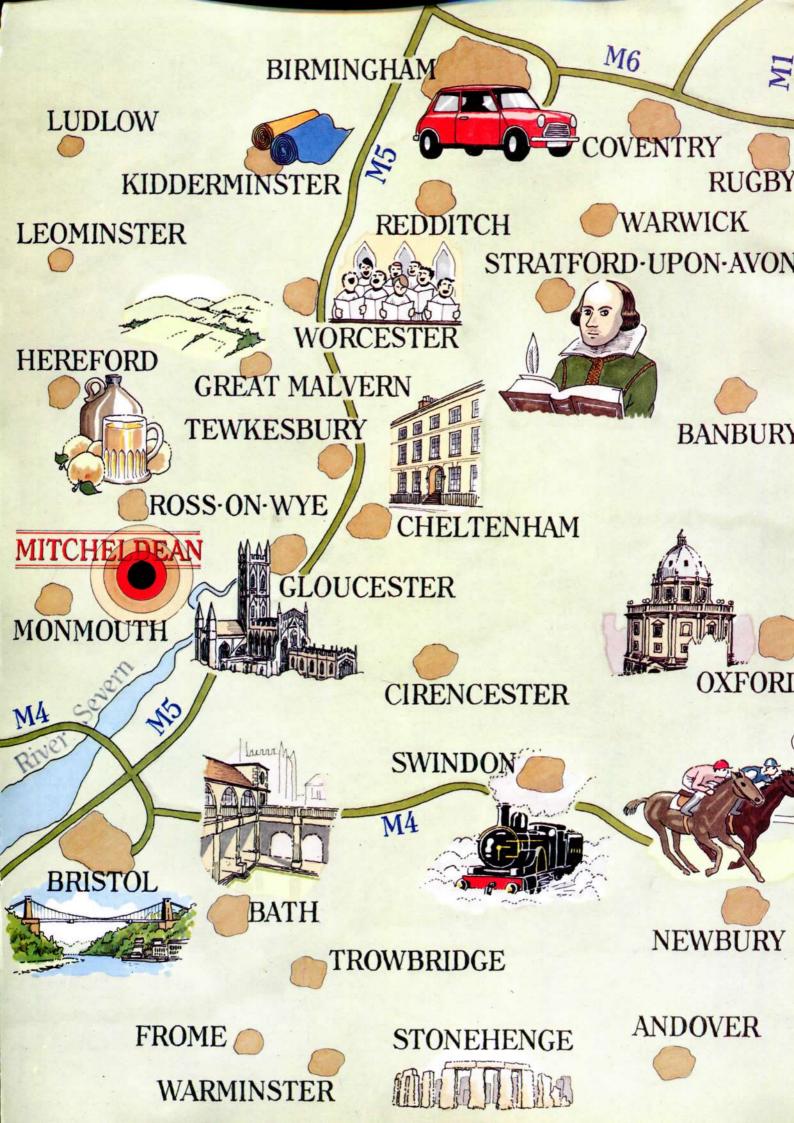
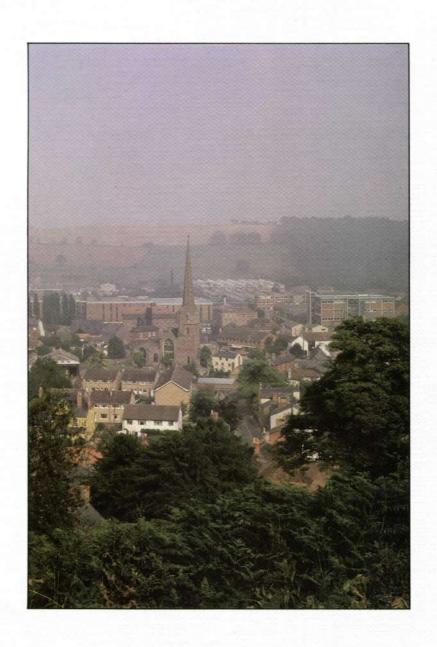


# RANK XEROX MITCHELDEAN





RANK XEROX
MITCHELDEAN

### A NATURAL LOCATION

It itcheldean lies in the heart of the Forest of Dean—an area renowned for its outstanding history of innovation and industry.

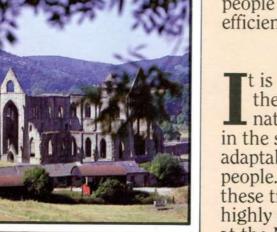
Here, the Celts and Romans mined iron, copper and silver, making it one of the oldest

Here, the Celts and Romans mined iron, copper and silver, making it one of the oldest industrial sites in Europe. Those mines gave birth to industries for processing the metals extracted

from the ground. Later generations continued this tradition by pioneering some of the earliest coal-pits, and developing techniques to make mining and metal-working more cost-effective and less dangerous. The ancient people built stone roads to transport products to their markets, and 2,000 years later, their descendants built one of Europe's first railways for the same purpose. This is where sophisticated electronic hardware for processing information is built and where communications are handled by automated electronic equipment capable of linking office to office—whether in the next building or halfway across the world.

ow the skill and ingenuity of the workforce is dedicated to solving the problems of today and

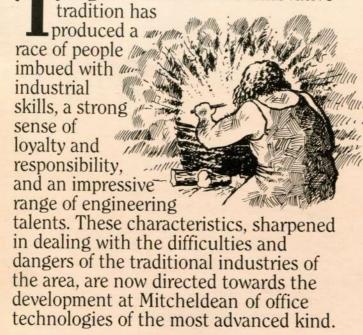
tomorrow to create a working environment which is better for people and more efficient for industry.



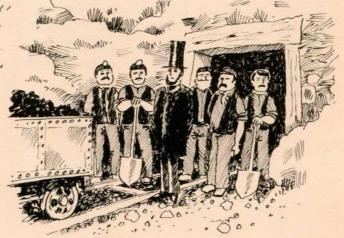
It is true to say that the wealth of a nation resides in the skill and adaptability of its people. Nowhere are these traits more highly developed than at the Mitcheldean

complex—one of the most modern and productive manufacturing plants in Europe, and a natural location for the birth and development of ideas and products.

After all, the Forest of Dean has had a few thousand years' practice!



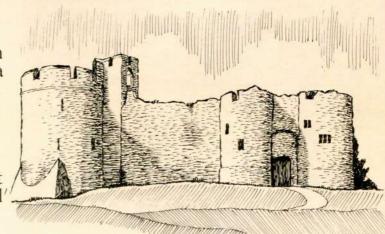
his great industrial and innovative



### A UNIQUE BALANCE

If you think that an area as steeped in industrial history as the Forest of Dean shows the scars of such a past—you're in for a big surprise! The Forest is situated on a high plateau, riven by deep valleys, and bounded by the river Severn to the east and south, and by the Wye Valley gorge to the

west. It is,
without doubt,
one of the most
beautiful
parts of
Britain,



and is a National Forest Park, on the edge of a designated Area of Outstanding Natural Beauty.

he Forest of Dean has always been— and still is—a timber-producing area, with both conifers and broad-leaved trees. It supplied wood for the ships of Drake, Raleigh and the British navy for many hundreds of years. Drake's house and the inn where Raleigh's daughter celebrated her wedding are still there on the banks of the river Severn.

his is a Royal Forest. It was an important hunting area for the Norman kings and their successors. Traces of this ancestry still remain in certain rights and customs unique to the area—the Commoners' Association, the mining rights of the Freeminers and the Verderers' Court. This latter, an ancient Court Leet, is held at the Speech House which dates back to 1676 or even earlier. Now used as an hotel, it offers guests, among other attractions, an opportunity to sleep in a genuine four-poster bed.

Such ancient connections make this area rich in history. This richness is heightened by its location on the English/Welsh borders with a vast wealth of forts and castles marking the age-old rivalry between the two nations. There are also important Celtic, Roman, Saxon and Medieval sites of immense interest nearby.

The terrain and the trees support a wide variety of wild-life, and the Forest has much to offer those interested in

natural history, botany, bird-watching, geology and archaeology.

he area retains a unique balance of natural beauty and first-class industrial facilities, of high technology and traditional skills and crafts. From an office window in Mitcheldean, you can look out over trees and hills, perhaps finding it difficult to appreciate that you are in the midst of a highly efficient, modern industrial complex.

#### AN IDEAL COMBINATION

In such an apparently rural area, it is easy to overlook the fact that many major centres lie only a short distance from Mitcheldean.

Within easy reach are Birmingham (Britain's second city), Cardiff (the capital of Wales), the Port of Bristol and the ancient university city of Oxford. All offer excellent facilities for entertainment, shopping, cultural and sporting activities.

earby are the historic cathedral cities of Gloucester, Worcester and Hereford, each hosting in turn the world-renowned annual Three Choirs Festival. Other major music

and arts festivals are held every year at Cheltenham, Bath and Bristol, supported



by many smaller professional and amateur groups offering musical and theatrical entertainment of every kind.

Conveniently close, too, is Shakespeare's Stratford-upon-Avon with its international theatre and immaculately-preserved Elizabethan buildings.

f sport is your interest, you'll find everything you need—both for spectators and participants, professionals

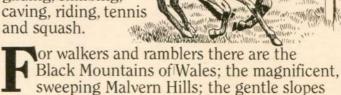
and amateurs.

For golfers there is an international standard 18-hole course where the 'Dunlop Masters' and 'British Open' tournaments are held. If your game is less ambitious, you will also find other, and easier, courses, close at hand.

Rancy a flutter on the horses? Nearby Cheltenham and Chepstow both offer excellent courses with several major meetings on the

calendars—including the internationallyrenowned 'Gold Cup' at Cheltenham.

Nor need you travel far to discover excellent facilities for water sports of all kinds, as well as gliding, climbing, caving, riding, tennis and squash



of the Cotswolds; and, of course, the leafy byways of the Forest of Dean itself.

Every village has its own cricket and rugby or soccer teams; or you can watch first-class professional games at any one of a number of nearby locations.

herever you are, accommodation need not be a problem—whether it be hotel, guest house or apartment. Choose the

rural tranquillity of a quiet, family-run inn, the Regency splendour of a Cheltenham hotel, country cottage or elegant town house. Whatever your taste, however long your stay, you are sure to find just what you need.

When it comes to eating out, you will be spoiled for choice. From the simple to the sophisticated, the range extends from the traditional English inn, through friendly bistros and wine bars to smart cocktail bars and restaurants.

Tor the businessman with a family, Mitcheldean and the surrounding area offer a unique environment. On the one hand, a high-technology, efficient plant in which to work; on the other, clean, healthy, safe and tranquil surroundings in which to bring up children.

Educational needs are also well catered for.

There are good schools in both the private and public sectors and a range of colleges and universities offering excellent opportunities for education and research.



### OUR NEIGHBOURS

itcheldean is situated in the middle of a high technology belt running from the Thames Valley in the east to South Wales and Bristol in the west.

Companies both large and small already in this belt include international organisations such as Inmos. Rolls Rovce. Dowty, Racal, Hewlett-Packard, Marconi-Elliott, ICI, Smiths Industries, Mitel Telecommunications. as well as many smaller, less wellknown names. These companies are at the forefront of technology, and Rank Xerox at Mitcheldean is very much part of this scene.

As a natural consequence of this trend, a comprehensive base of suppliers has

developed, covering our production and non-production requirements. Their proximity keeps lead times—and thus inventory levels—to a minimum.

In addition, Rank Xerox—as part of its Community Support Programme—is actively encouraging small enterprises. By working with the Forest of Dean District Council and the Gloucestershire County Council on job creation programmes, the company is helping people wanting to start their own businesses.

This community support activity, and the social conscience for which Rank Xerox is renowned, is further evidenced through the secondment of employees to the Gloucestershire

Enterprise Agency, a body set up to provide a business advisory service for small firms.





ndoubtedly the most outstanding activity, however, is the development which has taken place right on the Mitcheldean site—the conversion of the old Forest Brewery buildings into "managed workshops" to let to newly-formed small concerns. A separate company— Mitcheldean Enterprise Workshops Ltd (MEWS)—was created by Rank Xerox specifically to manage this undertaking.

With such a scheme everyone benefits—including, of course, the company itself. For many of the small firms are suppliers of essential services to Rank Xerox and the other firms operating on the site. These services include mechanical and electrical maintenance, plumbing, painting and decorating, gardening, office support and so on. Along with the firms already in existence, these new enterprises offer to Rank Xerox a flexible, high quality service—right on its doorstep.

### SUCCESS IN SITE

he history of the Mitcheldean site is one of success.

It begins with the old "Forest Brewery", built on the Mitcheldean site in the 19th century. Acquired by British

Acoustic Films during the Second World War, the now vacated site became home to a very successful company making optical and photographic equipment for the British forces.

fter the war, BAF became part of The Rank Organisation and, as Rank Precision Industries, grew to become one of the leading producers of cameras in Europe. However, with photographic markets increasingly threatened by imports from the Far East, RPI management began looking for a fresh highvolume product to make. It emerged in the form of a new copier developed by the Haloid Corporation, a company which had recently been acquired by Xerox Corporation. Thus Rank Xerox was formed-a

joint venture between the Rank Organisation and the Xerox Corporation.

he new copiers were particularly suited to Mitcheldean's engineering skills and highly trained workforce. This, coupled with The Rank Organisation's expertise in international marketing and deep understanding of American business methods, made the new copiers successful beyond the wildest dreams of its inventors.

Such was the product demand that factories soon had to be established in other parts of

the world. For these, significant support was provided by the engineers at Mitcheldean.

espite this overwhelming product success, Mitcheldean management did not become complacent.

Manufacturing efficiency was constantly improved with special attention devoted to both product and business quality. Indeed, Mitcheldean's Quality Improvement Programme (QIP) is acknowledged in the UK for its innovation in the drive to raise quality standards against increasing international competition.

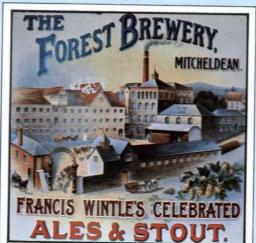
The site has also won numerous awards for export achievement and for its excellent safety record.

o further advance its efficiency, Mitcheldean Plant has also taken advantage of the latest technology. Much of its production capacity is automated, material control systems are computerised and powerful management

information and communication systems have been installed.

f significance is a collaboration agreement entered into with a leading manufacturer of robotic systems in order to maximise benefits from the application of the latest automation and manufacturing technology.

And so to today, where—on the site of that long-gone brewery—there now stands a modern, thrusting, efficient and cost-effective manufacturing plant.





#### A PERFECT BLEND

he Mitcheldean Plant nestles in a fold of tree-covered hills in the Forest of Dean in Gloucestershire. Bounded by these hills on three sides, and by the ancient village of Mitcheldean on the fourth, it is an extremely attractive location in which to work

Forest Brewery, the Plant expanded during the 'sixties and 'seventies to over 67 acres with 1.5 million square feet of covered area. Accommodation to suit every requirement was constructed, with fully serviced buildings laid out against an attractively landscaped background.

The manufacturing facilities are extensive and meet all types of production demands including high-volume automated assembly, parts and prototype manufacture, and product refurbishing.

he latest technology
has been employed to cut overheads
and make the plant cost-competitive.
To this end, there is a heavy concentration
on product quality, as evidenced by
Mitcheldean's Quality Improvement
Programme, which has set new expectations
of product performance in the market-place.
Each machine leaving the factory gate is
targeted for installation without need for any
adjustment.

Strong emphasis is also placed on meeting, and beating, production schedules—a commitment which embraces the whole site

and reflects a determination to achieve all business goals.

This encompasses incoming raw material through to the timely distribution of product and spare parts from the International

Supply Centre to customers all over the world.

ffices have the benefit of the latest in communications technology, including an Ethernet network, and all the amenities you would expect from a sophisticated

company specialising in the manufacture of office equipment.

There are excellent conference facilities, for large or small groups, with a full range of audio-visual aids, while an attractive 12,000 sq. ft. exhibition complex affords further opportunities for conferences, receptions and general entertainment. There is also ample parking space available.

Designed in the modern idiom, the new Court Restaurant and Hospitality

Suite offer pleasant and relaxing surroundings in which to enjoy good food. Relaxation can also be found in the Sports and Social Club where there are bars, games rooms and a function room. All personnel at the Plant and their guests are made welcome here.



In all, the Mitcheldean Plant has every facility needed for the manufacture and assembly of a wide range of products. It is a natural location for the development of ideas, and the successful translation of those ideas into production.

# MITCHELDEAN'S SMALL COPIER ASSEMBLY FACILITY



The small copier assembly area at Mitcheldean provides a flexible, cost-effective facility for the production of a range of desk-top models, in volume ranging up to 1000 units per day, dependent on size.

High volume assembly techniques make use of automated systems which receive, store and distribute material to the production lines, providing operators with parts at the right time and place, and carrying their finished work forward. This enables them to produce the goods quickly, efficiently and with minimum effort in an uncluttered environment.

The automated materials handling system is able to deal with up to 18 freight containers per day. Removed from their pallets, the components are conveyed into the control room where the central computer is fed with details of each batch and issues identifying bar code labels.

The components are then transferred to special totes designed to display their bar codes, and unwanted packaging is powered away out of the building while the items progress into the semi-automatic high density stores.

From this warehouse, distribution conveyors feed individual workstations on the line with the required components at the right time, photo-electric cells guiding the totes on to their correct "address" by reading the bar codes. These and other scanners on the shop floor keep the computer informed of the whereabouts of each tote so it can keep control of stock and issue the necessary instructions.

It is the operator, however, who controls the time the deliveries are made by returning each empty tote on a separate conveyor. On arrival in the warehouse, the empty tote triggers a crane to issue a replacement tote. Once again a photo-electric cell reads the bar code and the crane goes automatically to the right stores location at the press of a button. The crane operator, who is briefed via a display unit in the cab, checks with the computer that the operation is correctly carried out by reading the bar code with a light pen.

But the real story of the small copier facility is the total commitment to Plant quality.

Quality is designed and built into the product, and assembly operators are responsible for the quality of their own work, and for satisfying their "customer"—the next workstation. Individual workstations are designed to allow people to work without the pressure of a totally-paced production line, enabling them to concentrate fully upon maintaining product quality.

Output schedules are achieved consistently with operators working as teams producing a set of copiers in a specified time. On the rare occasions when production schedules conflict with product quality, the latter always gets priority and any shortfall in output is recovered over the remainder of the working day.

Although it is the responsibility of the assembly operators to maintain product quality, they are backed by a small team of inspectors, and a quality monitoring system that provides regular feedback on performance.

The facilities are continually updated as technology progresses and a number of materials handling and assembly robots have been introduced with further applications under development.

Considerable investment in automated high volume production techniques, a strong commitment to quality in every aspect of the business with strict adherence to output schedules—this is the formula which has made possible the delivery of small copiers without defects, on time and at the right price.

### QUALITY - A WAY OF LIFE



## When customers unpack a product made at Mitcheldean, they can be confident that it will work perfectly first time.

This assured product performance is due largely to the remarkable success of QIP—the Quality Improvement Programme—at Mitcheldean, which ensures that quality is designed and built into all equipment leaving the Plant.

Now firmly established after several years of operation. QIP has secured the total commitment of the entire workforce to the quality drive. This commitment starts right at the top with senior management, who demonstrate their dedication to quality not only be setting objectives and targets, but also by their own attitudes and active participation. From here, the commitment is developed throughout the whole organisation, with publicity and training programmes helping to ensure that everyone at every level is encouraged to "Think Quality".

At Mitcheldean, quality begins with product design—a process which has been totally geared towards ensuring that parts and assemblies are so made that it is almost impossible to assemble the product incorrectly.

Since the quality of the Mitcheldean product also depends on the quality of bought-in parts, the design process involves suppliers at the earliest possible stage, and a Supplier Quality Assurance team works with them to make sure that their manufacturing processes can deliver parts of the right quality at the right time.

Parts are "certified" by our engineers only when a supplier has demonstrated that he can achieve and maintain the required standard, and that his products can thus be delivered direct to the production stores or assembly lines.

During the production process itself, key monitoring points sample the quality and if any defects indicating deterioration are found, that part of the process is shut down and corrective action is taken immediately. The structure of the Quality Improvement Programme is such that problems never remain hidden or unresolved.

The commitment to *build in* quality rather than *inspect it in* also results in significant economies. The costs of inspection, scrap and putting things right are considerably reduced, thus enabling the Plant to become even more cost-competitive.

On the basis that a quality business will deliver a quality product, QIP embraces not just design and production, but every area of activity in the Plant.

All support departments—for example, purchasing, engineering, finance, personnel, stores—are involved, and their output (in the shape of orders, invoices, tools, parts and so on) is measured and reported at regular Business Quality Review Meetings.

Employees are urged to make an individual contribution by putting forward ideas and paying greater attention to detail since every person's work affects that of someone else.

The Quality Improvement
Programme is an on-going process, and the
results speak for themselves! The
independent Divisional Quality Audit Group
has recorded an immense improvement in
the quality of Mitcheldean-produced
machines over the past few years, our costcompetitiveness has increased significantly,
and we are consistently producing products
totally free of functional and cosmetic
defects.

This pursuit of excellence is not only making Mitcheldean a highly motivated and efficient Plant; it is also reducing the number of customer service calls needed, and improving revenue because of increased customer confidence in the performance of our products.

Quality is now a way of life at Mitcheldean—an integral part of the culture of the Plant and evident in every activity.

 $\label{eq:continuous} \mbox{In a nutshell-} \mbox{\it Mitcheldean Means} \\ \mbox{\it Quality.}$ 

# MITCHELDEAN'S SHOWROOM - HELPING SALES ON SITE



### If there were an award for excellence in such things, the Mitcheldean Showroom would surely merit one.

Graded a Rank Xerox "level one" Showroom, it covers over 12,000 square feet at the centre of the site, with plenty of car parking space right outside the door.

Inside, the Showroom is designed as a series of spacious display areas leading into one another, each dedicated to particular Rank Xerox products. The 10 Series makes a strong initial impact, after which come two 9500s with stacker and sorter, the 930 business forms printer, the 2700 and 9700 laser printers.

Right in the heart of things is the central communications area with electronic typewriter, word/information processor, workstation and microcomputer models, facsimile machines and file and print servers.

Engineering information systems are also featured in the form of the 7080 high-speed printer with auto-folding, sorting and date-stamping features, and the 2080, a design draughting tool with camera and printer.

Even with this extensive range of equipment on display there remains plenty of room for visitors, from individuals to large groups. Everyone is able to see our products with ease and comfort.

However, the Showroom is much more than a static exhibition centre. It has full facilities for demonstrating every product on display, including the Ethernet 8000 range with items interlinked to provide a communications network.

Everything in the Showroom has been carefully planned to smooth the path to profitable sales. In addition to the display and demonstration facilities already mentioned, there is a 75-seat projection area for video, film and slide presentations and a well-equipped conference room for up to 20 people. This is supplemented in the actual exhibition centre by further conference areas, ideal for on-the-spot negotiations in comfortable surroundings.

The "inner man" has not been forgotten either—there is a dining-room serving excellent buffet meals and drinks. Small coffee areas are dotted around the Showroom where visitors can relax on super-soft seating.

For more formal occasions, there's the nearby executive Hospitality Suite which offers the very best facilities for entertaining VIPs, while the recently opened Court Restaurant provides fast and substantial self-service meals—with music and a super view—for those in a hurry.

There is one factor above all, however, that gives the Mitcheldean Showroom its particular individuality and that is its unique position in the centre of a manufacturing plant.

Visitors to Mitcheldean can be convinced of the benefits of our extensive product range, not only by seeing the equipment demonstrated in ideal surroundings, but also by seeing Rank Xerox products actually being built.

Here the skills and technology, the commitment to quality and total concern for product excellence will add a vital dimension to any sale contract negotiation.

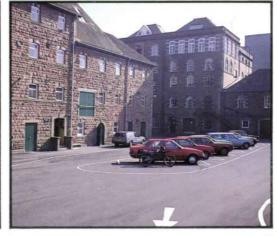
With Mitcheldean ideally placed in the UK Company's central region, at the hub of the three main branches in Bristol, Cardiff and Birmingham, its Showroom provides an unrivalled facility for customer visits, press receptions, local and regional sales meetings and new product launches.

Simply contact Dean (0594) 542421, ext. 147, and we'll be happy to make all the arrangements for you.

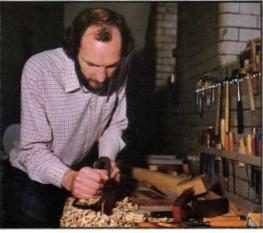
### MITCHELDEAN ENTERPRISE WORKSHOPS — A HELPING HAND FOR SMALL FIRMS



Mitcheldean Enterprise Workshops Limited The MEWS, Brook Street, Mitcheldean, Gloucestershire GL17 OSL Tel: 0594 542421 Direct Line: 0594 543598 Teles: 43132







Helping small firms to get started, and so creating job opportunities in an area that badly needs them, is the idea behind an imaginative project initiated by Rank Xerox at Mitcheldean.

As part of its Community Support Programme in the Forest of Dean, the Company has founded Mitcheldean Enterprise Workshops Ltd (MEWS). Its aims are simple: to encourage anyone with a promising business idea to start their own firm by removing most of the obstacles that might discourage them.

This is achieved in two ways. Firstly, by making available—at reasonable charges—a wide range of accommodation ideally suited to the needs of small enterprises. Secondly, by providing the kind of services which all small businesses require, but which are frequently too expensive for them to secure for themselves.

In addition to these services, advice and help are readily available from outside bodies such as the Gloucestershire Enterprise Agency, which has its own office in the MEWS area.

Rank Xerox has set aside four buildings for the project in a landscaped setting on the edge of the main site, but very much in the centre of the Mitcheldean village.

To cater for the widest possible range of small businesses, three buildings have been converted into around 80 units ranging in size from 250 to 3,500 square feet, giving tenants the opportunity to expand within the capacity of the site. These units offer accommodation suitable for manufacturing and service operations, offices and studios.

Already established in the MEWS complex are firms whose activities range from microtechnology to traditional crafts, from installation services to business consultancy. Some of these firms were founded by former Rank Xerox employees and provide valuable services both to Rank Xerox and to other local companies; others are moving in to take advantage of the facilities available.

These include a new multi-discipline training facility, incorporating the Rank Xerox apprentice training school and a new Information Technology Centre (ITeC) supported by the Manpower Services Commission. This offers training for Rank Xerox apprentices, school-leavers and the community in general, and can serve as a link between the workshop tenants and their potential employees, enabling the latter to acquire on-the-spot training in, for example, soldering or keyboard skills.

The MEWS units are being let at a single standing charge, payable monthly, which covers rent and a wide selection of essential services, and is based on the square footage of the unit occupied.

The tenancy terms, too, have been carefully designed to help small firms. They operate on an "easy in/easy out" basis: all the prospective tenants have to do is pay a month's standard charge deposit, a month's standard charge in advance, sign the tenancy agreement, and move in. There are no long leases to tie them down, no complex legal technicalities. Everything is as simple and straightforward as possible, and "it costs nothing to come and talk to us", point out the MEWS management.

The project is very much a community scheme. While Rank Xerox has provided the majority of funds and resources, it is very strongly supported by all the local authorities in the area, the various agencies committed to increasing employment, the trades unions and management within Rank Xerox Mitcheldean Plant and, in fact, just about everybody in the local community.

