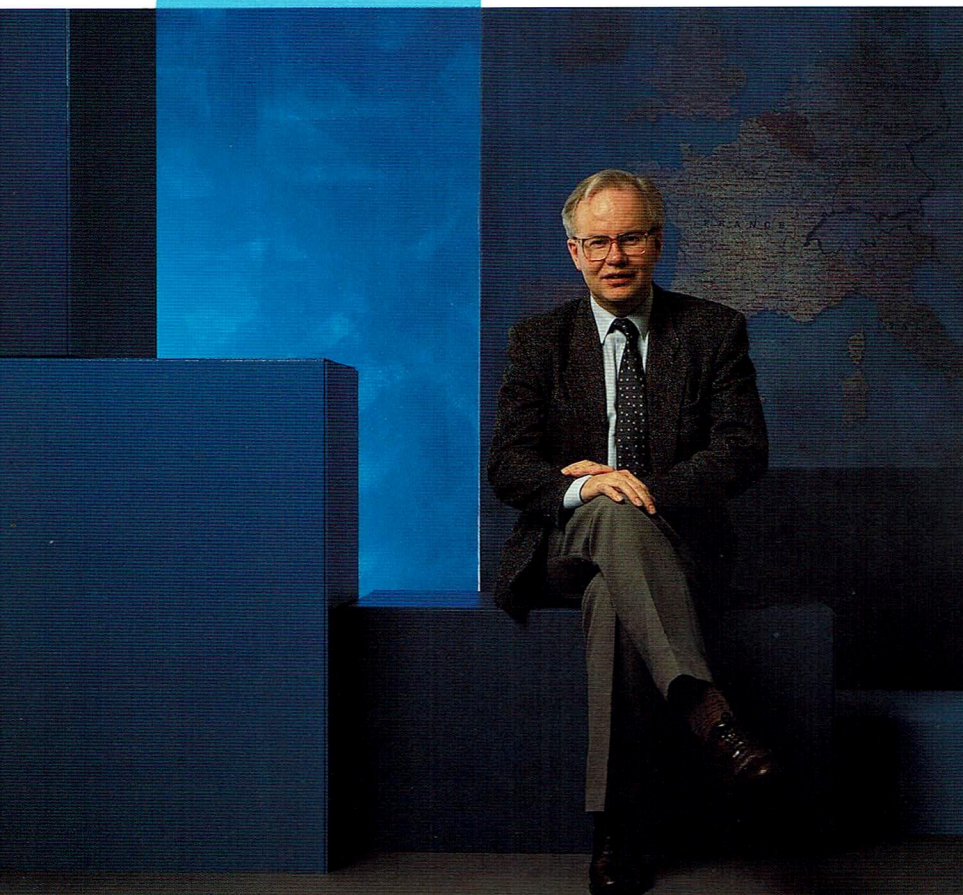
For more than 30 years now, Datacentralen has acted as the data processing centre of the Danish government. Over those years, Datacentralen has been instrumental in building up and developing an information technology infrastructure within Danish government which is unique compared with other countries.

The central government computing systems have been built up and developed in close, trusting co-operation between Datacentralen and the government authorities responsible. It is only natural, however, that increasing liberalization - and hence intensified competition - on the government computing market has caused former collaborative dealings to be superseded by more businesslike relationships. And indeed, one of the demands made of Datacentralen is that we be able to supply competitive solutions in all spheres of activity. Developments in the European Communities (EC) are also pointing in this direction.

In 1990, we therefore laid down a new strategy for the next five years. This strategy was articulated after thoroughly analysing technological and marketing developments with an eye to the possibilities and restrictions implied by developments in the EC.

Market strategy
Datacentralen adheres to its crucial reference point as the government data processing centre. This forms the crux of its competence and must continue to form a solid platform for the company's development. However, we also envisage the government market being affected by a decline in demand in the future. At the same time, competition between suppliers will become greater as the public sector's purchasing of services is liberalized. Datacentralen therefore plans to exploit its competence to increase its turnover from the nongovernmental and international markets.

Datacentralen's market strategy has in 1990 resulted in two other important strategies. Firstly, we will be striving in all fields to fulfil current and future EC standards and derived national standards within computing services. This will enable us to support the developments and guidelines

which our government clients in particular have to satisfy.

Secondly, we will be aiming towards increasingly business-minded collaboration with selected companies in fields where Datacentralen needs to complement its know-how or sales and production apparatus.

Customs and Tax Administration
The government market of 1990 offered a distinct and difficult challenge. During the first quarter, the Ministry of Taxation, Central Customs and Tax Administration decided to phase out or restrict a range of data processing operations. This was done as part of a general regearing of activities within the Administration's terms of reference to match budget appropriations.

To some extent, Datacentralen had foreseen this development; however, we were forced to note that these cuts were so extensive that despite cost adjustments they came to assume decisive influence on the turnover and profit for the year.

New form of contract
This change in the composition of the Ministry of Taxation, Central Customs and Tax Administration's computing activities at Datacentralen also marked the initial introduction of a new form of agreement for the central operations. This form is based on longstanding agreements whose visible correlation between service and price offers the client more options and greater flexibility for combining and grading the services supplied by Datacentralen.

Result for the year
Turnover for the year was approx. DKK 1 billion (USD 150m), on a par with the turnover for 1989. The accounts show a profit of DKK 30.3m (USD 4.7m), as against a budgeted DKK 49.9m. The reduced profit is primarily a result of the Central Customs and Tax Administration's diminished level of activity and the implementation in 1990 of another cut in operating prices equal to 4%.

As was the case in 1989, costs at Datacentralen were kept under tight control in 1990, while at the same time the general employment freeze was retained throughout 1990. In the course of 1990, the number of employees was thus cut from 1484 to 1428 full-time posts. The result for the year shows that with a turnover that is virtually unchanged there has been a considerable increase in productivity.

KEY FIGURES FOR THE PERIOD 1986 - 1991

|	1986	1987	1988	1989	1990	*1991*
	Accounts th. DKK					** Budget mill. DKK*
Production for the year	858,866	874,455	1,038,447	1,023,277	989,139	*993*
Total net expenditure	817,944	912,955	977,722	947,892	958,813	*953*
Profit for the year	40,922	(38,500)	60,725	75,385	30,326	*40*
Assets	631,963	629,153	649,387	648,022	696,509	*673*
Liabilities and provisions	365,783	401,473	360,981	284,231	302,392	*239*
Equity capital	266,180	227,680	288,406	363,791	394,117	*434*
Average number of employees	1,451	1,611	1,608	1,519	1,448	*1.363*
Solvency ratio	42	36	44	56	57	*64*
Development (1986=100)						
Production for the year	100	102	121	119	115	*116*
Personnel expenses	100	115	127	125	124	*123*
Direct production expenses	100	99	115	99	104	*108*
Other net expenses	100	131	109	130	129	*117*
Profit for the year	100	(94)	148	184	74	*98*

* Note that the budget figures have been drawn up without regard to current plans for conversion to a public limited company.

Organization

Datacentralen is continuing its endeavours to streamline and rationalize its operations; consequently a number of organizational modifications were carried out in 1990. One of these was the establishment of one organizational entity consisting of the former Operating Centre Birkerød, the Operating Centre Valby and the Research & Development Division. The amalgamation of the two operating centres into one, sited in Valby, has begun and is scheduled for completion in the autumn of 1991.

Introduction to new times

1990 was thus a year which in several respects saw the introduction to a new phase in the company's development - a development which in our opinion will first and foremost benefit our clients, but also the company and its employees.
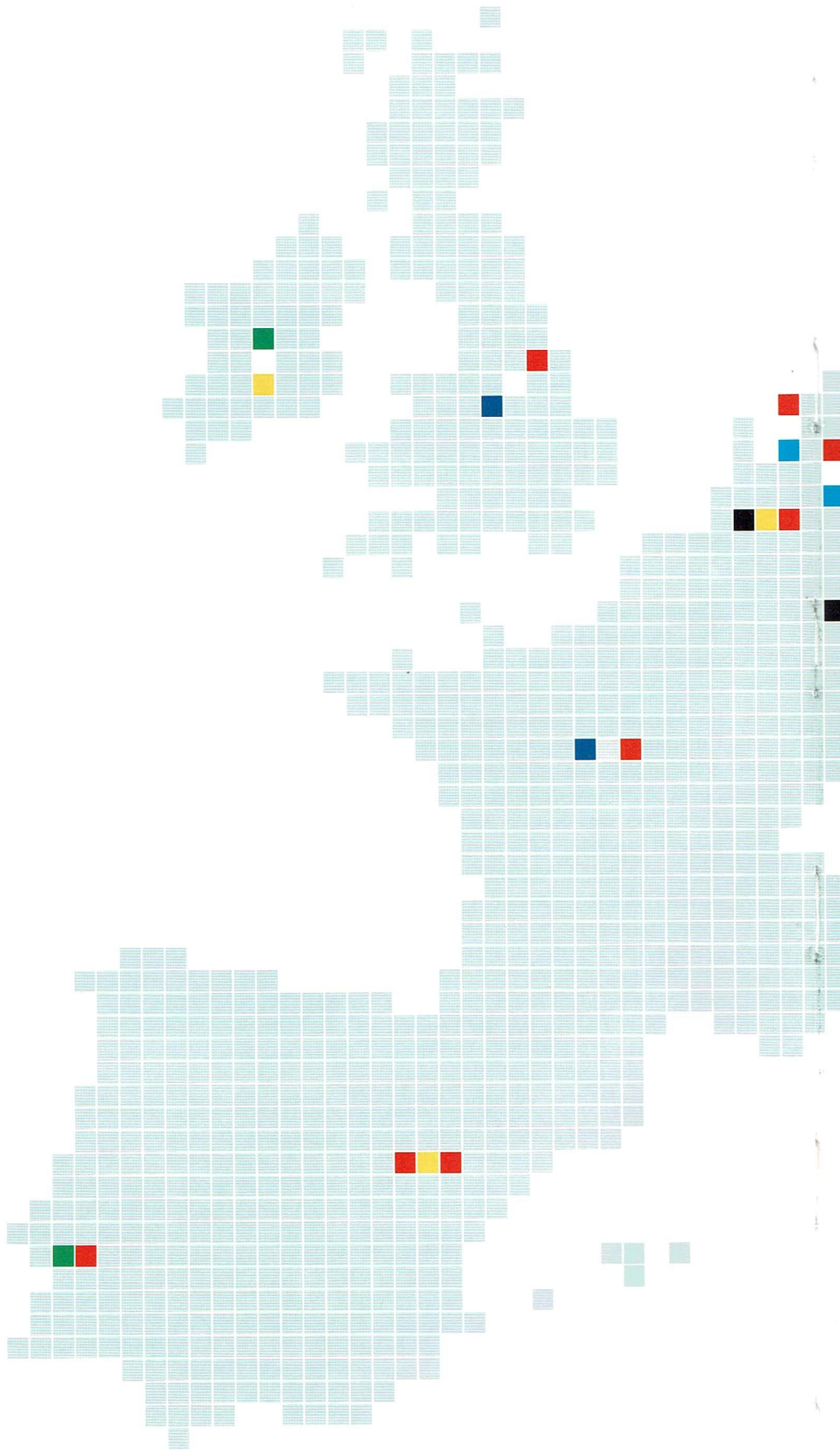
In 1991, European companies will really be getting to grips with preparations for the EC's single market. For Datacentralen in particular, the EC directives on public data processing acquisitions will herald a new age. These directives will sharpen the competition for performing government computing assignments in Denmark, at the same time opening up new and exciting export possibilities.

Datacentralen has been making thorough preparations to take up the competition to perform government computing assignments on the home front. At the same time, we intend to take advantage of the new open market in Europe as a platform from which to launch ourselves as a European-oriented company.

Standards
The EC directives will be of great importance also where standards are concerned. They require that a series of adopted and anticipated public purchasing standards be fulfilled, and tender documentation must state which standards products need to comply with. In all fields, Datacentralen will work to be able to meet current and future EC standards and derived national standards. At the beginning of 1991, we adopted a strategy for effecting controlled alignment with EC standards, but we will continue to support existing de facto standards, as long as this proves necessary.

Integration of systems, data and communications
An effective "production apparatus" is an important prerequisite for the continued ability to rationalize and modernize the public sector. The keywords in this development are case management and communications. With Datacentralen's Case System and the Government Data Network, we are ready to send the paperless information society into orbit. In the years ahead, our task will be to integrate computer systems, data and communications. Only then will it be possible to process a case completely, from start to finish, from the electronic workstation of any individual case officer.

Quality control certificate
In 1990, the international ISO quality control standards became a household concept, also within the world of information technology. In order to obtain an ISO-9001 certificate, a software house must be able to document compliance with a long string of quality stipulations covering the basic process of production, documentation and maintenance in its entirety. It is not the individual software product which is certified, therefore, but the actual formation process.

Within a few years, certification of quality control will assume strategic importance in the competition among suppliers of information technology.

At some stage, EC public tender procedures will probably stipulate that suppliers have a quality control certificate.

Datacentralen has always taken pride in supplying high-quality services; in the summer of 1990, we therefore decided to initiate the procedure for having Datacentralen's systems development certified in respect of quality control. By the end of 1992, we expect to have earned certificates for each centre.

Marketing centralized operations
As mentioned above Datacentralen will, in the course of 1991, amalgamate the two operating centres in Valby and Birkerød into one centre in Valby. This amalgamation will provide essential scope for rationalization and, combined with increased specialization and efficient resource control, provide a sharper competitive edge when it comes to centralized operating services. Apart from the benefit to our present customers, this favourable competitive position will be used to market operating services in new segments of the market.

Targeted training
The coming years will see Datacentralen faced with a challenge to staff and organization alike. To an even greater extent, in-house staff training will be targeted at ensuring a high level of professionalism and accumulating the necessary expertise in all our functions. Organization and business procedures will be adjusted to match the requirements of the surroundings at all times.

Datacentralen's principal task remains to develop, operationalize and maintain the central nationwide systems. This task is performed for the Ministry of Taxation, the Ministry of Finance, the Ministry of Defence, the Ministry of Justice and the Ministry of the Interior. One feature common to these central systems is that they support complex administrative tasks involving large data volumes.

Although the linkage between the development of centralized systems and the rationalization of the public sector is rarely discussed, the importance of such systems to society should not be underestimated.

On the following pages, the Danish Ministry of the Interior's Civil Registration System (CRS) will be described as an example of the benefit society gains from a system in which the responsibility lies with one authority and centralized operations provide ready accessibility for all relevant authorities, an unequivocal database and a variety of potential applications.

The CRS was chosen as an example because the "old" system was subjected to radical modernization in 1990 and preceding years. The new CRS is due to become operational in 1991.

10 dollars per inhabitant
That may not sound a lot, but it adds up to a total of 2.6 billion dollars. That is what the latest census in the USA is going to cost. Censuses are taken every tenth year in the USA; this is a huge programme involving, inter alia, a corps of 350,000 census professionals. The last census took place in 1990, though preparations began as early as 1984, and the latest statistics will not appear before 1993-94. The reliability of the census is +/- 4 million out of approx. 250 million inhabitants.

Much cheaper in Denmark
In 1981, Denmark became the first country in the world to make a complete population and housing census based solely on administrative computerized registers, i.e. without collecting information from the population directly. The register census in 1981 worked out many times cheaper than an "old-fashioned" census would have done. And the results were obtained much more quickly. Since the inception of the system in 1981, Danmarks Statistik (Danish National Bureau of Statistics) - in accordance with the express wishes and requirements of the

users - has compiled *annual* statistics with roughly the same content as traditional population and housing censuses.

Censuses have the same aim in all countries: to provide reliable statistics on the population, distributed by sex, age, housing status, vocation, training, etc. - and in small geographical areas. Yet despite having an identical objective, the methods of enumeration vary greatly. And here the USA and Denmark represent two of the extremes among the industrialized countries.

CRS is the secret
The American "1, 2, 3, 4..." method and the register-based Danish census system are worlds apart. In actual fact, no "old-fashioned" census has been taken in Denmark since 1970.

The secret is the CRS. The Danish Civil Registration System contains all basic population data and these can be merged with a number of other registers as all our nationwide personal registers feature the CRS number as a common key. In addition, the data can be merged with a long series of other registers containing no personal information, such as the nationwide Danish Building and Dwelling Register.

For in Denmark, not only do all inhabitants have their own identification number; so too do all business enterprises, public authorities and buildings.

Denmark is thus unique in that all nationwide and local public registers of importance can be combined via common identification numbers to generate new information.

With a contingent of programmers, statisticians and DP capacity that is modest compared with earlier statistical methods - not only can a total set of precise population and housing statistics be compiled whenever required, but also more extensive countrywide statistics quickly collated, including, for example, income and tax elements.

Denmark spearheading developments
One of the few countries in the world able to do so, Denmark compiles reliable timeseries of trends in family size and composition, settlement tendencies, vocational progress, etc. - data which is of inestimable importance to planners and social scientists. An added possibility exists of compiling a statistical basis of detailed geographical market analyses for use by the business community. Thanks to the CRS, Danmarks Statistik no longer supplies services just to the government and Danish civil service, but also to private business. An important source of income for the Bureau.

EC census
The EC has passed a directive on uniform and simultaneous censuses. From March 1 to May 31 1991, these are to be carried out in the 12 EC countries. However, a number of EC countries have been granted exemption from the requirements of the directive as they are in no position to fulfil these requirements; while for still other countries, it will involve sizable costs and extra, time-consuming work. In Denmark, though, it will take just a few weeks' work to meet the provisions of the directive.

Information technology saves money and resources

These days, the commissioning of information technology is accompanied by demands to rationalize and economize. Things were not done the same way in 1968, when the CRS was devised. But forward-sighted politicians and public officials of the time glimpsed its potential. And with every year that passes, the CRS, which costs each inhabitant only about DKK 5 a year to operate and maintain, becomes more and more valuable to Danish society. Information technology can save money - a lot of money, in fact. The CRS is good proof of that, which also goes to show that one centralized nationwide register is the optimal solution.

CRS - a service for public administration

The CRS functions as a nationwide national register with personal information and is so reliable that all public authorities can use it.

The CRS rationalizes public administration; since it is so well developed and readily accessible, there is no need for parallel registers elsewhere. That means work everywhere is done on the same personal data and very few errors are made on the administration side. It is possible to supply data from the CRS to other large computerized registers. This mainly involves other public authorities, although there is an increasing demand from private companies for the information from the CRS available within the existing legislative framework.

It is therefore important that the CRS should continue as a centralized, mainframe-based system, retaining the form of a "pure" system for civil registration, i.e. a basis register for other computer systems. The CRS does not exist for its own sake, but is a service for the entire public administration, as well as increasingly for private companies.

Modernization

The Ministry of the Interior is the agency which owns and is responsible for the CRS. The Ministry of the Interior's Department for Civil Registration shares premises with the staff of Datacentralen which is in charge of operations, maintenance and systems development. Together, they have worked on drastically modernizing the system in recent years; in 1991, the CRS will incorporate state-of-the-art technology within databases, data transfer and enquiry.

One of the advantages of the new system will be to relieve local authorities of their duty to store and update hard-copy records. The municipalities will update the CRS with new and modified data, e.g. in the context of births, deaths, marriages, changes of addresses, and so on. All 275 Danish municipalities now have on-line access to the CRS, and the new, modernized CRS will establish updating on a real-time basis.

With relational database technology, retrieval facilities are undergoing marked improvements. Under the Danish Act on Public Authorities' Registers, the on-line enquiry facilities of the CRS may only be used by public administrations, given the confidential nature of the personal information in the CRS. Well over 3000 terminals in

Remote transactions in the Civil Registration System

Number of transactions (mill.)

authorities when moving house, changing name, marrying, etc. Furthermore, it will gradually eliminate the need to present a birth or marriage certificate, passport or driving licence on application to public authorities. When a citizen documents his or her CRS number, all relevant information can be retrieved through online access to the CRS.

Private companies - for example, banking institutions - which can identify all individual clients by their CRS number can also order excerpts from the register, to provide ongoing notification of changes of name and address. In 1990, 20 companies availed themselves of this service.

At the end of 1990, Datacentralen and the Ministry of the Interior entered into a three-year framework agreement on the running, operational planning and maintenance of the CRS.

Renewal of central systems
The other central systems at Datacentralen are undergoing similar modernization. New database technology, new facilities, a modernized user interface, direct updating and flexible user-controlled output options are some of the demands made by the authorities in charge.

Modernization, large-scale production benefits and the high level of security achieved in Datacentralen's joint operating environment combine to provide an effective socioeconomic solution to registration, storage and processing of society's vital data.

Mr Torben Jerlach, Head of Department at the Ministry of the Interior: "The 'Moving House Folder' available to citizens at Danish post offices or banks could easily be made even thinner than it is today, were it not for certain authorities and private enterprises who still require manual notification of a move, even though they already receive the new address from us automatically. It would also save citizens having to present various certificates to the authorities if the authorities accessed the relevant information in the CRS instead."

the public sector have access to the CRS.

Many subscribers
In addition to this direct use of the CRS, the system continually supplies bulk data to virtually all public personal registers in Denmark. Some 70 of the subscribing authorities daily receive data from CRS for updating of their own systems. The largest are the motor vehicle register of the police force and the tax systems. This transfer of data means that up-to-date personal information is constantly available, and the citizens are relieved of the manual notification of most public

The Government Data Network

In September 1990, Datacentralen introduced the Government Data Network. Datacentralen has put together a broad range of data communication services (in technical jargon VANS - Value Added Network Services) entitled Government Data Network. These are services specially aimed at the needs of the public sector.

Great interest

Many have approached us for more information on the many communication options which the Network can offer the individual agency or institution. And many are already hooked up.

Of the services currently accessible via the Government Data Network, a particularly interesting one is the possibility of being linked to a number of systems and databases inside and outside Datacentralen. But interest has also been shown in centralized E-mail (electronic mail), file transfer and EDI (Electronic Data Interchange).

The first client was the Ministry of Housing and Building, who gained access to Danmarks Statistik and Kommunedata (the Data Processing Centre of the Danish Municipalities) via the existing line to Datacentralen. This saved the Ministry two separate lines to those data suppliers.

Pilot projects set up

There has also been great interest in participating in a number of pilot projects started in 1991. The trials test the external E-mail and document transfer between pilot users with different computerware.

Letters and documents are transferred from a terminal/PC in one institution to a terminal/PC in another. The recipient of a document will be able to reprocess any document received in his/her own text processing system and, if need be, return the document edited or marked with additions.

The Ministry of Foreign Affairs' EC case-load and Parliament's committee work form the basis for these trials. Both are assignments calling for much external communication. A total of 12 ministries are taking part in the trials.

The case officer in focus

In recent years, Datacentralen has made a major effort to develop an electronic workplace for the case officer. An ever increasing number of work functions can be performed using data processing; today, the individual case officer can use data processing for such chores as text processing, journal-izing, E-mail, spreadsheets, access to external databases, and finance and staff administration.

For Datacentralen, the objective is to develop an integrated system in which, regardless of the application, the user experiences the same form of dialogue, the same user interface, the same meaning of function keys, and so on. Given the technology presently available, this is still a thing of the future. Nonetheless, Datacentralen's new Case System is an important step along the way.

Datacentralen's Case System
Vital developments have taken place in the Case System in 1990. Resources have been spent on achieving the greatest possible integration between the standard PC systems, Datacentralen's framework systems for government departments, the departments' own systems and systems on external host computers. And we shall continue to be capable of offering new systems directed at the specific needs of the government.

The present version of the Case System uses the MS/Windows product, making it possible to work simultaneously in various windows on-screen with programs from a PC, local computer and

external host computers. By "cutting and pasting" electronically on-screen, data can be transferred between different windows.

Integration has also been created between text processing and Datacentralen's standard journalizing system; and Datacentralen's standard personnel administration system is integrated with our payroll administration system enabling data to be delivered and received. Datacentralen has also focused on incorporating integration elements, so that equipment already acquired can be used, especially the many XT-type PCs still in use in many places.

Client/server technology
The backbone of Datacentralen's Case System is the local network at the individual institution. This network is used to link up PC workstations (clients) and one or more servers. Wherever possible, the Case System programs are run on PCs. This makes optimal use of the total computing power. The purpose of the servers is to serve the PCs with various services via the network. These can be programs, such as text processing, which are automatically downloaded onto PCs, running of multiuser programs, communication with the outside world, printing facilities, etc.

Inasfar as possible, the Case System uses standards to create an open system. That way, customers avoid making a firm commitment to hardware and software suppliers.

Standard/framework systems for a host of purposes
Under Datacentralen's Case System, standard/framework systems can now be supplied within the following fields: Journalizing, personnel administration, management information and free text information retrieval.

Security - a job for professionals

In the mid-eighties, the Danish public - particularly telecommunications users - were alarmed by the case of a hacker. This was "Viggo", as he was called, who claimed he had hacked his way into major public and private computing systems.

He had not, in fact, done so at all, but he did manage to fuel a good deal of thought as to how best to safeguard the telecom network. This prompted Datacentralen to take the initiative of finding solutions able to enhance the security of the public telecom network. An initiative which resulted in collaboration with the telecom corporations, P&T (Danish Posts and Telegraphs), the Danish National Police, Kommunedata (the Data Processing Centre of the Danish Municipalities) and Terma Elektronik.

Enciphering data communications
It soon became clear that an adequately high level of security can only be achieved by having users themselves safeguard their data prior to transmission, which is best done by means of cryptography or encipherment.

However, there was no product in existence on the world market which featured the necessary facilities, so one had to be developed. That has since been done, and in 1990 field trials were conducted at Datacentralen with a public key cryptosystem including all the requisite facilities - DANSECT (DAta Network SECuriTy).

DANSECT makes sure that sender and recipient know each other's ID before embarking on data transmission, that data remain confidential during the transmission, that data are protected against unauthorized deletion and modification, that electronic documents can be signed digitally, and that cryptographic keys are administered effectively and judiciously.

Security training programme
Distributed computer installations, data communications and network solutions are focusing increasingly on security, and there has proved to be a need for a more targeted, professional effort in this field. More and more companies with data processing installations therefore need personnel profiles with data processing security as a specialism.

In 1990, the first class of students from both private and public companies underwent Datacentralen's extensive training programme for data processing security managers. This is the first all-round training programme in data processing security in Denmark. It was thought out in liaison with the Institute of Data Security and under the professional surveillance of a training committee consisting of data processing executives and security managers of large Danish computing installations. Training is completed with a written and oral examination which, once passed, entitles candidates to bear the title of "master DP security manager".

"Working with the Auditor General's critical, committed and competent personnel has been most interesting and instructive," says Datacentralen's Project Manager, Ms Lene Hviid, seen here together with Mr Svend Gravesen, Deputy Undersecretary at the Auditor General's.

Information system for the Auditor General of Denmark

The Auditor General has a reputation for looking over the shoulders of state institutions with a very watchful eye. The body also did a thorough job when it came to selecting its data processing supplier. Following an EC tender procedure, complete with keen competition, the Auditor General chose Datacentralen in April 1990 to supply an information system to perform both auditing and administrative tasks.

The information system is intended to strengthen options for monitoring state institutions and to rationalize the day-to-day work of the Auditor General.

Extensive supply

The supply encompasses a minicomputer, servers and 225 PC workstations interconnected in a local network. In addition, Datacentralen is to develop systems for special planning purposes as well as staff and training administration. For accounting purposes, an auditing database will be developed, with information on state institutions and facilities for making statistical spot checks. Standard programs for text processing, spreadsheets and electronic mail also form part of the supply together with Datacentralen's standard journalizing system. An important element is the flexible communications interface which enables the Auditor General to use data communications to retrieve the necessary auditing data from the institutions' own databases.

These special programs will be developed with the aid of a 4th generation tool. As part of the supply, this tool will be made available to the Auditor General so that the body can develop its own auditing systems on both PCs and minicomputers.

Training for 225 employees
The Auditor General's new information system marks a long step towards the electronic office and in many respects it will transform existing routines and business procedures. But staff have taken the challenge in an incredibly positive spirit. More than 225 employees have already learnt or are scheduled in the period ahead to be instructed in the use of e.g. text processing, spreadsheets and journalizing system. As part of the total supply, Datacentralen will provide the necessary training of the Auditor General's staff.

The supply will have been finalized by the beginning of 1992, by which time the Auditor General will be well equipped to face the demanding tasks of the 1990s.

Pay on time in the Swedish postal service

In 1989, following a public tender procedure, Datacentralen was chosen as supplier of a payroll administration system for Sweden Post (the Swedish postal service).

The finished system - a centralized system to be operated on the postal service's own mainframe - was handed over in the autumn of 1990. In 1991, it will be linked up to a distributed personnel administration system being developed by the postal service itself.

The best of both worlds
With such an integrated solution, straddling one centralized and several decentralized systems, Sweden Post elegantly exploits the advantages of both environments. Administering and computing 70,000 employees' salaries is done

Ms Clary Lundahl, Project Manager at Sweden Post: "We have been most satisfied with the professional support and consultancy we have received from Datacentralen's consultants throughout the duration of the project. Development work has also been characterized by very smooth-functioning cooperation."

along identical lines for all post office regions and demands vast computing resources. It is most effectively done in a central system, therefore. Work organization, staff administration and data capture for the payroll system, however, are most expediently done on a decentralized basis.

The Danish payroll administration system is unique
The central payroll administration system for Sweden Post was developed on the basis of a system developed and operated by Datacentralen for the Danish State Accounting Directorate. This system fulfils a number of functions, including a tabulation system, in which actual users interactively install rules, laws and collective agreements, thus controlling wage computation. What is more, the system can back-regulate wages 3 years in arrears and thus save a great deal of manual labour. These are the unique applications which formed the background for Sweden Post choosing Datacentralen as its supplier from a large selection of bidders.

A high-technology development process
The actual development process took a rather exceptional form. The Danish basis system was adapted to conditions specific to Sweden, both administratively and operationally. At the same time, Swedish rules, laws and collective agreements were installed in the system's tables via a communications line from the central operating environment at Sweden Post to its counterpart at Datacentralen. This line was also used in connection with training of the Swedish users in the system.

In its adapted form, the system was subsequently transferred to Sweden via a communications line, which was also used by DC's employees in Denmark for the final development work. The bulk of daily communications between the project staffs at Datacentralen and Sweden Post took place via electronic mail.

Thus, state-of-the-art technology was taken into service in a successful and effective development process. Sweden Post was provided with a modern, efficient payroll administration system, and Datacentralen amassed valuable know-how and experience with a technical development method which in the future can make us even more competitive in the context of international development assignments.

From ASTRA to PANDA

During the period 1986-89, Datacentralen was involved in conducting the successful ASTRA project - a project under the ESPRIT programme of the EC Commission - together with associates in Germany, France and Italy.

New project initiated
Following the completion of the ASTRA project, the EC Commission asked Datacentralen to embark on a new project, PANDA (the Public Administration Office System Demonstrator), intended to integrate and subsequently bring to fruition the results of the ESPRIT projects ASTRA and Prominand (a project on case migration). Participants in the PANDA project other than Datacentralen include

companies from France, Germany, Italy and Spain; the project will continue till December 1991.

The public administrations of EC Member States are under pressure to increase efficiency, while at the same time integration within the EC involves changes in the tasks to be executed by those administrations. The PANDA project aims to identify solutions for achieving this improved efficiency in case handling and promote the capability for handling new assignments. PANDA is also intended to facilitate electronic exchange of information between public administrations.

Integration
The PANDA project will establish an open architecture which can integrate the most widely used office automation products within the framework of a cohesive information management system. Functions will be created for case migration, case handling, electronic document production, external information exchange and access to external systems, interlinked via a graphic user interface. Relevant international standards will be adopted to make the system portable.

By participating in the ESPRIT programmes, Datacentralen can more quickly support products hinging on the use of open standards, to the benefit of our clients. In the future, we plan gradually to implement facilities, know-how and experience from ASTRA and PANDA in our own products.

MINISTRY OF TAXATION, CENTRAL CUSTOMS AND TAX ADMINISTRATION

In 1990, Datacentralen began developing a joint company register for tax and customs; as a result, business enterprises will have only one ID number in their future dealings with tax and customs authorities.

As an integral part of the overall collection of tax and duty arrears, a new system has been developed for recovering outstanding PAYE.

MINISTRY OF DEFENCE

For the Danish Ministry of Defence, Datacentralen developed a new information and case management system for the administrative control of NATO infrastructure projects. The system can be run on various hardware platforms, from stand-alone PCs with DOS, through local-network PCs in a client/server configuration with XENIX, to Digital VAX with a VMS operative system.

CHIEF OF DEFENCE, DENMARK

For the Chief of Defence, development work began on a local accounting system, which will be an important tool in connection with continued delegation within the National Defence. The system will form an integral part of the National Defence's general financial management system.

NATIONAL POLICE

A new case directory for the Danish Police, the Reports Register, was put into operation at the turn of 1990/91. All reports in Denmark are recorded in it; inter alia, the register collates statistics illuminating the geographical distribution and nature of the reports.

For many years, a nationwide online register of stolen bicycles was an ardent wish. That wish has now come true, thanks to the fruitful cooperation of the Danish Insurance Association, the National Police and Datacentralen. The system was inaugurated in June 1990 and has proved to be an extremely effective means of preventing bicycle theft.

In the latter half of 1990, a tailor-made system was supplied to the National Police for the administration of uniforms and weapons.

STATE ACCOUNTING DIRECTORATE

Changing the administration of state finances involves the need to integrate the Ministry of Finance's centralized computer systems towards a complete State Finance Administration System.

In this connection, Datacentralen has been modernizing and redeveloping the accounting system for the State Accounting Directorate for the past few years. The first phase - internal accounting - is now operating on a pilot scale. Development of the second phase - the new appropriation accounts - will be completed in 1991.

Reorganization of the payment transaction systems is due to follow later, and there are plans for similar modernization of the payroll administration system.

These new systems are based on a new technological platform, with relational databases and the use of 4th generation tools.

GREENLAND

For a number of years, Datacentralen has performed tasks for various sections of Greenland's Civil Service. In 1990, the final touches were added to a new taxation system for the Municipality of Nuuk (Godthåb), which the local authority will put into service at the start of 1991.

STATSANSTALTEN FOR LIVSFORSIKRING

In 1990, Datacentralen concluded a contract with Statsanstalten for Livsforsikring (The State Life Assurance Institute) for a facility management arrangement on the operation of their computer systems. The assignment was won in keen competition with a number of major data processing service agencies, Danish and foreign.

As of March 1 1990, we assumed total responsibility for operating their data processing systems, the objective being to relocate all computer operations from Statsanstalten to Datacentralen by October 1 1990. Statsanstalten thus enjoys all the benefits inherent in large-scale operations as well as an opportunity to tap Datacentralen's collective expertise.

In order to ensure a range of courses to meet the needs of our clientele, comprehensive market surveys were conducted in 1990. As a result, Datacentralen will be altering its profile in the educational field in the years ahead. Inter alia, the number of courses offered on distributed systems and PCs will be increased.

In 1990, we were accredited by Microsoft, the world's largest suppliers of PC software. Datacentralen's Training Centre has been authorized as a Microsoft University and is able to offer computing courses at a very high professional level.

INTERNATIONAL ACTIVITIES

In *Jamaica*, Datacentralen continues its activities for the Jamaican government. The last of a number of assignments in the inland revenue field was handed over at the end of 1990. In the customs field, the development and implementation of a VAT system continues. A new project for the Jamaican Ministry of Finance was started in 1990. This involves assistance in the modernization of the state accounting system, including the coordination of data processing applications in all ministries.

In the *Far East*, Datacentralen is expanding its activities. The Civil Registration System for Malaysia was handed over in 1990, and the next phase of the project is being discussed with the Malaysian authorities. In addition, we have submitted an offer on the modern-

ization of Malaysia's customs information system. For Thailand, in association with IBM Thailand, we have given an offer on a comprehensive tax system.

Generally speaking, the region is characterized by vigorous economic growth, which spells increasing private and public investment. As an offshoot of Datacentralen's activities in the region, we have

come to be regarded as an attractive business partner where the modernization of the public sector is concerned.

In mid-1990, Datacentralen opened a branch in *Brussels* with a view to securing contact with the Commission and marketing Datacentralen's products within the EC generally.

TECHNICAL RESOURCES

Storage capacity
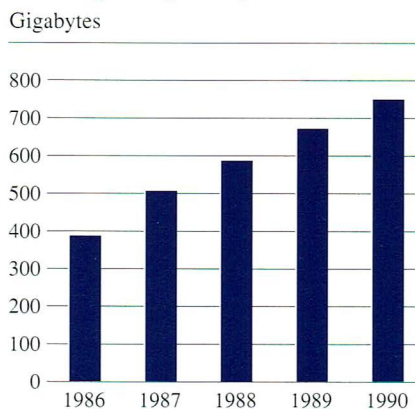
Gigabytes

1 gigabyte is a billion characters. The graph shows Datacentralen's total disk storage capacity.

Computing power
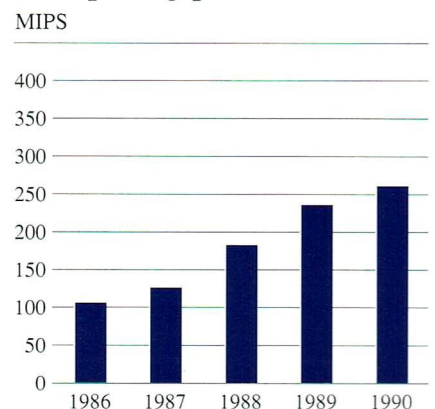
MIPS

MIPS units are millions of instructions per second. The graph shows Datacentralen's total CPU capacity.

Operational reliability in %
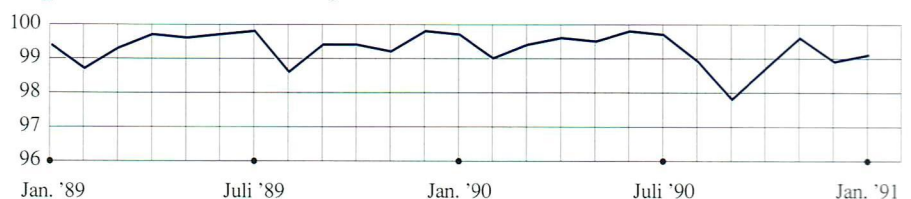
The figure shows the average uptime month by month for the Valby Operating Centre. The lower figures for September '90 are due to the start-up of running operations for Statsanstalten's data processing systems.

The result for 1990 was a profit of DKK 30.3m (USD 4.7m) as against a budgeted DKK 49.9m. The reasons for this reduced profit are, primarily, a decision at short notice by the Ministry of Taxation, Central Customs and Tax Administration at the beginning of 1990 to phase out or restrict a number of data processing activities, and a 4% price reduction on operating services. This price cut was adopted in the spring of 1990.

Production for the year totalled a value of DKK 989m (USD 150m) in 1990 after allowing a deduction for the decline in the value of on-going jobs for foreign account. Production for the year was DKK 34m down on 1989, equal to 3%. For the second year in succession, therefore, it can be noted that marked price cuts have certainly improved competitiveness but have not managed to attract sufficient new clients to retain the nominal turnover.

Primary operating expenses in 1990 stood at DKK 956m, corresponding to the 1989 level. In relation to the budgeted operating expenditure, incl. funds reserved i.a. for reshuffling of staff superfluous to requirements and for investment in new areas of business, there is a drop of DKK 16m or just under 2% in current prices. Adjusting for price trends, that makes a drop of approx. 5%. Personnel expenses in 1990 totalled DKK 477m as opposed to DKK 482m in 1989; adjusted for wage trends, that is equivalent to a decline of 5%. The average number of full-time posts fell from 1519 to 1448, i.e. 4.7%.

The result for 1990 is additionally affected by the fact that DKK 13m was, exceptionally, booked to expenditure to cover rent arrears, etc., after evacuating the operating centre at Birkerød in mid-1991, and to cover expenses arising from the termination of leasing contracts. These extraordinary items show a net extra outlay of DKK 8m in relation to 1989.

Turnover broken down by type of assignment
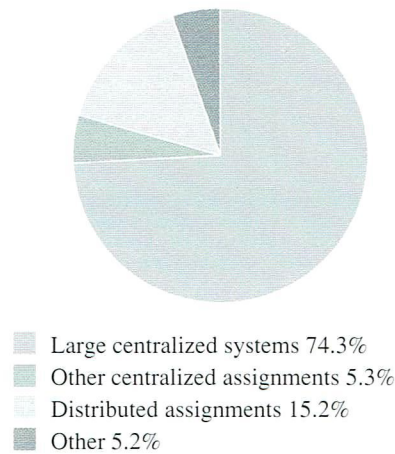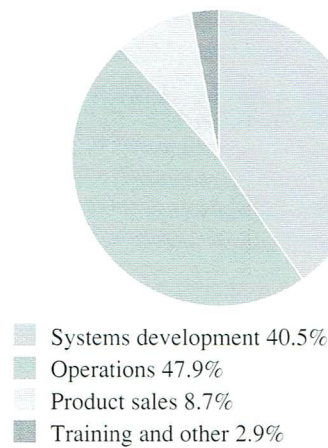
- Large centralized systems 74.3%
- Other centralized assignments 5.3%
- Distributed assignments 15.2%
- Other 5.2%

Turnover categorized by product

- Systems development 40.5%
- Operations 47.9%
- Product sales 8.7%
- Training and other 2.9%

Costs pertinent to primary operations

- Wages and salaries 54.0%
- Production equipment 27.7%
- Premises and installations 8.7%
- Other 9.6%
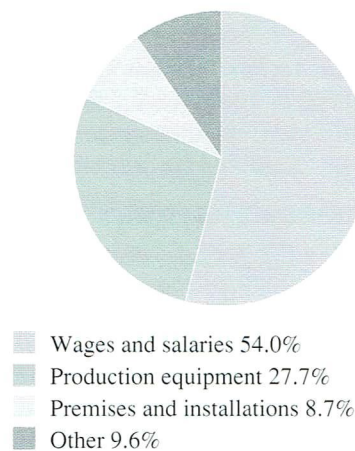
Note: Expenditure on hardware purchases for resale is not included.

GENERAL

The accounts have been presented in accordance with the provisions of the Danish Company Accounts Act with adjustments for Datacentralen's special capital structure.

The profit and loss account has been set out in report form and classified by object. The balance sheet has been set out in account form.

Accounting practice has been altered in the following respects as compared to the annual accounts for 1989:

Accounting practice has been modified with a view to ensuring greater conformity with the Danish Company Accounts Act. Thus, depreciation has been introduced on buildings. The depreciation period for structural engineering installations has generally been changed to 15 years as opposed to previous depreciation periods varying between 5 and 15 years. Working plant is depreciated over 10 years as opposed to the previous 3-5 years. The above changes have no material impact on the result for 1990.

Changes have been made to the reciprocal delineation of a number of items in the result, also with a view to ensuring greater conformity with the Danish Company Accounts Act. These delineation changes, which have been itemized in a tabular review following the notes, are of no consequence to the result. The accounting figures for 1989 have been restructured in accordance with this new delineation.

A change in practice has taken place with regard to the inclusion of the value of work in progress on the balance sheet. On the balance sheet for 1990, work in progress is booked solely as a net amount (value of work in progress less on-account invoicings). In past years, these amounts were included gross on the assets and liabilities side alike, thereby generating a larger balance-sheet total. This change has been made to avoid substantial fluctuations in the balance-sheet total in keeping with developments in the stock of work pending for foreign account. Thus the balance-sheet total will better reflect the underlying capitalization.

On a number of points, clarifications have been made and the description of current accounting practice elaborated. This merely involves a change in the method of description and is of no consequence to the result.

PROFIT AND LOSS ACCOUNT

Proceeds from the sale of goods and services are included in the profit and loss account according to the invoicing principle.

Income from capital interests in subsidiary operations is equal to the result of that subsidiary. Given the modest scope of subsidiary operations, no corporate accounts have been drawn up. Audit-processing of the result from subsidiary operations does, however, ensure that the result appearing from the present accounts is identical with the corporate result. Realized and unrealized gains and losses on securities are included under financial items in the profit and loss account.

All substantial payments, whether made or received, have been booked according to the accruals principle.

DEPRECIATION

Book depreciation has been undertaken on the basis of an evaluation of the service life of the assets for Datacentralen. Tangible and intangible fixed assets are depreciated on a straight-line basis over the estimated economic service life of each individual asset. Original acquisition values form the basis for depreciation.

The following depreciation periods have been adopted:

Intangible fixed assets
Conversion of rented premises is depreciated over the duration of the lease, though not more than 5 years.

Tangible fixed assets
Land and buildings:

Buildings	50 years
Structural engineering installations	15 years

Engineering plant and machinery .... 3-5 years

Other equipment, working plant and office equipment:

Working plant	10 years
Motor vehicles	3 years
Office equipment	3 years

Assets with a purchase price of less than DKK 20,000 per entity and assets with a short life, including computer software and the like, are charged to expenditure during the year of purchase.

BALANCE SHEET

Intangible fixed assets
Research and development costs are defrayed over current operations.

Conversion of rented premises has been included at the original cost price with the addition of subsequent accessions less cumulative depreciation.

Tangible fixed assets
Tangible fixed assets have been included at their original cost price less cumulative depreciation.

Financial fixed assets
Participating interests in subsidiary: Shareholding investments in fully-owned subsidiary have been included at a value corresponding to the booked equity of the subsidiary concern.

Other capital investments: Other capital investments are included at cost price or market value, whichever is estimated to be the lower.

Deposits and loans: Deposits and loans have been included at face value unless the market value is assumed to be lower.

Work in progress, etc.
Consumables, etc., and saleable merchandise have been included at purchase prices. Work in progress for foreign account has been included at the calculated full cost price, though not more than the sales price less 10%. Consequently, reserves have been made as and where losses can be foreseen on such work in progress.

On-account invoicings on work in progress for foreign account have been deducted from the value of the work in progress.

Receivables from sales and services
Receivables are included at booked value less a general reserve earmarked to offset any loss.

Securities which are current assets
Securities - solely stock-exchange listed bonds - are included at the rate on the closing date for the balance sheet.

OTHER FACTORS

Currency conversion
Accounts in foreign currency have been converted to Danish kroner in accordance with prevailing currency rates on the day of the balance. Realized and unrealized exchange gains and losses have been included in the profit and loss account.

Taxation
Datacentralen has been taxed under the rules governing purchasing associations (ref. Section 1, subs. 1, item 3A of the Danish Corporate Tax Act).
Under this form of taxation, Datacentralen is taxed under a capital gains system.

Leasing
The company has entered into agreements for the leasing of technical plant, machinery and other equipment for periods lasting up to 3 years.

The leasing payments made are charged to expenditure via the profit and loss account. The total leasing obligation is given in note 26.

	Note	1990 DKK	1989 in th. DKK
Net turnover	1	1,042,678,169	1,094,479
Change in value of work in progress for foreign account	2	(53,539,080)	(71,202)
Production for the year		**989,139,089**	**1,023,277**
Direct production expenses	3	(269,304,651)	(237,838)
Other external expenses	4	(142,780,549)	(152,872)
Personnel expenses	5	(477,446,577)	(481,561)
		(889,531,777)	(872,271)
Gross profit		**99,607,312**	**151,006**
Depreciation on tangible and intangible fixed assets	6	(66,208,001)	(86,527)
Profit from primary operations		**33,399,311**	**64,479**
Other operating receipts	7	5,988,885	5,792
Profit on ordinary operations before financial items		**39,388,196**	**70,271**
Profit from capital interests in subsidiary	8	(724,933)	(52)
Financial incomings	9	13,973,210	14,673
Financial outgoings	10	(10,663,161)	(6,970)
		2,585,116	7,651
Profit before extraordinary items and taxes		**41,973,312**	**77,922**
Extraordinary income	11	4,629,651	767
Extraordinary expenditure	12	(13,486,925)	-
		(8,857,274)	767
Result before tax		**33,116,038**	**78,689**
Tax for the year	13	(2,789,917)	(3,304)
Profit for the year		**30,326,121**	**75,385**

The balance for the year will be carried over to next year.

1. Net turnover

	1990 DKK	1989 in th. DKK
Breakdown of net turnover by market:		
Denmark	996,917,206	1,058,141
Exports	45,760,963	36,338
Total	**1,042,678,169**	**1,094,479**
Breakdown of net turnover by client:		
Assignments performed for the Danish Government	883,704,432	964,842
Assignments performed for local authorities	31,255,260	31,299
Assignments performed for others	127,718,477	98,338
Total	**1,042,678,169**	**1,094,479**

2. Change in value of work in progress for foreign account

Value of work, year-start	96,099,487	167,301
Value of work, year-end	42,560,407	96,099
Reduction in work in progress for foreign account	**53,539,080**	**71,202**

3. Direct production expenses

Rental and leasing of equipment, software and suchlike	106,806,406	83,855
Repairs and maintenance	29,833,537	30,461
Other expenditure	61,486,235	48,732
	198,126,178	163,048
Purchases for resale	71,178,473	74,790
Total	**269,304,651**	**237,838**

4. Other external expenses

External assistance, production assistance	11,754,641	10,329
Other external consultancy assistance	7,837,925	4,608
Course activity expenses	17,871,180	17,312
Expenditure on premises incl. administration of own properties	57,560,440	64,570
Training expenditure, etc. for own employees	9,187,966	11,889
Travel and entertainment costs	9,811,866	9,752
Other expenditure	28,756,531	34,412
Total	**142,780,549**	**152,872**

5. Personnel expenses

Wages and salaries	441,050,853	445,814
Contributions to superannuation schemes, etc..	36,395,724	35,747
Total	**477,446,577**	**481,561**

During the past year, Datacentralen employed on average 1448 employees as opposed to 1519 employees in 1989, converted to full-time posts. As at 31 Dec. 1990, 1471 staff were employed, equal to 1428 full-time positions. By way of comparison, it can be stated that as at 31 Dec. 1989, 1537 staff were employed, equal to 1484 full-time posts.

6. Depreciation on tangible and intangible fixed assets

	1990 DKK	1989 in th. DKK
Intangible fixed assets:		
Conversion of rented premises	12,597,200	17,633
Total	**12,597,200**	**17,633**
Tangible fixed assets:		
Buildings	7,162,132	7,587
Technical plant and machinery	44,280,936	59,228
Other equipment, working plant and office equipment	2,167,733	2,079
Total	**53,610,801**	**68,894**
Total depreciation	**66,208,001**	**86,527**

7. Other operating receipts

Canteen operation, net	2,891,576	2,854
Income from premises rented out	2,655,011	2,518
Subsidies from development agencies	432,298	420
Total	**5,988,885**	**5,792**

8. Profit from capital interests in subsidiary

Datacentralen Services (Malaysia) Sdn Bhd, Kuala Lumpur

Deficit for the year	**(724,933)**	**(52)**

9. Financial incomings

Interest receivable on fixed assets	386,997	421
Interest receivable and similar on current assets	13,586,213	14,252
Total	**13,973,210**	**14,673**

10. Financial outgoings

Interest payable and similar	10,663,161	6,970
Total	**10,663,161**	**6,970**

11. Extraordinary income

Profit on the realization of tangible fixed assets	4,289,465	542
Other extraordinary income	340,186	225
Total	**4,629,651**	**767**

12. Extraordinary expenditure

Expenses in connection with the cession of lease on Hammerbakken	7,378,013	-
Termination of leasing contract	5,836,980	-
Other extraordinary expenditure	271,932	-
Total	**13,486,925**	**-**

13. Tax for the year

Tax on "taxable income" for the year	3,060,000	3,300
Adjustment for previous years, etc..	(270,083)	4
Total	**2,789,917**	**3,304**

ASSETS

	Note	1990 DKK	1989 in th. DKK
Fixed assets			
Intangible fixed assets			
Conversion of rented premises	14	12,413,606	24,897
Total		**12,413,606**	**24,897**
Tangible fixed assets	15		
Land and buildings		268,209,705	143,625
Technical plant and machinery		80,822,642	96,909
Other equipment, working plant and office equipment		16,692,051	2,405
Construction work in progress		1,622,200	96,118
Total		**367,346,598**	**339,057**
Financial fixed assets	16		
Capital investments in subsidiary	17	0	14
Other capital investments		1,549,595	1,500
Deposits		7,103,966	8,968
Loans		8,406,468	8,704
Total		**17,060,029**	**19,186**
Total fixed assets		**396,820,233**	**383,140**
Current assets			
Work in progress, etc.			
Work in progress for foreign account less on-account invoicings	18	814,368	30,644
Consumables, etc.		3,061,309	3,816
Saleable merchandise		773,318	701
Total		**4,648,995**	**35,161**
Accounts receivable			
Receivables from sales and services		123,344,577	138,464
Due from subsidiary		1,204,947	1,996
Other accounts receivable, etc.	19	24,520,848	22,330
Total		**149,070,372**	**162,790**
Securities			
Bonds		**16,954,610**	**18,040**
Liquid assets		**129,014,499**	**48,891**
Total current assets		**299,688,476**	**264,882**
Total assets		**696,508,709**	**648,022**

LIABILITIES AND EQUITY CAPITAL

	Note	1990 DKK	1989 in th. DKK.
Equity capital			
Capital account	20	394,117,036	323,791
Reserves			
Building trust		0	40,000
Total		**394,117,036**	**363,791**
Provisions			
Sundry provisions	21	16,037,279	7,113
Total		**16,037,279**	**7,113**
Liabilities			
Long-term liabilities			
Credit banks	22	66,134,631	74,223
Total		**66,134,631**	**74,223**
Current liabilities			
Credit banks		2,702,422	2,703
Payments received on account		20,470,836	22,708
Suppliers of goods and services		57,980,075	59,247
Corporate tax	23	3,060,000	3,300
Other liabilities, etc.	24	136,006,430	114,937
Total		**220,219,763**	**202,895**
Total liabilities		**286,354,394**	**277,118**
Total liabilities and equity capital		**696,508,709**	**648,022**

14. Intangible fixed assets

	Conversion of rented premises
Total purchase price, start of 1990	61,639,856
Accessions for the year	113,667
Disposals for the year	(10,704,235)
Total purchase price, end-1990	**51,049,288**
Total depreciation, start of 1990	36,742,717
Depreciation for the year	12,597,200
Depreciation on assets disposed of	(10,704,235)
Total depreciation, end-1990	**38,635,682**
Booked value, end-1990	**12,413,606**

15. Tangible fixed assets

	Land and buildings	Technical plant and machinery	Other equipment, working plant and office equipment	Construction work in progress
Total purchase price, start of 1990	242,958,127	348,102,921	22,594,706	96,117,850
Adjustment for previous years	(179,589)	-	-	-
Accessions for the year	131,746,826	30,074,465	16,777,942	1,622,200
Disposals for the year	(0)	(56,998,547)	(17,302,880)	(96,117,850)
Total purchase price, end-1990	**374,525,364**	**321,178,839**	**22,069,768**	**1,622,200**
Total depreciation, start of 1990	99,333,116	251,193,993	20,189,411	-
Adjustment for previous years	(179,589)	-	-	-
Depreciation for the year	7,162,132	44,280,936	2,167,733	-
Depreciation on assets disposed of	(0)	(55,118,732)	(16,979,427)	-
Total depreciation, end-1990	**106,315,659**	**240,356,197**	**5,377,717**	**-**
Booked value, end-1990	**268,209,705**	**80,822,642**	**16,692,051**	**1,622,200**
Rateable value of property, ...	287,500,000			
of which site value ...	43,542,400			

16. Financial fixed assets

	Capital investments in subsidiary	Other capital investments	Deposits	Loans
Total purchase price, start of 1990	66,250	7,600,000	8,967,566	8,703,729
Accessions for the year	0	49,595	79,656	0
Disposals for the year	(0)	(0)	(1,943,256)	(297,261)
Total purchase price, end-1990	**66,250**	**7,649,595**	**7,103,966**	**8,406,468**
Total write-down, start of 1990	51,998	6,100,000	0	0
Write-down for the year	14,252	0	0	0
Write-down on assets disposed of	(0)	(0)	(0)	(0)
Total write-down, end-1990	**66,250**	**6,100,000**	**0**	**0**
Booked value, end-1990	**0**	**1,549,595**	**7,103,966**	**8,406,468**

17. Capital investments in subsidiary

	1990 DKK	1989 in th. DKK
Datacentralen's fully-owned holding in Datacentralen Services (Malaysia) Sdn Bhd.		
Equity, end-1990, MYR -327,126	**0**	**14**

18. Work in progress for foreign account less on-account invoicings

	1990	1989
Value of work in progress	42,560,407	96,099
less on-account invoicings	41,746,039	65,455
Total	**814,368**	**30,644**

19. Other accounts receivable, etc.

	1990	1989
Other receivables	2,590,488	2,860
Accruals	21,930,360	19,470
Total	**24,520,848**	**22,330**

20. Capital account

	1990	1989
Carried over from previous years	323,790,915	248,406
Carried over from building trust	40,000,000	-
Carried over from profit for the year	30,326,121	75,385
Total	**394,117,036**	**323,791**

21. Provisions

This item consists essentially of a provision consequent to the cession of the lease on Hammerbakken and provisions for remedial measures under guarantees on projects completed.

22. Credit banks/long-term liabilities

This accounting item includes financial loans in foreign currency, calculated to be worth DKK 41,999,925.

Of the long-term liabilities, DKK 13,622,000 falls due after 5 years. The remaining long-term liabilities fall due within 5 years.

23. Corporate tax

In the course of the accounting year, DKK 3,008,140 was paid pertinent to 1989, and DKK 21,777 in tax to Belgium for the branch in Brussels. A provision of DKK 3,060,000 was made for corporate tax owing for 1990.

24. Other liabilities, etc.

	1990 DKK	1989 in th. DKK
PAYE	20,527,500	18,617
VAT, etc..	25,761,905	9,541
Holiday monies, etc.	78,630,474	81,817
Other costs outstanding	11,086,551	4,962
	136,006,430	**114,937**

25. Management and Board of Directors

Salaries to the 3 executive directors and remuneration to the Board of Directors in 1990 totalled DKK 2,349,000 and DKK 61,000, respectively.

26. Contingent commitments

Leasing and rental commitments for production equipment in 1991 amounts to DKK 73.7m. The aggregated commitment up to and incl. end-1991 totals DKK 157.5m.

As at 31 Dec. 1990, Datacentralen has furnished guarantees for work in progress to the amount of DKK 3.3m.

Datacentralen has furnished surety for the debts of the subsidiary in Malaysia. The currently calculated risk has been included in the accounts under provisions.

Overview of essential regroupings

In the accounts for 1990, certain expenditure and income posts have been regrouped in relation to 1989.
The comparative figures have been changed accordingly; an overview of the most essential changes is given below.

	Amount in th. DKK	Moved from	Moved to
1. Rental income and amounts from development agencies	2,938	Net turnover	Other operating receipts
2. Assistance from external consultants - assistance relating to production, incl. overseas	19,229	Direct production expenses	Other external expenses
3. Expenditure specifically relating to foreign activities	6,171	Direct production expenses	Other external expenses
4. Net profit from canteen operations	2,854	Other external expenses	Other operating receipts

CAPITAL PROVISION

	DKK	DKK
Net funds generated from operations		
Result for the year	30,326,121	
Depreciation, write-downs and provisions for the year	75,131,894	105,458,015
In connection with changes in operating capital		
Added by increasing current liabilities	17,324,891	
Added by reducing debtors	15,443,012	
Added through reductions in inventory and work in progress	28,788,967	61,556,870
Additions to operations for the year		**167,014,885**
Movements on financial balance-sheet items		
Reduction of debt with credit banks	(8,088,630)	
Reduction in bond-holdings	1,085,500	
Increase in liquid assets	(80,123,291)	(87,126,421)
Total at disposal		**79,888,464**

USED AS FOLLOWS:

Investment in fixed plant	81,900,315	
Investment in intangible fixed assets	113,667	
Investment in financial fixed assets	(2,125,518)	
Total invested		**79,888,464**

MANAGING DIRECTOR

Hans Henrik H. Østergaard

BOARD OF DIRECTORS

Anders Eldrup
Permanent Undersecretary
Ministry of Finance
Chairman

Kjeld Rasmussen
Mayor
Municipality of Brøndby
Vice-Chairman

Michael Christiansen
Permanent Undersecretary
Ministry of Defence

Hans Thustrup Hansen
Mayor
Municipality of Copenhagen

Carsten Jarlov
Director General of Customs and
Tax
Ministry of Taxation, Central
Customs and Tax Administration

Else Knudsen
County Councillor
County of Funen

Flemming Knudsen
City Councillor
Municipality of Århus

Michael Lunn
Permanent Undersecretary
Ministry of Justice

Villy Nielsen
City Councillor
Municipality of Sejlflod

Tom Togsverd
Deputy Undersecretary
Ministry of Finance

Ole Zacchi
Permanent Undersecretary
Ministry of Housing and Building

AUDITOR'S CERTIFICATE

We have audited the annual accounts for 1990 for I/S Datacentralen af 1959.

The audit was performed in accordance with generally acknowledged auditing principles and included the auditing measures deemed by us to have been necessary.

The accounts have been presented in accordance with the stipulations of legislation and regulations governing the presentation of accounts and in our opinion present a true and fair view of the assets and liabilities, the financial status and the result of the general partnership.

Copenhagen, March 22 1991.

Jørgen Mohr
State Auditor

Magnus Madsen
Director of the General Audit
of the City of Copenhagen

Revisorgruppen Aktieselskab
(Ernst & Young A/S)
Kurt Rasmussen
Jørn Hansen
Chartered Accountants

The budget for 1991, itemized in the master review on page 3, is based on the continuation of the existing assignment basis, adjusted for known changes in the scope of activity and assessments of the level of incoming orders. Moreover, it has been assumed that the rationalization and streamlining measures initiated in 1988 will be pursued and intensified.

Turnover in 1991 is expected to round DKK 993m, which will be virtually unchanged in relation to 1990. As the total price level is rising very moderately, this also represents an approximately unchanged level of activity.

Datacentralen's prices for central operations will be cut by a further 4% as of January 1 1991 in relation to the prices obtaining on January 1 1990. For Datacentralen's major clients, this price cut made its impact felt in 1990. Price adjustments resulting from cost increases will be resumed on July 1 1991, when prices for central operations will be increased by 1.5%. In total, Datacentralen's real-term level of sales prices for operating services has thus been reduced by approx. 16% during the period 1989 to 1991, seen in relation to general price trends in society. Hourly rates for systems work will be increased by 2.5% as of January 1 1991.
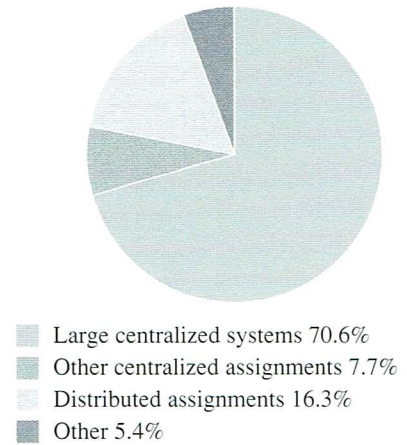
The lower price increase in central operations as viewed in relation to systems work is reflected in the breakdown of the turnover for 1991. Compared to 1990, there is an increase in sales on systems work of DKK 22m, half of which is

ascribable to the increased rate, and a drop in turnover from central operations of DKK 21m. This drop is predominantly a consequence of the reductions realized in the domain of the Ministry of Taxation, Central Customs and Tax Administration. Expectations of turnover from product sales and training remain largely unchanged compared to 1990, though from experience great uncertainty is known to be attached to estimates in these fields.
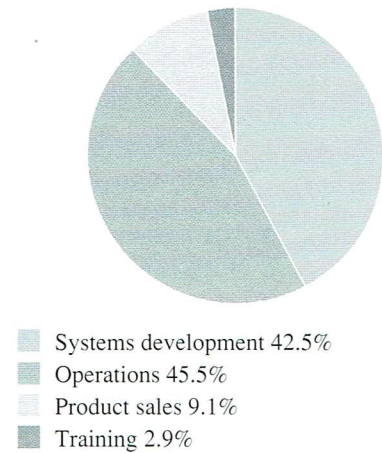
Total costs have been budgeted at DKK 953m in 1991, including earmarked reserves of DKK 35m for staff reshuffling and for developing and establishing new areas of business. Calculated in fixed prices and wages, the level of costs is virtually unchanged in relation to 1990. The general upswing in wage and price levels, together with the reserve funds earmarked, are thus expected to be financed through continued rationalization and efficiency measures. Thus, in 1991, the physical union of two of Datacentralen's three operating plants will be carried out, the full economic effect of which will not, however, be achieved until 1992/93.

Viewed as a whole, the budget for 1991 will be a tight one, where a profit of DKK 40m is anticipated. This profit, which is below Datacentralen's normal level, is expected to increase in the following years, although it has not been possible in the short term to gear costs fully to the reduction in assignments, especially within the customs, excise and tax systems.
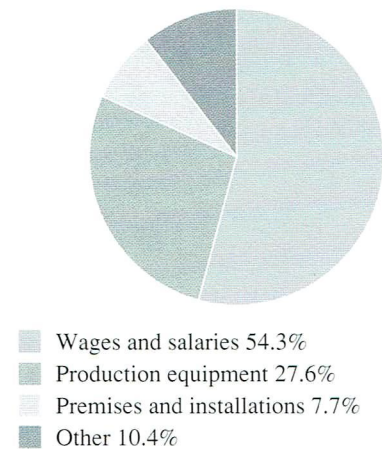
Turnover broken down by type of assignment

- Large centralized systems 70.6%
- Other centralized assignments 7.7%
- Distributed assignments 16.3%
- Other 5.4%

Turnover categorized by product

- Systems development 42.5%
- Operations 45.5%
- Product sales 9.1%
- Training 2.9%

Costs pertinent to primary operations

- Wages and salaries 54.3%
- Production equipment 27.6%
- Premises and installations 7.7%
- Other 10.4%

Note: Expenditure on hardware purchases for resale is not included.

The Board of Directors

Hans Würtzen
Perm. Undersecretary,
Ministry of Finance.
*Chairman -
resigned 1 Feb. 1991*

Anders Eldrup
Perm. Undersecretary,
Ministry of Finance.
*Chairman -
from 1 Feb. 1991*

Poul Lundbæk Andersen
Perm. Undersecretary,
Ministry of Justice.
Resigned 19 Feb. 1991

Michael Lunn
Perm. Undersecretary,
Ministry of Justice.
From 19 Feb. 1991

Michael Christiansen
Perm. Undersecretary,
Ministry of Defence

Hans Westerberg
Director,
Ministry of Taxation.
Resigned 10 Jan. 1991

Carsten Jarlov
Director General of
Customs and Tax,
Ministry of Taxation,
Central Customs and Tax
Administration.
From 10 Jan. 1991

Tom Togsverd
Deputy Undersecretary,
Ministry of Finance

Ole Zacchi
Perm. Undersecretary,
Ministry of Housing and
Building

Kjeld Rasmussen
Mayor,
Municipality of Brøndby.
Deputy Chairman

Søren Erik Andersen
Deputy Mayor,
Municipality of Skive.
Resigned 22 May 1990

Alfred Kristian Nielsen
Ex-Mayor,
Municipality of Esbjerg.
Resigned 22 May 1990

Hans Thustrup Hansen
Mayor,
Municipality of
Copenhagen

Else Knudsen
County Councillor,
County of Funen

Flemming Knudsen
City Councillor,
Municipality of Århus.
From 22 May 1990

Villy Nielsen
City Councillor,
Municipality of Sejlflod.
From 22 May 1990

Finn Andersen
Executive Secretary,
Datacentralen.
*Secretary -
resigned 1 Aug. 1990*

Arne Rud Christensen
Executive Secretary,
Datacentralen.
*Secretary -
From 1 Aug. 1990*

Partners

The Danish State
represented by
the Ministry of Finance

The Municipality of
Copenhagen

The Municipality of
Frederiksberg

The National
Organization of Local
Authorities

The Federation of County
Councils

Observers

Jørgen Gregersen
Chief Consultant.
Staff representative

Palle Eghjort
Head of Section.
Staff representative

Svend Ejvin Jensen
Head of Department.
Staff representative

Inge Poulsen
Consultant.
Staff representative

Tove Tørslev Sørensen
Senior Clerk.
Staff representative

Heine Simoni Jørgensen
Managing Director,
Kommunedata I-S

Evan Jensen
Mayor,
Chairman of Kommune-
data's Board of Directors

Bo Smith
Deputy Undersecretary,
Department of Admini-
stration and Personnel,
Ministry of Finance.
Resigned 29 Aug. 1990

Jens Ulrik Dalgaard
Head of Department,
Department of Admini-
stration and Personnel,
Ministry of Finance.
From 29 Aug 1990

Executive Directors

Hans Henrik H.
Østergaard
Managing Director

Jens Erik Askov
Director of Technology

Kjeld Koushede
Director of Finance,
Personnel and
International Activities

Management of Centres

Centre 1
Customs and Tax
Systems
Erik Toftgaard-Hansen
Divisional Director

Centre 2
Defence and Police
Systems
Jørren Hansen
Divisional Director

Centre 3
Financial Management,
Legal Information and
Civil Registration
Systems
Ole Tamborg
Divisional Director

Centre 4
Distributed Systems
Klaus Ulrik Rasmussen
Divisional Director

Service Centre
Oluf Callesen
Divisional Director

International Division
Niels Skovbjerg
Head of Division

Addresses

I/S Datacentralen af 1959

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Caribbean Office

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Kingston 6
Jamaica

Far East Office

Datacentralen Services
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Fax +60 3 2423814