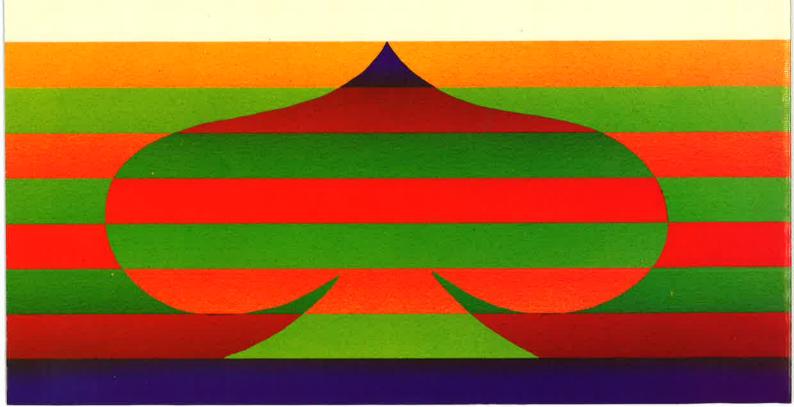
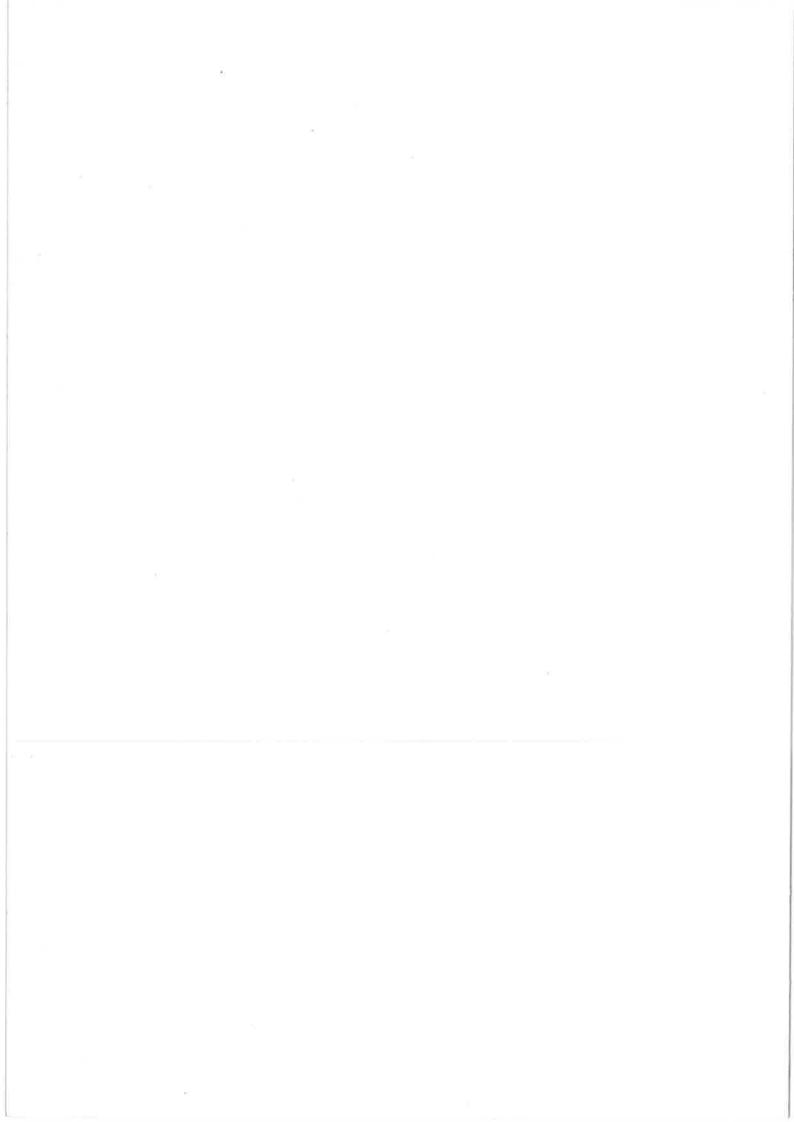
CAP GEMINI SOGETI





CONTENTS

2

Expansion of CAP/GEMINI/SOGETI'S activities

- data communication networks
- microcomputers
- program products
- performance management
- management consulting



Distribution of the data processing market by industry

10

CAP/GEMINI/SOGETI and productivity

14

CAP/GEMINI/SOGETI and daily life

18

CAP/GEMINI/SOGETI in Europe

21

Organization chart

22

Consolidated financial statements for 1976

24

1971-1976 results

25

Analysis of one dollar of revenue

26

Computerized budgets

27

Research and development

28

A company of people

30

Services rendered

32

Principal locations

Photos:

Réalités : J.P. Charbonnier / Pictor Limited - Polyvisie / Rapho: Villeneuve-J. Pavlovsky-Adem/Magnum: L. Freed-E. Hartmann - R. Barri - B. Barbey-I. Berry / J.P. Ducatez / Atlas Photos / Fotogram: G. Loucel. 1976 fiscal year

Consolidated revenues

(excluding Groupe Bossard)

Gross cash flow



4.4

Net income after taxes

Share capital and reserves





Total assets



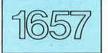
Number of offices



(as of 31-12-76)

Number of professional staff

Total number of employees





EXPANSION OF CAP GEMINI SOGETI'S ACTIVITIES

Data processing has caused an upheaval in the economy and in daily life comparable to the one caused by electricity one hundred years ago. This upheaval is not the result of a single revolution but is rather due to a series of technical revolutions.

Installing or reorganizing a data processing department is no longer an adventure. Managers of business know now what human precautions should be taken, what preliminary studies should be made; they know when, why, and how to call upon the data processing specialists in service companies.

Although data processing is now familiar to us, it is still not routine. Either new techniques, new activities and new problems arise, or if known,

they may take on an unexpected importance.

That is the reason why CAP/GEMINI/SOGETI, in its desire to provide clients with a "complete service", pursued throughout 1976 a policy of expanding the activities to which it committed itself several years ago. Thus, by acquiring a majority share in the Groupe Bossard, one of the key European consulting groups, it enlarged the range of its services in the area of management consulting, communication technique and management of large international projects.

In the following pages, four other examples are given of what guided

CAP/GEMINI/SOGETI's development in 1976:

• data communication networks which increase access to more computing power and more data bases for many users.

• microcomputers whose "chips", fitting on a fingertip, will soon be a part of man's daily life.

• program products, which are increasingly acknowledged as being as worthy

of interest and confidence as hardware.

• performance management of data processing systems which requires

 performance management of data processing systems which requires measuring and model-building techniques.

Management consultancy, program products, networks, microcomputers and performance improvement lead us to expand our field of vision and to look beyond data processing in order to enhance those services which we traditionally provide.





DATA COMMUNICATION NETWORKS

Network: "an entanglement" according to the 1920 Larousse dictionary. A network is, indeed, an entanglement of terminals and computers each communicating freely with the others, hopefully in an economical, rapid, secure way. Networks have users of very different types. All of these users, who already number in the hundreds of thousands in Europe, need to transmit and receive information. For example:

- a firm making use of "regional" computers with terminals installed in warehouses or retail outlets.
- a chain of hotels with a room reservation system.
- engineers who need to access, from their office, technical files, computational programs and computing power offered by different vendors.

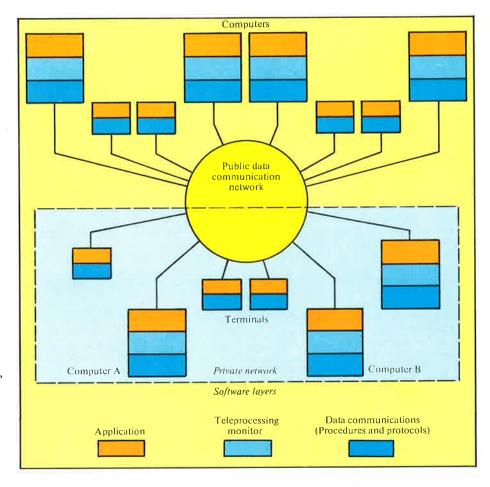
Designed for multiple use both locally and remotely, computers today have a structure which includes specialized "layered" software. Several of these layers are devoted to data communications (see diagram) and therefore free the application from many procedures and constraints inherent in teleprocessing. Terminals are experiencing an extraordinary development: they are becoming "intelligent" by the integration of memories and microprocessors; they provide a large variety of functions, speeds, complexities and sizes (displays, keyboards, printers, typewriters, input units, tape drives, analog sensors, etc).

Networks enabling communication between computers and terminals can involve the following elements which are often combined:

- 1. Public data communication
- 2. Interface between any network, computer or terminal
- 3. Private networks.
- 1 Data communication networks (terminals and computers complying with CCITT standards concerning packet switching) receive data which they transmit to one or more destinations accepted by the network. Transmission can be done through a specialized connection either on the telephone or the telex networks. Governments with the assistance of computer service companies, acting as designers, have implemented and are continuing to develop such networks in several countries. For example,
- CANADA: Datapac and Infoswitch
- UNITED STATES : Telenet and ITT-Compak
- SPAIN : CTNE
- FRANCE: Cigale, RCP, and Transpac
- GREAT BRITAIN : EPSS
- JAPAN: DDX-2.

It should be noted that in the past five years, CAP/GEMINI/SOGETI has acquired experience in the design, development, implementation and operation of several of these data communication and switching networks.

2 - Computers and terminals subscribing to the preceding networks (or to private networks), must be connected by "interfaces" which also allow them to



identify themselves and communicate with each other. Similarly, networks sometimes are connected to each other in the same way as electric power transmission networks. These interfaces require the design and implementation of software and hardware (sometimes even computers) which link the specialized software "layers" described above: line procedures, transmission protocols, application protocols, etc.

CAP/GEMINI/SOGETI has designed and implemented interfaces for numerous types of computers and terminals to several networks:

- IBM/Siemens/Cii Honeywell Bull to the Cyclades network,
- GA-SPC 16 to the Caducee network,
- DEC-PDP 11 to Univac 1110,
- DEC-PDP 11 to IBM 370,
- Siemens 7740 to DEC-PDP 11 and to the Euronet network...
- 3 These dedicated, private networks are implemented often with the assistance of computer service companies by large users and by those who sell computing services.

These networks may use the facilities of public data communication networks for the purpose of distributing processing among the user's computers and terminals, organizing and managing access to files and to computing power.

CAP/GEMINI/SOGETI participated

from the beginning in the design and implementation of several of these networks. It managed numerous implementations for civil and military government organizations.

Such private networks will rapidly proliferate within large organizations and later on within medium sized ones whose operational units are geographically dispersed. Their development is aided both by the installation of public data communication networks (for example Transpac in France) and by the experience of the network designers and implementors, such as CAP/GEMINI/SOGETI, in virtually all European countries.

MICROCOMPUTERS

In the flood of new products regularly inundating the data processing market, microcomputers have taken a unique place. Having appeared in 1973, there were nearly 700,000 at the end of 1976, and it is estimated that there will be more than 60 million in 1980. Yet, what does this new word mean, and what are the consequences of this phenomenon for the software industry?

Microcomputers are those computers whose processor is completely contained on a "chip", that is, on a few square millimeters of silicon (hence, the term "computer on a chip"). This is the result of major progress made in miniaturization. Microcomputers are differentiated from the mass-produced integrated circuits found in watches or pocket calculators by their performance and especially by their programmability. It is natural that the software industry be interested in the development of microcomputers, and one can already see the role of software companies in this market on the basis of a few important observations.

First, the production of software for microcomputers is not fundamentally different from the production of software for larger computers. Furthermore, the experience acquired on larger computers can generally be applied. The professionals who have achieved technical expertise with mainframes remain in the best position to develop programs for microcomputers.

Next, the main problem for

microcomputer software development is debugging. On one hand, the facilities usually offered by more substantial hardware are not available. On the other hand, the reliability requirements are often greater since they will be so widely used. This leads to the thought that the teams best equipped to develop this software are those which - as is the case with CAP/GEMINI/SOGETI teams - have the technical and financial capacity to develop a complete range of debugging tools.

Finally, even if it is not easy to foresee all the uses for these new machines over the next five or six years, it is obvious that they will be involved in many multiple sales. In economic terms, this means that the percentage of the total value of multiple systems taken up on softwaredevelopment will be less than on present systems. One of the consequences will be that software companies will seek to compensate for this phenomenon by extending the range of their services, especially with turnkey systems.

CAP/GEMINI/SOGETI has become conscious of the importance of the rapid evolution of this market and is taking its place in it. In marketing terms, this approach was characterized by careful analysis and planning. In technical terms, it can be illustrated by the adaptation of our methodology for system development to micro-systems which has already resulted in the production of advanced microcomputer based systems.

Some applications by CAP/GEMINI/SOGETI:

• A Micro-climate by a micro-computer.
In equipping greenhouses with a data processing system built around a micro-computer, CAP/GEMINI/SOGETI was able to create a true micro-climate.
This system regulates the temperature, humidity, and even the amount of sunlight in the greenhouse by means of a set of parameters. Thus, the artificial climate most favorable to the growth of cultivated plants can be created.

Motorway Toll Stations.

At tollway entrances and exits, the passage of a vehicle causes a series of operations which are managed by a micro-system.

At entrances: detecting vehicles preparing a card, counting entering traffic, triggering alarms, controlling red lights.

At exits: detecting vehicles, computing and printing the amount to be payed, accumulating total of the amounts received, counting exiting traffic, etc.

• And also :

Television games... graphic controller... Synchronous and asynchronous line coupler... message switching... computer peripheral controller.

Software production on microcomputer

"Because of the lack of peripherals (disks, printers), the production of software on small systems is a waste of time.

Macro-assemblers, compilers, etc. must operate on large computers". (Taken from a report by the European Distributed Study Group)

This concern stimulated the creation of "cross" products; that is, products that operate on large computers and generate software which is directly operable, on mini or microcomputers. CAP/GEMINI/ SOGETI chose to equip itself with products of this type and also attempted to extend the use of high level languages to the production of software for microcomputers. Thus, a product line was developed composed of the following elements:

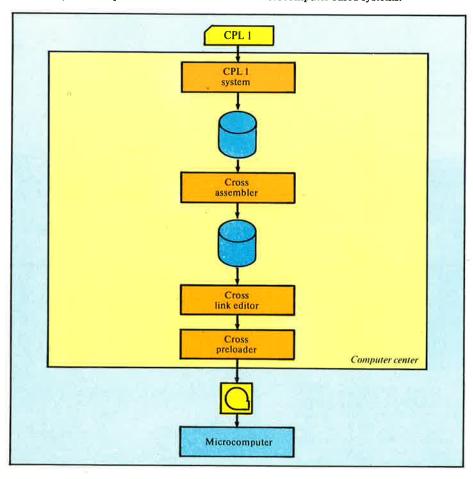
- the CPL 1 system - including a high level language (a PL 1 sub-set) and the associated compiler.

- three "cross" products: an assembler, a link-editor and a preloader.

After having been processed successively by each of these products, CPL 1 programs are directly operable by the microcomputer.

The main advantages of this solution are

- increased productivity through the use of a unique high level language.
- improvement of the tools used.
- greater processing power of large computers with a high level software environment.
- preservation of software investments in case of hardware changes.





PROGRAM PRODUCTS

It is well-known that the cost of computer hardware is decreasing as a result of technological advances and mass production computers. It is also well-known that the software costs are increasing faster than any other computer related costs.

Consequently, computer service companies and computer manufacturers are attempting to improve the efficiency of software production and the performance and reliability of software operation. Three main endeavors are involved:

- the provision of tools and methods to facilitate and standardize software production. These tools are often software themselves.
- the evaluation of the productivity of system software provided by computer manufacturers.
- the comparison of the advantage of custom-made software with "off the shelf" application programs.

These endeavors have led to the development of an increasing number of programs that accomodate the needs of numerous users. Thus, these programs had to be designed, developed, tested, and documented in accordance with this goal. To distinguish them from custom-made software and to emphasize the fact that they are standard, generalized solutions, they have been named "program products".

The steady increase of the program products market was accelerated by "unbundling" (the commercial pratice of billing the client separately for hardware, software and services). The rapid expansion of this market confirmed the existence and the value of these "intangible tools" and at the same time stressed the essential economic role of computer service companies.

There are two types of program products available today:

• "system" products, i.e. tools that either improve (cost and quality) software production or increase the efficiency of computer systems operation.

Examples: compilers, program generators, librarians, code optimizers, performance measurement monitors.

 "application" products that can process the users applications provided certain parameters are set and some adjustments are made.

Examples: general ledger accounting, consolidation of financial results, demand deposit accounting, personnel systems.

The following table illustrates the importance of the market for "system" program products in Europe.

With an annual revenue of 4 million US dollars in 1976, CAP/GEMINI/ SOGETI is both the largest and the oldest independent program products company in Europe.

For this activity, CAP/GEMINI/ SOGETI employs more than 70 people performing the following tasks:

 development of system products which are sold throughout the world (e.g. MULTIFASTER and SYSIF are installed in Europe, the United States, Japan, Gabon,

	1975
France	9
West Germany	7
Great Britain	4
Belgium, Netherlands, Luxembourg	2
Scandinavia	3
Switzerland	1
Total for Western Europe	29

The program product market in Europe in 1975 (manufacturer excluded)

Source: Quantum Science Corporation In millions of US\$ dollars

Main system program products installed by CAP/GEMINI/SOGETI as of Dec. 31, 1976 *in thousands of US dollars

Senegal and Iran).

- marketing (under licence) in Europe of a line of products selected from the best in America.
- installation and maintenance of the products sold. Just as a computer, a program product is intalled and maintained (i.e. improved, adapted and repaired).

It is quite an accomplishment to have more than 1.200 program products installed and currently in use, representing a value of about 12 million US dollars (the diagram below gives more details). This is a confirmation of the importance of the market, and indicates that computer users expect a Group such as CAP/ GEMINI/SOGETI to enhance its product line in order to make computers more efficient and easier to use

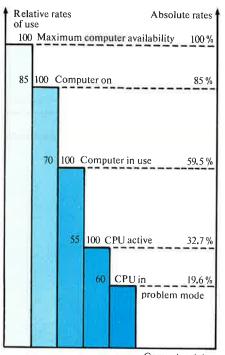
	Manufacturer	Distributor	Territory	Product	Number of installations	Value of products installed*
tured by NI/SOGETI	Cap/Sogeti Logiciel	Cap/Sogeti Logiciel	Worldwide	CPL 1 Sysif Libriris Multifaster	214	3,040
Manufactured by CAP/GEMINI/SOGETI	BRA	BRA	Scandinavia	Unitest Probus	30	165
ers	Applied Data Research	Cap/Sogeti Produits	France	Autoflow Librarian Metacobol Look Etc Roscoe	618	4,618
Manufactured by American partners	Whitlow Computer Systems	CSG Products	Europe	Syncsort IV	225	1,125
1 by Ame	Capex Corporation	CSG Products	Europe	Optimizer II Plan IV	105	1,330
ufactured	MRI Systems Corporation	CSG Products	Europe	System 2000	15	900
Man	Boole & Babbage	CSG Products	Europe	Resolve	10	80
	***	BRA	Scandinavia	SMS Control IMS	28	706
				Total	1,245	11,964

PERFORMANCE MANAGEMENT

Are computer resources used properly? It is difficult to respond to this question. Even if costs can be measured easily, the value of the service rendered remains very subjective. The question should be rephrased: one should ask if the price for this service is minimal rather than if the service is worth the price. To reply to this question, users are rapidly attempting to establish formal management of the performance of their computer systems in order to satisfy requirements at the least cost.

This approach is not new. What is new are the techniques used which call increasingly upon measurement and simulation. Also new is the use of criteria such as the response times at a terminal or the availability of a system. Finally, this approach to performance management involves the convergence of old and new techniques towards a more synthetic method, integrating sets of measurable data whether economic or technical (activity of each component, capacity and throughput, service level, etc). Performance management requires these sets of measurements to establish performance indicators which will guide both long term decisions (planning, evaluation, etc.) and the daily management of the computer center.

There is no ready-made solution to performance management. The objectives, procedures, organization, personalities of those in charge, applications and configurations are different in each case.



Computer status

Computer utilization
Computer utilization is downgraded by a series
of reducer coefficients which can lead to very
low final values (19.6 % in the above example).
Good performance management aims at
obtaining the best coefficients at each
computer status level.

However there exists a set of techniques, tools and methods which, if sensibly selected and brought together, will bring about the appropriate solutions.

Performance management and operations

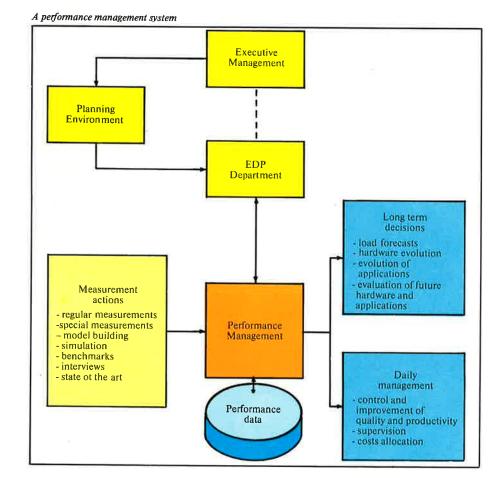
An effective reorganization of operations can yield considerable savings. Thus, during a recent project, CAP/GEMINI/SOGETI deduced from a simple analysis of computer accounting the necessity for a change in computer scheduling. Rather than processing scientific work in the daytime and business applications at night, it was better to process them simultaneously. The result of this reorganization has been a reduction by more than two hours a day in computer time.

Savings in hardware

On another project, CAP/GEMINI/SOGETI, on behalf of a large industrial company, proved that computer load could be greatly decreased by a better distribution of files and peripherals. The savings were such that they delayed by one year the need for a larger computer. User savings amounted to approximately 400,000 US dollars (i.e. more than 50 times the cost of the measurement project), and gave the manufacturer enough time to prepare a more efficient and better integrated configuration than the one currently used.

Program measurement: a good investment

Program measurement is the set of techniques which enable measuring the use that each segment of a program makes of available resources. Program segments or instructions which require the most time are quickly isolated and analyzed for possible improvements. The results, generally obtained very rapidly, are often considerable: an average of 30 % to 40 % savings. Some successes are even more spectacular. A large bank, a CAP/GEMINI/SOGETI client, was able to reduce to 1/2 hour the execution time of a program whose operation previously required two hours a day of processing.



MANAGEMENT CONSULTING

Just as other industries, management consulting has not escaped the technological breakthrough or the changes which can be noted in labor relations.

Although the technical feats of computers of all sizes are still the subject of unabating interest, data processing has mainly affected the organization of firms

and sometimes their strategy. In fact:

• data processing introduces discontinuity into management procedures implemented by a consultant: for example, payroll organization stops when input data enter the computer and takes up again with the output report;

• in some businesses, the power of computers has introduced changes in methods or scope: mail order sales, which are completely centralized now, provide a striking example of these changes.

Although basic business problems (financing, structures, management...), organization methods and quantitative motivations of workers and employers remain more or less the same, demand for consulting is being modified by factors other than the invasion of computers. Among the most important are the training of engineers in management methods (80 % of the problems of technical or "mechanistic" nature which made up the largest part of consulting requirements twenty years ago, are presently solved within the firm itself), the economic slowdown, the importance of social factors, the development of the third world.

To meet this renewed demand, the BOSSARD Group changed its structures and developed particularly in three areas of activity.

activity:

1. The search for new markets and products, made increasingly frequent by the acceleration of obsolescence and by tougher economic conditions (need for cost-effective R & D and for controllable and competitive production costs...).

On the one hand, technological mutations may occur: for example, a certain drug company directed its efforts first toward dietetic products and then toward general food products. On the other hand, market share may undergo a loss if the replacement of products or their end of life repackaging is neither designed nor announced on time.

In order to bring systematic aid to the solution of these problems, the Group has designed new approaches and established a network of technological data

sources.

2. The study of labor problems and the maintenance of labor force stability through the combination of human and economic requirements.

The labor situation of European firms is presently characterized by the great importance given to employment stability. At the same time, management is frequently challenged. Consequently, internal tensions may appear, which management consultants will endeavor to reduce.

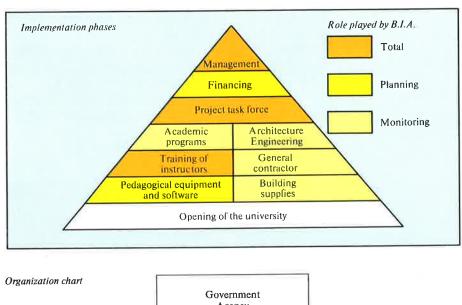
The Group dealt with the multiple aspects presented by social relations within a company in stable as well as in critical periods, from a psycho-sociological point of view.

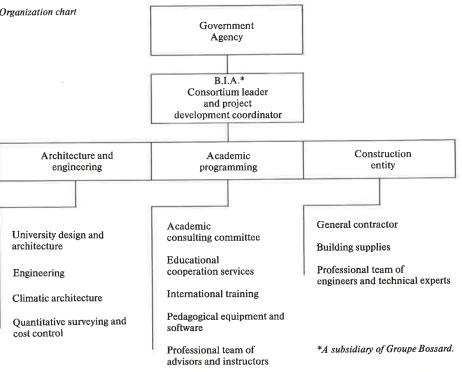
- 3. The implementation of large projects for the developing countries in a way adapted to these markets:
- desires and needs must be specified with the very direct help of the consulting company so that they can be met by Western organizations.
- consulting must see to it that a true association with the West takes shape to establish a technological link or to set up long-term credit. In some countries, this can lead to innovations in matters of financial ways and means. It was in this way that, during a certain project in a Middle-Eastern country, a local practice of mortgage loans was instituted to enable financing the construction of housing.
- once the work is completed, the user must find a "third way" of working to insure local operation of machines or industrial

processes which were designed for use in Western countries.

These new aspects of management consulting were quickly recognized by the BOSSARD Group which contributed its experience in organization, management methods, communication and in motivating men.

Large project: design and construction of a university campus.





DATA PROCESSING MARKET BY INDUSTRY

Data processing has penetrated the whole economic life. All industries appear to be important consumers of computer resources:

hardware, software, consulting and services.

However, although there are users in all economic sectors, they use computers at various levels and for basically different applications. In the service industries, for example, data processing is no longer only a management tool but an actual production instrument: payment of pensions, mail order sales, airline reservations, model building.

Thus, services use more data processing than manufacturing does; while representing only 40% of the economic activity, they lay out 52% of the overall EDP expenditures and 55% of the expenses in software services. And they represent 53% of CAP/GEMINI/

SOGETI's revenue

Yet CAP/GEMINI/SOGETI is present in a meaningful way in each of the industries or professions; and it offers through each of its operational units competence on two levels:

- competence in data processing techniques (for all makes and levels

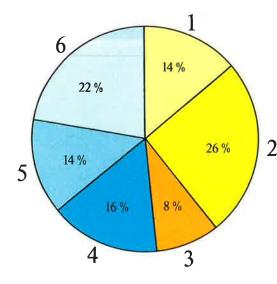
of hardware and software);

 industry-oriented competence: knowledge of management uses and methods, of peculiarities, personalities, overall economic situation, problems and organization of the profession.

This combination guarantees that solutions proposed not only benefit from up-to-date technical progress but also are the most

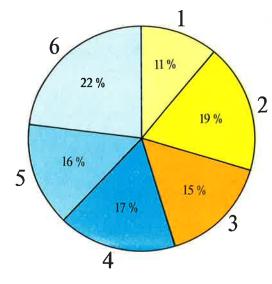
realistic and efficient.







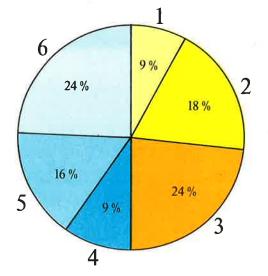
The total data processing expenditure of a firm or government agency covers, on one hand, the costs of hardware, software and operations personnel, and all the ancillary expenses needed for the operation of its data processing department; and on the other hand, the cost of work sub-contracted to computer service companies in the form of software and computing services. The data processing expenditure of an industry has been estimated from the value of its installed computer base and from a correlation coefficient specific to each industry which relates the value of the installed base and the total data processing expenditure.



Total software services expenses

Software services entrusted to computer service companies include expert advice and consulting, design studies, the development of industrial, scientific or business applications and the development of basic software. Consulting and assistance services to computer operations as well as educational services and computer experts selection are also included under this heading.

Sub-contracting of software services to computer service companies represents 4 to 5 % of the total data processing expenditure.



Breakdown of Cap Gemini Sogeti's 1976 revenue

CAP/GEMINI/SOGETI's revenue shown here only covers the income from software services: it excludes data entry and computer-based services activities.

- 1 Agriculture, Food, Mining and Energy
- 2 Manufacturing (Machinery, Transport equipment, Chemicals, Rubber, Textile)
- 3 Other manufacturing (including Computer industry)
- 4 Services
- 5 Banking and Insurance
- 6 Public administration

CAP GEMINI SOGETI AND PRODUCTIVITY

In 1850, a passenger was transported 11 kilometers for each hour that a French railway employee worked. Today, for the same hour of work, a passenger is transported 80 kilometers: the productivity is said to be 7 times greater.

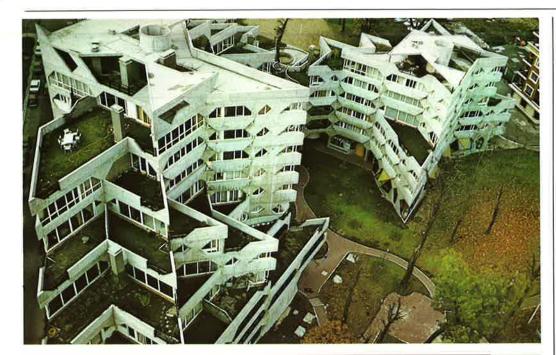
Productivity is increased by producing more goods or services with the same means, or by producing as many with less effort. This applies to a single item as well as to a business, a market or even a nation. But if this objective is often achieved through continual technical progress, today one expects the largest contribution in productivity improvement to come from rationalization. For example, when the Imperial Government of Iran designs large national projects with the help of computers and incorporates them into the annual development plan and budgets, it rationalizes the budgetary choices and thus increases the nation's productivity.

The users of computers contribute to these projects through their imagination, experience and efforts. For, as with intelligence or acquired knowledge, computer science would serve no purpose without the help of imagination, realism, willingness, discipline and a degree of method.

We shall see on page 26 of this report how the design, implementation and use of a small computer system planned for producing CAP/GEMINI/SOGETI's detailed budgets helped rationalize its choices. Likewise, numerous systems implemented by CAP/GEMINI/SOGETI's customers, with the Group's assistance, perform tasks throughout the year for which the productivity is not commensurate with the costs. One of these systems instantly detects the presence or lack of essential spare parts; another almost automatically designs the parts of a ship's hull prior to assembly and has them cut without loss of raw material. A third prints out a million bank account statements within three days; another sounds hard rocks of the subsoil so that the tunneling machine can be moved directly to the place where it has to drill.









The French firm
A. Beckman acts as an agent for the administration of 7,000 joint-ownership and 500 rented lots. It called on CAP/GEMINI/SOGETI to automate its accounting operations. Thanks to this new system, data entry and error checking as well as inquiry on accounts can be done immediately from a terminal.

The time required for invoice preparation is reduced, which results in improvement of the firm's cash flow and of the staff's working conditions.

At BankAmerica Finance Limited in the U.K., the information system installed by CAP/GEMINI/SOGETI provides greater efficiency regarding the control of client accounts.

The new system provides a daily update of client accounts compared to the weekly update of the previous bureau system. Information on the current state of the accounts is therefore available one day later and not, at best, three or four days as was previously the case.

Bank staff clerks can immediately ascertain their client's situation, they lose no time in searching for information and can reply rapidly to enquiries. This improved system enables late repayments to be followed up weekly, not fortnightly, with significant financial benefit.

MAJOR REFERENCES

INDUSTRY AND TRADE

FRANCE

Agfa Gevaert - Antar - Avon Cosmetics - Air Liquide Albra - Abattoirs de la Villette - Astral - Azote et
Produits Chimiques - A.D.L.P. - Armosig - APT Union Agence Centrale Ford - B.S.N. - Bata - Bayard Presse
Borel - Berthier Saveco - B.H.V. - Becton DinkinsonBrainopol - Beghin - Bouvet Ponsar - Behra-Auto Budorex - Bonduelle - Berliet - Bosch - Burlington Pétroles B.P. - B.A.S.F. - Casino - Chantiers de
l'Atlantique - Chantiers Navals et Insdustriels de la
Méditerranée - Chantiers de France - Chantiers Navals
de la Ciotat - Ciments Français - Code-OllaCompagnia Générale de Ferraille - Compagnia
Générale des Eaux - Compagnia Générale
Transatlantique - Cnopérateurs de Champagne Creusot Loire - Chysler France - Chaussures André Charles Jourdan - La Cellophane - Crylor Compagnia Générale de Chiles Electriques Compagnia Générale de Forgeage et Décolletage -Transatomique - Couperateurs e Intermedije.

Crausot Loire - Chrysler France - Chauszures André Charles Jourdan - La Cellophane - Crylor Compagnie Générale de Câbles Électiques Compagnie Générale de Forgeage et Décolletage Compagnie Générale de Forgeage et Décolletage Corax - Cindar - Cassegrain - C.J.T.-Alcatel Compagnie Générale de Manutention et de Stockage C.G.E.E.-Alsthom - C.G.C.T. - Société Chimique de
Gerland - Caisse de Congés Payés du Bâtiment Charbonnages de France - CDF-Chimie - Canel Chometon - Cellier - Chromer - Carrefour - Cofradel Darty - Delalande - D.B.A. - Docks Lyonnais Electronique Marcel Dassauft - Essilor - Ericsson Expansicience Labo - Elf - Editions Beauval - Esso
Standard - Férodo - Fiat - Finimétal - Forges de
Châtillon Commentry et Biache - Forges Dembiermont Fisher Price - Framatome - Guilde Internationale du
Disque - Galeries Lafayette - Groupe Neiman - Garage
Central de Meaux - Guildeminot - Graines d'Alsace Gilca - Gillette - Gégé - Houillères du Bassin du Nord
et du Pas de Calais - Héléna Rubinstein - Herdbook
Charolais - Hispano-Suiza - Hachette - Hatier - Huls
France - Industrielle de Chauffage - Intermarché Jeumont Schneider - Kléher-Colombes - Krönenbourg Kodak - Locatel - Legrand - Léonard Danel - L.M.T. la Lainière - Lamboley - Liste Urinon - Lemercier Lancery - Laboratoire Geriffa de Télécommunications Lesieur - Laboratoire Forriad de Télécommunications Lesieur - Laboratoire Geriffa de Télécommunications Lesieur - Laboratoire Forriad de Télécommunications Lesieur - Laboratoire Forriad de Télécommunications Lesieur - Bortorator - Marca - Marcaille Freinage Manufrence - Marta - Martini et Rossi - Moët et
Chandon - Michelin - Mancaeu - Manufacture Hartman - Montalev - Merlin Gérin - Marseille Freinage Marsey-Fergusson - Meissier Hispano - N.M.P.P. Nouvelles Galeries - National Panasonic - Nozal L'Oréal - Olifice National Interprofessionnel des
Céréales - Oity-Auro - Dib - Panzani - Peugent Polystart - Perkin Elmer - Lyon - Trindel - Usinor - Ugine Kuhlman - Unile Unilabo - Ugine Acier - UFAP - Volvo - Vidal et Champredonde - Wonder

HOLLAND

Akzo - Rig Lift - Beurtvaartadres - Ballast-Nedam -Bouwfonds Nederlandse Gemeenten - Citroën -Chevron - Daf - Furness - Hoogovens - L.C.L. - Philips Telecommunication Industry - Philips Medical Systems - Stoof - Skol - Swets Data Center - Van Epenhuysen Chemische Fabriek - Volvo Car Produkten Born,

FEDERAL REPUBLIC OF GERMANY

Aral - Bayer A.G. - Baywa - Bewag - Bosch - CEAG - CIBA Geigy - Degussa - Demag - Deutsche Shell - Duisburger Kupferhüte - Edeka - Elf - Enka Glanzstoff - Ford - Ford Werke - Gad - Gea Apparatebau - Gebr. Claas - Gedas - Gemeinnutzige Siedlungsgesellschaff - Goetze Werke - Greiffwerke - Grundig - Gruner & Jahr - Grunzweig Hartmann - Guteholfnungshüte - Happich - Henkel & Cie - Hoesch - Interion - Jacobs Kaffee - Jagenberg - Jungheinrich - Jundwerke - Kaufhälle - Kleber - Klinge - Klockner - Krupp - Krupp Atlas Elektronik - Landis & Gyr - Linde MAN - Mannesmann - Mak - Neckermann - Opel -

MAJOR REFERENCES

Pracht - Rechenzentrum Remscheid Lennep - Rheinisch Westfälisches Elektrizitätswerk - Rheinwerk - Ruhr Gas - RV-RTV - RZS - Sandoz - Schiess - Schmalback Lobeca - Standard Elektrik Lorenz - Sühl Stollwerck Tegut - Tekade - Telefonbau & Normalzeit Thyssengas - Vaw Folien - Vereinigte Elektrizitätswerke - Underberg - Wirus - Zeda

SWITZERLAND

A.S.A.M. - Agip - Alcoa - Ateliers Charmilles - Ateliers de Secheron - Berner Alpenmilch Gesellschaft - Bernische Kraftwerke - Ciba-Geigy - Coop - Contis - Digitron - Dupont de Nemours - Electricité Ouest Suisse - Eli Lilly - Ford - Hasler - Isola Werke - Kass - Laboratoires Zyma - Migros - Micrama - Moulins de Granges - Métro - Moor - Mettler - Médipharma - Magasins C & A. - Paillard - Rieter - Rheinbrucke (Maus Frères) - Sandoz - Schweizerische Industrie - Gesellschaft - Schindler - Schild - Spaltenstein - Schmidt-Agence - Volvo - Volg

SWEDEN

Abiko AB - Alfa Laval - Asea - Bofors - Domänverket Esab - Electrolux - Iggesunds Bruk AB - Inter Miljövärd AB - Josefssons Posturder - Kronans Droghandel - Kooperativa Fribundet - LM Ericsson Mjölkcentralen Arfa - Nokia - Philipsons Automobil -Robert Bosch AB - Ratos - Stenberg-Flygt AB - SKF -SKF-Stäl - Stansaab - Sandvik - Saab Scania -Stockholms Energiverk - Statens Vattenfallsverk -Sonab - Volvobil AB.

BELGIUM

Esso Belgium - Essochem Belgium - Cyanamid -Gecamines - Monroe - Société Belge de Matériel Automobile (Volvo) - 3 M - Volvo.

UNITED KINGDOM

Alexander Russell - Alfred Button & Son - Allied Brewery - Arrhur Guinness - Belling & Co - Brewhurst Health Food Supplies - British Gas - British Oxygen - British Paroleum - British Steel - Brooke Bond - Building Publishers - Button Group - BTR Hi-Flex - Cavendish Woodhouse - Cadbury Schweppes - Chryster - Chubb - Ciba Getgy - Cussons - David Brown Tractors - Debenhams - Dixons - Eastern Gas - Esso Petroleum - Esso Europe - Ford - GEC-Elliot Process Automation - General Motors - R. Gonzalez & Co - Graves - George Bassett & Co - Harrods - Hawker Siddley Avaiton - Herbert Control - Hold - Hygena - LCJ. - Instem - International Exhibition Cooperative Wine Society - Iraq Petroleum - Hord - Jobing - Johnson Matthey - Joseph Para & Co - Kayser Bondor - Kellog International Corporation - Laporte Industries - Lyons - Marconi - Massey Ferguson - Midland House - Mobil Data Services - Mullard - Newman Publishing - North Eastern Gas - Norton Abrasives - Norvic Shoes - Oits Elevators - Peters - Plessey Components - Plessey Radar - Ractific Tail Lift Trucks - Rowmere Mac Intosh - Recktiff Coleman - Rolfs Royce - Shell Industrial - Shipton Automation - Simms Engineering - SKF - Stanley Tools - Scottish & Newcastle Breweries - Thorn TV Rentals - Thomas Cook & Sons - Tupperware - Tipton Jones - Tootal - Unilever Computer Services - Union Carbide - Vicker Division, Sperry Rand - Wells - Water Resources Board - Willmott Holdings - Woodworth & Co - Whitbreads - Whites Marine Services - W. Thynne - Yates Bros. Wine Lodges.

BANKS AND INSURANCE COMPANIES

FRANCE

Assurances du Groupe de Paris - Agents de Change -American Express - A.R.P.I.C.A. - Association Générale des Sociétés d'Assurances contre les Accidents -Assurances Saint-Paul - Ancienne Mutuelle de Belbeuf - Assurances Générales de France - A.G.I.R.C. - Banque de France - Banque Rothschild - Banque Stern - Banque Jordaan - Banque Worms - Banque Européenne de Financement - Banque Hervet -







CAP/GEMINI/SOGETI designed a delivery control system for a new polythene production unit in Belgium.

This system provides information for top management decisions: from the orders registered it prepares an optimum production plan which is then submitted to responsible managers. It also indicates alternatives for certain orders when they exceed production capacity.

The system is also an accounting and administrative tool, which controls the inventory of finished products, organizes loading for deliveries, prepares the delivery documents and transmits the relevant data to the accounting system.

Among other roles,
ONIBEV is commissioned
to organize and regulate the
French beef and mutton market.

To achieve this objective, a survey has been carried out covering the whole agricultural economic sector. This survey helps estimating the offer, the main factor for market stability.

By creating a data base and developing calculation and simulation tools, CAP/ GEMINI/SOGETI provided ONIBEV with a precise and reliable forecasting instrument which constitutes an important aid in decision making.

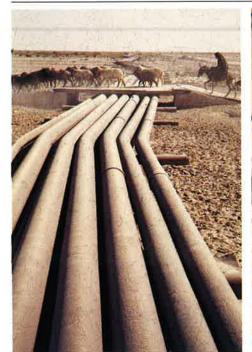
A standardization method for metallic ship hull design was developed by CAP/GEMINI/SOGETI for a French shipbuilder. This method allowed the following:

- responding to almost three times as many requests for proposal;

- studying simultaneously several alternatives for a given project; - obtaining savings of 60 % on

time spent for engineering and preparation of manufacturing (which represents about 2,000,000 francs per year) as well as even more substantial savings at production level through a better specification of the parts.









The Plan and Budget
Organization of the
Imperial Government of Iran is
responsible for guiding the
country's development,
scheduling large national
projects, and supervising their
implementation.

The systems implemented by this organization, with the assistance of CAP/GEMINI/ SOGETI, provide instant access to an economic data bank and to all details of costs and schedules concerning projects, and thus help defining the economic strategy and rationalizing budgetary choices.

In a supermaket, the manager's main concern is controlling the inventory and insuring its proper rotation.

To make this task easier, Berthier-Saveco asked CAP/GEMINI/SOGETI to implement a real-time inventory control system. Managers can consult at any moment the contents of the stock file, and restock orders are triggered automatically.

As for sold stock, it is controlled directly by the cash registers which, supplied with a magnetic reader, record the references of the articles sold through a magnetic tagging system.

Almost the entire automobile industry (Ford, Chrysler, Renault, Peugeot, Citroën, Daf, Volkswagen, Audi, Rolls Royce, etc.) uses SYNCSORT, a program product marketed by CAP/GEMINI/SOGETI.

In the sorting operations, which generally represent 15 to 25 % of the computer system's load and 80 to 95 % of the temporary work space on disk, the use of SYNCSORT permits the following gains:

- 33 % of elapsed time
- 31 % of central processing unit time
- 32 % of I/O activity
- 50 % of disk space.

MAJOR REFERENCES

Banque Corporative pour le Bâtiment et les Travaux Publics - Banque Centrale des Coopératives - Banque Cecidentale pour l'Industrie et le Commerce - Banque d'Escompte et de Crédit - Banque Française pour le Commerce Extérieur - Banques Populaires de l'Allier, des Alpes Maritimes, des Alpes Máridionales, de la Loire, de la Région Quest de Paris, de l'Auvergne et Corrèze, du Haut-Rhin, du Var, des Pyrénées Orientales - Banque Courtois - Banque Ge Paris et des Peys-Bas - Crédit Foncier de France - Caisse Nationale de Crédit Agricole - Caisses Régionales de Crédit Agricole - Caisses Régionales de Crédit Agricole - Caisses Nationale de Crédit Agricole - Caisses Nationale de Crédit Agricole - Caisse Nationale de Crédit Agricole - Caisse Nationale des Crédit Agricole - Caisse Nationale des Marchés de l'État - Comptoir des Entrepreneurs - Compagnie Française d'Epargne et de Crédit - Crédit Lyonnais - Crédit Industriel et Commercial - C.T.R. de Caisses d'Epargne - Paris, Seclin, Marseille, Lyon, Limogas, Londit - Caisse Nationale des Banques - Crédit Industriel des Banques - Populaires - Crédit du Nord et Union Parisienne - Chèques Postaux - Chambre Syndicale des Banques - Populaires - Crédit du Nord et Union Parisienne - Populaires - Crédit Industriel de Touest - CMCM, Strasbourg - Créditele - Caisse Nationale d'Assurance Maladie - Caisse Primaire Centrale d'Assurance Maladie - Caisse Nationale d'Assurance Mutuelle Agricole - Cordiaité Bâloise - C.I.P.C. - CAR-Milano - CNDO De Drouas - Darier (Genève) - Groupe des Assurances Nationales - Groupes des Assurances Mutuelle Agricole - Cordiaité Bâloise - C.I.P.C. - CAR-Milano - CNDO De Drouas - Darier (Genève) - Groupe des Assurances Nationales - Groupes des Assurances Mutuelle Générale des Préfectures - Groupe Mornay - Mutuelle Gén

HOLLAND

Algemene Bank Nederland - Amfas - Gemeente Giro Amsterdam - Amsterdam-Rotterdam Bank - AGO -Bank Mees & Hope - Bankgirocentrale - Delta Lloyd -Equity and Law - GAK - Informatikum - Interpolis -Nationale Nederlanden - Nederlandse Middenstands Bank - Nederlandse Reassurantie Groep - Postcheque en Girodienst - Rabo Bank - Vitctoria Vesta

FEDERAL REPUBLIC OF GERMANY

Allianz Versicherung Münchan - Allianz Versicherung Frankfur - Bayerische Versicherungsbank Bausparksase Wüsternort - Bayerische Landesbank - Bik, Frankfur - Condor - Deutscher Ring - Deutsche Bundesbank - Deutsche Genossenschaftskasse - Deutsche Sparkassen und Giroverband E.V. - Frankfurter Versicherung - Gerfing - Genossenschaftliches Rechenzentrum - Hamburger Datenverarbeitung - IOS - Iduna - Investitions- und Handulsbank - Karlsruher Lebensverischerung - Landeszentralbank Düsseldurf, Hamburg, Stuttgart - Rechanzentrum der Hessinchen Sparkassen Organisation - Reiffeisenkasse - Schwäbisch Half (Bausparkasse) - West-Deutsche Landesbank.

SWITZERLAND

Algemene Bank Nederland - Banque Privée - Banque Cantonale Vaudoise - Banque Lombard Odier - Banque Cerrier Lullin - Banque Scandinave en Suisse - Banque de Paris et des Pays-Bas - Banque pour le Commerce International - Banque Rothschild - Banque Populaire Suisse - Banca del Ceresio - Compagnie de Gestion et de Banque - Cramer & Co - Cantrade - Crédit Suisse - Dow Banking - Gutzwiller, Kurz - Bungapara - Helvetia - La Báloise-Vie - La Suisse - Lloyds & Bolsa International Bank - Mutuelle Vaudoise Accidents - Maerki Baumann - Patris - Secura - Société de Banque Barclay's - Société de Banque Suisse - Trade Development Bank - Union de Banques Suisses - Vita - Zurich Assurances - Zürcher Kantonalbank.

CAP GEMINI SOGETI AND DAILY LIFE

Recreation areas, automobile pollution, safe public transport, television programs, queues in stores, direct dialing telephones, day-care centers, mathematical puzzles and a thousand other things make up daily life and determine its quality. Productivity is essential to economic progress, and it is necessary to achieve social and individual progress. However, it is not sufficient in itself

Governments, international organizations, local communities and many other entities establish priorities, define policies and select projects in areas such as health, urbanization, telecommunications, recreation and education. Often they decide to benefit from data processing and the experience of a computer service company.

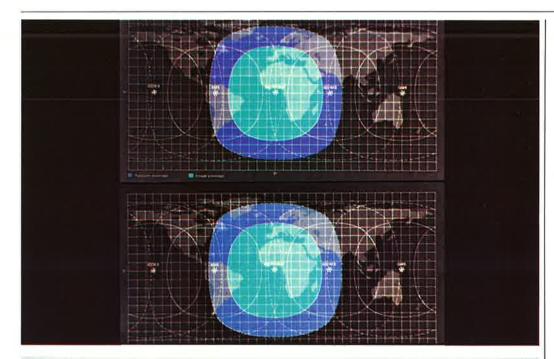
In France, a computer system contributes to round-theclock surveillance of premature babies in incubators in intensive care units. In Germany, each radio station's record library is automatically accessible to the other stations through a data processing network. In Holland, on the spot identification of automobiles is provided through a data bank containing two billion characters and describing all vehicles in use.

In these cases, as in those described in the following pages, the experience CAP/GEMINI/SOGETI has accumulated by working on thousands of computer applications contributed to the success of the design, development and implementation of the above mentioned projects.

The users of these systems (and CAP/GEMINI/SOGETI for its contribution) have helped make daily life healthier, safer, and more pleasant.









For the French National Space Agency (CNES), CAP/GEMINI/SOGETI participated in the implementation of numerous projects and in particular in the prediction of image corrections within the overall computer system of the European satellite, Meteosat. This weather satellite is located above the Atlantic and supplies pictures of different European and African countries from which weather forecasts are made.

Delft Hydraulics Laboratory conducts physical simulations of hydraulic phenomena. CAP/GEMINI/ SOGETI has automated model control, data acquisition and data reduction functions. An example is a large physical model of the mouth of the Rhine River. Before any construction or modifications to the waterfront, simulations assure that there will be no subsequent damage to waterways or coast line due to erosion or other factors. The model is also used to assist in the planning and preparation for disaster control such as floods or oil spills.

MAJOR REFERENCES

SWEDEN

Folksam - Göteborgs Intecknings och Garantiaktiebolog - Länsförsäkringsbolagen - PK Banken - Sveriges Föreningsbankers Förbund -Skandinaviska Enskilda Banken - Skandia -Svenska Handelsbanken - Trygg Hansa--Vegetebolagen,

ŘELGILIM

Assurance Générale (1824-1817 Securitas) - Etoile -Hesston - Morgan Guaranty Bank - Swift - Société Générale de Banque - Kredietbank - Caisse Génerale d'Epargne et de Retraite - Société Nationale de Crédit à l'Industrie - Banque Nationale de Belgique,

UNITED KINGDOM

Bank America Finance - Barclays Bank - British
Domestic Appliances - British Council - BUPA Services
- Bank of England - Clive Discount - Commercial
Union Assurance - Chase Manhattan - Eagle Star Guardian Royal Exchange - Legal & General - Midland
Bank - Orion - Phoenix Century - Prudential - Royal Royal Bank of Scotland - Pilots National Pension
Fund.

PUBLIC ADMINISTRATION

FRANCE

Armée de l'Air - A.F.P.A. - A.N.P.E. - Agence Financière du Bassin Seine Normandie - A.F.N.O.R. - Atelier de Constructions de Tarbes - A.E.I.O. Grenoble - Atelier de Construction de Roanne - Air France - A.P.E.C. - Assistance Publique - Bureau International du Travail - B.C.E.O.M. - Centre d'Essais en Vol-Centre Administratif de Monaco - Comptabilité Publique (Tours, Bordeaux, Châlons s/Marne, Grenoble, Rouen, Nantes, Toulouse) - Centre International de la Recherche pour le cancer - Chambre de Commerce et d'Industrie de Paris - Comité d'Action pour le Progrès Economique et Social du Haut Rhin - C.I.D.C. - Centre National d'Etudos Spatiales - Centre Georges Pompidou - C.E.A. - C.E.T.E. (Bordeaux, Aix, Rouen) - C.N.E.X.O. - C.N.E.T. - Direction des Peocherches et Moyens d'Essais - Direction Générale des Douanes - Direction da la Météorologie Nationale - DATAR - Direction da la Météorologie Nationale - DATAR - Direction de la Météorologie Nationale - DATAR - Direction Genérale des Brupèts - E.O.F. G.D.F. - Etat-Major des Armées European Space Agency - Ecole de Commerce de Chambéry - Etablissement de Fabrication d'armement de Bourges - Gendarmerie Nationale - Institut de Recherches d'Information et d'Automatique - I.N.S.E.F. - I.U.T. de Belfort - ICARE - ICOREM Marseille - INSERM - L.P.A. - Ministères : Affaires Cutturelles, Affaires Cutturelles, Affaires Etrangères, Agriculture, Education, Justice, Santé, Intérieur, Industrie et Recherche, Qualité de la Vie, Travail, P.T.T., Equipment, Défense, Economie et Finances - Marine Nationale - Mairies de ; Bordeaux, Caen, Nancy, Chamonik, Rillieux. - O.T.A.N. - O.R.S.T.O.M. - Préfecture de Paris - Rectorats : Besançon, Dijon, Montpellier, Lille, Orléans, R.A.T.P. - Service d'Études Techniques des Routes et Autoroutes - Section d'Etudes et Fabrications des Télécommunications - Servicu Technique des Transmissions de la Marine - S.N.C.F. - Trésorerie Générale de Caen - U.R.S.S.A.F. - Union Informatique des Caisses d'Allocations Familiales - Université de Nancy - Université P

HOLLAND

Centrael Bureau voor de Varkensfokkerij - Centrum Voor Automatisering Oost N
Centrum voor Kruiswerk - Computer Centrum Limburg - Con - GCE I- Gemeente Energiebedrijf Amsterdam - Gameentelijk Rekencentrum Rotterdam - Hoogheemraadschap - Kath Universiteit Nijmegen - Ministerie van Buitenlandse Zaken - Nobin - PTT - Raad van de Kinderbescher ming - Rijkscomputer Centrum - Rijksdienst voor het Wegverkeer - Rijkspolitie - Rijkswaterstaat - Stichting Nationaal - Technische Hogeschool Oelft.

MAJOR REFERENCES

FEDERAL REPUBLIC OF GERMANY

Bundesverwaltungsamt Köln Bundesinnenministerium - Bundesminister für
Arbeit und Sozialordnung - Bezirksamt Spandau Bundesanstalt für Verfassungsschutz - Bundeswehr
Verwaltungsamt - Desy Kernforschung - Eurocontrol Finanzverwaltung - Forschungsanstalt für
Landwirtschaft - Fachhochschule Dortmund Hessische Zentrale D.V. - Krankenhaus Berlin Luffahrtundesamt - Physikalisch - Technische
Bundesanstalt - Rechenzentrum der Universität
Stuttgart - Senator für Bau- und Wohnungswesen
(Berlin) - Senator für Gau- und Wohnungswesen
(Berlin) - Universität Karlsruhe - Universität Köln Zantralstelle für Arbeitsvermittlung.

SWITZERLAND

Bureau International du Travail - Canton du Tessin : Département des Finences - Comité Intergouvernemental des Migrations Européennes - Direktion für Eidgenoessische Bauten - Département Militaire Fédéral - Etat de Genève : Département de l'Instruction Publique, Police Cantonale - Etat de Vaud : Département des Finances - État de Fribourg : Centre Cantonal d'Informatique - Elektronisches Rechenzentrum der Bundseverwaltung (Gouvernement Fédéral) - GATT - Höpital Cantonal Universitaire de Lausanne - Organisation dus Nations-Unies (O.N.U.) - Organisation Mondiale de la Propriété Intellectuelle - Ville de Genève - Ville de Neuchâtel

SWEDEN

Byggnadsstyrelsen - Försvarets Rationaliseringsinstitut Inst. för Informations Behandling - Kungliga Byggnadsstyrelsen - Kommunala Datacentralen Västeräs - Östra Sjukhuset Göteborg - Postgirot -Stockholm Stadskansth - Statskontoret - Statens Väquerk - Statistiska Centralburån - Televerket.

BELGIUM

Association Intercommunale de Hainaut
Mecanographie - Belgische Radio en Telivisie Energie du Bassin de l'Escaut - Communauté
Economique Européenne - Ministère des Finances
Ministère de la Fonction Publique (Registre National)
- Ministère Défense Nationale - Ministère de
l'Éducation Nationale - CI. T.A. I. - Radio Télévision
Belge - Régie des Téléphone et Télégraphe - Régie
des Postes - Université de Louvain.

UNITED KINGDOM

Borough of Camden - The Building Research Station - Department of Employment - Department of Environment - Department of National Savings - Greater London Council - G.P.O. - International Wool Corporation - Lee Valley Water - London Transport - London Borough of Camden - Manchester Corporation - Ministry of Agriculture and Fisheries - Manchester Education Authority - Office of Manpower Economics - Office of Population Census and Surveys - Prices and Income Board - Road Research Laboratory - Water Resources Board.

COMPUTER INDUSTRY

FRANCE

Aube Informatique - ALVAN - APIC Informatique - BIM - Burroughs - CISI - Centrinfor - CGA - CCMC - - CIJ/Honeywell-Bull - C.A.M. - Franlab - G.S.I. - Hewlett-Packard - Informatique Stéphanoise - I.B.M. - I.C.I. - Intertechnique - Logabax - Mitsubishi - MDS - NCR - Nixdorf - Cityetti - OBBO Informatique - CCCR - Philips - SAGE M. SINTRA - SEMS - SIEMENS - Telsys Informatique - T.I.T. - Télésystèmes - Wang.

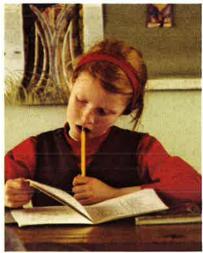
HOLLAND

B.C.B. - Hewlett Packard - IBM - ICL - IEA - Philips Data Systems - Siemens - Texas Instruments - Univac - Ysselbrein.

FEDERAL REPUBLIC OF GERMANY

CHF Müller - Hewlett Packard - Kienzle - Nixdorf -Olivetti - Philips - Philips Electrologica - Rank Xerox -Siemens DV - Siemens Process Control - Taylorix -Valvo-Sionetics.







A census is taken of the French population regularly. Each family head must then fill out for himself and his family forms consisting of questions on family status, occupation, housing, etc.

As a result, 70 million forms are filled out and collected. Using the COLIBRI system developed by CAP/GEMINI/SOGETI, the data on these forms are captured via 250 terminals distributed throughout the INSEE regional offices.

From the files thus created a wealth of statistical information is compiled which is extensively used by all those interested in the French society.

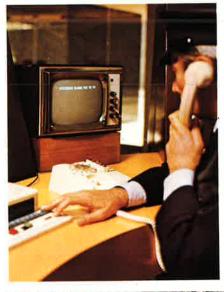
Television sets have new uses; they serve as a medium for parlor games, the scores of which are posted on the screen, or for games simulating ping-pong, automobile races, target practice, etc.

Today, micro-processors allow one to have a whole set of games. This is the first practical application of the computer for home use. In Germany, CAP/GEMINI/SOGETI designed a series of these games for use with a Valvo-Signetics micro-processor.

CAP/GEMINI/SOGETI has produced and implemented a system called ESYMRK, from design concepts supplied by Hertfordshire County Council's advisory unit for computer based education.

The system involves use of a computer for assessment and management of a mathematics course designed for all-ability classes of 11-12 year old children at secondary schools.

Questions answered by pupils on work sheets are marked and commented by the computer on printed reports and returned to the pupil. The teacher receives statistical performance reports.







A Public Information Library was recently inaugurated at the Georges Pompidou National Center for Art and Culture in Paris (known as "Centre Beaubourg"). The library brings together many documents: books, magazines, records, video-cassettes, and other general information material. To help the identification and location of these documents, several computermade catalogues are available to the readers : an alphabetic catalogue of authors and titles, a subject catalogue, etc.

The CGEE-ALSTHOM engineering company called on CAP/GEMINI/SOGETI to automate the surveillance of a large building in Paris.

Besides insuring building security and the comfort of occupants, the minicomputer-based system helps maintaining the building in proper condition, through immediate failure detection. Moreover, it allows substantial, energy savings and increases the lifespan of the equipment under surveillance.

Ever since its foundation in 1864, Charolais
Herdbook's main objectives have been to maintain the quality of the species and to spread its good reputation throughout the world.

CAP/GEMINI/SOGETI developed for this French institution a computerized file of the Charolais herd.

In addition to animal census, this file contains the pedigrees of all animals traded and the genealogy of all breeders. Among other things, these files are used in genetic studies.

MAJOR REFERENCES

SWITZERLAND

Burroughs - Datron - Fides - IBM - Interdata - Nixdorf - Olivetti - Siemens

SWEDEN

ADB-Produktion AB - AB Volvo-Data - Bonnierdata -Datema - DAFA - Gränges Data - IBM - Lantbruksdata - Multidata - SAAB-Univac - Skogsbrukets Datacentral - Samdata.

RELGILIM

Bell Telephone Manufacturing - IBM - Orda B -Siemens Software - Siemens Data - Unidata - Univac -Philips - Polydata - Sait - Nixdorf.

UNITED KINGDOM

Baric Computing Services - British Dlivetti -Computament - Control Data - Data Recording Instrument Co - Dataskil - ICC - ICL - Kent Automation - Marcol - Marconi-Elliott Computer Systems -National Data Processing Service - P.E. Consulting Group - Scout Computer Services.

OTHERS

FRANCE

Compagnie Générale d'Aménagements - Compagnie Internationale des Wagons-Lits - Comsip Entreprise -Cabinet Degaud - Centraméca - Dernières Nouvelles d'Alsace - La Dépèche du Midi - L'Est Républicain -Heurtrey - Inter G - Lurgi - Leti - Pacific Intermountain Express - Peat Marwick Mitchell 6 Co - Le Provançal Société Commerciale d'Affrétement et de Combustible - Sopegnos - Seri Engineering - Sovamec - Technip -Transports Dubois - Union H.L.M.

HOLLAND

AGA Gas - Albert Heyn - Baker Oil Tools - C.E.C. -KLM - Pakhoed Holding - Perscombinatie - Rijkwalerstaat Dienst Verkeerskunde - Walerloopkundig Laboratorium.

FEDERAL REPUBLIC OF GERMANY

Deutsches Reisebüro - Deutsche Lufthansa - Kaufring - Medizinisches-Informations-Zentrum - Ruhrgas -Telefonbau & Normalzeit - Touristik-Union,

SWITZERLAND

Centre Européen de Recherches Nucléaires - Catu Containers - Institut de Recherches Nucléaires -Schweizerische Bundesbahnen (Chemins de fer fédéraux Suisses) - Publicitas.

SWEDEN

AB Atomenergi - Göteborgs Stuveri AB - SAS.

BELGIUM

Socovente - Gebeco - Hoge Raad - Luxair - Materne -Noord Natie - Régie des Voies Maritimes - Sabam -Société Nationale des Chemins de Fer Belges -ST. Jan's Hospital - PMU Belge,

UNITED KINGDOM

Automative Products - Air Products - Blue Star Ship Management - British Airways - Cayser Irvine & Co-Canadian Pacific - Daniels of Stroud - Fairye Engineering - 6.F.C. South Africe - Hawthorne Baker - H.C. Janes - Healds Dairies - United Baltic Corporation - Ilford - John Hill Hops - Jabsens - Westland Helicopters - Kuwait Shipping - Littlewoods Pools - London & Overseas Freighters - Matthew Brown - McMullens of Hertford - Murex - Navigation Coal and Trade Co - Union Castla and Clan Lines - United Baltic Corporation - Ondalex - Shaw Savill and Albion - Silver Line - M. Stiness.

CAP GEMINI SOGETI IN EUROPE

CAP/GEMINI/SOGETI is essentially a European Group. However, one should not consider unimportant the program products which have been sold on the five continents. Nor should one ignore CAP/GEMINI/SOGETI's important projects in the Middle East, and in particular in Iran; or the plans for expanding into the United States and Canada. Nevertheless, it is true that the great majority of its operations are located in Western Europe.

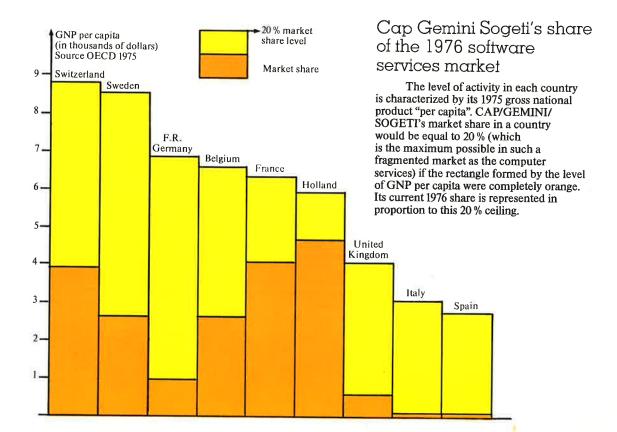
The chart below shows the share of the software services market held in 1976 by CAP/GEMINI/SOGETI in the major

European countries.

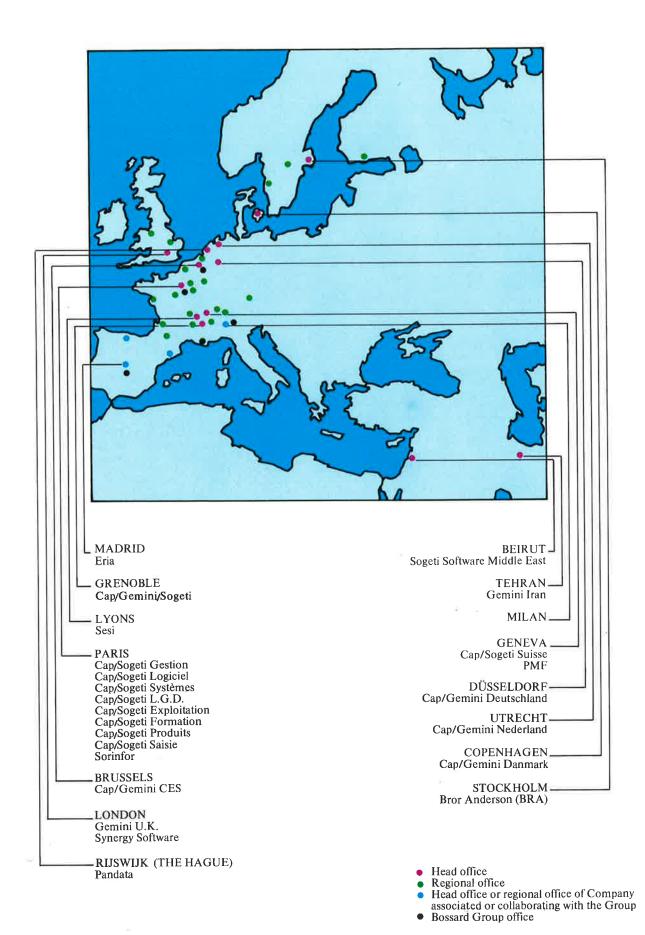
It emphasizes the uneven presence of CAP/GEMINI/SOGETI in these countries: a weak presence in Italy and Spain (a few consulting contracts and a few program products installations), a strong one in Holland and France.

It implies tremendous potential growth if the rapid development strategy in France and Holland is pursued in other European countries. In fact, it is within the Group's reach to obtain 10 % of the market in most of these countries. One can easily calculate the possible impact on the volume of CAP/GEMINI/SOGETI's operations. For example, 10 % of the market in only three of these countries (West Germany, Great Britain, and Italy) would represent an additional revenue of 32 million US Dollars, an increase of 65 % over the 1976 revenue.

This geographical potential adds to the other avenues for CAP/GEMINI/SOGETI's expansion (new techniques, diversification in complementary fields, etc.) which will not only continue but improve its well balanced and profitable growth.







to the Group's managers during the Xth "Rencontres" Cap Gemini Sogeti held in Amsterdam on April 21st and 22nd, 1977

(...) The recollection of a stage performance, the lesson learned from an event, the messages retained from a speech often depend less on their own meaning than on the mood we are in at the time. If we feel optimistic, a catastrophe will appear most certainly unfortunate and regrettable to us but will in no way discourage us from trying and pushing on. If we are worried, however, the least annoyance or delay immediately appears to us as prophetic of even worse difficulties.

This time last year, speaking at the darkest moment of the crisis which shook our profession, I probably showed too much optimism in predicting that we would quickly recover the delay of several months on our forecasts. Instead of being shortened, this delay still increased in April and May; and only through the implementation of a drastic "recovery plan" were we finally able at the end of the fiscal year to record a growth of 11 % in our revenue and of 15 % in our net results.

Although many firms would be satisfied with such a result, especially under the present economic circumstances, it must be acknowledged that our Group had accustomed its observers and its employees to higher growth rates, and that this result had the same effect on them as jamming on the brakes. Indeed this was the case, we must not hide it from ourselves, but I see three main reasons for this unsatisfying performance:

- the first one is the overall crisis in the western economy which I was mentionning a moment ago and which after having shaken all business sectors one after the other finally reached the service companies. However, a crisis of this sort is at first favorable to our companies insofar as many business executives, mistrusting the overall economic situation, prefer subcontracting an increasing proportion of their management system development work to specialized companies rather than providing the sometimes substantial means required to implement them themselves. But, if the crisis lasts too long, business executives mistrust not only the means but the very usefulness of these investments. From then on, subcontracting stops altogether, and hardly anyone but temporary work companies which we are not, whether this is to be regretted or appreciated benefit from this worsening situation by solving very short range problems which customers prefer subcontracting to them.
- the second one is the addition to this general crisis of the particular crisis experienced by the French and the European computer business after too many ups and downs which led to the collapse of Unidata and to the merger of CII and Honeywell Bull: for more than a year, unsure of the direction and confused by the ambitions of an often poorly expressed policy, many users both industrial and government postponed or sometimes simply cancelled numerous projects in which computer service companies were involved (1) (needless to say that the most important computer service companies were involved in the most important projects).
- the third reason is that during the IXth "Rencontres" (or Meetings) in Istanbul, when I defined the 1976 fiscal year objectives in the presence of the CAP/GEMINI/SOGETI managers, I may have insisted too much on the necessity to consolidate what had been achieved during the eight previous years (eight years during which need we remind ourselves the Group I lead had multiplied its manpower by 86 and its revenue by 150!). Unfortunately, on this

particular point I was probably taken too literally. Certain executives, perhaps out of breath from eight years of conquests, slowed down; newcomers, who had not experienced the pace formerly maintained, easily accepted a "mature behavior" which our size seemed to justify. Finally, many somewhat forgot the "duty to expand" which nevertheless – an unheeded precaution – I had placed first among the "seven capital duties" (2) assigned to CAP/GEMINI/SOGETI companies.

If these three reasons are added to each other – general economic crisis, waverings in the French computer industry policy, slight lack of foresight in appraising our objectives – the disappointing financial results for 1976 are no longer surprising. One is all the less disappointed since on the one hand the expected consolidation has been attained and, on the other hand, the results of these last months prove that the machine is functioning well again:

- * Consolidation is expressed in various ways that, for lack of time, I shall mention without going into detail, but which appear to us members of CGS more important for the future than an additional per cent in the cash flow figures: the common desire to see CAP/GEMINI/SOGETI companies perform quality work, the shared preoccupation of developing original methods and more efficient procedures, the acceptance by all of our duty as leaders to innovate continually, a well-affirmed Group consciousness and solidarity, the institutionalization of dialogue at all levels and the recognition of the fundamental role of communication-oriented structures, a more spontaneous respect for the few rules of basic discipline which insure the cohesion of a team and the good reputation of the firm...
- * The results of the last six months (October to March) lead us to think that concurrently with this consolidation, we have been able to get the machine going again, orders have resumed their inflow, and the thickening of our shell has not sapped our energy, our enthusiasm, our innovative ability. As you know, I am not among those who consider profit making as shameful, success as suspicious and growth as harmful: I thus believe that we can congratulate ourselves on the achievements of the past two years, but we can also look forward to the task which awaits us and even to the difficulties which will have to be overcome. One thing is certain: at CAP/GEMINI/SOGETI, in the future as in the past, we won't get bored... And boredom believe me is the only real danger, the only real enemy of those who enjoy undertaking new ventures and running risks.

⁽¹⁾ This has been especially felt in France where total orders received by CAP/GEMINI/SOGETI between June 1975 and June 1976 from the government and the computer industry dropped by 40% with respect to total orders received in the twelve preceding months. It is not surprising, then, that on the whole, our revenue for France in 1976 did not exceed that of the previous year. The increase in CAP/GEMINI/SOGETI overall revenue (4.8 million US dollars) was entirely due to turnover outside France, which had risen from 14.2 million US \$ to 19 million US \$

⁽²⁾ expansion, quality, honesty, profitability, innovation, promotion of people, solidarity.



Group general management committee



SERGE KAMPF Executive Chairman of the Group



EDOUARD BAZEILLE General Manager CAP/SOGETI Logiciel



MICHEL BERTY General Manager CAP/SOGETI Gestion





JOSE BOURBOULON
General Manager SORINFOR
General Manager BIA



ROGER C. DICKINSON Vice-President CAP/GEMINI Europe



PHILIPPE DREYFUS Vice-Chairman of the Group



TOON HELMER General Manager Germany



LEONARD JACOBY CAP/GEMINI Overseas



MICHEL JALABERT



ALAIN LEMAIRE General Manager CAP/SOGETI Systèmes



JEAN B. RENONDIN



DANIEL SETBON Financial Director of the Group Director of Human Relations



ROBERT THORAL

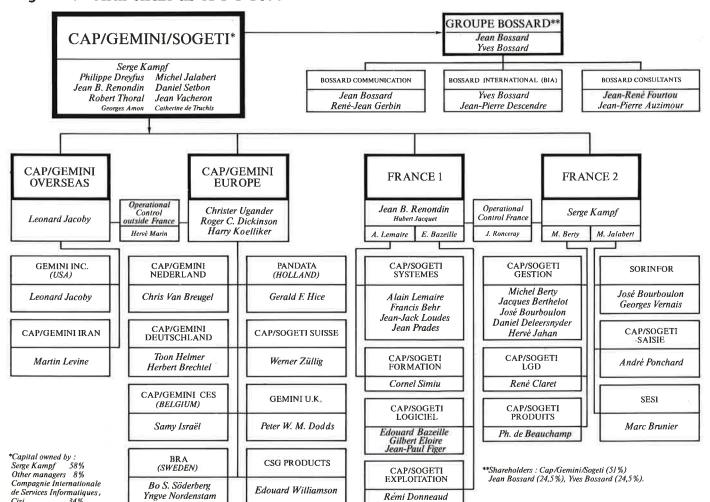


CHRISTER UGANDER President CAP/GEMINI Europe



JEAN VACHERON General Administrative Director

Organizational chart as of 1-1-1977



CONSOLIDATED FINANCIAL STATEMENTS

1 - PRINCIPLES OF CONSOLIDATION

The consolidated financial statements were prepared in accordance with accounting principles and policies generally used in France.

The consolidation is made up of several sub-groups, certain of which depend on US or British sub-holding companies.

The methods of consolidation were used on a consistent basis with last year.

The accounts of the following companies have been consolidated:
a) subsidiaries in which the group owns, directly or indirectly, more than 50 % of the issued share capital.
b) companies in which the group owns, directly or indirectly, between 20 and 50 % of the share capital, together with an option to become the majority shareholder, and exercises a substantial degree of management control.

In all other cases (minority

shareholdings held by the group unaccompanied by management control or an option to purchase), the accounts of the companies concerned have not been consolidated.

2 - CURRENCY CONVERSIONS

The accounts of subsidiaries of European sub-holding companies were translated into French francs at the exchange rates as of balance-sheet date, in accordance with principles generally accepted in France for the translation of foreign assets and liabilities.

For subsidiaries of Gemini Inc., the accounts, originally prepared in local currencies and translated into US dollars, were consolidated in French francs using the exchange rate applied by that Group's auditors.

No allowance was made for the provisions of the Oct. 1975 Statement of Financial Accounting Standards N^o 8

issued by the US "Financial Accounting Standards Board", governing the rates of translation into US dollars of assets and transactions established in foreign currencies.

3 - BASIS OF VALUATION

No adjustment has been made, for purpose of consolidation, to the basis of valuation of assets and liabilities as recorded in the accounts of the individual companies concerned. Particularly, the basis and rates used for the calculation of depreciation of fixed assets in the audited accounts of foreign subsidiaries have been entirely retained.

Land, buildings and equipment are shown at cost.

4 - PROGRAM PRODUCTS

These are written off over periods shorter than their estimated useful lives. They include, net of depreciation and in thousands of US dollars:

C C GOMMID	OIVOC		יבט מ	r		TEET AS OF DEC. 3			Boss	excluding ard Group
ASSETS		1976 Depre-		1975 (restated)*	1974 (restated)*	LIABILITIES & SHAREHOLDERS'	19	976	1975 (restated)*	1974 (restated
	Gross amount	ciation or provisions	Net	Net	Net	EQUITY				
PRELIMINARY EXPENSES Preliminary expenses	347	272	75	212	292	SHARE CAPITAL & RESERVES Share capital Legal reserve	2,703 270			
FIXED ASSETS Land Buildings Office furniture and equipment Fixtures and improvements	246 1,962 1,413 1,945	90 541 416				Special reserve Merger premium Share premium Investment reserve Excess of cost of investments over equity in net assets acquired	1,505 1,687 1,800 350			
Program products Goodwill	2,079 6,411	852				SHAREHOLDERS'EQUITY Minority interests	1,848	- 8,123	7,148	6,620
	14,056	1,899	12,157	7,634	8,287	TOTAL SHARE CAPITAL & RESERVES	1,040	9,971	9,023	8,670
OTHER NON CURRENT ASSETS Goodwill on consolidation Investment in companies not consolidated Deposits Housing loans	647 964 148 364	94				MEDIUM AND LONG-TERM LIABILITIES Loans from D.G.R.S.T. Loans from Crédit National Staff profit-sharing fund Other long-term loans	499 1,454 1,160 3,265			
	2,123	94	2,029	5,584	4,425			6,378	7,194	5,134
WORK IN PROGRESS	459		459	918	1,458	CURRENT LIABILITIES	250			
CURRENT ASSETS Accounts receivable/Trade Advances to staff Taxes Sundry debtors Prepaid expenses & unbilled services Cash	13,921 310 755 2,742 4,376 2,208	135 229				Advances from customers Accounts payable/Trade Accrued salaries Accrued taxes Sundry creditors Short-term loans Other accrued liabilities Notes payable Bank overdrafts	359 1,889 1,499 2,033 2,939 1,238 5,729 2,267 2,486			
	24,312	364	23,948	24,090	13,925			20,439	20,588	13,534
						NET INCOME FOR 1976 (after taxes, staff profit-sharing and minority interests)		1,880	1,633	1,049
TOTAL ASSETS			38,668	38,438	28,387	TOTAL LIABILITIES & SH. EQ.		38,668	38,438	28,387

- Products developed under contract	- Medium-term loan repayable in 3 years (France) 660
with the Direction Générale de la	in 3 years (France)
Recherche Scientifique et techni-	7 - OTHER CREDITORS
que	These include (in thousands of
- Data processing programs	US dollars):
- Management programs	- Accrued social charges
- Program products - France 242	(France)
- Program products - International 344	- Sundry creditors in France. 625
5 - PREPAID EXPENSES AND	Sunday creditors of CAP Furone
•	- Sundry creditors of CAP Europe Group 725
UNBILLED SERVICES	Group
• This heading includes US dollars	- Sundry creditors of GEMINI
3,738,400 in respect of work completed	Group 127
but not yet billed as of December 31st, 1976.	8 - ACCRUED LIABILITIES
COTHER MEDIUM AND LONG TERM	These relate to charges concerning
6 - OTHER MEDIUM AND LONG-TERM	the year ended December 31, 1976 but not
LOANS	the year ended December 31, 1970 but not
These include (in thousands of US	yet due, and include (France) in thousands
dollars):	of US dollars: - Provision for vacation pay
- Purchase of remaining CAP France	1 10 vibion for vacamon pay
shares	- VAT accrued in respect of trade
- Long-term loan repayable in	receivables (tax payable on
10 years (France)	collection) 1,564

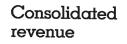
CONSOLIDATED INCOME STATEMENT						
In thousands of US dollars	19	776	19	75	1974	
REVENUES Fees from services rendered Program products Other income Interest income Increase of work in progress	47,431 341 1,769 129 336	94.85 0.68 3.54 0.26 0.67	42,729 322 1,526 619	94.54 0.71 3.38 1.37	95.28 1.62 2.95 0.15	
TOTAL REVENUES	50,006	100.00	45,196	100.00	100.00	
OPERATING EXPENSES Decrease of work in progress Purchases Wages and salaries Sundry rates and taxes Outside services (including sub-contracting) Data processing equipment hire Travel expenses Miscellaneous expenses Interest charges Depreciation Provisions	1,008 32,389 372 5,911 735 2,595 1,961 1,376 1,002 354	2.02 64.77 0.74 11.82 1.47 5.19 3.92 2.75 2.00 0.71	1,121 177 27,984 503 4,433 .805 2,316 3,018 1,064 810 154	2.48 0.39 61.92 1.11 9.81 1.78 5.13 6.68 2.35 1.79 0.34	1.72 59.46 0.96 11.30 5.39 4.91 3.72 2.31 3.25	
TOTAL OPERATING EXPENSES	47,703	95.39	42,385	93.78	93.02	
NET OPERATING INCOME	2,303	4.61	2,811	6.22	6.98	
NET INCOME AFTER INCOME TAXES, STAFF PROFIT-SHARING AND MISCELLANEOUS PROFITS AND LOSSES Minority interests	1,912 - 32	3.82	1,725 - 92	3.82 - 0.20	3.60 NS	
NET INCOME PER BALANCE SHEET	1,880	3.76	1,633	3.62	3.60	
GROSS CASH FLOW	4,492	8.98	4,535	10.03	10.45	
before Income Tax of	1,043	2.09	1,603	3.55	3.05	

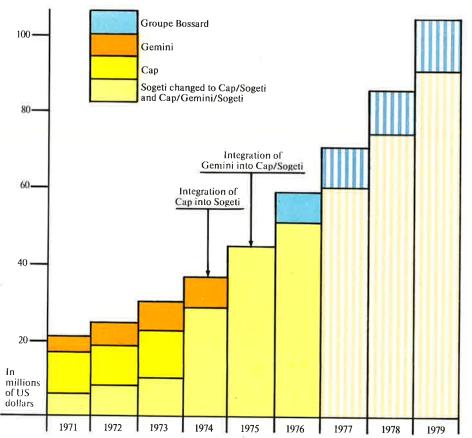
List of
consolidated
companies

companies	
Shareholdings owned by	%
CAP/GEMINI/SOGETI (alone) CAP/SOGETI GESTION CAP/SOGETI LOGICIEL CAP/SOGETI SYSTEMES CAP/SOGETI PRODUITS CAP/SOGETI L.G.D CAP/SOGETI EXPLOITATION CAP/SOGETI FORMATION PROVINCE INFORMATIQUE SORINFOR SESI	100 100 100 100 88 100 98 97 90
GEMINI COMPUTER SYSTEMS INC	59
5151EM5 INC	39
CAP/GEMINI/SOGETI AND CAP/EUROPE CAP/SOGETI SUISSE	70
CAP/EUROPE B.R.A. CAP/GEMINI C.E.S. CAP NEDERLAND CAP EUROPE OPERATIONS	76 100
GEMINI COMPUTER SYSTEMS INC PANDATACAP/GEMINI DEUTSCHLAND GEMINI U.K	100

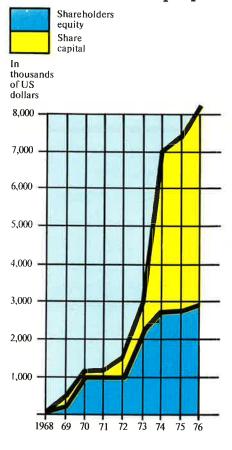
*In those financial statements the English language version has been established at an exchange rate of 1 US \$ = 5 French francs for each of the 1974, 1975 and 1976 fiscal years.

1971/1976 RESULTS





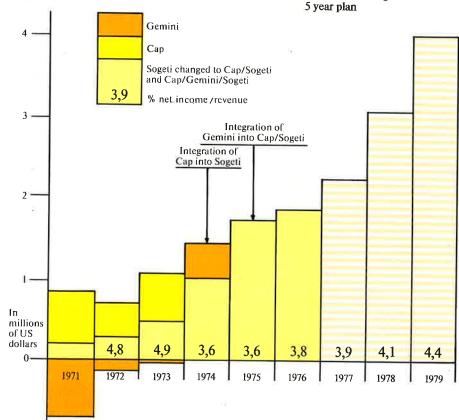
Growth of holding company's share capital and shareholders equity



Consolidated



1977, 78 and 79 figures are excerpted from Cap/Gemini/Sogeti's



Holding company's net income per share

				T
Year	Capital in US dollars	Number of shares	Net income per share	Net dividend
1968	40,000	2,000	6.34	-
1969	200,000	10.000	4.45	-
1970	1,000,000	50,000	1.35	-
1971	1,000,000	50.000	3.65	-
1972	1,000,000	50,000	4.97	-
1973	2,400,000	120,000	3.4	7.
1974	2,700,000	135,000	4.61	2
1975	2,700,000	135,000	6.62	2.4
1976	2,703,400	135,170	7.40	2.6

Based on a cost analysis of the CAP/GEMINI/SOGETI consulting companies for 1975 and 1976 fiscal years, the following diagram is shown as a functional and economic model of this group of companies:

- professional staff salaries cover the wages and payroll taxes of the professional staff responsible for the development of projects (this heading does not cover the possible purchase of hardware resold with turnkey projects). After deduction of payroll taxes, these salaries are distributed proportionally between time chargeable to customers (70 to 75 % of the total according to the country

per year.

and the year) and non-chargeable time (vacation, training etc.).

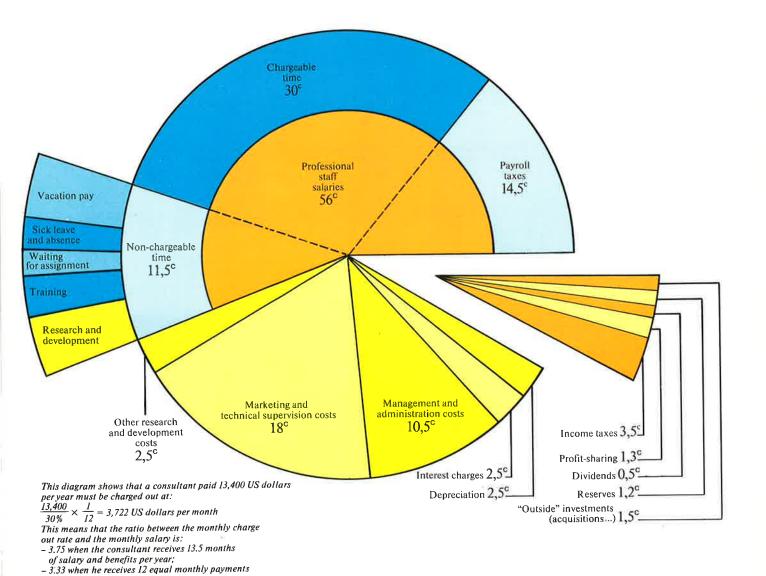
represent expenses other than personal expenses (hardware, program products, machine time, transportation, etc.) and correspond to internal work undertaken to create methodology and acquire competence in advanced techniques. This heading also covers the "investments" incurred to answer requests for proposal issued for large computer systems involving new techniques.

- marketing and technical supervision costs include all the management costs of

the Branch, which is the basic operational unit. These are, in particular, marketing expenses and local administration costs (rent, documentation, hardware, telephone, photocopy, sub-contracts, etc.).

- management and administration costs

management and administration costs
include all management and administration
costs of the individual companies as well as
the management charges of the holding
company not taken into account by the
individual companies or operational units.
They do not include financial charges which
are shown separately.



In 1976 CAP/GEMINI/SOGETI developed and installed for internal use an automated system for producing annual budgets.

For a group made up of over 50 elementary operational units (each one varying between 15 and 80 productive members), the budgetary process which is necessarily an iterative one, used to be each year the cause of extensive administrative effort between October and December. This work demanded the attention of managers to the detriment of their commercial activity, whereas experience shows that it is during this period that their commercial activity ought to be the most intense.

The new system reduces the work of operational units to the preparation of basic assumptions and to the evaluation of results; this evaluation can lead to modifications of the basic assumptions and bring about a new iteration.

Time alloted by managers to the budgetary process may then be principally dedicated to work sessions with managers of other levels in order to define an annual plan consistent with the "five year plan" and with the economical, technical and professional conditions forecasted for the coming year.

Steps establishing the budget

1. In each operational unit 3 forms are filled out, so describing the basic assumptions and objectives concerning monthly manpower levels per category of experts, utilization rate of professionals, the planned charge out rates and miscellaneous incomes and expenses.

2. For each month the system prints out an employee list, the breakdown of personnel costs, the breakdown of chargeable and non-chargeable costs and the income statement of the operational unit.

3. The results of each unit are grouped by company and after including the expenditures peculiar to the company, the monthly and cumulative income statements are produced for the whole

company.

4. Finally, at the CAP/GEMINI/SOGETI level, all of the companies' results are aggregated to give the monthly and cumulative income statements, breakdown of expenses, etc. The turnaround time is on the order of 24 hours and, thus, enables carrying out as many iterations as necessary (the first experience in late 1976 showed that 2 to 9 iterations were required, varying according to the company).

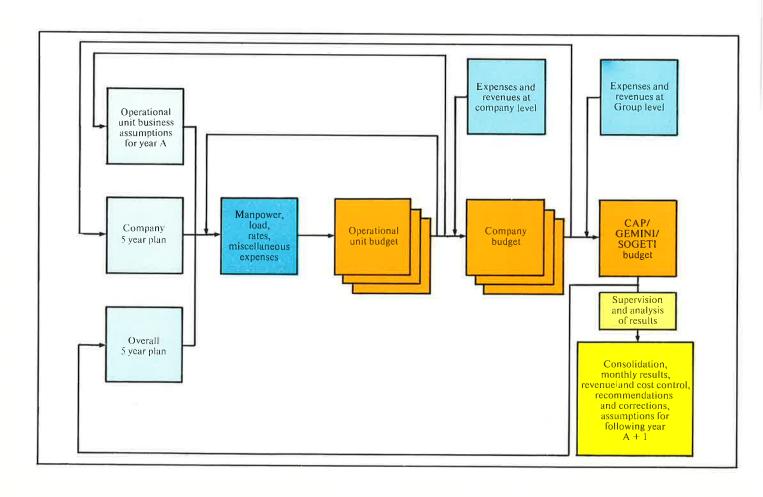
Advantages of the system

For an investment of about 20,000 US dollars (in a system designed and developed by a CAP/ GEMINI/SOGETI company), the following objectives have been attained:

- a clear and detailed expression of the year's quantitative objectives. The annual budgets physically exist; they appear in books describing what each company is committed to achieve;

- the participation of managers at all levels and from all countries in the required thinking and planning effort. This effort is enriched by the possibility of using the system as a simulation without large expenses or great delays;
- the production of more balanced plans where performance can be measured each month.

The annual budget, a key management tool.



RESEARCH AND DEVELOPMENT

It may appear paradoxical that "brain" companies devote a significant part of their resources to research, for it is difficult to imagine what new product, what undisclosed patent, what revolutionary method they could hope to invent. After a closer investigation the phenomenon is much less surprising. In fact, for CAP/GEMINI/SOGETI, research meets two major requirements:

 industrializing software production, that is, designing and developing methods, tools and standards which permit reducing both costs and production time and improving software quality and reliability;

 mastering advanced techniques, that is, participating in their development, improvement, and adaptation to concrete uses.

The effort invested in the achievement of these objectives takes on various forms: theoretical studies on new subjects, participation in large research projects, taking advantage of past experienc developing new techniques and software products (and, in particular, application products for small business systems).

This effort involves the following resources:
- expenditures amounting to more than 5 % of turnover (3 million US dollars in 1976);
- commitment of research teams with manpower levels varying from 50 to 80 people (among whom only a third are permanent, the others being taken from regular personnel according to their competence and availability for the duration of the work).
These teams remain employees of their own company in order to maintain direct contact with the market and with those who will use the results of their research.

Data protection

The protection of data processed by computers has become one of the main concerns of users and governments. In some countries, such as the Federal Republic of Germany, this concern has already led to a law.

In order to solve the complicated technical problems involved in the creation of means for proper protection, CAP/GEMINI/SOGETI concentrated its research on:

of the encoding method, designed to make data unusable without decoding. The algorithm developed by CAP/GEMINI/SOGETI insures efficient protection while meeting performance requirements (less than 5 % degradation in execution time):

• control of the access to information and to the decoding keys: the system designed meets the most stringent requirements.

On the basis of the results obtained, CAP/GEMINI/SOGETI developed CRYPTON, a product offering immediate protection to its users.

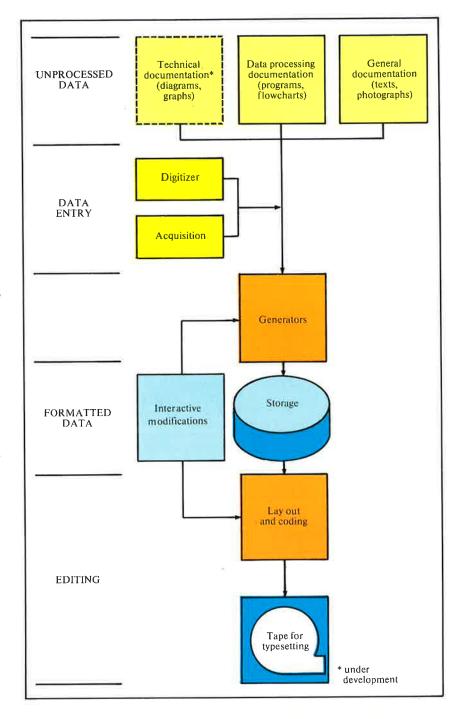
Computer aided design and numerically controlled machines

In developing GNCS (Graphic Numerical Control System), CAP/GEMINI/SOGETI brought computer aided design techniques into the world of numerically controlled machine tools.

This system enables the preparation of control tapes for various types of machines operating in three dimensions, such as milling machines, drills, engraving machines, lathes, etc.

The operator defines the contours of the part to be produced from a graphic terminal with a CRT display, using a light pen or a keyboard. He can then observe the representation of the part on the display and produce the tape by identifying the machine finishing conditions (direction, departure point, scale, etc.). When fine tuning is completed, the final result can be presented either on the display or on a plotting table. Concurrently, the control tape of the machine tool is automatically produced and can be used directly by the machine or machines.

The automatic production of documentation. To speed up and standardize documentation production, CAP/GEMINI/SOGETI developed a set of tools enabling the complete automation of the production of data processing documentation. Given the success of these tools both within and without the Group (for references, programs, brochures), CAP/GEMINI/SOGETI foresees extending their use to all types of documents, in particular, to technical documents requiring frequent updates.



It is important to emphasize that a service company is a company made up of people. They are the essential asset. Although not represented on the balance sheet, they are more valuable than any fixed assets because of their capacity to act, to create and to grow. Moreover, since in most cases work is performed in close contact with customers and often at their locations, each member of a CAP/GEMINI/SOGETI company must represent and even have within himself the technical and commercial potential of the whole Group. Hence, he is responsible for its efficiency and its reputation.

Few activities are so linked to the quality, the performance, the motivation and the mobility of people. To allow its members to achieve their full potential, CAP/GEMINI/SOGETI gives a high priority to several major points:

- careful selection and proper integration of new employees
- good use of employees' time
- career development
- decentralized organization
- information

Careful selection and proper integration of new employees

All Group companies have adopted a policy of careful selection in hiring. This policy is reflected in the following demanding criteria: character, education, professional experience, adaptability to the unique requirements of the computer service industry. It is also reflected in the procedures used to motivate new staff to make optimum use of their professional experience, to freely accept challenging assignments (e.g. inregard to technical difficulties or mobility) and to continuously keep up with the changing technology.

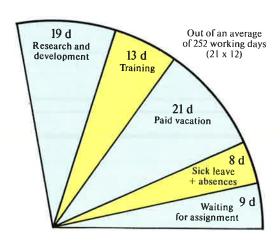
With the help of specialized organizations in the Group, persons responsible for operational units recruit the people with whom they will work. This insures a good understanding among team members and well defined future relations. On the basis of their qualifications, candidates have preliminary interviews with several managers whose approval is required before hiring. This system is sometimes cumbersome but it is necessary for we believe that being a member of the CAP/GEMINI/SOGETI Group is a guarantee of quality in the data processing profession.

CAP/GEMINI/SOGETI has a tendency to hire experienced computer experts. However, in certain cases training in computer system development is given to new employees. For example, CAP/GEMINI/SOGETI in Holland regularly organizes training sessions for university graduates who are not yet computer experts. After several months of formal study and on the job training, these young professionals can participate usefully on important projects and have the necessary knowledge to be able, with some experience, to take on more important responsibilities.

Good use of employees' time

In their day to day management (in particular planning and costing) computer service companies must make allowance for considerable periods during which employees are not working for customers, to permit the required flexibility in choice of assignments as well as employees' training.

The distribution of this non-chargeable time (in number of man-days) for all CAP/GEMINI/SOGETI consulting companies is illustrated in the diagram below, established on the basis of the 1975-1976 average.



The time spent in research and development has already been treated in a special chapter (see page 27), and it is not necessary to explain paid vacations, sick leave and absences as it suffices to note that they take up nearly 12 % of useable time. With respect to *training*, it should be specified that in addition to the time already mentioned as being spent on new employees, each company devotes a substantial number of days (an average of 13 days a year) to the training of its employees:

- professional courses given by outside companies (essentially computer manufacturers): languages, operating systems, data bases, telecommunications, new methods, etc.

- internal refresher courses set up in anyone of the Group's companies on methods and techniques or interesting applications.

- general courses dealing with, for example:

- management,
- foreign languages,
- company organization,
- project management.

The expenses committed to training clearly go beyond legal obligations and even the usual standards. To better manage this investment, corporate committees were created to determine training policy and to decide which actions must be undertaken and which professionals will participate. In 1976, CAP/GEMINI/SOGETI devoted 20,391 days to the training of its employees.

The heading "waiting for assignment" should be explained. It means that the best possible organization cannot avoid an employee being without an assignment at the end of one project and before the beginning of another (it must, on the contrary, insure that these waiting periods allow an optimum choice of the specialists to be assigned to clients). In this case, the employee devotes his time to perfecting his training by studying in company libraries or with programmed teaching manuals. He can also participate as an observer in an internal development project. This time for training is non-programmed in nature and is obviously not counted in the training described above.

Career development

The management of the Group companies gives first priority to job security. This is an important guarantee of career development. This priority is rewarded by the presence in the Company's



organization and in project teams of specialists who joined the Group as programmers only a few years ago. After careful selection, new employees rapidly acquire, through formal training and varied experience, special knowledge and skills in data processing techniques and business applications, as well as project management.

Another fact should be acknowledged. In the minds of many young computer professionals, a service company offers the opportunity to get started and acquire training but not to stay indefinitely. It should be noted that 52 % of the employees who were part of CAP, GEMINI or SOGETI ten years ago are still part of it. That is a remarkable rate in such a rapidly changing profession. This fact, combined with a strong expansion rate and hiring at all organizational levels, results in a successful combination of stability and innovation.

Career plans are developed in periodic discussions between managers and assigned staff. The main concerns dealt with are: aspirations, interests, successes, failures, training received, training desired, performance, pay, opportunities for personal development, etc.

Decentralized organization

The concern for decentralization that is expressed by the organization of CAP/GEMINI/ SOGETI derives from the intention to facilitate the fulfillment of its employees and their guidance by proper distribution of responsabilities:

- the units created within each subsidiary (company, division or department) are on a human scale and relatively autonomous. They are managed by qualified decision makers who delegate considerable responsibilities to project leaders.
- this decentralization allows each person to be assisted and evaluated according to his performance by a close and well-informed manager. It also enables each employee to feel involved and thus motivates him to participate directly in the life of the company.
- this goes hand in hand with the fact that the Group is a large organization with numerous and varied activities; this diversity of technical fields and decentralization of responsibilities allows each person to find in one of the Group's units a position corresponding to his aspirations and qualifications.

Information

From the beginning, the Group has emphasized the importance of having its employees well informed by organizing an information system based mainly on regular meetings at all organizational levels. These meetings provide the opportunity of establishing contacts and exchanging information in all directions:

- meetings in the field for employees assigned to the same project
- company and department meetings
- division meetings
- company management meetings
- Group management meetings
 and finally, the "Rencontres" which Sogeti has been organizing since 1968 and of which the tenth was held in Amsterdam in April, 1977.

All of these meetings constitute one of the pillars of CAP/GEMINI/SOGETI's management system and have an extremely important function.

Furthermore, the employees regularly receive information on the results, objectives, social policy and development strategy of their company and of the Group as a whole;

• for example, 1976 witnessed the inauguration of



"CGS Information", an internal communications bulletin published bi-monthly in French and English and sent to all employees. It is an information letter on the life of the Group, its structures, its technical and commercial activity, and its environment. It replaced the former bi-monthly publication "Pick Pocket".

 many CAP/GEMINI/SOGETI companies have their own internal bulletins: PANDATA's "Panorama", CAP/SOGETI Système's BUS, etc.

- employees regularly receive reports of the meetings and social proceedings concerning them (Joint Production Committee, Liaison Committee, workshops).
- a copy of the Annual Report is given to each employee.

By putting so much emphasis on internal meetings and communications, the Group seeks to satisfy its employees' desire for information. In addition to strengthening solidarity and mutual respect among employees, this process helps transfering technology and competence necessary to both the development of people and the Group they make up.

Thus, the excellence of the people selected, their continued training, the proper use of their time, the concern with their career, the possibilities offered by efficient organization and the internal communication effort are assets for employees and customers. They constitute an irreplaceable stimulus for true availability, that is, a frame of mind enabling: - mobility at the request of CAP/GEMINI/SOGETI

- clients - adaptation to different situations and new
- techniques - creation of a better atmosphere for work among employees - whatever their origins, training, or native language - between them and CAP/GEMINI/ SOGETI, and finally, between all of us and our clients.

CAP/GEMINI/SOGETI's head office in Grenoble.

SERVICES RENDERED

Being the most important European computer service Group does not preclude innovation and development. In 1976, CAP/GEMINI/SOGETI pursued the consolidation of its range of activities and undertook in particular:

- the reinforcement of its traditional capabilities in the computer services area (and more especially in consulting, system and basic software design and implementation) by substantial investments in research and development, by the acquisition of program products, and the training of Group professionals in new techniques, new methods and new hardware.
- the selective development of actions in the areas in which users express nowadays the greatest interest: four of these activities are further described in this "Annual Report" (see pages 2 and following):
 - data communication networks
 - micro-processors
 - program products
 - performance management
- the expansion of its field of activity and diversification of its services by offering users, through specialized subsidiaries, additional services in the following areas:
 - management consulting : organization, training, executive search, engineering, innovation.
 - communications : advertising and sales promotion, public relations, marketing.
 - promotion and management of large international projects.



Software services

CONSULTING AND TECHNICAL ASSISTANCE

This involves helping companies make better use of computers in regard to technical, human and financial aspects of data processing. The main types of assistance are: development of master plans, feasibility studies, advice on methodology, evaluation of data processing organization, preparation of system design specifications, selection of a computer, functional analysis of applications, audit of data processing security, initiation to advanced techniques utilization.

SYSTEM DESIGN AND IMPLEMENTATION

CAP/GEMINI/SOGETI designs and delivers turnkey computer systems of all

business applications: general accounting, sales analysis, personnel management, production control, etc.

- scientific applications : scientific and technical calculations, automated design, simulations, etc.

- industrial applications : automation, quality control, process control, automatic typesetting, etc.

Experienced project managers conduct definition studies prior to any planning or development, thereby obtaining a precise definition of the characteristics of the task. The finished product consists of a set of programs designed for the specific applications, tailored to meet the corresponding functional specifications, and accompanied by easily understood documents designed to insure maximum effectiveness in both their use and their maintenance.

BASIC SOFTWARE

CAP/GEMINI/SOGETI basic software teams have carried out large scale projects for most computer manufacturers as well as for civil and military authorities and have acquired a special competence in the following areas: assemblers and micro-assemblers, compilers – in particular in the areas of SIL (System Implementation Language) and HOL (High Order Language) – teleprocessing oriented Language) - teleprocessing oriented subsystems (transaction processing monitors), system program products, etc.
The standardization of the development of basic software tools for different computer manufacturers permitted the Group to develop portability techniques which increase reliability and guarantee a reduction in both the cost of products and production

SMALL BUSINESS SYSTEMS

To help small and medium sized companies benefit from the new techniques in data processing, CAP/GEMINI/SOGETI develops systems tailored to their limited budget, time and technical expertise. Hence, the Group provides:

- advice on the selection of a computer;

- establishment of system design, and

creation of design specifications; - delivery of turnkey systems including design documents and operating manuals;

- system installation and start up;

system maintenance.

LARGE PROJECTS

Given its size, depth and the variety of its technical competence and its existence in most European countries, CAP/GEMINI/SOGETI is best qualified to assume complete supervision of large projects (including the implementation of data processing networks). This type of project involves formulating the objectives accurately, adhering to a rigorous method of project control, and using specific tools to set deadlines and control the time allotted to each phase of development. A specialized subsidiary, BIA (Bossard International et Associés), is responsible for selecting, organizing, financing and coordinating the implementation of large international projects, especially in the developing countries.

TRAINING

The Group has developed a library of training courses in the following areas:
a) data processing training: the Group puts at the disposal of both top management and data processing technicians the following training sessions, seminars and courses:
- orientation and initiation to data

processing,
- extended periods of professional training on introductory and advanced levels, specialized seminars in data processing techniques such as real-time systems, data communications, distributed processing,

b) general training: four major types of training are offered through a specialized subsidiary of the Group:

 consulting on training policy and planning, organization of training departments, selection of teaching programs and materials adapted to specific needs, - design and implementation of teaching programs and materials adapted to specific

needs, - organization of training sessions established upon request in the area of management, foreign languages, etc.,
- research in training matters.

c) employee relations: another of the Group's subsidiaries has developed a systematic approach to employee relations, including

the handling of tensions and conflicts,
conducting of negotiations,
monitoring employee management relations

establishing harmonious communication,

- developing company strategy for employee management.

PROGRAM PRODUCTS

One of the Group's principal objectives is to increase computer users' data processing productivity through promoting the use of program products. This involves continual search for, and evaluation of, the best products developed by American or European companies. The Group markets such programs, and it develops its own products to expand the line of services and products it can offer its clients (see page 5 of present report on this subject).

Computer-based services

CAP/GEMINI/SOGETI provides companies with all necessary support for computer operations (availability of professionals, consultancy on operation of a computer center, etc.) as well as the complete range of computer-based services (service bureau, computer time, facilities management) either through its specialized subsidiaries or through privileged access to the CISI processing resources, including its data communications network.

A complete service concerning data entry is provided by two CAP/GEMINI/ SOGETI companies (Sesi in Lyons and CAP/SOGETI-Saisie in Paris) which have 16 centers involving more than 350 data entry stations.

Management consultancy

The OBM company is now "the consultant" to top management in regard to:
- functional organization (to adapt a company to its environment), - administrative systems (accounting, personnel),

sales organization (structure of a sales force, salesmen compensation plans, sales administration, sales force efficiency),

company overall strategy.

Communications and marketing

Through specialized companies of the "Bossard Group", CAP/GEMINI/ SOGETI is now in a position to offer to companies a total service - consulting, implementation and training - especially in regard to

- advertising and sales promotion for products and services,
 - public relations (institutional problems, nationwide economic, political and social

problems, tourism),
- promotion of drug companies,
- classified advertising (in particular employment advertising).

LOCATIONS

HOLDING COMPANY

PARIS

17 avenue George V 75008 Paris

Tél.: (33-1) 723.61.85

GRENOBLE

6 boulevard Jean Pain 38000 Grenoble Tél.: (33-76) 90.10.45

LYONS

241 rue Garibaldi 69422 Lyon Cedex 3 Tél.: (33-78) 60.43.10

FRANCE

PARIS

Cap/Sogeti Exploitation 126 rue Réaumur 75002 Paris

Tél.: (33-1) 233.10.47 Cap/Sogeti Gestion

20 rue Leriche 75738 Paris Cedex 15 Tél.: (33-1) 539.22.25

Cap/Sogeti LGD 25 rue Leriche 75738 Paris Cedex 15 Tél.: (33-1) 539.22.25

Cap/Sogeti Logiciel Immeuble Périsud 5 rue Louis Lejeune 92128 Montrouge Tél.: (33-1) 657.13.31

Cap/Sogeti Produits 20 rue Leriche 75738 Paris Cedex 15 Tél.: (33-1) 539.22.25

Cap/Sogeti Saisie 21 rue Leriche 75738 Paris Cedex 15 Tél.: (33-1) 539.22.25

Cap/Sogeti Systèmes Cap/Sogeti Formation 5 rue des Morillons 75738 Paris Cedex 15 Tél.: (33-1) 539.22.25

Sorinfor Centre International de Paris 2 Place de la Porte Maillot 75017 Paris Tél.: (33-1) 758.24.11

ANNECY

15 avenue du Rhône 74000 Annecy Tél. : (33-50) 51.23.01

BORDEAUX

Les Jardins de Gambetta 74 rue Georges Bonnac 33000 Bordeaux Tél.: (33-56) 44.01.25

GRENOBLE

6 boulevard Jean Pain 38000 Grenoble Tél.: (33-76) 90.10.45

LYONS

241 rue Garibaldi 69422 Lyon Cedex 3 Tél. : (33-78) 60.90.03

MARSEILLES

22 rue Léon Paulet 13008 Marseille Tél. : (33-91) 76.52.91

NANCY

10, rue Raymond Poincaré 54000 Nancy Tél. : (33-28) 24.08.69 **NANTES**

10 rue Mondésir 44000 Nantes Tél. : (33-40) 71.08.37

ORLEANS

19 rue de la République 45000 Orléans Tél. : (33-38) 66.65.46

RENNES

1 place du Maréchal Juin 35100 Rennes Tél. : (33-99) 79.05.80

ROUBAIX

62 avenue Jean Lebas 59100 Roubaix Tél. : (33-20) 70.15.54

ROUEN

Palais des Congrès Rue des Carmes 76000 Rouen Tél.: (33-35) 88.27.88

TOULOUSE

Résidence Jean Jaurès 76 Allée Jean-Jaurès 31000 Toulouse Tél.: (33-61) 62.88.90

INTERNATIONAL

ANTWERP

Mechelsesteenweg 137 2000 Antwerp Tél.: (32-31) 30.07.02

BASEL

Lindenhofstrasse 7 4052 Basel Tél. : (41-61) 23.41.41

BEIRUT

SSMO Immeuble Gellad Rue de la Banque du Liban Beirut Tél.: (961) 34.91.06

BRUSSELS

49 rue du Châtelain 1050 Brussels Tél. : (32-2) 649.96.40

COPENHAGEN

Bondo Svane Bergensgade 10 2100 Copenhagen Tél.: (45-1) 76.65.65

DÜSSELDORF

Grafenberger Allee 30 4000 Düsseldorf 1 Tél.: (49.211) 67.50.05

GENEVA

8c avenue de Champel 1211 Geneva 12 Tél. : (41-22) 47.88.00

GÖTEBORG

BRA Artillerigatan 25 41502 Göteborg Tél.: (46-31) 25.03.40

THE HAGUE

366 Sir Winston Churchilllaan Rijswijk -ZH Tél. : (31-70) 94.93.25

HELSINKI

BRA Henry Fordinkatu 5c 00150 Helsinki 15 Tél.: (358-0) 63.42.45 HITCHIN

Bevan House, Bancroft Court Hitchin Hertfordshire G5 1LW Tél.: (44-462) 55122

KARLSKOGA

BRA

Kungsvägen 33 69100 Karlskoga (Sweden) Tél.: (46-586) 503.80

LONDON

84 Baker Street London W1 M1 DL Tél. : (44-1) 487.56.81

MADRID

ERIA Calle Velazquez 138 B2 Madrid 6 Tél.: (34-1) 261.61.02

MANCHESTER

6 th Floor, Six Acre House Sale, M33 1XZ Tél.: (44-61) 969.46.15

MILAN

SYNTAX 8 Via Gaetano Negri 20123 Milan Tél. : (39-2) 87.74.44

MUNICH

Lindwurmstrasse 117 8000 Munich 2 Tél. : (49-89) 77.20.73

NEW YORK

CT Corporation P.O. Box 1544 Grand Central Station New York NY 10161 Tél.: (1-212) 826.18.10

STOCKHOLM

BRA Bredängstorget 1 12732 Stockholm Tél.: (46-8) 88.01.25

TEHRAN

Soraya avenue Koucheh Mojdehi N° 1 Tehran 15 Tél.: (98-21) 837.061

UTRECHT

Kaap Hoorndreef 62 Utrecht Tél.: (31-30) 62.03.44

ZÜRICH

Brauerstrasse 60 8004 Zürich Tél.: (41-1) 241.06.70

GROUPE BOSSARD

PARIS

12/12 bis rue Jean Jaurès 92807 Puteaux Tél. : (33-1) 776.42.01

BRUSSELS

AGEUROP Belgique 5 avenue du Haut-Pont 1060 Brussels Tél.: (32-2) 344.48.80

MADRID

OBM España Nuñez de Balboa, Madrid 1 Tél.: (34-1) 275.09.17

MILAN

Viale Tunisia 21000 Milan Tél. : (39-2) 66.14.81

