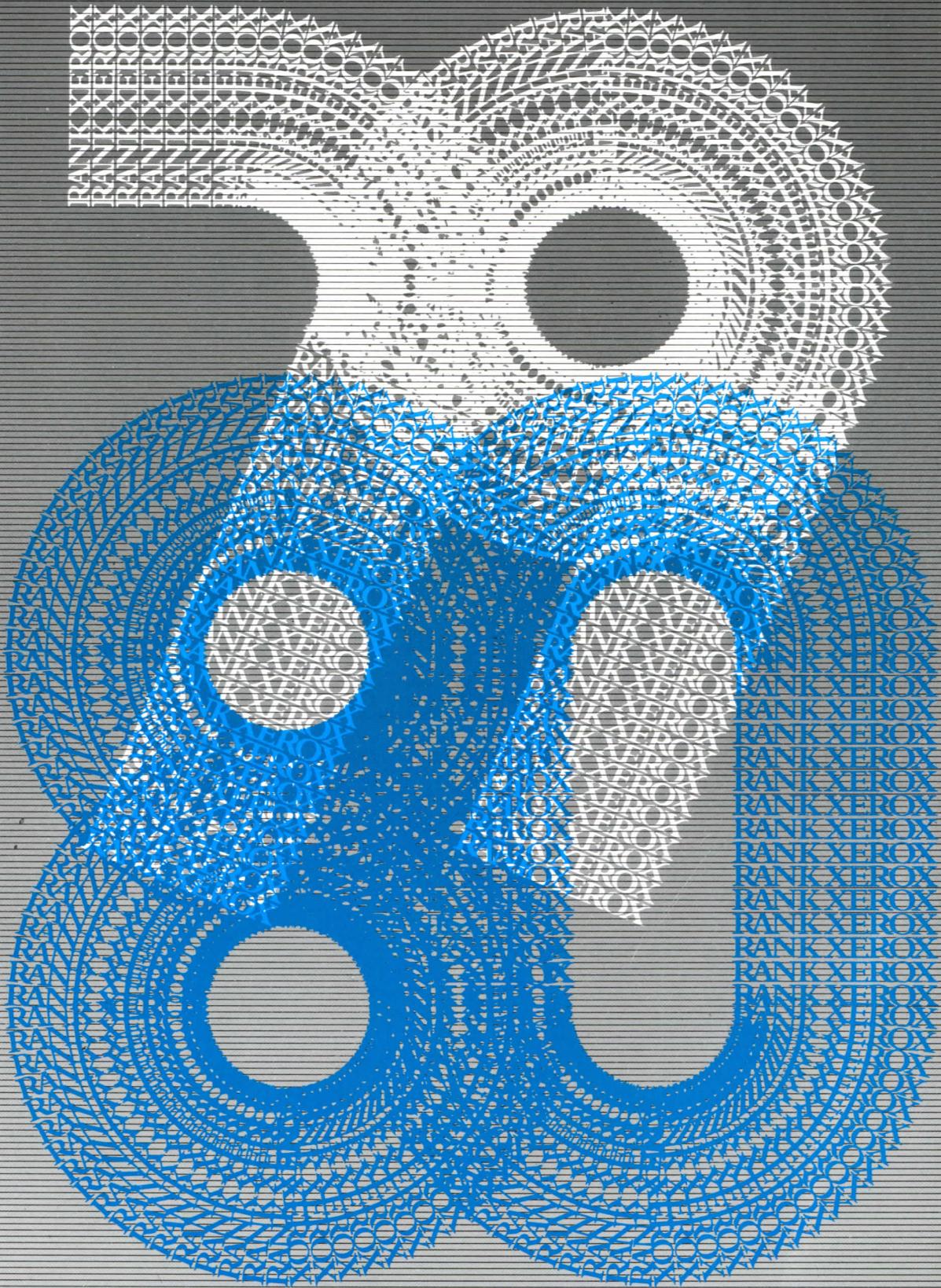
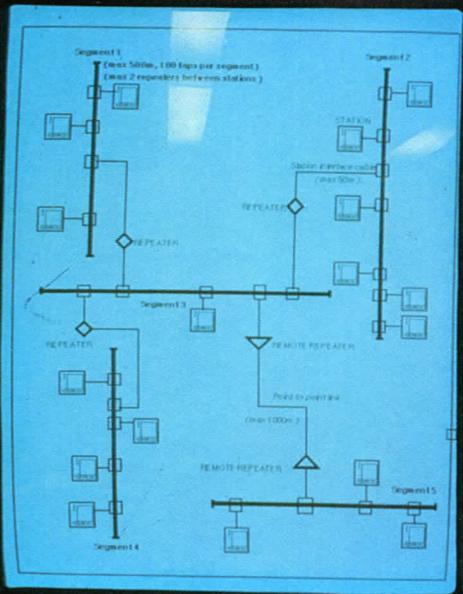
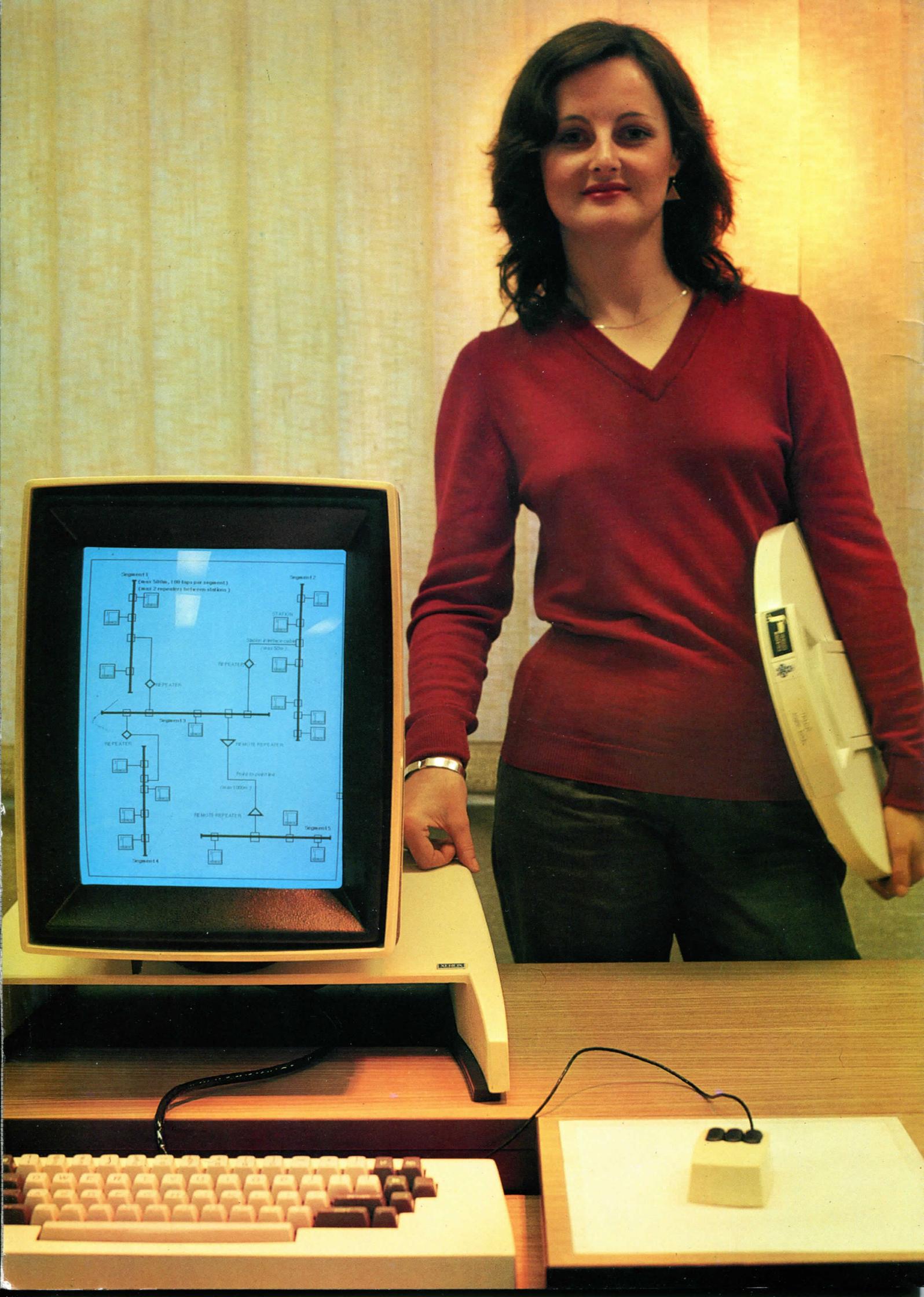


# RANK XEROX

International Review 1980





# RANK XEROX

## International Review 1980

### Financial Highlights

<i>\$ millions</i>	1980	1979
Total operating revenues	<b>2,828</b>	<b>2,450</b>
Profits before taxes	<b>508</b>	<b>533</b>
Taxes	215	228
Profits before outside shareholders' interest	293	305
Outside shareholders' interest	1	1
Net profits	<b>292</b>	<b>304</b>
Capital expenditures	471	468
Number of employees	37,145	36,357

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*Inside front cover: The experimental Alto work station being demonstrated by Chris Stevenson at the London Headquarters of our Systems Business Division. Altos can be used to create and store information which can be transmitted to other work stations connected to the Ethernet cable, creating a communications network in an office building. Two European companies experimenting with the system are Volvo and Asea of Sweden.*

# Review of the Year

By H Orr-Ewing and P A Allaire

In 1981 we will celebrate our 25th Anniversary. In a quarter of a century we will have brought convenience copying to nearly half a million customers in more than 80 countries—and in so doing created a new industry and became one of the top 150 companies in Europe.

The explosive growth which has brought us in sight of being a \$3 billion company is one of the great chapters in business history.

In 1980 we were honoured with the Queen's Award for Export Achievement. This was our fifth award and exports from the United Kingdom to our operating companies over the past five years have passed \$2 billion. Our associate company, Fuji Xerox, was pre-

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## The economic situation in 1980 in many countries was the worst for nearly 50 years

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sented with the Deming prize for quality control and productivity achievements. This is one of the most coveted awards in Japan.

We have a lot to be proud of. But we cannot rest on our laurels—if our future is to be as good as our past, considerable efforts are needed, especially since the external environment is changing rapidly, presenting us with great challenges.

The economic situation in 1980 in many countries was the worst for nearly 50 years. There is little prospect of a strong and sustained recovery in the near future. With rising energy costs, increasing inflation and slow growth rates in most economies, companies are finding it difficult to maintain profitability. The result is lower investment and fewer job prospects. Unemployment rates are the highest since the 1930s, when the spectre of high inflation was not a threat.

We are fortunate to be in an industry where the underlying growth rate is good despite the severe economic

climate. The number of copies made on all reprographic processes is growing at a faster rate than gross national product in most countries. The fastest growing sector of the reprographic industry is plain paper copying. This is benefiting from a new awareness and acceptance of the convenience, improved presentation and efficiency that plain paper copiers and duplicators offer in competition with more traditional processes using stencils, coated papers or offset printing techniques. As a result, the number of prints in this sector is growing at more than 15 per cent a year.

This growth opportunity has attracted a large and increasing number of competitors. There are over 30 companies based in Europe, the USA and Japan manufacturing a range of over 130 plain paper copiers. In 1980 there were no fewer than 28 new competitive products on the market. One result is that the average cost of making a print has fallen in real terms. This is a good deal for the customer but puts pressure on manufacturers. The only way of combating the impact is to become more cost effective.

Despite the worsening economic climate and intensifying competition, the results of Rank Xerox in 1980 were satisfactory.

Revenues increased by 15 per cent to a record \$2.8 billion. Profits before tax amounted to \$508 million, against \$533 million in 1979. The fall in profits was due to the impact of exchange rates. A clearer indication of our performance is attained by excluding exchange rate effects. This shows that profits before tax and before Xerox Corporation charges grew by 2 per cent over 1979.

Fuji Xerox had another good year. Its underlying profits growth before exchange rate effects was 10 per cent. However, after the adverse effects of currency fluctuations, our 50 per cent share of its profits was \$14 million, against \$42 million in 1979.

We introduced a number of new products to the market, once again showing that our range—able to cover the whole spectrum of copying and duplicating—is unparalleled in the industry.

The number of copies made on our machines increased substantially, and the number of net machine placements

was at the same high level as last year.

Rank Xerox prices are competitive and provide good value for money, especially taking into account the total cost of ownership for a customer including the cost of machines, whether rented or bought, as well as the cost of service and supplies. However, given the competitive situation we have not been able to fully recover inflation through price increases.

If we are to remain competitive and to stay the leader in the industry, we need to become even more cost effective. Our success has been impressive. This *International Review* explains some of the programmes we have implemented and our continuing efforts towards improving productivity. It is our conviction that in the harsh economic reality of the 1980s rewards will come to those companies which successfully achieve

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## The 1980s should bring a significant leap forward in the automation of office procedures

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increases in productivity while the laggards will fall by the wayside.

If we are successful, Rank Xerox has a great future to look forward to. Not only in reprographics, where the copier of the future will be exciting in both technological and marketing terms, but also in the office of the future.

The 1980s should bring a significant leap forward in the automation of office procedures. The availability of technology for collecting, storing, processing, transmitting and displaying information will vastly improve office productivity. The purchase of equipment will reverse the long-term trend of minimal investment for the worker in the office.

We believe that the growing demand for electronic office machines—many of which will be linked with communication networks—will be matched by government actions to support the telematics industry. We welcome the initiative for a telematics strategy started by the Commission of the European Economic Community. There is a real



*Hamish Orr-Ewing (right), Chairman, and Paul Allaire, Managing Director, Rank Xerox Limited.*

challenge for Europe if the pace of expansion in the USA and Japan is to be matched. The European industry needs above all else a climate of confidence to enable it to make a commitment to invest and expand. Users need efficient telecommunication services with consistent tariffs and standards, and with fewer restrictions.

Rank Xerox is well-placed to benefit from this evolution and our leadership

was shown in 1980 with the launch of the Xerox 860, a programmable word processor system, and the Xerox 9700 electronic laser printer. Another important event was the announcement by Xerox Corporation of the Ethernet communications network, linking office machines in a single building or several closely grouped buildings.

The prime task of a business is to provide society with the goods and services

it requires. Its ability to earn profit is a measure of its success in carrying out that task. In addition, business should act responsibly towards employees, suppliers, and other sectors of the community.

As a leading multinational group we work closely with governments and international organisations concerned with codes of business practice, health and safety standards, and with regulatory bodies affecting other aspects of our business.

In 1980, in recognition of this responsibility, we declared our support of the OECD guidelines for international investment and multinational enterprises. This is a voluntary code of conduct, endorsed by the member nations of the Organisation for Economic Co-operation and Development.

In addition, we meet the requirements of the EEC Code of Conduct for companies operating in South Africa, and comply with the Sullivan Principles – a set of principles which seeks to make continuing improvements in the status of non-white workers in South Africa.

We are fortunate in having, throughout the group and at every level, people whose skill and enthusiasm have maintained our position as leaders in our industry. We would like to thank them for their outstanding contributions to the commendable performance of Rank Xerox in a difficult economic climate. We would also like to pay tribute to Bill Glavin. He returned to Xerox Corporation as an Executive Vice President after serving as Managing Director of Rank Xerox for six years. With the foundations that he laid, and our continuing efforts, we look forward to an exciting future.

**H Orr-Ewing**  
Chairman  
Rank Xerox Limited

**P A Allaire**  
Managing Director  
Rank Xerox Limited

## Rank Xerox at a glance

Rank Xerox markets its products in over 80 countries in Europe, Africa, Asia, the Far East, and Australasia.

The international headquarters in Euston Road, London, co-ordinates activities between our five European manufacturing plants and 24 marketing companies and nine branches to ensure that customer demands for machines are adequately met. In addition, the marketing network includes distributors in over 30 countries; and Eastern Export Operations (EEO) with responsibility for selling our products in the USSR and Eastern European countries. We manufacture or assemble all our copiers and duplicators. But some of the office information systems, such as the Xerox 860 information processing systems, are imported from the USA. The Xerox Telecopier 485 is imported from Fuji Xerox in Japan.

Fuji Xerox Co Ltd is an associated company, owned fifty-fifty by Rank Xerox Ltd and Fuji Photo Film Co Ltd. It has three manufacturing plants in Japan and markets its own and Xerox products, including the Xerox 9400 high-speed duplicator, in five countries in the Far East.

Our marketing network spans the world, outside the American continent. We have the largest sales force in the industry, and a distribution and service organisation which is the biggest in the industry, involving a third of our 37,000 employees. Customer care is the keynote in the total service we provide. Our market coverage, in products and geographic spread, is unequalled in the industry.

The xerographic process of making copies on plain paper was invented in the USA by Chester Carlson. The process was nurtured and developed commercially by Xerox Corporation. In 1956 Rank Xerox was formed as a joint venture between Xerox Corporation and The Rank Organisation Limited, and has proved to be one of the most outstanding Anglo-American partnerships. With revenues of \$2.8 billion, Rank Xerox is now among the top 150 companies in Europe.

Xerox is still developing the technology as part of a research and development budget that is consistently above 5 per





cent of revenues. In 1980 alone it spent \$434 million on research and development. Rank Xerox engineers in Welwyn Garden City are making a significant contribution towards developing new copiers and duplicators for the future. But xerography is only part, albeit an important one, of office information systems. Over the past 10 years Xerox has been forming and acquiring companies with advanced technologies to automate office procedures, as building blocks towards the office of the future. These companies, such as Diablo Systems, Versatec, Shugart Associates, Xerox Computer Services, Century Data Systems, also have their own marketing organisations in Europe, owned by Rank Xerox Business Equipment Inc, one of the four holding companies making up the joint interests of Xerox Corporation and The Rank Organisation.

The largest holding company is Rank Xerox Limited, incorporated in England, owning our marketing companies around the world, and the factories in the UK and Spain. The other main holding company is Rank Xerox Holding BV, incorporated in the Netherlands, owning two factories in Europe. Finally, Rank Xerox Investments Limited owns the marketing company in Egypt.



Xerox is the majority shareholder of the Rank Xerox group, with 51 per cent of the voting rights. Profits are split roughly two-thirds to Xerox and one-third to The Rank Organisation. In 1980 Rank Xerox contributed about xxx per cent of Xerox Corporation's net income and 80 per cent of The Rank Organisation's pre-tax profits.

*Leading products in the forceful drive into the fast growing low volume segment of the reprographic market:*

*Opposite page, top: The lowest-priced copier in the Rank Xerox range, the Xerox 550 is for the small office whose copying needs have not previously justified a plain paper copier. Opposite page, bottom: The Xerox 2600 combines a speed of 12 copies a minute with extreme simplicity of operation.*

*This page top: With its compact dimensions, the Xerox 2300, seen here at the PA Design Unit, London, puts considerable copying versatility into a small space. A copy contrast control compensates for poor originals.*

*This page, bottom: The 20-copies-a-minute Xerox 3100.*

## Meeting the needs of a changing market

The reprographic market is changing at a faster rate than at any time since the introduction of the first xerographic product two decades ago. As the leader in the industry, Rank Xerox is in the forefront of change. We are introducing new products with added features and technologies, and finding ways to become more cost-effective so that we can meet the needs of our customers at prices they find attractive in an increasingly competitive market.

The copier is finding new users, replacing other reprographic processes such as stencil, coated paper, and offset. Plain paper copying is being used increasingly by the self-employed sole trader and the world's largest companies.

Only Rank Xerox provides a product range that can straddle these diverse market needs. In addition, the Xerox 9700 electronic laser printer is being used in computer rooms to replace continuous computer forms, and the versatile Xerox 2080 is being enthusiastically welcomed in drawing offices and architect studios to enlarge or reduce

photographs and technical drawings.

But we are not alone in the market. The high growth rate has attracted a large number of new companies into the industry. More than 100 new competitive plain paper copiers have been introduced in the last four years alone. The result has been a widening choice for customers and falling prices in real terms.

In 1980, more Xerox 2300 machines were placed – mainly on sale – than virtually any Rank Xerox or other copier in recent history in any one year. Our commitment to the fast-growing low end of the market is total and we are pursuing our targets vigorously. Other low-volume machines sold in 1980 include the Xerox 2600, and Xerox 3100 family.

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The copier is finding  
new users, replacing  
other reprographic  
processes

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Placements of machines in the medium-volume range were also high, and our range was extended with the launch in 1980 of the Xerox 5600. This machine has a recirculating document handler and has the unique advantage of being able to make two-sided copies from two-sided originals automatically and deliver them in ready-stapled sets. A microprocessor control system monitors every function, helping operators to diagnose faults when they occur.

The strong drive into the central printing departments of large companies and government organisations – and into the printing industry itself – is being stepped up. Part of this programme was the launch during the year of two new products.

The Xerox 8200 uses a new xerographic imaging technology that produces a copy quality comparable with metal plate offset litho. The same copy quality is produced by the Xerox 9500, the flagship of our product range, which has a speed of two prints a second and the added advantage of automatic sorting – a feature which considerably improves productivity.



*Xerox 5600*



*Xerox 8200*

The changes we are making to meet customer needs cost effectively affect every part of the organisation. In this report we describe the advances made in 1980 in the design, manufacture, marketing and servicing of our products. Our people have responded creatively in meeting these challenges.

For example, two employees at the Venray factory who have been given awards by the suggestion box committee for cost-cutting suggestions are Henk Meulendijks, plant and site engineering, for a suggestion about toner production (advantages: fewer breakdowns, less maintenance, longer life for the machines) and Jans Lotgens, methods engineering, who suggested some changes to the paper-feeder of the Xerox 3400 and 3450 compact console copiers (advantages: less spending on machine parts and enhanced reliability).

Another major contribution to Rank Xerox business efficiency, which will save the company at least four to five million dollars a year, has been achieved by the management services division at international headquarters, by transferring the computer work done by an external bureau to the Xerox computer

centre at Webster, and setting up a Rank Xerox timesharing telecommunications network connecting user terminals in operating companies and manufacturing locations to the Xerox computer centre.

In 1980, the first recipients of the Managing Director's Award for exceptional employee achievements were announced. They were: Stephen Collins who reviewed the systems and procedures which determine spare parts requirements and their supply to our service engineers, thus helping to improve the supply of spare parts and the level of service Rank Xerox provides to its customers; Marc van Dongen was responsible for three inventions – a programmed sorter, modifications to the sorter on the Xerox 9400 duplicator, and a new system for copying computer

listings automatically on the Rank Xerox 7000 copier-duplicator; Manuel Escobar was responsible for the initiation of a study which resulted in a very large tax rebate to the Spanish operating company.

Energy-saving was an important part of cost saving too. For example, Rank Xerox is putting seven office buildings, over a 60-square-mile area around London, under the control of a computerised system – the first of its kind in Europe – that will control energy usage, 24 hours a day, seven days a week. The system should be able to pay for itself in reduced fuel bills in just over 12 months, then go on saving still more.

Finally, Rank Xerox is in the forefront of change in bringing the office of the future into reality. New information management systems announced by Systems Business Division in 1980 will help our customers to considerably improve productivity in their offices.

The 1980s will see significant advances towards the evolutionary process of automating office procedures. Our leadership in this evolution presents a major new growth opportunity.

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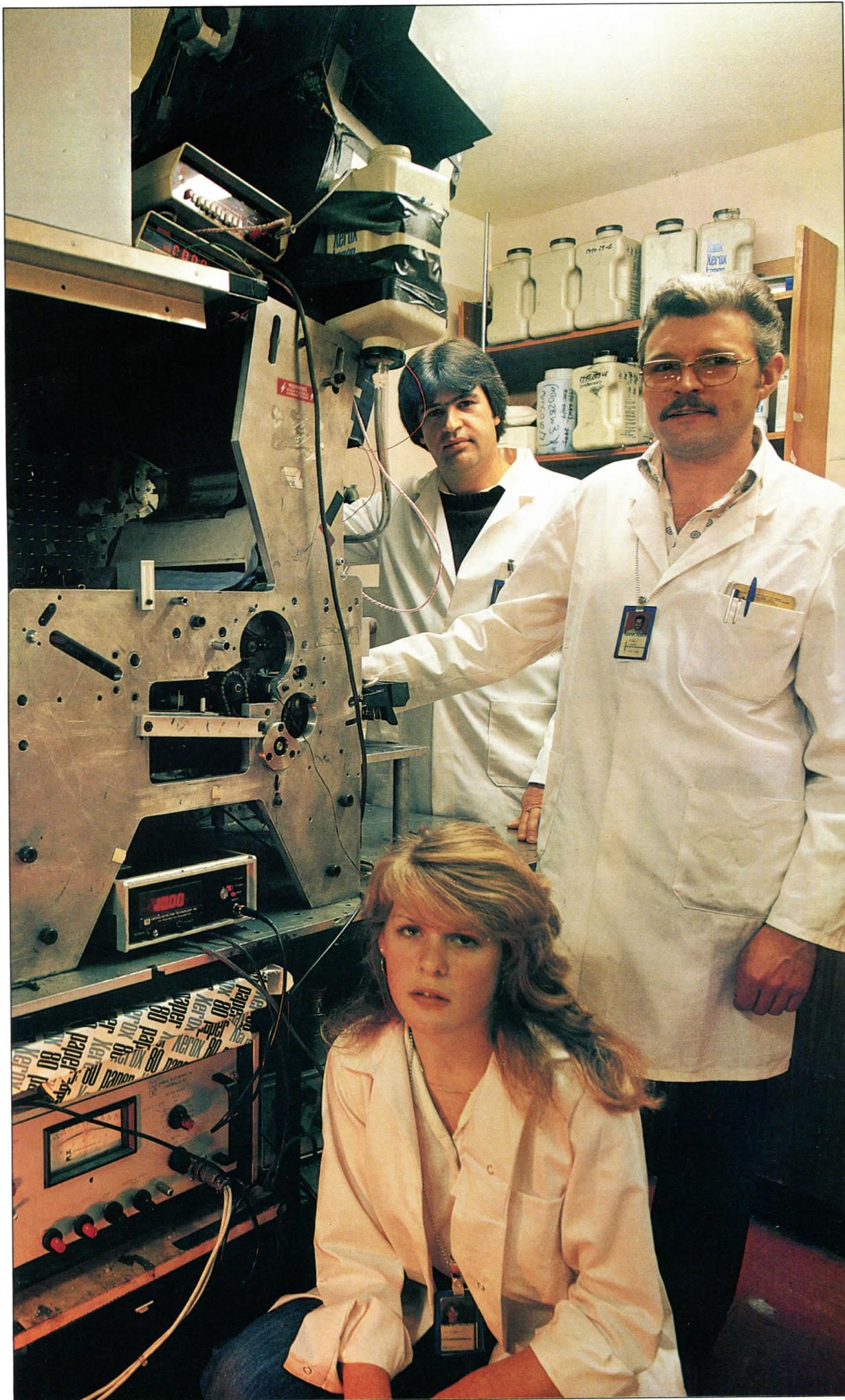
## Rank Xerox is in the forefront of change in bringing the office of the future into reality

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Xerox 9500

The Rank Xerox Engineering Group at Welwyn Garden City is contributing to a world wide programme to design advanced copiers and duplicators to meet expected customer needs well into the 1980's. Shown here are Alan Redford (right), Colin Rowsell and Sally Walker monitoring the performance of an advanced prototype on a process integration rig. The design and development of three major new products is a new challenge for RXEG following its success in 1979 in developing output devices such as collators, staplers and sorters for reprographic products.



## Engineering

'The era of the copier is just beginning a new, exciting phase'. This prophecy by Don Stephenson, director of Rank Xerox Engineering Group at Welwyn Garden City, questions the popular view that copiers are becoming a standard commodity. 'The possibilities we can give the customers are endless. Rapid changes are being driven by technological developments – any limitations are only in our minds', he says, adding: 'The challenge for engineers is to throw off these mental barriers.'

In May 1980 RXEG vacated Milton Keynes and moved to Welwyn. This move was made without their programmes being affected. 'Now that we are in one site, we are working better as a team – there is a greater sense of belonging', says Don Stephenson.

There is also a new challenge among the Engineering Group following its success in 1979 in developing output devices such as collators, staplers and sorters for reprographic products. This activity was carried out by engineering teams at Mitcheldean, Venray, and Welwyn. Now these teams are designing and developing three major new products for the world market later in the 1980s. Technological advances will bring enhanced copy quality, a broad range of machine features, and greater reliability.



## Manufacturing

The European Manufacturing and Supply Division, consisting of five plants in four European countries, is playing a vital role in the integrated manufacturing policy of the worldwide group.

Considerable savings are being made by closer co-ordination with our counterparts in the USA and Japan. For example, the Xerox 2300 is assembled at Lydney, near Mitcheldean, from components made by Fuji Xerox.

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### Technological advances will bring enhanced copy quality, a broad range of machine features, and greater reliability

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*Left: Dr Louise Weaver cutting an extra thin section for electron microscopy in the RXEG laboratories at Welwyn Garden City. Understanding the precise characteristics of materials in our machines helps to continually upgrade copy quality. Right: Dick Holmes, Director of the European Manufacturing and Supply Division.*

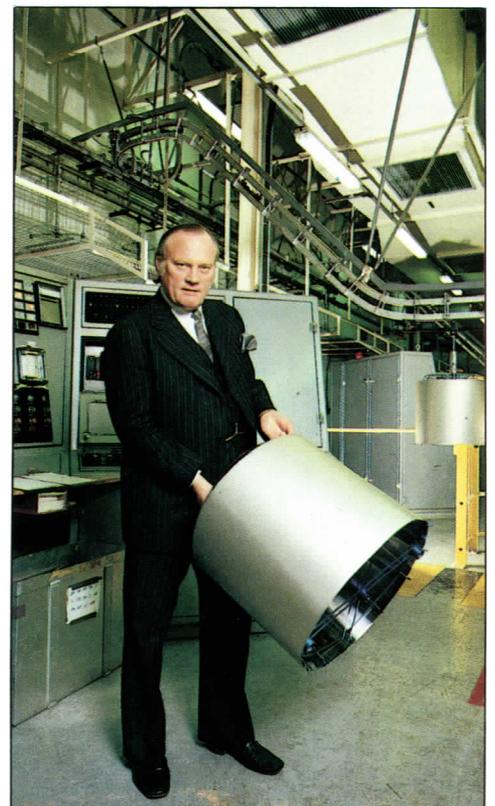
Dick Holmes, director of the division, says 'Our stated goals are to meet our commitments with regard to schedule, quality, cost, and new model programmes, while meeting the reasonable aspirations of our people. During 1980 we substantially achieved most of these commitments, but much work still needs to be done in this increasingly cost-conscious and quality-conscious industry in which we compete, particularly against the Japanese.'

### Welwyn Garden City

Nearly half a million printed circuit board assemblies (PCBAs) were made in 1980 at Welwyn Garden City, an increase of 15 per cent over 1979. With the expansion and further automation that took place during the year, Welwyn has become the prime manufacturer of electronic parts for copiers and duplicators in the Rank Xerox world.

Two-thirds of Welwyn's workload is now in electronics, the rest being production of photoreceptors. Electronics is being used more and more in our range of copying machines, to add features, improve reliability, and enhance the diagnosis and correction of machine faults when they do occur.

With the rapid concentration of electronic circuitry in smaller and smaller silicon chips, the processing power that can be put onto a PCBA becomes greater. Some of our new machines will



have the same or better electronic capability with fewer PCBAs.

Output of PCBAs is geared to machine production and to demand for spares in the operating companies. Good progress is being made to improve yields and reduce costs. About 75 per cent of the assembly and verification of PCBAs is now automated. Teams of workers are redesigning work stations to optimise work flow. Significant quality and cost benefits are accruing from multinational sourcing of components – the chips are usually bought from US based companies (at between 30 pence and £15 each), and the boards from the Far East.

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**Lille is our newest plant, built in 1974 on 37.5 acres at a cost of \$15 million. Even after six years, it has a futuristic look**

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With its enhanced capability, Welwyn also conducts quality audits on the word processors imported from Dallas for our Systems Business Division.

The factory started production of power supplies for future copying products. One of the biggest moves during the year was the expansion of photoreceptor production. Output more than doubled with the completion of the programme to consolidate the production of photoreceptor drums at Welwyn while consolidating the manufacture of toner and developer at Venray.

This development, together with the arrival of the Engineering Group from Milton Keynes, led to significant cost savings, and rounded off a busy year for the factory and its new director, Al Hagen.

### Lille

Because Lille is geographically near the centre of Europe (which accounts for 90 per cent of our revenues), it is ideally situated for the refurbishing of copiers and duplicators received from operating companies. Lille is our newest plant, built in 1974 on 37.5 acres at a cost of \$15 million. Even after six years, it has a futuristic look.

The flow of refurbishing is co-ordinated as part of the supply-demand cycle in international headquarters in London. Machines are sent from the operating companies, are refurbished, and returned. Louis Couque, the plant director, ensures that the refurbished machines come up to the same standards of copy quality and reliability as newly built machines. Some machines are completely rebuilt. The process of refurbishing differs according to the age and condition of the machine. In some cases, a Xerox 9200 duplicator can clock up over 9 million copies between visits to Lille.

About two-thirds of the machines returned to operating companies will be rented to customers. The other third are sold. One of the six products added to the refurbishing list in 1980, the Xerox 550, is the lowest-priced plain paper copier on the market. And it works like a new model.

When a machine enters Lille, it is inspected, dismantled, cleaned, repaired, painted (with a selection of 65 colours), and put together again. It is then thoroughly tested. Often, it will be upgraded with the latest technology.

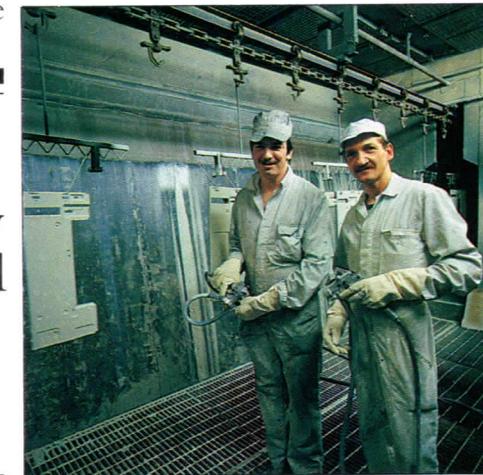
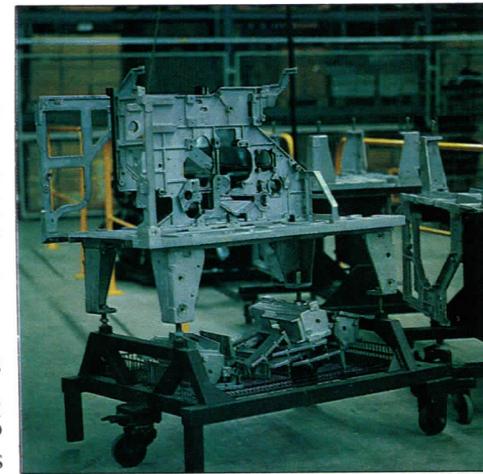
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**The standard time for refurbishing was cut by 15 per cent and material costs fell by nearly a quarter**

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A 9200 typically takes 18 days to process. It has over 2,000 parts which potentially might need to be repaired or replaced, more parts than in the average motor car. With over 18,000 parts needed for our family of products, control of inventories is handled by a main-frame computer at Mitcheldean.

Efficiency was a major theme in 1980. The standard time for refurbishing was cut by 15 per cent and material costs fell by nearly a quarter, while still maintaining the same quality standards – considerable achievements for a plant which in terms of the ratio of direct labour to indirects can compare favourably with any factory in the world.

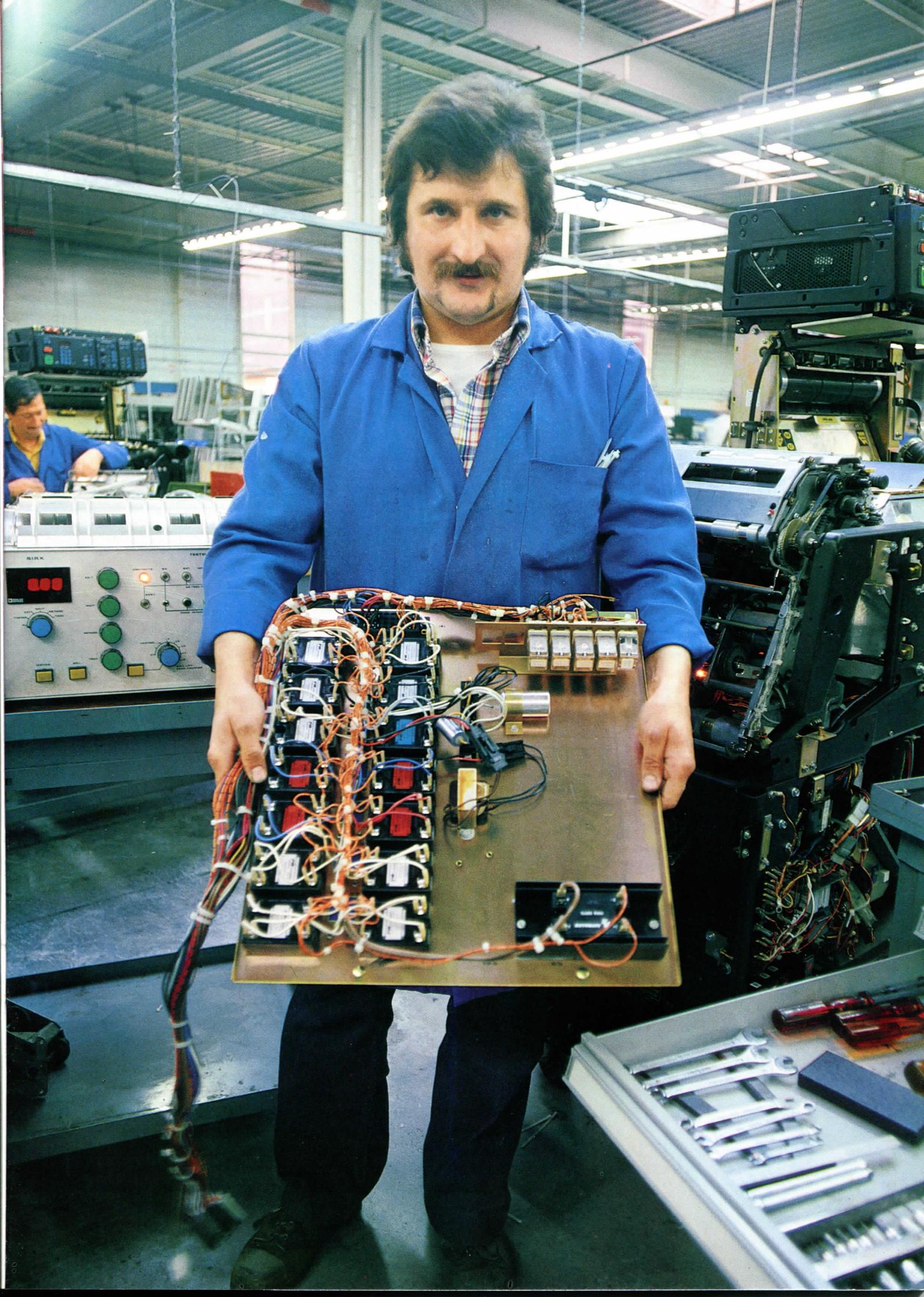


*This page, top: Louis Couque, Director of the Rank Xerox refurbishing plant at Lille*

*Middle: This Rank Xerox 7000 has been stripped completely before being re-manufactured.*

*Bottom: Michel Ayala (left) and Yves They in the painting cabin — a selection of 65 colours.*

*Opposite: Robert Malas holding the frame relay which will be fitted on the input module of a Xerox 9200. A 9200 has over 2,000 parts which potentially might need to be repaired and replaced in the refurbishing process, more parts than in the average motor car. The process typically takes 18 days.*



## Mitcheldean

Our factory at Mitcheldean celebrated its 21st year of machine production by presenting the group with its best year of all round balanced achievement for nearly a decade. In financial terms, Mitcheldean beat its operating plan targets substantially and has committed itself to further very challenging targets for 1981.

'Every product line remained on schedule and the site had its best ever performance on spares with almost 100 per cent achievement,' says Ron Morfee, director of Manufacturing at Mitcheldean.

Quality was still very good and, in a compressed time scale, three new products, the Xerox 8200, Xerox 9500, and Xerox 5600 were introduced whilst maintaining production of the Xerox 9400. Assembly of the Xerox 2300 at the satellite plant at Lydney was particularly successful. The assembly operations there incorporated many new ways of doing business and output was increased significantly to cope with demand from the operating companies.

## Mitcheldean beat its operating plan targets substantially and has committed itself to further very challenging targets for 1981

The supply of parts both from suppliers and in-house manufacturing was excellent throughout the year. Also, inventory was reduced by about 20 per cent which helped the group's cash flow.

These improvements, which are vital to enhance the group's competitive position, are being achieved by efforts and projects affecting all major elements of costs from manpower to overheads such as energy, storage, maintenance and travel.

As an example, energy costs will be reduced by 25 per cent. One of these projects will heat some offices on the plant from surplus energy transferred from the system which cools machine



Above: Ron Gardner in the machine shop checking for correct tolerances on a casting for a high speed duplicator. Critical castings are made on computerised Burkhardt and Weber machines seen in the background.

Left: Donald Davies is carrying out fault diagnosis on the console of a high speed duplicator. The printed circuit board assemblies are made at Welwyn Garden City.

Opposite: Intensive testing an integral part of machine assembly. Seen here is Barry Thomas with a high-speed duplicator.

tools. The cost of this conversion will be recouped in the first year of operation. A further energy saving scheme in the International Supply Centre – to convert to gas – will cost \$460,000, but will save \$280,000 a year.

Some other examples to illustrate Mitcheldean's drive towards greater cost effectiveness include:

Manufacturing operations carried out at the Cinderford satellite plant five

miles from Mitcheldean are being consolidated on the Mitcheldean main site.

By using improved controls, scrap and other material usages were reduced by \$1.8 million against the plan level in 1980.

A computerised system for controlling telephone calls saved some \$60,000. With these achievements behind it, Mitcheldean is working to further improve its cost effectiveness and to introduce new products during 1981.



## Venray

The start of a new decade in 1980 was notable for Venray, the main Rank Xerox factory in Continental Europe. From its beginning as a labour intensive factory started in 1964 to produce photoreceptors Venray has grown to a capital intensive plant using new technology and processes to produce copiers and duplicators including current models of the Xerox 3107, 3400, 3450 and sorters for the high speed duplicators. Venray also produces special materials and spares.

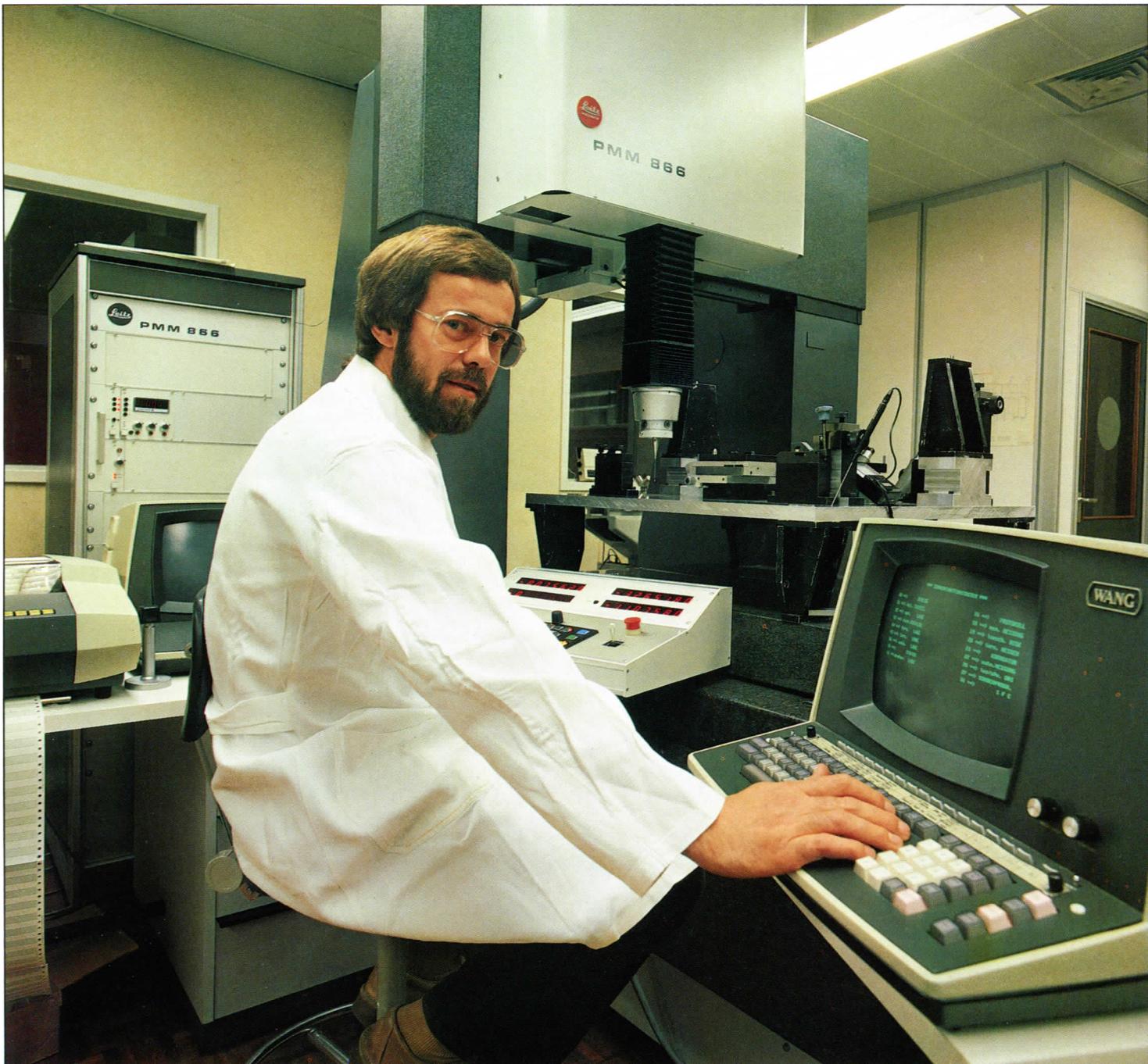
A major change in 1980 was the introduction of the Xerox material planning system from Xerox Computer Services. Computers at the XCS BV

offices in Venray, linked by transoceanic cable to mainframe computers in Los Angeles, support more than 70 terminals throughout the factory. The system allows Venray stores to record and control all inventory movements. The implementation of this system provided immediate financial benefits through fewer stock shortages and bottlenecks, lower inventory levels, eliminated the need for an annual physical stock count, and released more space for production. XCS BV will use this highly successful

*Ben Beelen, operating a computerised system to give precise three-dimensional measurements of complex components used in the manufacture of copiers.*

installation to market its full range of computer services in Europe.

The year started with the implementation of a programme under which the production of photoreceptors was consolidated at Welwyn Garden City and toner manufacture concentrated at Venray, saving well over \$15 million over five years. The accompanying streamlining and modernisation of toner production has pushed up yields by an extra 10 per cent. With this transfer, and the closing of the Elstree plant in the UK, Venray – and our Coslada plant near Madrid – are the only producers in Europe of the ink powder that forms the xerographic image on plain paper.

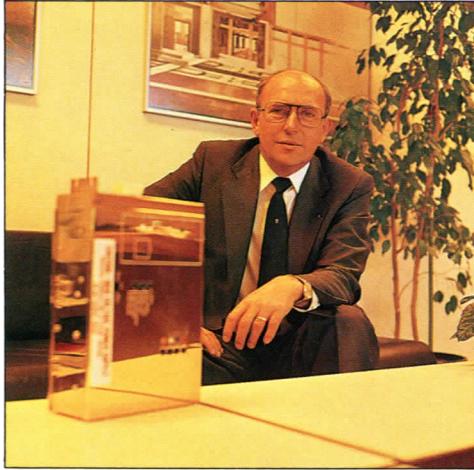


All the main production targets for 1980 were met. 'With the cost of machines accounting for between 10 per cent and 20 per cent of the total cost of ownership to the customer, it is important to produce the most cost-effective products. And significant advances were made in 1980, with some of the best ideas coming from employees in the factory,' says Len Stierman, Director of Manufacturing for Rank Xerox factories on the Continent.

The machine assembly plant – the heart of Venray's operations – was made more effective, with 15 per cent faster throughput, after the redesign of work stations following an 18 months study. Similarly, better methods of assembling the machine power supplies resulted in a fall from 6 per cent to 1 per cent in the number of rejects.

Typical of the attitude to drive down costs were suggestions in the Sub-Assembly and Industrial Finishing Group. Machine parts are given many coats of paint at various stages of assembly. Some of the simpler painting jobs are done by industrial robots, as in the car industry. But more complex jobs needing human skills are done by hand. The employee committee suggested ways of reducing the cost of this operation by using a combination of paint baths and conveyors. The result will be a doubling of production and a pay-back period of 3 months of the investment made.

## Computers linked by transoceanic cable to Los Angeles, support more than 70 terminals throughout the factory



*Above: Willi Sonneborn, Director of Production, with a gold plated high voltage power supply presented to him to mark the production of the 50,000th unit.*

*Below left: John Reefs assembling cable harnesses in a Xerox 3400.*

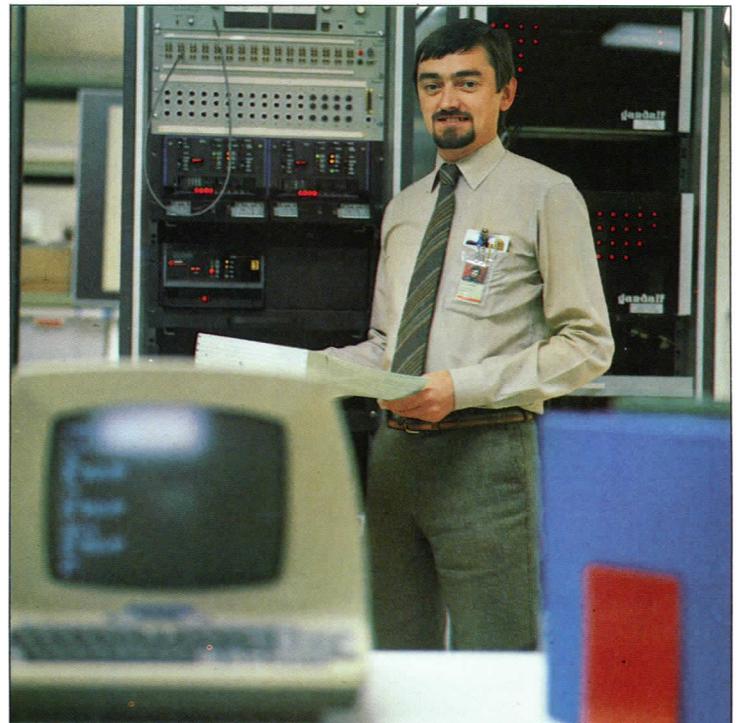
*Right: Keith Woodford of Xerox Computer Services BV, checking the status of the communications computer and international data circuits to Los Angeles.*

The drive to reduce overheads included an energy saving programme that won national accolades in the Netherlands, and a streamlining of manufacturing administration that halved the number of reporting levels in the factory. Significant savings are being made by the Treasury department that handles currency flows of approximately \$1 billion a year.

Payment is now made to suppliers in some 15 countries backed by new computer systems whilst American suppliers can be paid direct from a Venray terminal linked to the banking clearing system in the USA. These combinations not only provide Venray buyers with better negotiating tools but also improve liquidity with commensurate interest savings.

Venray exports 95 per cent of its output and has recently negotiated favourable financing terms with the Dutch authorities, with the benefits being passed on to its customers. The processing of exports, involving over 50,000 documents a year, was converted to a Xerox 850, thus halving processing time.

Perhaps the most important aspect of Venray's momentous start of this decade will be the commencement in 1981 of a new generation of copiers and duplicators for the 1980s.



## Fuji Xerox

Yotaro (Tony) Kobayashi, right, president of Fuji Xerox, said it was a 'humbling' experience.

He was talking about the Fuji Xerox accomplishment of being selected to receive the 1980 Deming Prize, the most prestigious and sought-after award in Japanese industry. The award signifies that the organisation practices in a very effective way management skills and techniques that many say are responsible for the ascendancy of Japanese industry.

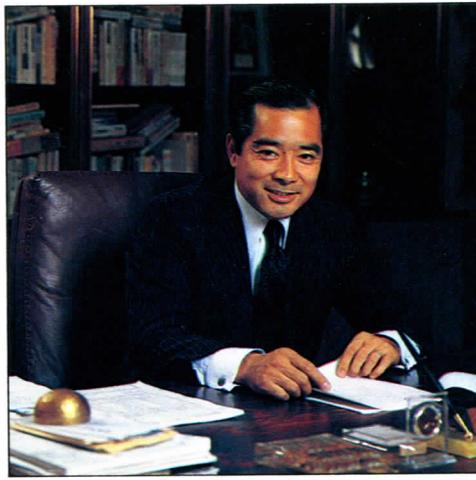
For two years, everyone in Fuji Xerox learned, practiced and implemented TQC—Total Quality Control. No matter where they worked, they focused their attention on the customer. Their concerns were quality, cost and delivery.

Actually the effort goes back much further than two years. The impetus began in the early 1970s, a time when Canon and Ricoh introduced low cost, low volume, plain paper copiers that quickly found a niche in the marketplace.

Not only was the competition aggressive and good, but Fuji Xerox—by Tony Kobayashi's own admission—had grown a bit complacent. For a long time, the company had the only plain-paper copier in town. From exclusivity, it went—almost overnight—into a situation where its competitor had a very attractive plain paper copier and it had no response in important segments of the market.

At the time, development work on new xerographic products was done in Webster, New York. The task of Fuji Xerox engineers normally was to re-engineer the product to assure that the machine met Japanese power safety and paper size requirements.

However, re-engineering became far more difficult after the oil shock of 1973/74. Power requirements became far more stringent in Japan than in the United States and the Japanese customers, becoming more sophisticated in their requirements, wanted a machine to copy larger paper sizes—up to A3 size.



### Productivity of Fuji Xerox factory people increased three fold in just five years

What's more, for various reasons, the humidity problem—always difficult in xerographic equipment—was more severe in Japan and the space available for copying machines was limited in most businesses.

So Fuji Xerox, lacking a product response, watched competition build market share on the low end.

About this time—in the Spring of 1976—Kobayashi decided to introduce TQC throughout the company. Dr Tetsuichi Asaka, a consultant to Fuji Xerox and one of Japan's foremost experts on quality control, agreed to advise on the implementation of TQC, a movement that, unlike traditional Quality Control, extended beyond manufacturing to the entire corporation.

So, in early 1976, the TQC push—under the name New Xerox Movement—got under way. The first group to begin TQC activity in earnest was senior management.

The general goal of the New Xerox Movement was to improve Fuji Xerox through the use of basic statistical and quality-control techniques in all operations throughout the company. Within that context, a specific goal was to develop a new high-performance copier that would make Fuji Xerox again

competitive against its Japanese adversaries. It was a project toward which all Fuji Xerox people could direct their efforts.

Development of the new product began in March 1976. It was introduced 26 months later. Development of the product in that short time frame was considered a major achievement. Since 1978, the 40-copies-per-minute machine has become a major weapon against competition as Fuji Xerox moved to increase its position in the low end of the market.

The Fuji Xerox 3500 copier, as it was named, accepts originals up to B4 size and requires 1.5KVA of power. It was aimed at the customer who produced between 2,000 and 12,000 copies per month.

In addition to the 3500, the company successfully introduced the Xerox 2300 copier, the small desk-top copier also being marketed in the United States and Europe, and the console Fuji Xerox 4600 and 4800 copiers in the copy-volume band above the 3500. Both the 4600 and 4800 are marketed only in Fuji Xerox areas. In addition to Japan, Fuji Xerox also operates, primarily through joint ventures, in five other markets: Korea, Taiwan, The Philippines, Thailand and Indonesia.

The 4800, introduced in October, 1980 will copy documents size-for-size up to A3 size, has two-step reduction, automatic duplexing, and automatic folding and sorting.

At the same time, new engineering products like the Xerox 2080 large document printer and facsimile devices such as the Xerox 485 Telecopier transceivers have been introduced. In addition to being marketed in Japan, these machines are being placed by other Xerox units around the world.

How competitive is the Japanese market for plain paper copiers? Consider: There are at least 15 competitive sales people for every Fuji Xerox sales person. That does not include the scores of retail outlets for copiers that don't have office premises sales people. With that kind of intense competition, the requirements



for sales productivity is obvious. So, the decision was taken to concentrate sales activity on those accounts with 30 employees or more. This would be complemented by direct sales through subsidiaries. The subsidiary – as a separate local business – could hire sales people at rates competitive with other low end marketers. While each subsidiary would have local investment, Fuji Xerox would own 51 per cent and would therefore be able to set marketing direction and focus attention on those businesses with fewer than 30 employees.

When you are trying to compete in the Japanese market – as Fuji Xerox must – you've got to be at least as good as manufacturing companies in general. In Japan, labour cost per unit of output

*The Xerox 2300 being assembled in Japan for sale in the highly competitive Far Eastern markets. Xerox 2300 components are also shipped to the UK where they are assembled at Lydney for sale in Rank Xerox operating companies.*

has remained essentially the same since 1976. In the United States, on the other hand, labour costs had increased more than 40 per cent during the same period.

Since 1976, machine production has increased by about 440 per cent, and total factory employment, which includes contract workers as well as Fuji Xerox employees, increased from 635 to 1,155. The net result is that productivity of Fuji Xerox factory people increased three fold in just five years.

That's one of the reasons why Fuji

Xerox hasn't increased its prices since 1976 despite worldwide inflation.

There have been marketing innovations, countless efficiencies, and improved management and work practices throughout Fuji Xerox – a company that now looks to revenues of over \$1 billion annually in just a few years, and talks confidently about increasing market share against top Japanese companies on their home ground.

Yet, Kobayashi talks about the 'humbling' experience of winning the Deming Prize. 'As we were questioned by the Prize committee,' he said, 'we found that while we had come a long way, we still had so much to learn and so many ways in which we could become better as a company.'

## Marketing

In 1980 Rank Xerox set a record for new business copier sales. This achievement – in an environment in which customers can choose from an expanding range of products from more than 30 manufacturers of plain paper copiers – attests to the skills of our new business sales force.

The marketing opportunities in the 1980s will be exciting, as the use of the copier continues to grow. But success will only come to those companies which, like Rank Xerox, can offer consistently high standards of product quality and service, at cost-effective prices.

At a time when the cost of making a copy is falling, after taking inflation into account, sales productivity at Rank Xerox has improved sharply. Over the past four years, we have increased many times the total number of net placements of machines.

Demand for new products to meet new customer needs will keep our salesforce busy in a fast expanding market. At the

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More than half a  
million businesses  
employing 30 people  
or less, in the UK  
alone

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same time we will continue to explore new ways of distributing our products cost-effectively, especially at the low end of the market.

In November 1980 we opened the first of The Xerox Stores, offering a wide range of office equipment including small copiers, typewriters, and computers. By providing convenient locations, specialist help, and use of credit cards, we are encouraging the small businessman to come in, find out what suits him, and buy it on the spot.

Early results of the store, in Piccadilly, London, are encouraging, with revenues and copier sales above plan. Other stores are being opened elsewhere – it is estimated that there are more than half a million businesses employing 30 people or less, in the UK alone. The opening of Xerox stores is just one experiment to expand distribution of our machines while reducing the cost of selling.



# The Xerox Store



We are also making more use of telephone prospecting, mail order, and coupon advertising, thereby increasing the number of buying decisions in which our salesforce can get involved.

Our forceful drive into the low end of the market will result in significantly higher net machine placements in 1981 and beyond. At the same time we are continuing to push into the middle and higher volume ends of the market—with new products, new marketing techniques, and the largest and best trained salesforce in the industry.

One of our main marketing strengths is the quality of service we give to customers, whether they rent or buy our machines. The sale of service contracts to customers who buy our machines is one of the fastest growing sides of our business.

Sales of paper and other supplies are also growing rapidly, and revenues of Systems Business Division—responsible for marketing word processors,

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## Our drive into the low end will result in significantly higher net machine placements in 1981

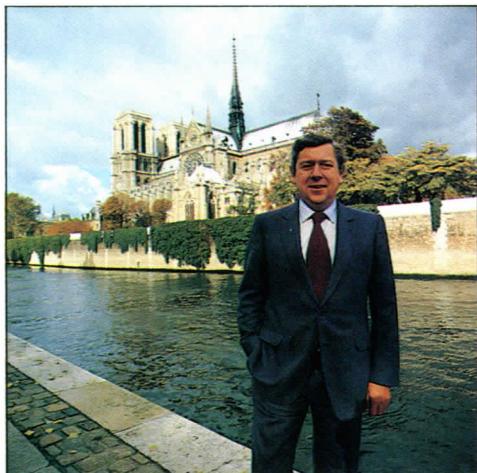
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Telecopier products, and other office information systems—are expanding at around 50 per cent a year.

We are establishing new markets for these products and our range of copiers and duplicators. The business recently set up in Egypt is doing well, and in 1980 we made new initiatives in India and China.

Our associate company, Fuji Xerox Co Ltd, is expanding in Japan and other Far Eastern countries. Its story is featured in this report; and we also feature the 1980 performances of three of our largest operating companies in Europe—France, the Netherlands, and the United Kingdom—each of which makes an important contribution to the group. Moreover, our successful marketing operations and manufacturing activities in these countries combine to produce considerable value added in each of these economies.

*Left: The Xerox Store in Piccadilly, London.*



1980 was a vintage year for Rank Xerox in France. The sparkling results included revenue growth of 17 per cent (well ahead of inflation) and a record number of machine placements.

The number of machines rented and sold was also the highest for any of our operating companies. Net additions rose by 23 per cent over 1979. This achievement was made against a background of intensifying competition, with no fewer than 25 new competitive copiers, 19 from Japan.

Roland Magnin, above, managing director, attributes these successes to two main factors: involvement of employees, and active advertising. 'Last year we set up a system to involve all our people personally with the company's targets through a series of intensive discussions at all levels. The results are beginning to show', he says. The process of discussing past performance and future plans runs from August to November and is continued by regular briefing sessions following monthly meetings of senior managers, including managers of the six Business Areas established in 1979.

'The keys to motivation are discussion and support. We support our people in many ways, not least in continuing advertising and promotion, which is, of course, also vital for customers and market image.'

In 1980 the company covered all the media for the first time, including television, radio, press and poster advertising.

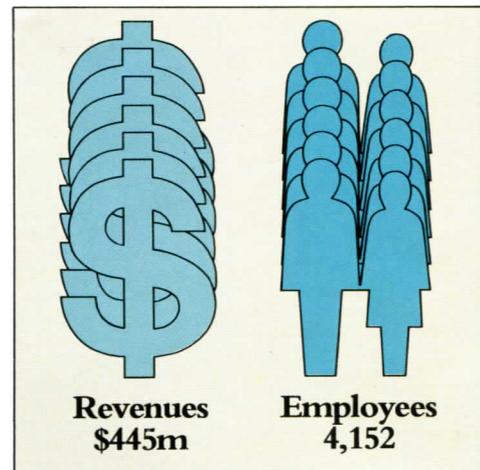
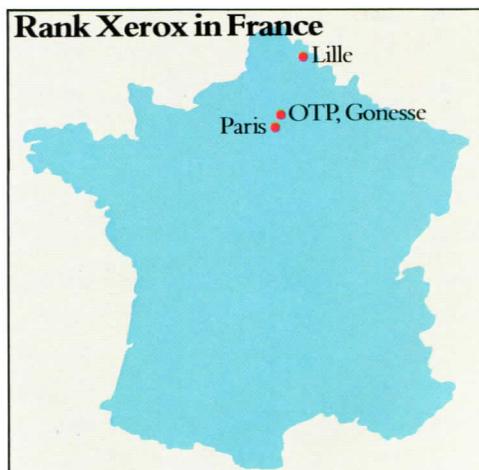
One objective is to promote Rank Xerox as a leader not only in copiers and

The number of machines rented and sold was the highest for any of our operating companies. Net additions rose by 23 per cent over 1979

duplicators but in the office of the future as well. Following the successful Mimizan promotion in 1979 (where an entire small town was equipped with advanced Rank Xerox equipment and this formed the basis of a national advertising campaign claiming 'When you know how to equip a town, you know how to equip everyone'), the company arranged conferences on the office of the future often in conjunction with local Chambers of Commerce. These events gave opportunities for key businessmen across France to discuss how advanced technology will change and enhance the office.

This is important promotion in a year in which the French Government spent large sums on improving its national telecommunications network and French telematic industry started to shape itself for the future. There was also an important agreement between Xerox Corporation and Thomson CSF to develop optical disk computer memories.

The company increased its liaison with its major publics 'We like to stay close to major accounts and key decision makers



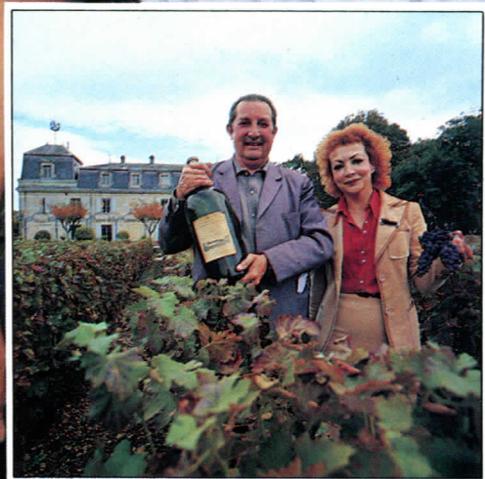
in business, government, and the media' says Roland Magnin. For example, in 1980 French journalists were taken to Xerox sites in the USA, the company sponsored a Monet exhibition in Paris, and also a VIP visit and dinner in the Royal apartments of the Chateau de Versailles.

With these solid achievements behind it, the company is now looking ahead, 'A key challenge for us is to reduce our selling costs, especially at the low end', says Roland Magnin. A good start was made in 1980 towards greater cost effectiveness.

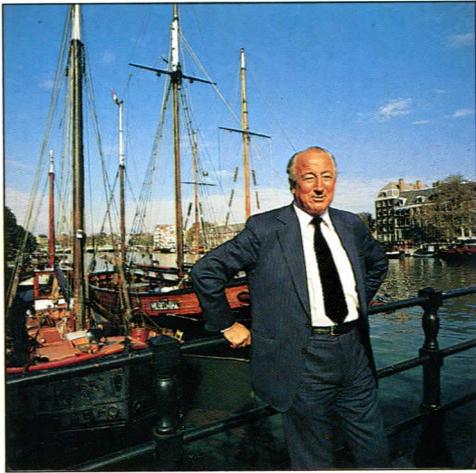
The increase in overheads was below the 13 per cent inflation rate, productivity rose significantly, and an extra saving of \$1 million was made in the cost of spares and consumables thanks to a three-month service contest. Further progress is planned for 1981. The use of telephone prospecting, mail order, and coupon advertising will be extended. One of the Business Areas will run as a profit centre rather than a cost centre as a pilot study. 'The greatest potential cost savings arise at a local level rather than national level. The attitude we want to engender is for every manager to be concerned with the profitability of his activities.'

Despite the intensifying competition, the company is confident of harvesting as good a vintage in 1981 as in 1980.

Rank Xerox sales representative Liliane Marty (centre) at the Chateau 'La Mission Haut-Brion' in the Bordeaux area, seen here with Ester Ouilleres and Marcel Brocas and inset: Liliane Marty with Henri Lagardere, manager of the estate.



## The Netherlands



The pioneering spirit which built a great empire and one of the great business successes of all time – the Dutch East India Company – is present in Rank Xerox in the Netherlands.

Under its managing director, Cor Bron, above, the company is very often first among operating companies to try new products and systems. In 1980 the company pioneered the introduction of management and control systems to considerably improve the cost effectiveness of both sales and service organisations.

The 1980 results of Rank Xerox (Nederland) BV and our factory at Venray are proof of the business acumen and high craftsmanship which is characteristic of the Dutch.

The Netherlands is one of the most competitive copier markets in Europe. There are two indigenous manufacturers – Rank Xerox and Océ van der Grinten – and American and Japanese based companies often use the Netherlands as their launching pad in Europe, attracted by a strong currency, good communications and favourable fiscal arrangements. In addition there is a

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In 1980 the company pioneered management and control systems to considerably improve the cost-effectiveness of both sales and service organisations

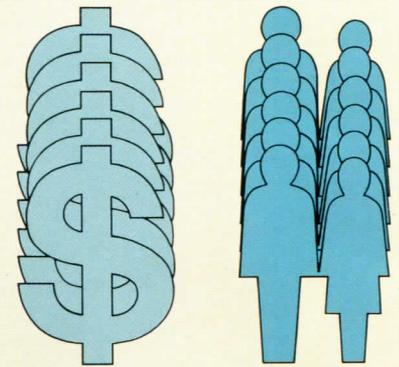
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concentration of large international companies which makes an attractive market for vendors of all types of industrial equipment. So it is not surprising that the industry prices are under constant competitive pressure.

Yet despite this environment and the deepening economic recession the results of Rank Xerox (Nederland) BV were good. Revenues increased by 9 per cent and net installations were at a high level helped by the launch of five new products. New business was well above plan.

But 1980 will be remembered as an innovative year when systems were pioneered to improve the cost effectiveness of sales and service. The company was first to introduce the Sales Activity Management System (SAMS), a cohesive system adopted from the best available in all Rank Xerox operating companies to examine and improve the sales cycle and activity planning. The results of this will begin to show in 1981.

The company was also first to imple-



**Revenues**  
**\$113m**

**Employees**  
**922**

ment the Field Work Support System (FWSS). This system automates the control of service visits to customers using a Honeywell computer. This programme involved an investment of one million Dutch guilders (about \$500,000) in hardware, and considerable reorganisation, including the centralisation of four service control points into one at Amsterdam. Rank Xerox service engineers and work controllers were given intensive training, and the company met with major customers to explain how they would benefit.

Everyone involved in the programme is enthusiastic, not least our customers who will get more efficient service. Service engineers will benefit from smoother work flow and instant information; and the company's results will improve as a result of greater cost effectiveness.

*A hand-painted facsimile of a self-portrait by Rembrandt is one of the masterpieces produced at the Delftware workshop of De Porcelayne Fles. Craftsmen have been making these prized porcelain pieces since 1653. The company, a Rank Xerox customer, sells its products in virtually every country in the world.*

### Rank Xerox in The Netherlands





## United Kingdom



Twenty-one years ago, in 1959, Rank Xerox introduced to the UK the first automatic plain paper office copier, the Xerox 914. This anniversary was marked this year by the UK company as part of its total marketing drive.

Customers who attended the 21st anniversary presentations held throughout the country were shown the progress technology had made from the 914 to the Xerox 9500 launched this year. Also introduced were the Xerox 8200 and 5600 duplicators, the Xerox 485 Telecopier and Xerox 860 word processor.

Commenting on the performance of Rank Xerox (UK) in 1980, Graham Clarke, above, managing director, says 'All accepted economic barometers in the UK have shown a consistently adverse trend during the year. High inflation, unemployment and interest rates have been matched by falling production figures, declining economic growth and uncertainty about the future. Against this background the UK company has sold vigorously and imaginatively to meet its plan in terms of net machine installations and new business.'

The launch of new products helped the UK company return revenues of \$594 million (up 17 per cent). Despite the economic situation net installations of machines were good and copy volume increased substantially over last year.

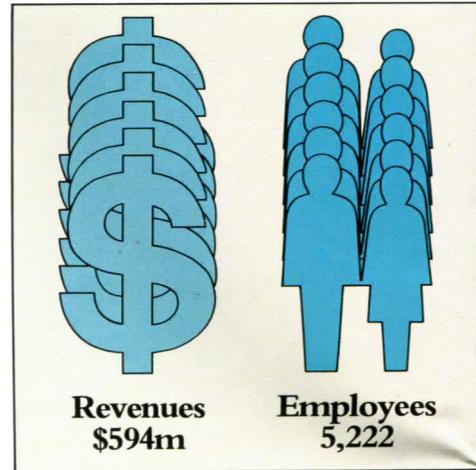
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Cost effectiveness has been a key objective for all sectors of the UK company and in this area service performance was particularly strong. Targets for response times and reliability were exceeded. The establishment of Field Logistics Centres to support the recently formed Business Areas led to quicker response to customers and better administration.

An important additional development has been the formation of one major account branch and two commercial branches in each of four Business Areas. This ground plan approach supports an increased drive for business within our existing major account customers. The commercial branches place strongest emphasis on new business. Each has two new business districts and two districts to develop account sales.

Further steps have been taken to improve sales productivity through increased use of telephone appointment making, and assigning to Customer Support Salespeople and Representatives the responsibility for customer liaison after sales have been made.

The UK was the first Rank Xerox



operating company to open a Xerox retail store, choosing a prime site in London's Piccadilly area. Initial customer reaction to the retail store has indicated a promising market potential in the UK and this new method of distribution is an excellent, cost effective way to reach it.

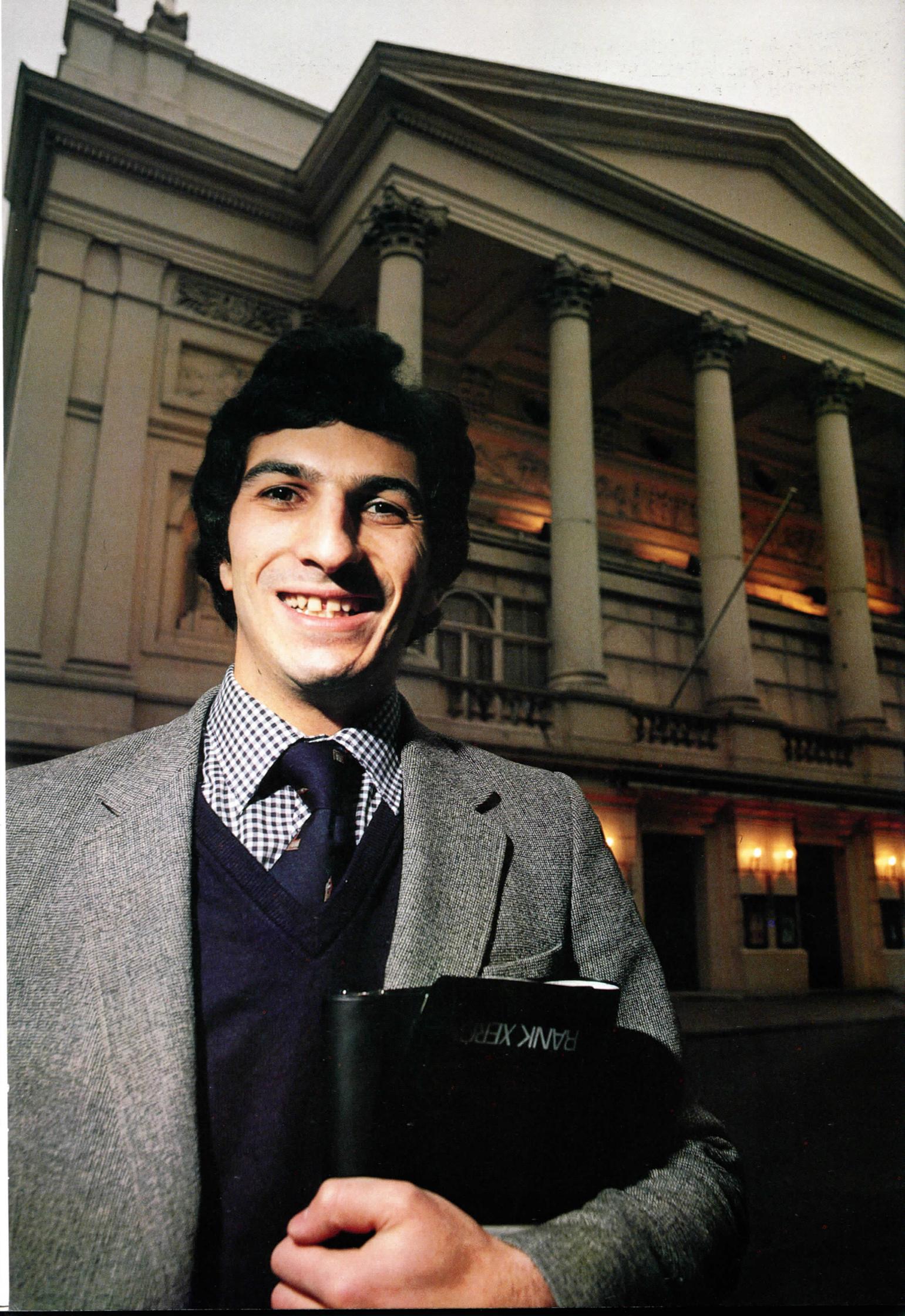
The launch of the Xerox 9700 electronic printing system in the UK was extremely well received by the media and potential customers and enhanced Rank Xerox's leadership in the fields of xerographic and laser technology. This together with Ethernet and the Xerox 860, confirmed Rank Xerox as a major contributor towards the Office of the Future in the UK. As part of an extensive programme to introduce British management to the benefits of word processing, the company held 12 seminars and exhibitions throughout the country.

One of the most popular promotions begun by the UK Company in 1980 was the sponsorship of Southampton Football Club. Southampton is one of the country's leading soccer clubs and the home of European Footballer of the Year, Kevin Keegan.



David Smith (right), Major Account Executive for National Accounts, Rank Xerox (UK) talking to Hugh Jones, Purchasing Manager, Thames Television in the Teddington studios





## Service

Rank Xerox has a major competitive edge with one of the best products we have – service. This is becoming especially important at a time when competition is intensifying. For customers do not just buy equipment – they buy the service that goes with it. This is particularly true with major accounts who consider the level of service as a big factor in choosing copiers and duplicators.

Customers will naturally consider the reliability of machines they can buy. This is a major factor in many decisions to buy our machines. But since copying includes many mechanical processes, there is a relatively large number of moving parts in the machine. And customers need to know that when something goes wrong, they are assured of quick and efficient attention whether they rent or purchase our machines.

With more than 8,000 service engineers in our 24 marketing companies – and more where we are represented by dealers, distributors and branches – we provide a service that is unmatched in the industry.

Rank Xerox has not been as active in the past as we could have been with promoting service as part of the total product mix. But this has changed in 1980 when the division started advertising the excellent service it provides.

Service is not only important to the customer, it is vital for Rank Xerox, too. Technical Service and Distribution (TS&D) accounts for a large part of our total costs, so we must provide the right level of service in the most cost effective way.

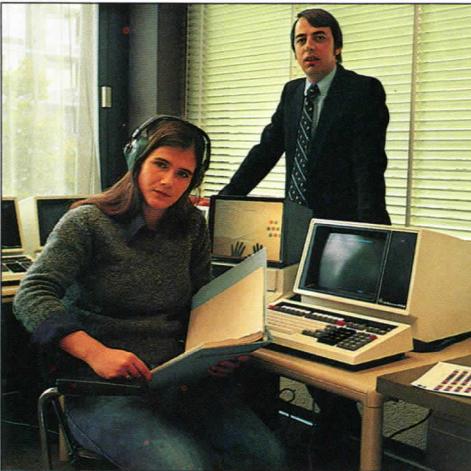
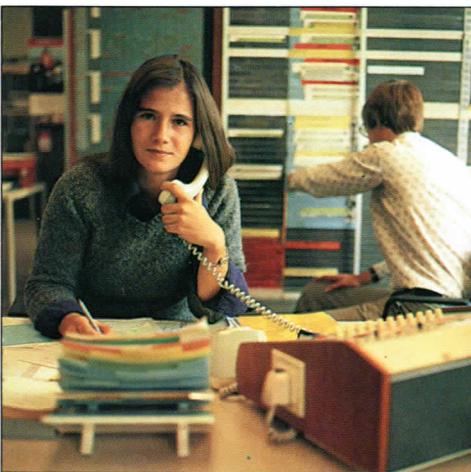
One measure of TS&D's success in 1980 was the 9 per cent improvement in its performance. This will be followed in 1981 by further success as benefits begin to flow from programmes started in 1980 to improve the organisation.

Two such programmes – Field Work Support System (FWSS) and Material

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With more than 8,000  
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industry

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*Above: Rank Xerox is investing \$54 million to automate the control of customer calls and inventories, using mini-computers. A Field Work Support System (FWSS) will replace the manual system used in most operating companies to record the service details of every machine placed in customers' premises. Vivian Hardie, Field Service Operator in Amsterdam is shown here using the manual system (above) and the new computerised system (below), with FWSS Manager, Clements Pagano Mirani.*

*Opposite: Rank Xerox service engineer Alan Cohen makes a call at the Royal Opera House in London's Covent Garden.*

Control and Warehousing (MCW) – are being implemented in operating companies with a total investment of \$54 million to automate control of customer calls and inventories, using mini-computers.

FWSS will replace the manual system now used in most operating companies. The full service record of every machine placed in customers' premises, whether rented or sold, will be held on a computer store and shown on a video screen for instant access when the customer calls his local Rank Xerox office for service. The use of mini-computers will also increase the amount of information on each customer account.

A Rank Xerox engineer will call the work support centre in his Business Area after every customer visit, thereby updating the data file on that customer, and will request information on his next customer. FWSS speeds up response time. The new computerised method will eliminate much of the time service engineers spend filling out lengthy reports. In this and many other ways it will make the work of engineers easier. And, just as important, it will keep customers happy, as our company in the Netherlands – first to use the system – has discovered.

MCW, also a computerised system, will control the flow of products and parts from the international supply centres at our factories to the Business Areas in the operating companies. The despatch and receipt of goods will be recorded on mini-computers, so keeping track of inventory movements and automatically controlling levels and location of stocks. This process, already implemented by our operating company in Denmark, will help to improve efficiency and reduce inventory levels.

'These two programmes, and others being implemented in TS&D, will further improve the level of service we provide to our customers, at a more cost effective level to ourselves. Our best product is becoming even better,' says David Mercer, director of TS&D.

## Systems Business Division

1980 was an outstanding year for Systems Business Division celebrating the beginning of a decade in which office automation is expected to take a giant leap forward. Revenues were some 50 per cent ahead of 1979 and for the first time a significant profit contribution was made to the group. Placements of machines were well ahead of 1979 and better than planned in most countries.

Moreover, there was a strong finish to the year. Although activity was strong throughout the 12 months, SBD set new records in October for machine placements and orders.

This was a fitting climax for the division and its director, Bernie Horn, who returned to the USA in January 1981 after seven years with Rank Xerox to become vice president and general

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### New products introduced during the year brought the office of the future a step nearer

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manager of Diablo Supplies Business based in the San Francisco Bay area. The division's new director is David Butler, previously in charge of SBD in our UK operating company.

The division moved into its new headquarters during the year, at Albion House, New Oxford Street, London. Its product range will be displayed there in an impressive new showroom where word processors, telecopiers, micrographics, electronic and computer printers, and engineering and drafting systems will stand next to advanced experimental workstations and new products announced in 1980.

New products introduced during the year brought the office of the future a step nearer and showed our technological leadership. These included the Xerox announcement of Ethernet – a cable communications link which can tie together many office machines in a single building, as illustrated on the next page – and the launch of the Xerox 860, a programmable word processor, and the Xerox 9700 electronic laser printer.



*The Xerox 860 information processing system combines text editing and processing of office business records and information.*

The 9700 brings SBD into the computer room, a new environment for Rank Xerox and brings customers the benefit of converting computer data onto cut sheet paper in a variety of type styles, applications and outputs.

As the first direct link between computers and xerographic process it represents a major step forward in communications. Laser technology is used to convert electronic data—either 'on-line' from an IBM mainframe or 'off-line' via nine-track magnetic tape of the type produced by virtually all other makes of computer—into the selected type face. The resulting documents are produced at a rate of two per second in a conveniently sized A4 format. A virtually unlimited number of type styles and sizes is available and the 9700 will also print company logos and signatures.

#### **The Xerox 860**

The 860 information processing system is a multifunctional office-information system that combines text-editing and the processing of office business records and data. A basic 860 system's hardware includes a full-page display unit, keyboard printer, and controller. A partial page display option is also available.

Although the external hardware is similar to the 850 display typing system the 850 is primarily a powerful text-editing

system while the 860 is a fully programmable 'soft-loaded' product. This means that the 860's function can be altered or expanded according to the kinds of software applications programs that are read into its memory. These software programs are stored on 8-inch floppy disks, flexible plastic disks which are magnetically encoded with information in digital form.

The 860 is multi-functional; the operator can do several important office jobs while sitting at a single work station. Because it is software based, the 860 is also easily and economically upgradable. Generally speaking, it can be as capable as the programs put into it. For large increases in its memory capacity, the system's disk drives can be exchanged for higher storage modes. Storage capacity can range from 28 typed pages in the basic system, to 480 pages, or the equivalent of a two-drawer filing cabinet.

The 860 is a cost-effective product for Xerox to make because it takes advantage of our own home-grown technologies. The devices which operate the system's floppy-disk memories are made by Shugart Associates, the Xerox company which is a leading manufacturer of floppy-disk drives. The daisy wheel printing heads on the system's keyboard and printer were developed and are manufactured by

Diablo Systems, a Xerox company which is a major maker of serial printers and computer terminals.

The two following stories further illustrate the leadership that Rank Xerox and its parent company, Xerox Corporation, have in developing the office of the future. The first describes an experimental office being studied in Sweden, called Office 85. The second describes a new integrated office network announced by Xerox in November which Rank Xerox will also market in the future.

### Office 85

For two years, the office of the future has been working in Sweden – the first European installation of Alto workstations and Ethernet. 'Office 85', as the experiment is called, was initiated by Televerket, the Swedish telecommunications authority, to help provide an insight into how the office would be served by the rapid advance of office communications equipment.

The project required the co-operation of two equipment suppliers and two Swedish companies, Volvo and ASEA. Three systems were provided, two Alto installations – at Volvo and ASEA – and a third system at Televerket provided by

Philips. A duplicate Alto system was installed at Rank Xerox AB in Solna in the outskirts of Stockholm. Bert Bremander, the Office 85 Programme Manager, and his team, provide software support and development. They are linked not only to Volvo and ASEA but also to the US and to Rank Xerox international headquarters in London and are therefore in on-line contact with Xerox locations, including Palo Alto in California from where the Alto system gets its name.

The Alto workstation comprises a screen and keyboard and a hand held pointing device called a 'mouse' for manipulating a cursor on the screen and, next to the desk, a disk file. Then there is an Ethernet connection with a file server (a central file), a laser printer and a gateway which provides the link from the Ethernet to outside communications facilities. The Ethernet can support over 250 workstations, although in the Office 85 experiment the numbers are in single figures.

The Rank Xerox systems are being used for real jobs of work in an operational environment. At ASEA, the electrical group, the Alto system is used to provide shipping specifications and for the preparation of the company's inter-

nal telephone directory. At Volvo, the automotive group, the Alto system is being used in the Internal Services Division in Gothenburg and in the purchasing department. Using an Alto terminal, which is connected to the main IBM data store, a purchase order can be typed in, switched to telex and processed in eight minutes, instead of the usual three days. Volvo produces 5 tonnes of catalogues and manuals a day, and the ability to prepare more of this from one desk is an enormous benefit. The next stage will be to make full use of the graphic capability of Alto by handling changes in office design.

Olle Danielsson, Vice President of Volvo's Internal Services Division who is responsible for the Office 85 experiment in Volvo, says, 'We, and others, don't invest much in the office; about \$3,000 a year per employee compared with \$50,000 in the factory. There has been an increase in the number of office workers of 90 per cent over the last 10 years, but only a 4 per cent increase in productivity. We now have to find the right tools for this part of the company.'

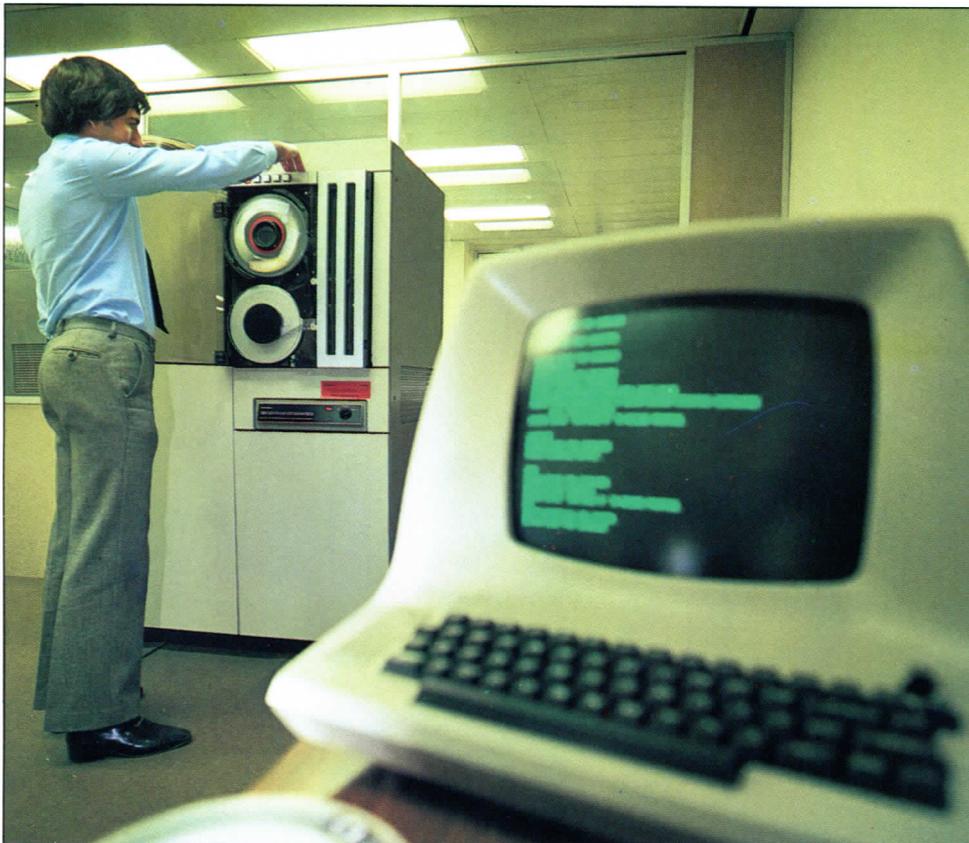
### The Xerox 8000 Network System

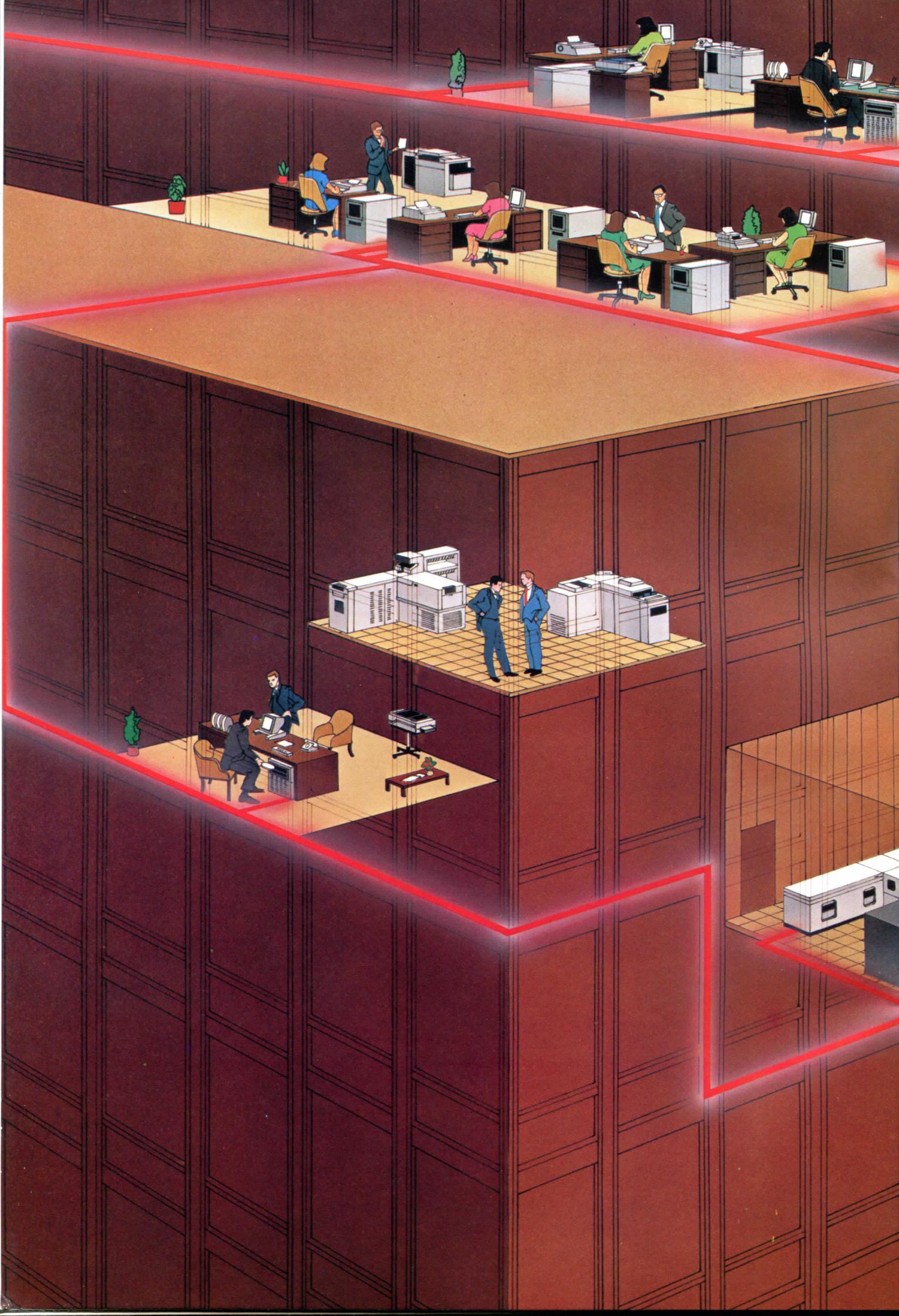
In November, Xerox announced a business information system that allows users to assemble a completely integrated office network. The Xerox 8000 network system lets users create, process, file, print and distribute information electronically via the Xerox Ethernet network. It includes an electronic office file that stores up to 10,000 pages of information, a compact electronic laser printer; and several communications units that link different types of office equipment – including competitive equipment – into a single integrated network. The initial office workstation for the new 8000 network system is the Xerox 860 information processing system.

The new units are called 'servers', because they provide services to users at workstations on the office network. The servers are controlled by a standard Xerox-developed processor. The processor can be configured to control different office systems functions – such as printing, filing and communications – by using the appropriate software and adding peripheral devices.

*Following pages: An artist's illustration of the Ethernet communications network linking office machines in a single building.*

*Geoff Parkes, Systems Business Division Service Engineer, taking the Xerox 9700 electronic laser printer through its paces in the Windsor showroom.*







## Office Supplies Division

Sales of paper and other supplies account for over 10 per cent of group revenues. The core of OSD's business is linked to the copy volume growth of Rank Xerox customers. But in recent years other business opportunities have been created by expanding the product range and marketing efforts. As a result, revenues of OSD are growing faster than group revenues. In 1980, OSD revenues increased by 30 per cent, and operating income grew even faster, reflecting good control of overheads.

A record number of new products was marketed in 1980 including adhesive transparencies, labels, drawing office supplies, overhead projector materials, and a new range of papers. OSD provides papers in many different colours

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Revenues increased by 30 per cent, and operating income grew even faster... the largest supplier of cut sheet paper in Europe

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*This mountain of wood chips will be processed chemically to produce slush pulp as the base material for Rank Xerox paper.*

*Inset left: Samples are taken across the deck of a 20 tonne Jumbo paper reel for quality tests. Failure of any tests means rejection of the whole batch. Right: Automatic packing of Rank Xerox paper limits absorption of moisture or damage by human handling.*

and weights for a variety of office needs, all part of the billions of sheets made specially by over 20 mills around the world for use in our copying machines. These sheets are made to the high specifications of OSD's paper technology group at Welwyn Garden City which ensures that the characteristics best suited to the xerographic process are adhered to. Paper itself accounts for less than 5 per cent of the total cost of making a copy. Moreover, good paper ensures good performance of the machine.

During the year OSD was made a fully-fledged division of Rank Xerox under its director, Hilpas Hirvonen. This was important recognition for a group which is the largest supplier of cut sheet paper in Europe.



## Rank Xerox in society

A business can only flourish, in the long term, with the consent of the society in which it operates. In our case, this means the consent of communities in over 80 countries scattered round three-quarters of the globe and differing widely in their political, social and economic make-up, as well as their history, culture and religion. What, for example, do Norway, Kenya, New Zealand and Malaysia have in common?

The answer is that they all have aspirations for their future. Not the same aspirations and perhaps conflicting ones. But those aspirations are the touchstone against which companies, including our own, will be assessed. Questions being repeatedly asked by

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## A business can only flourish, in the long term, with the consent of the society in which it operates

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*Rank Xerox donated £25,000 to support the British Dyslexia Association and the formation of the World Association of Learning Disabilities and Dyslexia Organisation (WALDDO). Seen here is teacher Margaret Graham playing a spelling game with Linda Miller at the Dyslexia centre at Southampton University.*

community representatives include: 'What does the company contribute to the country? Is it a useful, responsible citizen? Does it treat us fairly in all its dealings?'

Emphasis is placed throughout Rank Xerox on upholding high standards of corporate behaviour. This is not something which can concern only management – it applies to all employees.

The group also realises the importance of studying the outside environment, noting shifts in official and public opinion and reviewing its plans and procedures in the light of changing circumstances.

There are also some ways in which the group can demonstrate its involvement



in society by making direct contributions towards solving some of the community's problems. These contributions may be in the form of time, or money – or both.

Some employees, with the help of the group, are released full-time, through the Social Service Leave Programme, or part-time, through less formal arrangements, to put their commitment, skill and experience to work for community causes.

Under the group's international charitable programme, each operating unit

and plant, as well as the International Headquarters, is responsible for making donations in its own country or area. Local management throughout the group is therefore encouraged to search out the most worthy causes, sometimes with the help of employee committees.

Besides the big, well-known causes – such as the Red Cross, the Boy Scouts, the spastics, cancer sufferers – dozen of lesser-known ones are identified and supported. Our organisation in Ireland used the whole of its allocation for the year to buy medical equipment to monitor the spinal cord as the spine is

straightened during a complex operation. The causes we support in Norway include help for alcoholics living on the street, and an orchestra made up of mentally retarded children.

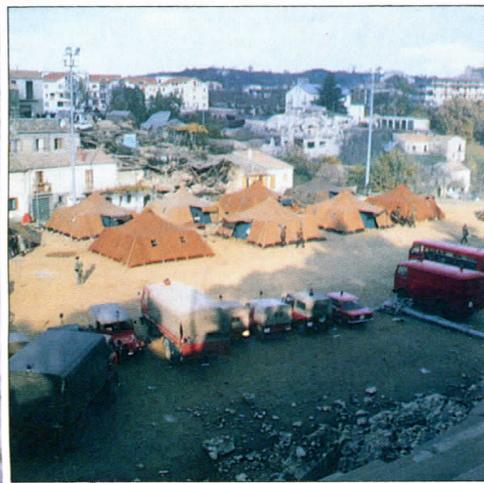
The UK company helped Project Full-employ Trust to provide office skills for deprived youths in a London borough. The help was through a Social Service Leave and a donation. In Australia we made 28 donations, including aid to an Aboriginal co-operative college.

Total charitable donations made during the year amounted to \$1.2 million.



*The 'Fondation Rank Xerox' in France — managed by employees to support community projects they are involved with — helped to restore this ancient windmill at Arthenay. Picture credit: Orange.*

*Opposite page: Rank Xerox acted swiftly to help victims of the Italian earthquake disaster, in November 1980, by organising a task force of service engineers and workshop personnel. Donations were made of over \$100,000, from London headquarters, Operating Companies, and Rank Xerox in Italy and its employees, to buy prefabricated houses, food and clothing and to contribute to national relief funds. The picture shows the wreckage at Balvano and the insets show the tragedy at S. Angelo Dei Lombardi.*



## Financial Report and Accounts

Revenues for the year to 31st October 1980 totalled \$2,828 million, up 15 per cent compared with the previous year, and profits before tax amounted to \$508 million, a decrease of 5 per cent.

These profits are after deducting our contribution to xerographic research and development and central costs of Xerox of \$103 million, against \$100 million in 1979. They include \$14 million from Fuji Xerox against \$42 million in 1979, reflecting successful trading but adverse currency effects.

Income taxes payable to governments amounted to \$215 million or 42 per cent of our profits. We are paying dividends to our shareholders, Xerox and The Rank Organisation, of \$109 million, and outside shareholders are allotted \$1 million. This has left \$183 million retained in the business for investment, growth and to finance the effects of inflation.

Our results were adversely affected by the movement of currencies during the year.

A clearer indication of our performance is attained by excluding exchange rate effects. This shows that profits before tax and before Xerox Corporation charges grew by 2 per cent over 1979.

We use the US dollar as the 'common language' between all the units around the world. However, we also publish our results in sterling and these are included in the annual report and accounts of The Rank Organisation.

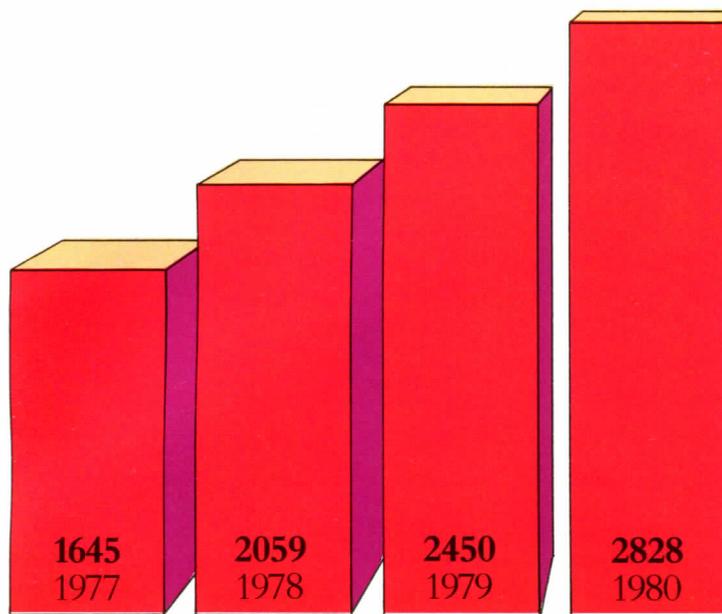
Our results in sterling were considerably different from our dollar results, because movements of the pound against major currencies during the year had different effects from those of dollar movements.

Our sterling revenues rose by 6 per cent to a record £1237 million. Profits before tax and before our contribution to Xerox costs amounted to £269 million compared to £303 million in 1979. The fall in profits was due to exchange rate effects. If these are excluded, our profits rose by 2 per cent.

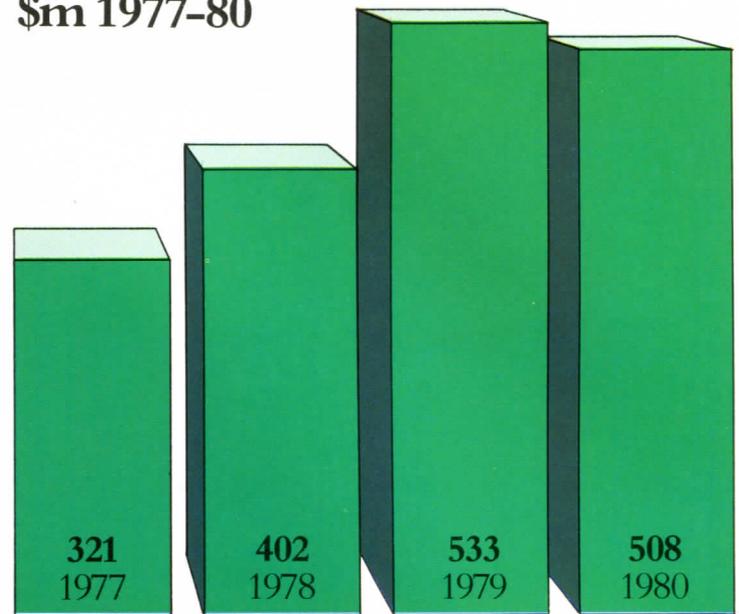
### Revenues 1980

Analysis by geographic region \$ million			
Australia	80	Nigeria	33
Austria	57	Norway	41
Belgium	77	Portugal	20
Denmark	55	South Africa	51
Eastern Europe	41	South East Asia	28
Finland	51	Spain	138
France	497	Sweden	113
West Germany	394	Switzerland	68
Italy	178	United Kingdom	657
Netherlands	118		
New Zealand	32	Others	99
<b>TOTAL</b>			<b>2,828</b>

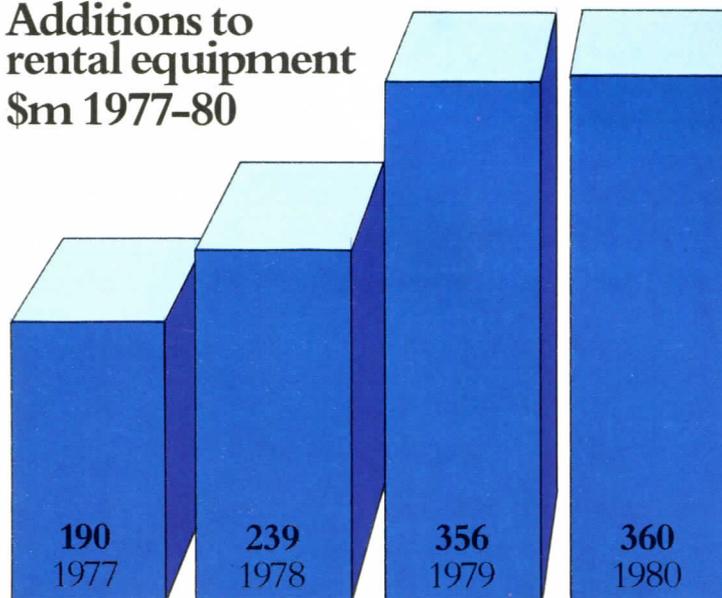
## Rank Xerox—Revenues \$m 1977-80



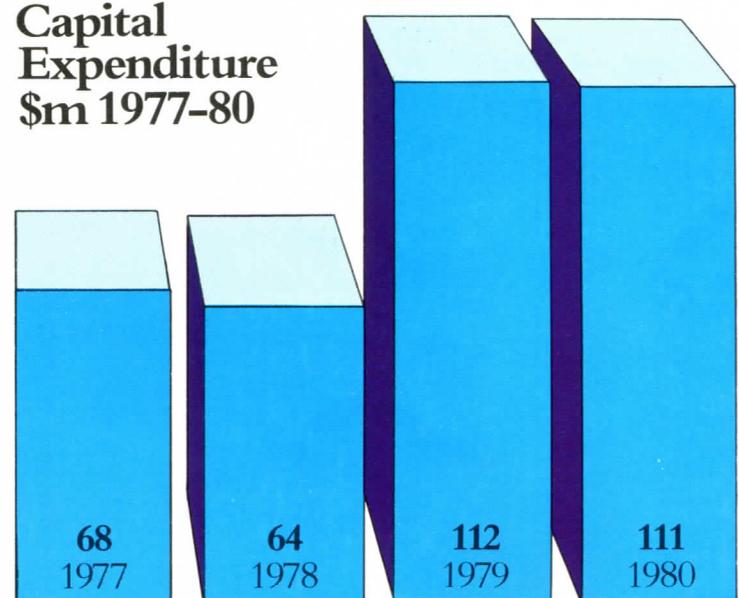
## Rank Xerox—Profits before taxes \$m 1977-80



## Rank Xerox—Investments Additions to rental equipment \$m 1977-80



## Rank Xerox—Investments Capital Expenditure \$m 1977-80



## Rank Xerox Highlights

\$ millions	1980	1979
Total operating revenues	2,828	2,450
Profits before taxes	508	533
Taxes	215	228
Profits before outside shareholders' interest	293	305
Outside shareholders' interest	1	1
Net profits	292	304
Capital expenditures	471	468
Number of employees	37,145	36,357

## Xerox Corporation Highlights

(including Rank Xerox)

\$ millions	1980	1979
Total operating revenues	8,197	6,996
Profits before taxes	1,351	1,283
Taxes	604	592
Profits before outside shareholders' interest	747	691
Outside shareholders' interest	128	128
Net profits	619	563
Capital expenditures	1,328	1,227
Number of employees	120,480	115,705

## Profit and loss account for the year ended 31 October 1980

This shows the results of the Group's trading during the year compared with 1979

<i>\$ millions</i>	1980	1979
<b>Revenues</b>	<b>2,828</b>	<b>2,450</b>
Materials and overheads	1,912	1,523
Depreciation	278	263
Interest	27	31
Share of Xerox costs	103	100
<b>Total costs</b>	<b>2,320</b>	<b>1,917</b>
<b>Profits before taxes</b>	<b>508</b>	<b>533</b>
Taxes	215	228
Profits after taxes	293	305
Dividends	109	94
Outside shareholders	1	1
<b>Net profits retained in business</b>	<b>183</b>	<b>210</b>

## Balance Sheet at 31 October 1980

This shows what assets we own, and how these are financed by shareholders' capital and retained profits and by loans.

	<i>\$ millions</i>	1980	1979
<b>WE OWN</b>			
Fixed assets:			
Land, buildings and plant		459	412
Rental equipment		743	687
Investment in Fuji Xerox		115	106
Other long term assets		80	56
Current assets		1,219	1,034
Current liabilities		987	787
Working capital		232	247
		<b>1,629</b>	<b>1,508</b>
<b>FINANCED BY</b>			
Shareholders' capital and retained earnings		1,290	1,107
Outside shareholders		15	16
Borrowings		248	311
Other long term liabilities		76	74
		<b>1,629</b>	<b>1,508</b>

## Source and application of funds

This shows how cash came into the business and how it was used

	<i>\$ millions</i>	1980	1979
<b>SOURCES OF FUNDS</b>			
Profits after taxes		293	305
Costs not requiring funds:			
Depreciation		278	263
Other		96	75
		374	338
<b>Funds provided by operations</b>		<b>667</b>	<b>643</b>
New loans received		61	33
Other sources		14	22
<b>Total</b>		<b>742</b>	<b>698</b>
<b>APPLICATION OF FUNDS</b>			
Additions to fixed assets:			
Rental equipment		360	356
Land, buildings and plant		111	112
		471	468
Reduction in long term loans		135	60
Dividends declared		110	95
Increase (Decrease) in working capital		(15)	67
Other applications		41	8
<b>Total</b>		<b>742</b>	<b>698</b>

# Value added by the Group

This explains the new value created during the year and how this was distributed leaving enough in the business for the future

\$1,162m

We paid out \$1,162m during the past year for raw materials, goods and services which we need to run our business

and our work throughout the world in research and development, manufacturing, engineering and marketing created an added value of \$1,666m during the year

so our total revenue of \$2,828m is the sum of these two figures

\$1,666m

\$2,828m

The added value of \$1,666m was shared among:

**\$853m**  
**Employees**  
Salaries, wages, social costs

**\$215m**  
**Governments**  
Taxes payable on profits

**\$27m**  
**Providers of finance**  
Bank interest etc

**\$110m**  
**Shareholders**  
Dividends

**\$461m**  
**Rank Xerox**  
Retained in the Group for the replacement of fixed assets and to help finance future growth

# Rank Xerox

## INTERNATIONAL HEADQUARTERS

Employees 1,119  
 Rank Xerox Limited  
 Rank Xerox House  
 338 Euston Road  
 London, NW1 3BH, UK  
 Telephone: London 387 1244  
 Telex: 22921

## MANUFACTURING AND ENGINEERING

**Mitcheldean**  
 Employees: 3,589  
 Rank Xerox Ltd  
 Mitcheldean  
 Gloucestershire  
 GL17 0DD, UK  
 Telephone: Drybrook 542421  
 Telex: 43132

## Lille

Employees: 681  
 Societe Industrielle Rank Xerox SA  
 59960 Neuville en Ferrain  
 France  
 Telephone: Lille 949230  
 Telex: 120178

## Venray

Employees: 2,560  
 Rank Xerox Manufacturing  
 (Nederland) BV  
 Maasheseweg 89-91  
 5804 AB Venray  
 Postbox 43, 5800 MA Venray  
 Netherlands  
 Telephone: Venray 88888  
 Telex: 58082

## Welwyn Garden City

Employees: 2,326  
 Rank Xerox Ltd  
 PO Box 17, Bessemer Road  
 Welwyn Garden City  
 Herts, AL7 1HE, UK  
 Telephone: Welwyn Garden City 23434  
 Telex: 22174

## Coslada

Employees: 77  
 Rank Xerox Espanola SA  
 Fabricacion Avenida de Fuenteniar  
 No 20  
 Pologono, Industrial de Coslada  
 Coslada, Madrid, Spain  
 Telephone: Coslada 6715700  
 Telex: 23632

## MARKETING OPERATIONS

**Angola**  
 Rank Xerox (Overseas) Ltd  
 Edificio Presidente  
 Luanda

## Australia

Revenues: \$80m  
 Employees: 946  
 Rank Xerox (Australia) Pty Ltd  
 PO Box 934  
 North Sydney, NSW 2060  
 Australia  
 Telephone: Sydney 922 5055  
 Telex: 21200

## Austria

Revenues: \$57m  
 Employees: 614  
 Rank Xerox Austria GmbH  
 Nussdorfer Laende 29-31  
 1190 Vienna  
 Telephone: Vienna 23 73511  
 Telex: 76713

## Belgium

Revenues: \$77m  
 Employees: 689  
 NV Rank Xerox SA  
 555 Leuvensesteenweg  
 1930 Zaventem, Brussels  
 Telephone: Brussels 720 4990  
 Telex: 23200

## Denmark

Revenues: \$55m  
 Employees: 573  
 Rank Xerox A/S  
 Borupvang 5  
 DK 2750 Ballerup, Copenhagen  
 Telephone: Copenhagen 654444  
 Telex: 35139

## Eastern Export Operations

Revenues: \$41m  
 Employees: 154  
 Rank Xerox Ltd  
 Eastern Export Operations  
 Westbourne House  
 14-18 Westbourne Grove  
 London W2 5RH  
 Telephone: London 229 3477  
 Telex: 28466

## Egypt

Revenues: \$5m  
 Employees: 25  
 Xerox Egypt SAE  
 9 Hod El Labon  
 Garden City, Cairo  
 Telephone: Cairo 23095

## Finland

Revenues: \$51m  
 Employees: 596  
 Rank Xerox Oy  
 PO Box 55  
 SF-02631 Espoo 63  
 Telephone: Helsinki 52511  
 Telex: 121372

## France

Revenues: \$445m  
 Employees: 4,152  
 Rank Xerox SA  
 5 rue Bellini  
 92806 Puteaux  
 Telephone: Paris 776 4140  
 Telex: 620145

## Germany

Revenues: \$394m  
 Employees: 3,911  
 Rank Xerox GmbH  
 4000 Dusseldorf-Lorick  
 Emmanuel-Leutze Str 20  
 Telephone: Dusseldorf 59931  
 Telex: 8584785

## Greece

Revenues: \$14m  
 Employees: 200  
 Rank Xerox Greece SA  
 154 Syngrou Avenue  
 Athens 404  
 Telephone: Athens 923 2051  
 Telex: 216987

## Hong Kong

Revenues: \$11m  
 Employees: 187  
 Rank Xerox (Overseas) Ltd  
 PO Box 489  
 Hong Kong  
 Telephone: Hong Kong 719341  
 Telex: 74547

## Republic of Ireland

Revenues: \$16m  
 Employees: 208  
 Rank Xerox (Ireland) Ltd  
 Dublin Industrial Estate  
 Glasnevin, Dublin 11  
 Telephone: Dublin 301833  
 Telex: 31126





**Italy**

Revenues: \$178m  
Employees: 2,074

Rank Xerox SpA  
Via Andrea Costa 17  
20130 Milan  
Telephone: Milan 2883  
Telex: 310597

**Japan (Affiliate Company)**

Revenues: \$691m  
Employees: 8,459

Fuji Xerox Co Ltd  
3-5 Akasaka 3-chome  
Minato-Ku  
Tokyo 107  
Telephone: Tokyo 585 3211  
Telex: 24988

**Kenya**

Revenues: \$8m  
Employees: 150

Rank Xerox Kenya Ltd  
PO Box 20410  
Electricity House  
Harambee Avenue  
Nairobi  
Telephone: Nairobi 24377  
Telex: 22021

**Malaysia**

Revenues: \$7m  
Employees: 86

Rank Xerox Ltd  
135 Jalan Tuanku  
Abdul Rahman, Kuala Lumpur

**Mozambique**

Rank Xerox (Overseas) Ltd  
1020 Ave 25 de Septiembre, Maputo

**Namibia**

Rank Xerox (Pty) Ltd  
French Bank Centre  
Kaiser Street, Windhoek  
Telephone: Windhoek 26254  
Telex: 56417

**The Netherlands**

Revenues: \$113m  
Employees: 922  
Rank Xerox (Nederland) BV  
Maassluisstraat 2  
1062 GD - Amsterdam  
Telephone: Amsterdam 172966  
Telex: 14625

**New Zealand**

Revenues: \$32m  
Employees: 387

Rank Xerox (NZ) Ltd  
PO Box 5948  
Wellesley Street  
Auckland  
New Zealand  
Telephone: Auckland 54 1949  
Telex: 2706

**Nigeria**

Revenues: \$33m  
Employees: 370  
Rank Xerox (Nigeria) Ltd  
PMB 21314  
Ikeja, Lagos  
Telephone: Lagos 963098

**Norway**

Revenues: \$41m  
Employees: 430  
Rank Xerox A/S  
Postboks 7180  
Homansbyen  
Oslo 3  
Telephone: Oslo 114050  
Telex: 16809

**Portugal**

Revenues: \$20m  
Employees: 265  
Rank Xerox (Overseas) Ltd  
Avenue Antonio  
Augusto De Aguiar 106  
Lisbon 1  
Telephone: Lisbon 577110  
Telex: 13694

**Singapore**

Revenues: \$10m  
Employees: 168  
Rank Xerox (Overseas) Ltd  
1st Floor IAC Building  
680 Upper Thomson Road  
Singapore 26  
Telephone: Singapore 4542211  
Telex: 21039

**South Africa**

Revenues: \$51m  
Employees: 816  
Rank Xerox (Pty) Ltd  
PO Box 31262  
Braamfontein 2017  
Johannesburg  
Telephone: Johannesburg 725 2560  
Telex: 422092

**Spain**

Revenues: \$138m  
Employees: 1,407  
Rank Xerox Espanola SA  
Josefa Valcarcel 26  
Madrid 27  
Telephone: Madrid 742  
4111/5111/6111  
Telex: 22738

**Sweden**

Revenues: \$113m  
Employees: 1,098  
Rank Xerox AB  
S-171 77 Solna  
Telephone: Stockholm 734 1000

**Switzerland**

Revenues: \$68m  
Employees: 574  
Rank Xerox AG  
Thurgauerstrasse 40  
8050 Zurich  
Switzerland  
Telephone: Zurich 3051212  
Telex: 54272

**United Kingdom**

Revenues: \$594m  
Employees: 5,222  
Rank Xerox (UK) Ltd  
Bridge House  
Oxford Road  
Uxbridge  
Middlesex  
Telephone: Uxbridge 51133  
Telex: 935744

This is not an exhaustive listing of Rank Xerox marketing outlets.

**International Headquarters**  
**Rank Xerox Limited**  
**Rank Xerox House**  
**338 Euston Road**  
**London NW1 3BH**  
**England**

**Telephone 01-387 1244**

Prepared by Corporate Affairs Division, Rank Xerox Limited  
Major photography by Tony Page  
Designed by Guyatt/Jenkins Limited, London  
Printed in England by Cripplegate Printing Co Limited  
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