

BRIDGE - IT

Bridging the IT skills gap

A Survey funded by the

Oxfordshire Learning Partnership

undertaken by

**The Oxfordshire Information Technology
Enterprise Network**

November 2002

Summary

The Bridge-IT project began in August 2001. A number of meetings were held with interested parties; Education Business Partnerships, Colleges and Universities to ascertain what information and outcomes they would like to see from the project.

Following a meeting with the Manager of the OLP the following 5 outcomes were identified:

1. Establish a programme of school visits by end December 2001 covering secondary schools in Oxfordshire identified by the Education Business Partnerships, ensuring that every school is visited over a repeating 2 year cycle.
2. Identify at least 25 IT employers throughout Oxfordshire by end December 2001 willing to offer work experience placements during Key Stage 4
3. Increase by 15 and complete training of email mentors by March 2002.
4. Assist at least 5 people from traditionally disadvantaged/refugee groups to find employment within the IT sector by March 2002
5. Identify training courses appropriate to the outcome of the September survey to bridge the IT skills gap, by March 2002

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1. Introduction

There is a shortage of IT and software skills in England, and this situation is predicted to continue. The Bridge-IT project was developed to help rectify this situation in Oxfordshire.

Oxfordshire has numerous SME's in the IT industry, many of whom are already struggling to find appropriate staff. Appropriate training/experience is one problem, the other being the high cost of living in Oxfordshire. By training and developing local people it is hoped to break this cycle.

The original intention was to develop a career and training pathway from Year 9 through to adulthood and employment in the sector, while up-skilling the IT workforce in Oxfordshire. However, it was realised that this was a large project, and would be best tackled in stages.

In the summer of 2001 The Oxfordshire Learning Partnership offered funding to help start the project.

2. Outcomes

Following meetings with the Manager of the Oxfordshire Learning Partnerships, and the Senior Manager of the Education Business Partnership, the following outcomes were agreed.

1. Establish a programme of school visits by end December 2001 covering secondary schools in Oxfordshire identified by the Education Business Partnerships, ensuring that every school is visited over a repeating 2 year cycle.
2. Identify at least 25 IT employers throughout Oxfordshire by end December 2001 willing to offer work experience placements during Key Stage 4
3. Increase by 15 and complete training of email mentors by March 2002.
4. Assist at least 5 people from traditionally disadvantaged/refugee groups to find employment within the IT sector by March 2002
5. Identify training courses appropriate to the outcome of the September survey to bridge the IT skills gap, by March 2002

3. Gathering Information

A comprehensive questionnaire was developed, in conjunction with the Education Business Partnerships in Oxfordshire, the University of Oxford, Oxford Brookes University, and Oxford College, to gather information about the activities and skills needs of IT and software companies in Oxfordshire. As this was being devised it was recognised that the questionnaire was appropriate to other companies in Oxfordshire, who would use the products and skills that the IT and software companies produced.

It was, therefore, decided to include all Oxfordshire companies in the questionnaire. The knowledge of the products and services used by companies in Oxfordshire would enable IT and software companies to target their products and services.

The questionnaire was adapted to reflect this and be appropriate to all companies in Oxfordshire. A copy of the questionnaire is attached as Appendix 1.

The project and questionnaire were publicised through the local press and radio, and a number of business organisations.

Over 4,000 hard copies were circulated to businesses in Oxfordshire employing between 10 and 100 employees, with the assistance of Oxfordshire County Council. An on-line version was posted to the OxIT web site, and email reminders to complete the questionnaire were sent to the OxIT mailing list.

4. Response

A total of 84 completed questionnaires were received over a period of 6 weeks. Appendix 2 shows the numerical results to each question.

4.1 Company Information

Two returns were completed anonymously, but have been included in the summaries.

13% of the responses are from businesses or organisations whose product or service is IT related. Only one organisation did not use IT, though with 50 staff this could have been an error!

The main line of business of those responding was vast, ranging from race horse trainers, museums, blood transfusion service and an opera festival.

These have been analysed into broad categories, see chart 1, below.

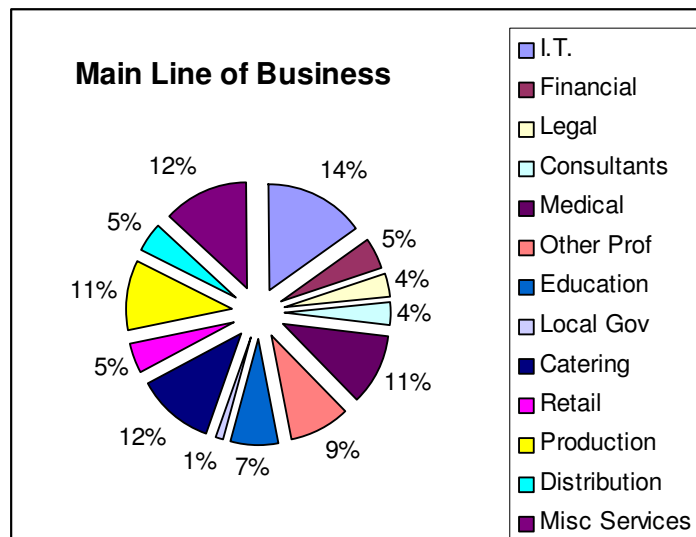


Chart 1

I.T. is the largest single sector (13 companies), followed by catering (10 companies).

Other professional includes veterinary surgeries, architects, and charitable advisory services.

A number of primary schools, as well as several secondary schools and a university represent education.

The miscellaneous response comes from varied sources, such as carpet restorers, garages, quarry masters, charities, a rowing club, and boat builder.

The total number of employees covered by the responses is 10,480.

4.2. Products and Services

This is a two-part question, looking at whether the company or organisation provides the product or service, or whether the company uses the product or service. These have been recorded separately for analysis.

4.2.1 Providers

Hardware

Of the 13 companies in the I.T. sector, only 4 dealt in hardware.

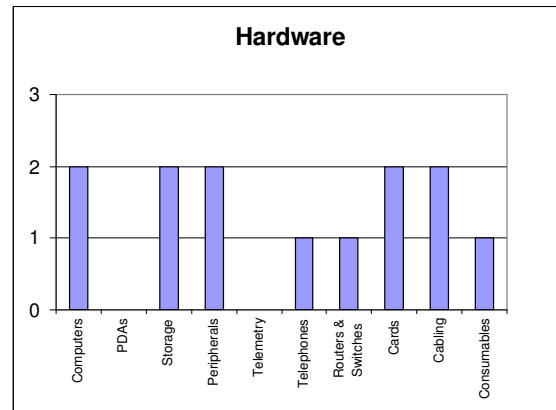


Chart 2

Specialist Industry Systems

There was one company providing point of sale systems and one providing CAD/CAM/CNC systems.

Generic Industry Systems

There were two companies providing security systems.

Services

This was the largest area of activity for software and I.T. companies in Oxfordshire.

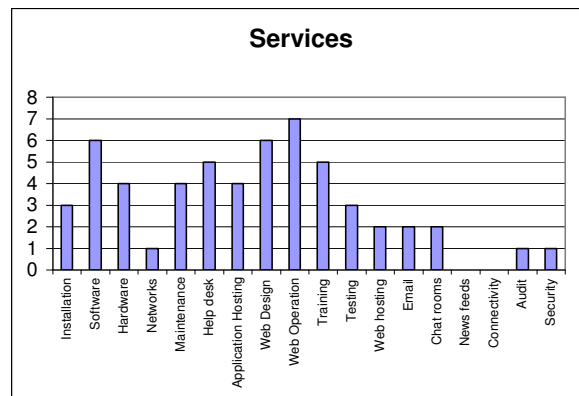


Chart 3

Software

This shows the type of software supplied.

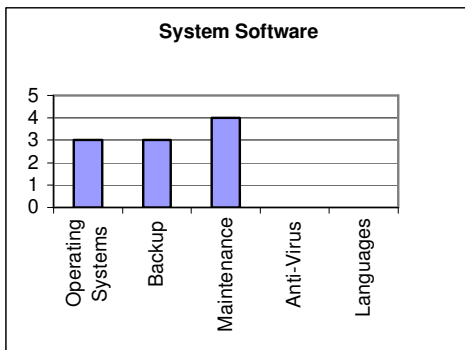


Chart 4

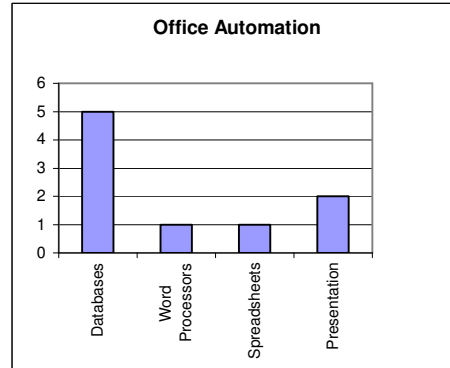


Chart 5

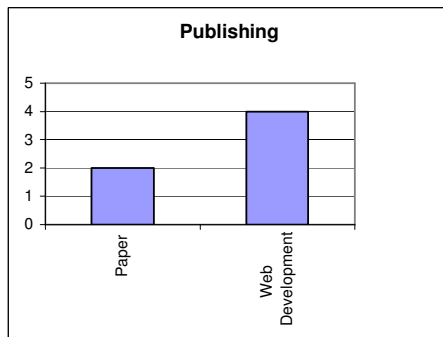


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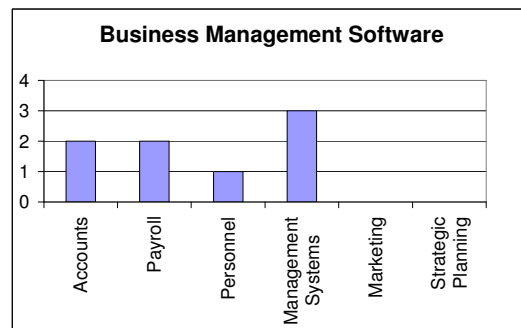


Chart 7

There were three companies providing other software packages, and two providing bespoke software.

There were three companies producing specialist software, as follows:

- Turnkey solutions for information access kiosks
- Fast & stable physics modelling suitable for use in interactive 3D applications. Middleware used by games & entertainment industry

Telecommunications

There were no companies providing either cable or mobile telecommunications.

4.2.2 Users

Hardware

Computers were more widely used than other hardware, even telephones.

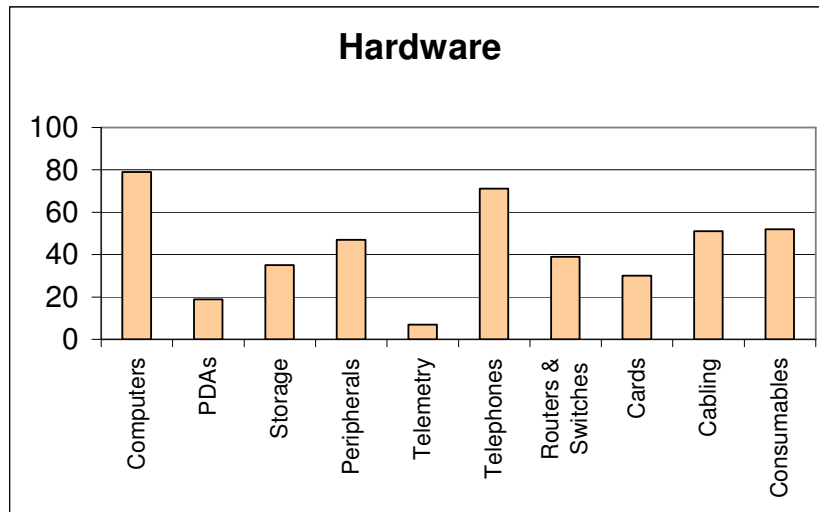


Chart 8

Specialist Industry Systems

There were more specialist systems used in the retail industry than any other, with CAD/CAM/CNC second.

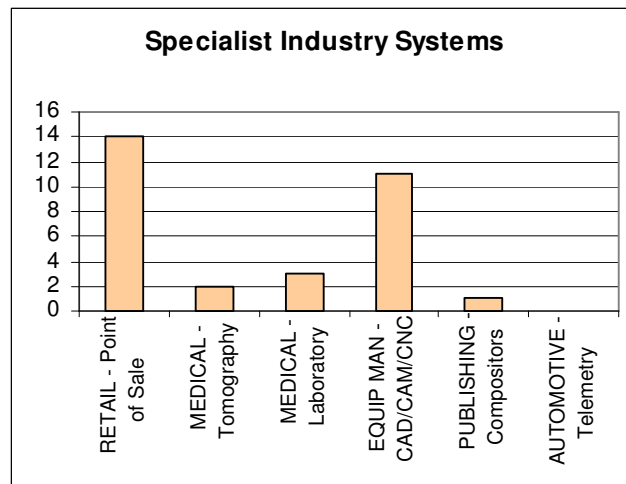


Chart 9

Generic Industry Systems

There was one company using process control systems in the petro-chemical industry and two in food processing. Six companies used security systems.

Services

Software and hardware were the most used services with 54 of those replying using them. 55% used network services and just under 50% used email or maintenance services.

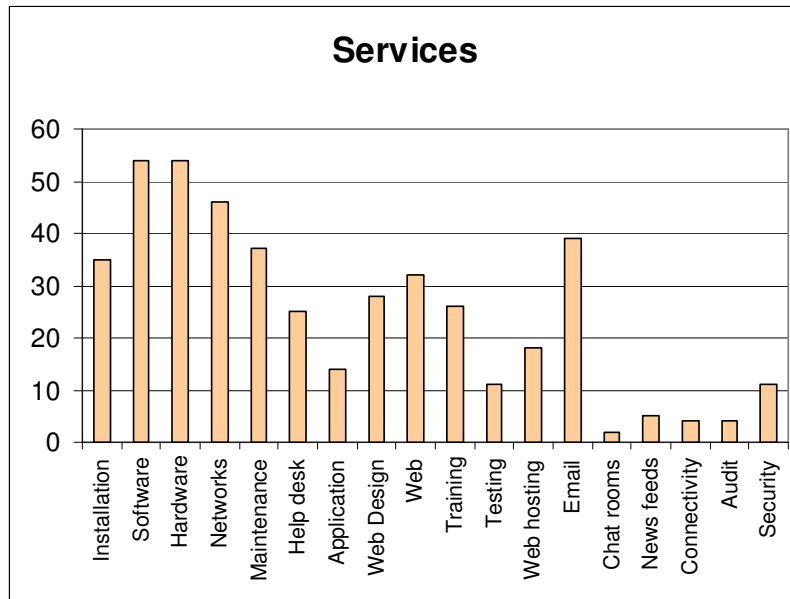


Chart 10

Software

System and office automation software were the most widely used, with accounting packages being almost as popular. Almost 50% used email.

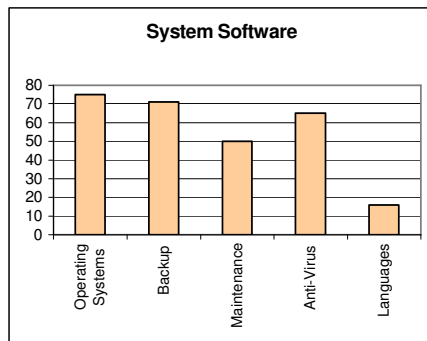


Chart 11

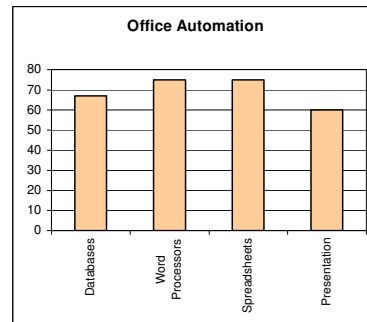


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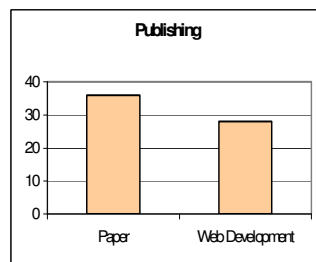


Chart 13

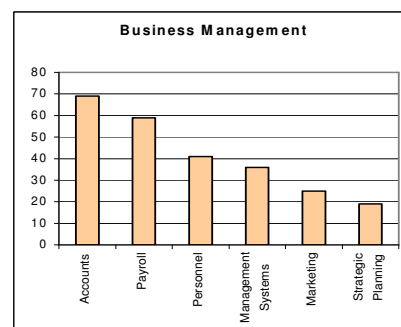


Chart 14

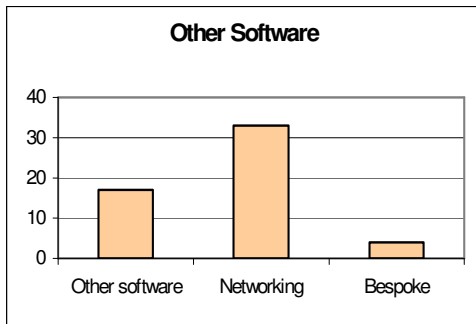


Chart 15

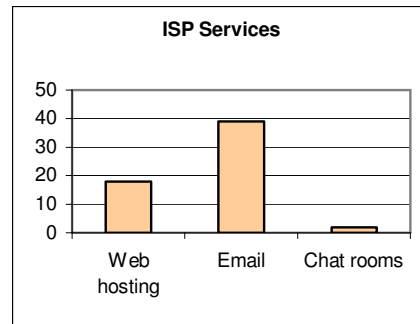


Chart 16

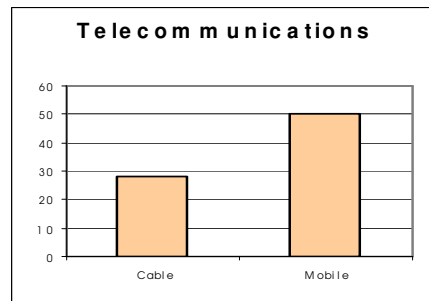


Chart 17

Other software packages used include dial-up banking services, internet purchasing, clinical systems and NHS net, selling/booking tickets, specialist systems for the accountancy profession, and a system for student administration.

4.3 Involvement with schools and colleges

Companies were asked to indicate their current involvement with students, which was as follows:

8 companies made school visits/talks and between them provided 1 visit monthly, 2 visits each term, 5 annual visits and 'other'.

40 companies offered work experience placements, taking 202 students between them.

6 companies offered mentoring, offering 24 places between them.

There were none offering e-mentoring.

18 companies offered 48 students work placements.

15 companies offered 49 students project work.

4.4 Future involvement

There were offers to give 100 additional talks: 41 in schools; 26 to colleges and 33 to universities

9 companies offered to assist with e-mentoring

There were 79 offers of work experience; 48 to schools and 31 to colleges

There were 97 offers of vacation work: 32 each for school and college students and 33 for university students

There were offers of work placements; 32 for school students and 24 for university students

There were 31 offers of project work; 15 in colleges and 16 in universities

4.5 Employment categories

There were 13 businesses prepared to employ New Deal staff, 12 asylum seekers/refugees, 1 younger disadvantaged people and 2 disabled people. There were a number of requests in all categories for more information.

4.6 Current involvement and potential involvement in up-skilling

4.6.1 Current involvement

There were a number of training courses run over the past three years, with the majority being in-house. The exceptions to this being graphics and web development training.

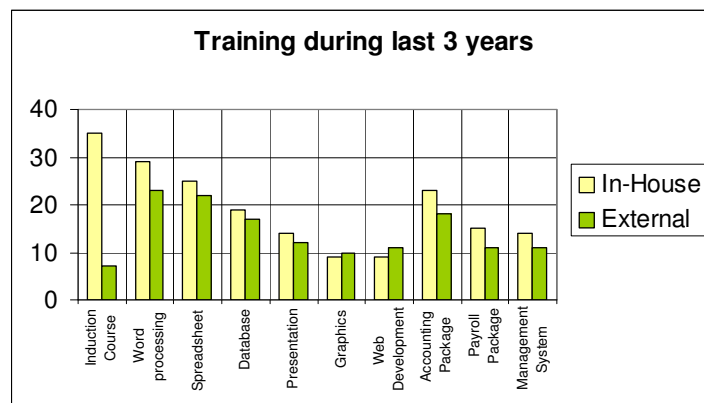


Chart 18

4.6.2 Training planned in next 18 months



Chart 19

4.7 Up-skilling activities of future interest

There was interest in the following training over the next two years

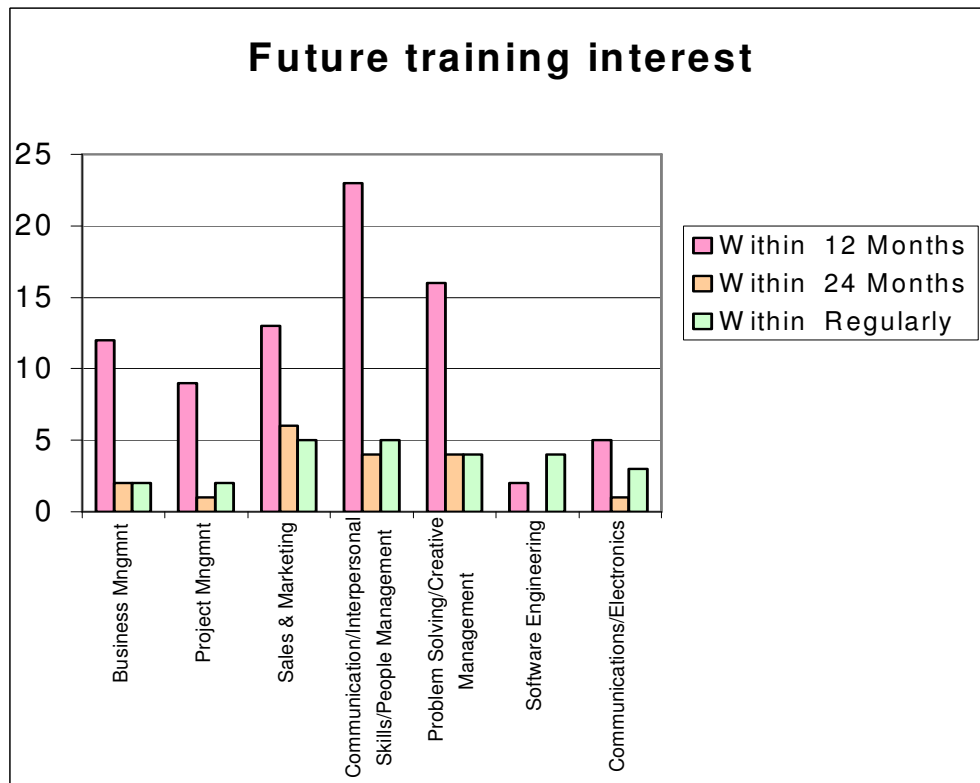


Chart 20

4.8 Annual training plan

There were 46 companies who produced an annual training plan.

4.9 Reason for not having training plan



Chart 21

4.10 Subsidised training

6 businesses said they would up-skill their staff if training was subsidised.

4.11 Career paths

47 businesses said career paths within their organisation were linked to training/skills.

4.12 Advice offered

27 businesses said they would be prepared to offer training/advice to other local organisations.

4.13 Recruitment

The following were the areas in which businesses found shortages or difficulty in recruiting staff.

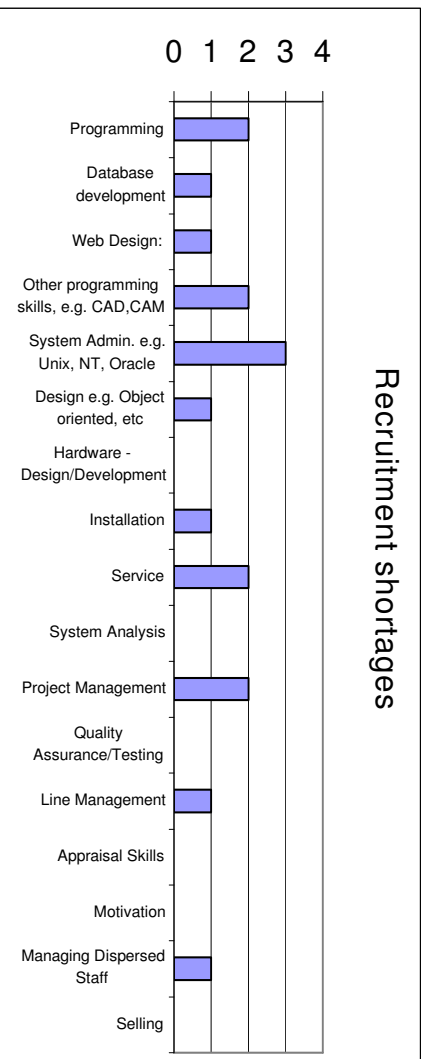


Chart 22

4.14 Recruitment difficulties

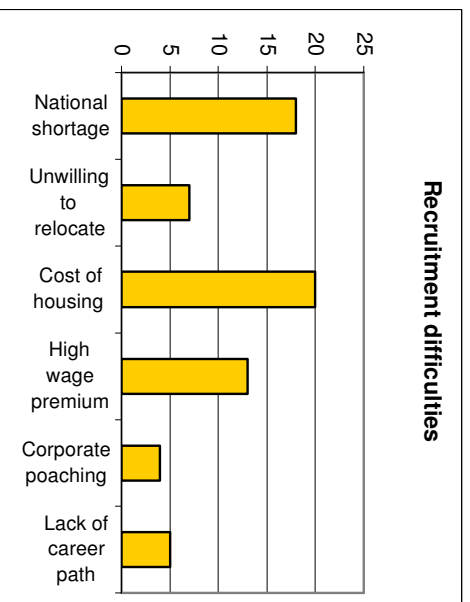


Chart 23

4.15 Further information requested

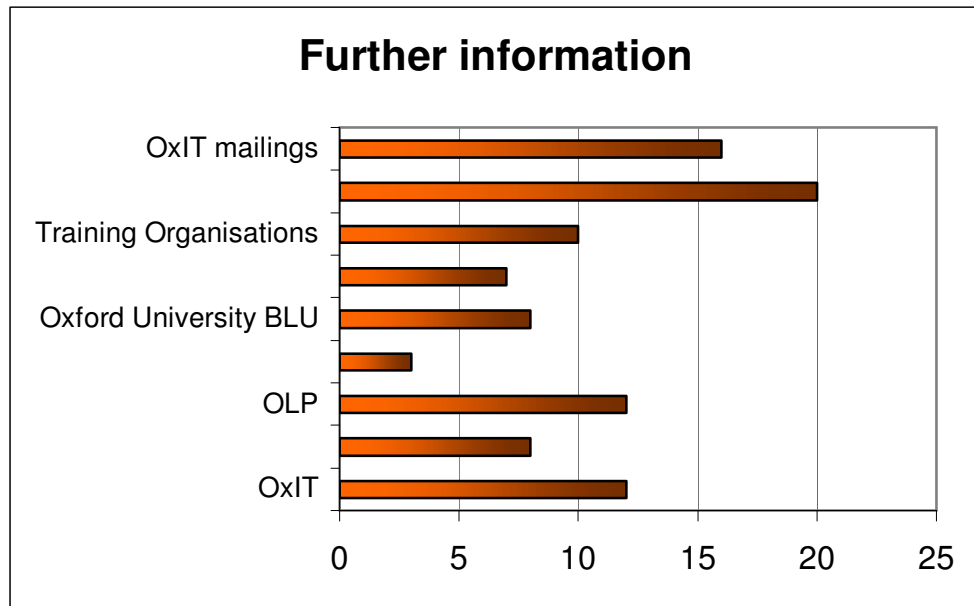


Chart 24

5 Analysis of Information

5.1 Company information

The company information data showed just how important the I.T. industry is to Oxfordshire, with 13 organisations products or services being in I.T. with a number of others offering services based on IT. I.T. was the largest single line of business identified in the responses.

The catering/leisure industry was slightly less well represented in the survey, with 11 of the responses coming from this sector.

There was only 1 response stating IT was not relevant to them.

Of the 10,480 employees covered by the survey, 323 of them were employed in the I.T sector, averaging 25 employees per organisation, against an average of 143 in the other organisations. Whilst there are a large number of I.T. organisations, their level of employment is far lower than in other industries.

5.2 Products & Services

5.2.1 Providers

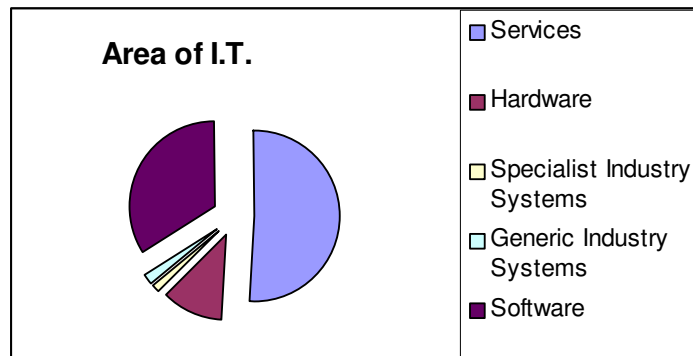


Chart 25

It can be seen that 50% of I.T. businesses in Oxfordshire provide services of various types.

Software is second in order of importance with 34% of the activity being in this area and only 12% in hardware.

Hardware

Computers, storage, peripherals, cards and cabling were equally represented in this area, with no interest in PDA's or telemetry. Chart 2 shows the spread of activity.

Specialist Industry Systems

There was only interest in point of sale and CAD/CAM/CNC systems in this area. This is quite surprising, bearing in mind some of the larger industries in the area such as publishing and automotive.

Generic Industry Systems

There were only 2 businesses in this area, both providing security systems.

Services

There were a range of activities in this area, with most companies providing more than one service. Software, hardware and network services are the main activity, with email, web site operation and web site design catching up on the older range of services. Training appears to have been by companies active in other areas training in their products.

Software

There was slightly less variety in the software sector, and less interest in each section. The most popular was databases followed by system maintenance and web development software. There were none offering anti-virus, language, marketing, strategic planning or telecommunications software. This was despite anti-virus software being one of the most popular amongst the user responses.

5.2.2 Users

Hardware

The responses in this area are somewhat ambiguous. 79 organisations used computers, whereas only 47 used peripherals and 52 used consumables. Only 71 organisations used telephones, which seems low. This could show a lack of understanding of terminology, or that the questionnaire did not reach the person responsible for I.T. in the organisation.

Specialist Industry Systems

Retail point of sale systems were the most commonly used system, with 14 organisations using them. This was followed by 11 organisations using CAD/CAM/CNC systems. It is surprising that no response showed a use of telemetry as there were several organisations represented from the automotive and transport industry.

Generic Industry Systems

The highest response was for the use of Security systems, which could be anticipated in today's environment. Two process control systems were in food processing and this reflects the high proportion of organisations in the catering industry.

Services

As would be anticipated the highest number of services used were software and hardware, with a nearly 50% of those replying also using networks. Email was surprisingly little used with only 46% using it. 42% used installation services, and about 36% used web design and site operation services, inferring that the majority did their own.

Software

As would be anticipated with system software the most widely used were operating systems (89%), backup (85%) and anti-virus (77%).

Word processing and spreadsheet software was equally well used at 89%, with databases being used by 80% and presentation software by 71%.

Publishing software was least well used, with 43% using paper and 33% web based software.

Business management software was least well used, with 82% using accounting software; 70%, using payroll software, and 49% using personnel software. Management systems, marketing and strategic planning software were very poorly used at 43%, 30% and 23% respectively.

5.3 Involvement with schools and colleges

There were about 20 visits made by organisations to schools during a year, which would give poor coverage over the county. These visits were offered by 8 companies, or less than 10% of those who replied.

About 50% of those who replied offered work experience placements. These totalled placements for 202 students.

There were 6 companies offering mentoring, but it is difficult to assess the coverage for this without knowing the number of pupils who would benefit from mentoring. There were no reports of email mentoring, though this is a fairly new means of offering help to pupils.

Opportunities for work placements and project work were similar with 48 and 49 places offered respectively.

5.4 Future Involvement

41 offers were made to visit or talk to schools. This is double the existing number. In addition 26 offers were made to talk to college students and 31 to university students.

48 offers were made for work experience placements for schools, and 31 for colleges.

There were 9 offers to undertake email mentoring with school pupils.

Work placements were offered for 32 school and college students and 24 university students. There were also offers for project work for 15 and 16 respectively.

There were 31 offers of project work; 15 for colleges and 16 for universities. This was three times more than existing project work placements.

5.5 Employment Categories

There were 40 business prepared to offer employment to less able groups, but in the case of New Deal and asylum seekers this was only 13 and 12 respectively. The younger disadvantaged and disabled people received less interest.

5.6 Current involvement in up-skilling

The level of training reported was poor, with in-house induction training being the most popular. This was provided by 42% of businesses. The next highest training was in-house training in wordprocessing, 35%. Wordprocessing was the most popular external training, undertaken by 27%.

5.7 Training in next 18 months

There was little training planned for the next 18 months. The highest was in-house induction training planned by 18% of the companies. External web development and internal wordprocessing were the next most popular with 11%.

5.8 Up-skilling activities of future interest

There was more interest in training within the next 12 months than for more long term or regular training. Most interest, 27%, was in communication/interpersonal skills/people management. Problem solving and creative management was of interest to 19% of those replying.

5.9 Annual training plan

55% of those responding produced a training plan. Most were annual.

5.10 Reason for not having training plan

12% of those not having a training plan cited that it would be inappropriate as the reason. This reason was closely followed by lack of priority or staff availability.

5.11 Subsidised training

Only 6 businesses responded saying they would up skill their staff if training was subsidised.

5.12 Career paths

47 businesses, 56%, said career paths were linked to training/skills.

5.13 Advice offered

32% of the responses were prepared to offer training advice to other local organisations. Several more stated they were unable to because of confidentiality aspects of their work.

5.14 Recruitment

In the IT area there were shortfalls. The most severe was 3 companies reporting shortages in system administrators, but this amounted to 23% of the IT based companies. There was also a 15% shortage of programmers, other programming skills such as CAD and CAM, and IT installation skills. Shortages in non-IT skills were not so pronounced with only 2 companies quoting a shortage in project management and one each in line management and managing dispersed staff.

5.15 Recruitment Difficulties

Nearly 25% of businesses reported cost of housing in Oxfordshire being a problem in recruiting staff. This was closely followed by 21% stating that there was a national shortage of skills.

6. Uses of Information

The number of responses to the questionnaire received was disappointing. However, it was deemed not appropriate to press for additional responses, as any direct contacts would bias the balance of returns. There is a resistance to responding to questionnaires, unless results are widely published and good use is made of the results. 'learning' is not a high priority amongst a large number of businesses and this could also have affected the number.

6.1 Company Information

Details of companies main line of business showed how important IT is as an industry in Oxfordshire. The catering industry and medical profession closely followed this. With the diverse range of responses, the fact that 99% used IT in their organisations also shows how important IT is, even to small organisations in today's business environment. The different lines of business also showed a large variety of activities undertaken in Oxfordshire, and the opportunities available.

6.2 Products & Services

6.2.1 Providers

The survey showed that Oxfordshire has a predominantly I.T. service industry, and a strong software sector. In many of these companies the link between the two is close.

Much of the hardware appears to be supporting other activities, rather than the main line of the business.

This should be borne in mind in training in the county to ensure that local people are trained for local employment opportunities.

6.2.2 Users

The response to questions by users of IT appears somewhat confused and seems to be due to a lack of knowledge of terminology rather than unclear questions. For example 95% used computers, whereas only 62% used consumables (such as printer ink) and 56% used peripherals (such as printers). Only 85% used telephones, which could mean that people do not appreciate the link between communications and IT. This kind of misunderstanding is more likely to be representative of the older generation who have grown up as IT developed, without any training in the subject. This sector of the business community could well benefit from some 'learning' input.

Within the services sector there were also anomalies. 46% used email, and yet more than 50% supplied email addresses on their questionnaire. Only 21% had application hosting, yet 38% employed web operators and 33% had their webs designed.

Only 89% used operating systems on their computers, suggesting that many did not realise that Windows was an operating system.

This lack of understanding could hamper the efficient use of IT, and suggests that many businesses would benefit from basic training in IT skills.

6.3 Involvement with schools and colleges

There were a lot of companies offering different type of involvement with schools and colleges. This was a good base, and should be supported and encouraged.

6.4 Future involvement

Overall there were 362 additional offers from organisations to become involved in working with schools, colleges and universities. These offers need to be followed up and nurtured.

Only a few offers were made by IT companies, whereas many of the placements from schools are requested in IT companies. Discussions with the Education Business Partnership have shown that IT companies are hesitant of offering placements because of hesitancy on what pupils can undertake, and on frequent occasions pupils are disappointed because they do very little work in the area in which they are interested. This is an area that has been identified where closer collaboration is required between the industry and schools to improve co-operation.

There does appear to be a general lack of understanding in what is involved in working with students at any stage of their training. More collaboration between businesses and trainers could resolve this situation.

6.5 Employment categories

Several of the organisations saying they were interested in employing people from the various categories proved on contact being made, that they were unaware of the possibilities and looking for explanations rather than actually being prepared to employ people. This is a difficult area in that potential employers are not always aware of what these categories of employee are capable of, or what special facilities they might or might not require. Better communications and understanding between the categories and employers is necessary in order that employers consider their options prior to taking the 'easy' option of non consideration.

6.6 Current involvement in up-skilling

The current level of up-skilling was disappointing. Much was undertaken in-house, and therefore the quality could not be monitored..

6.7 Training in next 18 months

Future training plans were also disappointing, though more was planned using external sources. This shows that training people is still not considered one of the ways of improving the value of ones assets, or as an investment in staff and one way of retaining staff. Larger companies are more involved in training than smaller companies. The problem of introducing training into smaller companies needs to be addressed, and where possible reduced or eliminated.

6.8 Up-skilling activities of future interest

The fact that there were more plans for training in the next 12 months shows that training is not considered as part of strategic planning, and the aim is to get employees to a certain level of skill rather than continual development. The topic of most interest was communication skills/interpersonal skills/people management. This type of course could provide an opportunity to disseminate the message of continual development. Problem solving/creative management, which showed the second highest demand, could also be used to push the same message that those who are continually improving their mind are more able to deal with the unexpected and think along unexplored lines.

6.9 Annual training plan

Although previous questions showed that there was not a significant amount of training being undertaken, 55% said they produced a training plan. This percentage is quite high bearing in mind that many of the replies were from small micro businesses. However, it does confirm that training is not part of the strategic planning process, or even short term planning process in many businesses.

The fact that there appeared to be little training could reflect on the budget applied to training, the 'down time' budget to allow for training, or there not being appropriate courses being run. Further research would be required to analyse this.

Reason for not having training plan

56% of those returning the questionnaire did not give a reason for not having a training plan. This would seem to reinforce the low priority given to training. The most popular reason for not having a plan was that it was inappropriate. This could be because they were small businesses, but could also mean that they do not understand the importance of having a workforce with up to date skills. It could also show that they do not realise that training is often considered a benefit by employees. Cost, low priority and staff availability were each cited by 8% of the responses for not having a training plan.

Other reasons for lack of a training plan could be because they were micro businesses and training was organised as required or as appropriate courses became available. It could also be because it was felt all the necessary skills were already in-house. With the increasing rapidity of change in the IT world, this could be a dangerous assumption for an organisation to make.

6.10 Subsidised training

Only 7% of those replying stated that they would up-skill their staff if training was subsidised. This shows that the cost of training is not the main reason for lack of training. Further research should be undertaken to find out what are the main reasons. The low level of reasons given in the previous question do not make it easy to come to any conclusion. There is a need to make businesses aware of the need for training and for them to increase it's priority in the planning process. There also need to be more creative approaches to training to help overcome the barrier of staff availability which can hinge on workload and cost of 'training time'.

6.11 Career paths

56% stated that career paths in their organisations were linked to training/skills. This is quite a low percentage, but could be because of the number of small businesses responding. However, this reasoning could be used to encourage employees to initiate/undertake the training as opposed to the employers.

6.12 Advice offered

32% said they would be prepared to offer training/advice to other local organisations. It is worth following up these offers to build up a pool of available help for others. This help could be used on an ad hoc basis, or organised into training sessions. It should not be used as an alternative to professionally organised training courses, but might act as an informal way to get people involved in training before involving them in a more planned and business like programme.

7. Results against Outcomes

By the time this report was completed changes had been made to the internal organisation of the Education Business Partnership and the original contact had retired. This resulted in some changes to the way in which the data was measured against outcomes.

- 7.1 There is currently no scheme throughout Oxfordshire whereby companies visit schools on a regular basis, so no programme has been set up ensuring that every secondary school is visited over a repeating 2 year cycle.

However, with a further 41 companies prepared to give talks in schools it is anticipated that much more regular contact will be established. The aim is to try and develop this contact further, particularly between I.T. companies and schools.

- 7.2 There were 48 additional offers of work experience placements. Some of these have already been contacted and others will be shortly. Prior to accepting these offers there are a number of regulatory processes to go through, such as ensuring appropriate insurance by the company, and compliance with health & safety regulations, and the newer requirements for vetting by the police. It is hoped that at least 25 new employers will be involved in work experience as a result of this project. Efforts are continuing with encouraging more placements particularly in the IT sector and using IT. To this end a leaflet has been developed to help companies appreciate the IT skills of pupils when undertaking work experience.
- 7.3 There were a disappointing 9 companies prepared to help with e-mentoring, though involvement through OxIT has continued and produced further offers. The South Oxfordshire EBP had piloted e-mentoring and in summer 2002 received accreditation for the scheme. E-mentoring is, therefore, only now being introduced to other areas of Oxfordshire, though e-mentors have already been trained to help throughout the county.
- 7.4 Helping disadvantaged/refugee groups to find employment within the IT sector has been difficult. One of the largest handicaps has been knowledge and understanding of English which makes interaction with others difficult. However, 2 people from this group helped in the Bridge-IT project by inputting data into a preset form. Contact is being maintained with this group, with an open offer to help when and where possible.
- 7.5 Details of training course requirements have been passed on to the appropriate colleges and universities, but there has been no feed back of any courses being run. There was insufficient demand for any one course to justify a course being run as a consequence of the Bridge-IT project.

8. Conclusions

Despite the relatively low return of the questionnaire, some useful information has been gathered.

It confirms the findings of a lot of other reports, that IT is now a main industry in Oxfordshire. It also shows that they are significantly smaller businesses than the majority in the county. This presents them with additional problems in running a sustainable business, and of developing to a larger business.

The high proportion of all businesses using IT reiterates how important it is in any organisation. It also provides opportunities for IT businesses to exploit it for their own benefit, while helping other business exploit it for theirs. This is an opportunity that should not be overlooked.

The fact that the majority of IT businesses are in the service area provides ample opportunity for them to interact directly with other local businesses and build up relationships with them that will be beneficial to both.

There appears to be a need to raise the awareness at a fairly basic level because of the apparent confusion in some of the responses.

There is a willingness amongst businesses to help schools, colleges and universities with a number of activities. This should be followed up, but in such a way that both business and those they are helping benefit, preferably at no 'cost' to themselves. Work experience is traditionally seen as taking up an employees time, whereas handled properly the company should more than recoup this time from the input of the person on work experience.

Businesses are also interested in employing people from different social groups. However, follow ups on this found that in many cases businesses were looking for more information rather than making an offer. The availability and skills of these groups needs to be more widely publicised to overcome this lack of knowledge.

The present attitude to up-skilling or training is disappointing. IT is integral to every business; it is a rapidly changing industry; businesses need to be aware of the changes; businesses need to know how to exploit the latest developments. If in no other area, training should be seen as beneficial in this area, and plans should be in place to ensure that businesses are not losing out because of lack of training. Subsidised training does not appear to be the answer, so research needs to be undertaken to find a solution to the lack of training in this area.

9. Recommendations

There are a number of opportunities highlighted that can be exploited to advantage for local businesses. These should be followed up.

1. It is important to show that productive use is being made of the results of the questionnaire.
2. Oxfordshire businesses should be made aware of the IT skills within the county, and encouraged to go to local companies for more supportive help and advice.
3. The problem of lack of understanding of more basic IT terminology and use should be further researched and a solution found if necessary
4. Local businesses should be encouraged to work more closely with the educational organisations in Oxfordshire for mutual benefit.
5. Effort needs to be put into publicising the employment of the different social groups
6. Research should be put into finding out the real reasons behind the lack of planned training, and a solution found
7. Offers of help and advice that have been offered through the Bridge IT questionnaire should be followed up and used to advantage

10. Moving Forward

Some of the results from the questionnaire are already being followed up. These are mainly as a result of the close liaison between OxIT and the EBPs, and partly because of fulfilling OxIT's aims.

1. Requests were made by a number of organisations for the results of the questionnaire. Feed back should be sent directly to them. Other opportunities should be taken to promote the results and follow up proposals. This can be done with an abbreviated report being sent to them, with directions to the report on the OLP web site.
2. The profile of local IT companies should be more widely publicised. This has already started with regular contributions to the local press. A road show is planned for autumn 2002 with this aim in mind. It is hoped that a series of road shows can be planned around the county. Non-OxIT members and non-IT companies are invited to a range of events organised by OxIT to raise awareness of IT.
3. In order to encourage local businesses to work more closely with the educational organisations OxIT has been working with the EBPs to develop these links. One area that it is felt would help in the IT area is to research what work experience pupils are capable of undertaking and link this with what businesses are prepared to let them do. A leaflet is being produced that will help towards this end.
4. The different areas of the Oxfordshire EBP's are more fully aware of OxIT activities as a result of follows up on Bridge-IT, and this has generated requests from several areas to OxIT. The requests are not always appropriate to OxIT, but have been passed on to other organisations who have agreed to try and help.
5. A plan needs to be developed to investigate in more depth the knowledge of IT in all types of companies. It would be preferable to do this in a tactful way, possibly person to person. It will be investigated as to whether this is an opportunity that can be linked to the road show.

6. Different ways need to be researched to raise the profile of employment of the different social groups. The Employment Service is working in this direction and looking at different ways. OxIT has been working with the asylum seekers, in fact some helped with collating the results of this questionnaire! However, more work needs to be done to highlight specific problems and develop ways in which to eliminate or minimise these problems.

7. Research into finding the reasons behind the lack of training is another area that it might be possible to follow up at the road show. It might also be beneficial to contact some of those who showed a lack of interest in training. Once the reason is found, creative solutions need to be developed.

8. The offers of help received should be followed up proactively. Those made to educational organisations have already been passed on to the appropriate people. Feed back should be requested from them to ensure that they have been followed up and to see if any more help might be required to benefit from them.

The offers to help or advise on a business to business basis should be followed up and a programme developed to ensure that the offers are not wasted.

The report has highlighted problem areas. These must be followed up and solutions developed for the benefit of Oxfordshire.

Dear Human Resource Officer,

Most businesses today use information technology; indeed many rely on it. Yet ability in I.T. is a scarce resource.

"A consistent and understood level of IT user skill is a necessary prerequisite for so many jobs these days, and ever more so in the future"

**Brenda White, HR
Manager, Royal & Sun Alliance UK**

OxIT, the industry organisation for I.T. companies in Oxfordshire is working with other organisations, schools, colleges, universities and companies to identify the I.T. needs of Oxfordshire businesses to ensure this shortage does not develop locally.

We are asking all Oxfordshire companies to answer the attached questionnaire, which will take less than 15 minutes to complete. This will help identify the needs of local organisations and enable educational and training organisations in Oxfordshire to target these needs for your benefit.

Please devote 15 minutes of your time to your organisation's future.

Yours sincerely,



This project, known as 'Bridge-IT' (bridging the IT skills gap) is sponsored by the Oxfordshire Learning Partnership. Details of other partners available on request.

PLEASE RETURN BY 15 NOVEMBER, 2001

OxIT, with the help of local Oxfordshire companies and organisations, is seeking to redress the skills shortage.

The first stage is to map the IT industry in Oxfordshire, and the use of IT by companies and organisations.

The second stage will be to encourage companies to work with schools, to interest pupils in IT and the use of IT, and to explain its impact in the work environment. Where appropriate, support will be given to pupils through school, Further and Higher Education until they enter the workforce.

The next stage is to work with Colleges of Further and Higher Education, and with training organisations to provide appropriate, targeted training. Encouragement will be given to the adult workforce to up-skill, or retrain for suitable IT related employment.

This questionnaire is designed to map the current position of Oxfordshire companies. It will be used to help schools, colleges, universities and training organisations develop their IT programmes; and to ensure that the right kind of IT training is available for Oxfordshire companies.

We would encourage all companies to respond to this questionnaire, which is designed for your benefit.

Please complete the appropriate sections. Some sections are divided into 2: 'Biz' for those companies who produce I.T. products or services, and 'Use' for those companies who use I.T. products or services in the course of their business activities. Please complete both 'Biz' and 'Use' if appropriate. Some large companies with I.T. departments may feel it appropriate to do so.

Data Protection: OxIT will use any personal data collected in this questionnaire only for the purpose of contacting your company/organisation to let you know about OxIT's activities and services and those of its members and associates. We may pass that personal data on to the Education Business Partnership for the purpose of them arranging work placements. If you do not wish personal data to be used in this way, please omit it from your response to the questionnaire.



Oxfordshire
first for IT



'Employers across all sectors in the UK are suffering serious business impact due to IT skills shortages'

'The UK is in danger of exporting its IT industry ...'

'The threat to future UK competitiveness is obvious...'

'An ability to use IT effectively is now a necessary skill for all citizens, at work and in their private lives.'

quotes from the e-skills

Company information

Business/Organisation Name

Address

Tel: Fax: email:

Is your business/organisation's product or service IT related? Yes / No

Does your business/organisation use IT products or services? Yes / No

Main line of business:

Contact Name No. of employees

1. PRODUCTS AND SERVICES (Please indicate by putting a cross in the 'Biz' box that best describes your products or services if you produce IT products or services, or in the 'Use' box if you use IT products or services in your organisation)

Hardware	Biz	Use	Software	Biz	Use
Computers			System Software		
PDA's			Operating Systems		
Storage			Backup		
Peripherals			Maintenance		
Telemetry			Anti-Virus		
Telephones			Languages		
Routers & Switches			Office Automation		
Cards			Databases		
Cabling			Word Processors		
Consumables			Spreadsheets		
			Presentation		
Specialist Industry Systems					
Retail			Publishing		
Point of Sale			Paper		
Medical			Web Development		
Tomography			Business Management		
Laboratory			Accounts		
Equipment			Payroll		
Manufacturing			Personnel		
CAD/CAM/CNC			Management Systems		
Publishing			Marketing		
Compositors			Strategic Planning		
Automotive			Other software		
Telemetry					
Generic Industry Systems			Telecommunications		
Process Control			Cable		
Petro-Chemical			Mobile		
Utilities			Networking		
Agriculture			Bespoke		
Food Processing					
Security					
Services			services continued		
Installation			Training		
Software			Testing		
Hardware			ISP		
Networks			Web hosting		
Maintenance			Email		
Help desk			Chat rooms		
Application Hosting			News feeds		
Web Site Design			Connectivity		
Web Site Operation			Audit		
			Security		

If you produce or use IT products or services which do not fit into the above broad categories, please describe them and suggest a category in not more than 20 words, indicating whether you produce or use them.

.....

Current and potential future involvement with schools and colleges

'If you think education is expensive, try ignorance.'

Derek Bok, Former President of Harvard University

2. Are you currently involved with any of the following? Please circle, or underline if replying electronically.

School visits/talks	Yes / No	Monthly	Each Term	Annually	Other
Work experience placements	Yes / No	Number per annum			
Mentoring	Yes / No	Number of pupils			

Mentoring by email Yes / No Number of pupils

Work placements Yes / No Number of students

Projects (Summer projects/MBA) Yes / No Number of students

3. Which of the following would you, or your colleagues be prepared to participate in? Please indicate hours per annum or number of people

	Schools	Colleges	Universities
Visits/Talks (hours per annum)
Mentoring by email (no. pupils)		
2 weeks work experience (no. pupils/students)	
Vacation work (no. pupils/students)
Work placements (no. students)	
Projects (no. students)	

4. Please indicate which of the following categories you would be prepared to employ by placing a cross in the appropriate box

New Deal staff	<input type="checkbox"/>	Would like more information	<input type="checkbox"/>
Asylum seekers/ refugees	<input type="checkbox"/>	Would like more information	<input type="checkbox"/>
Younger disadvantaged people	<input type="checkbox"/>	Would like more information	<input type="checkbox"/>
Disabled people	<input type="checkbox"/>	Would like more information	<input type="checkbox"/>

If there are other ways in which you would be prepared to help (e.g. work place visits, projects, etc.) please mention them below:

.....

.....

.....

Current and potential involvement in up-skilling the work force

5. Which of the following IT based up-skilling activities have you or your employees undertaken or will be undertaking. Please put a cross in the appropriate box

During last 3 years	In-House	External	Planned In the 18 months	In-House	External
Induction Course			Induction Course		
Word processing			Word processing		
Spreadsheet			Spreadsheet		
Database			Database		
Presentation			Presentation		
Graphics			Graphics		
Web Development			Web Development		
Accounting Package			Accounting Package		
Payroll Package			Payroll Package		
Management System			Management System		
Other			Other		

6. Which of the following up-skilling activities would be of future interest. Please put a cross in the appropriate box

	Within 12 months	Within 24 Months	Regularly
Business Management			
Project Management			
Sales & Marketing			
Communication/Interpersonal Skills/People Management			
Problem Solving/Creative Management			
Software Engineering			
Communications/Electronics			
Other			

Please circle or underline the answer to the following questions

7. Do you have an annual training plan for your staff? Yes / No

8. If you don't have a training plan, please indicate the reason

Timing	Cost	Inappropriate	Low Priority
Not aware of Availability	Previous bad Experiences	Staff Availability	

9. **Would you up-skill your staff if training was subsidised?** Yes / No

10. **Are career paths within your organisation linked to training/skills** Yes / No

11. **Would your organisation be prepared to offer training/advice to other local organisations?** Yes / No

Recruitment

12. **If you have problems recruiting staff for IT positions please indicate below the skills that were difficult to find and, if possible, the reasons that caused the shortage.**

SKILLS SHORTAGES	Specify skill	Appropriate training not available locally	Cannot afford training costs	Other, please suggest
Programming				
Programming: please define, e.g. C++, Java				
Database development: please define, e.g. Access, Oracle				
Web Design: Please define, e.g. Frontpage, Dreamweaver, HTML				
Other programming skills, please define e.g. CAM, EDI				
System Admin e.g. Unix, NT, Oracle				
Design e.g. Object oriented, client-server, 3-tier, internet applications				
Hardware				
Design/Development				
Installation				
Service				
Professional				
System Analysis				
Project Management				
Quality Assurance/Testing				
Line Management				
Appraisal Skills				
Motivation				
Managing Dispersed Staff				
Selling				
Other				

13. **Would you attribute the difficulty in recruiting staff to any of the following reasons:**

	Yes	No	Other, please suggest
National shortage			
Unwilling to relocate			
Cost of housing in Oxfordshire			
High wage premium for area			
Corporate poaching			
Lack of career path			

If you would like further information on any of the following, please put a cross in the appropriate box

OxIT (Oxfordshire Information Technology Enterprise Network)	<input type="checkbox"/>	Oxford University (Business Liaison Unit)	<input type="checkbox"/>
Education Business Partnerships	<input type="checkbox"/>	Oxford Brookes University	<input type="checkbox"/>
Oxfordshire Learning Partnership	<input type="checkbox"/>	Local Training organisations	<input type="checkbox"/>
Connexions	<input type="checkbox"/>		

If you would like to receive information on the progress of this initiative please put a cross in this box If you would like to receive further mailings on OxIT's activities please put a cross in this box

Thank you for taking the time to complete this questionnaire.
Please fax back to: 01865 201811 or Post to: 151 Southern Bypass, Oxford, OX2 0LN

Company information

Business/Organisation NameNumber of replies 84

Address

Tel: Fax: email:

Is your business/organisation's product or service IT related? Yes / No

Does your business/organisation use IT products or services? Yes / No

Main line of business:

Contact Name No. of employees 10,480

2. PRODUCTS AND SERVICES (Please indicate by putting a cross in the 'Biz' box that best describes your products or services if you produce IT products or services, or in the 'Use' box if you use IT products or services in your organisation)

Hardware

	Biz	Use
Computers	2	79
PDA's	0	19
Storage	2	35
Peripherals	2	47
Telemetry	0	7
Telephones	1	71
Routers & Switches	1	39
Cards	2	30
Cabling	2	51
Consumables	1	52

Specialist Industry Systems

Retail		
Point of Sale	1	14
Medical		
Tomography	0	2
Laboratory	0	3
Equipment		
Manufacturing		
CAD/CAM/CNC	1	11
Publishing		
Compositors	0	1
Automotive		
Telemetry	0	0

Generic Industry Systems

Process Control		
Petro-Chemical	0	1
Utilities	0	0
Agriculture	0	0
Food Processing	0	2
Security	2	6

Services

Installation	3	35
Software	6	54
Hardware	4	54
Networks	1	46
Maintenance	4	37
Help desk	5	25
Application Hosting	4	14
Web Site Design	6	28
Web Site Operation	7	32

Software

	Biz	Use
System Software		
Operating Systems	3	75
Backup	3	71
Maintenance	4	50
Anti-Virus	0	65
Languages	0	16
Office Automation		
Databases	5	67
Word Processors	1	75
Spreadsheets	1	75
Presentation	2	60

Publishing		
Paper	2	36
Web Development	4	28
Business Management		
Accounts	2	69
Payroll	2	59
Personnel	1	41
Management Systems	3	36
Marketing	0	25
Strategic Planning	0	19
Other software	3	17

Telecommunications		
Cable	0	28
Mobile	0	50
Networking	0	33
Bespoke	2	4

services continued

Training	5	26
Testing	3	11
ISP		
Web hosting	2	18
Email	2	39
Chat rooms	2	2
News feeds	0	5
Connectivity	0	4
Audit	1	4
Security	1	11

If you produce or use IT products or services which do not fit into the above broad categories, please describe them and suggest a category in not more than 20 words, indicating whether you produce or use them.

.....

Current and potential future involvement with schools and colleges

'If you think education is expensive, try ignorance.'

Derek Bok, Former President of Harvard University

2. Are you currently involved with any of the following? Please circle, or underline if replying electronically.

School visits/talks Yes 8 Monthly 1 Each Term 2 Annually 5 Other 4

Work experience placements Yes 40 Number per annum ...202....

Mentoring Yes 6 Number of pupils ...24....

Mentoring by email	Yes 0	Number of pupils ...0.....
Work placements	Yes 18	Number of students ...48.....
Projects (Summer projects/MBA)	Yes 15	Number of students ...49.....

3. Which of the following would you, or your colleagues be prepared to participate in? Please indicate hours per annum or number of people

	Schools	Colleges	Universities
Visits/Talks (hours per annum)	...41.....26.....33.....
Mentoring by email (no. pupils)	... 9.....		
2 weeks work experience (no. pupils/students)	...48.....31.....	
Vacation work (no. pupils/students)	...32.....32.....33.....
Work placements (no. students)	22.....24.....
Projects (no. students)	15.....16.....

5. Please indicate which of the following categories you would be prepared to employ by placing a cross in the appropriate box

New Deal staff	13	Would like more information	18
Asylum seekers/ refugees	12	Would like more information	7
Younger disadvantaged people	16	Would like more information	9
Disabled people	24	Would like more information	10

If there are other ways in which you would be prepared to help (e.g. work place visits, projects, etc.) please mention them below:

.....

.....

.....

Current and potential involvement in up-skilling the work force

5. Which of the following IT based up-skilling activities have you or your employees undertaken or will be undertaking. Please put a cross in the appropriate box

During last 3 years	In-House	External	Planned In the 18 months	In-House	External
Induction Course	35	7	Induction Course	15	1
Word processing	29	23	Word processing	11	9
Spreadsheet	25	22	Spreadsheet	10	10
Database	19	17	Database	9	8
Presentation	14	12	Presentation	7	6
Graphics	9	10	Graphics	1	2
Web Development	9	11	Web Development	2	11
Accounting Package	23	18	Accounting Package	6	3
Payroll Package	15	11	Payroll Package	6	3
Management System	14	11	Management System	6	3
Other			Other		

6. Which of the following up-skilling activities would be of future interest. Please put a cross in the appropriate box

	Within 12 months	Within 24 Months	Regularly
Business Management	12	2	2
Project Management	9	1	2
Sales & Marketing	13	6	5
Communication/Interpersonal Skills/People Management	23	4	5
Problem Solving/Creative Management	16	4	4
Software Engineering	2	0	4
Communications/Electronics	5	1	3
Other			

Please circle or underline the answer to the following questions

7. Do you have an annual training plan for your staff? Yes 46

8. If you don't have a training plan, please indicate the reason

Timing 5 Cost 7 Inappropriate 10 Low Priority 7
 Not aware of Previous bad Staff
 Availability Experiences 1 Availability 7

9. Would you up-skill your staff if training was subsidised? Yes 6

10. Are career paths within your organisation linked to training/skills Yes 47

12. Would your organisation be prepared to offer training/advice to other local organisations? Yes 27

Recruitment

13. If you have problems recruiting staff for IT positions please indicate below the skills that were difficult to find and, if possible, the reasons that caused the shortage.

SKILLS SHORTAGES	Specify skill	Appropriate training not available locally	Cannot afford training costs	Other, please suggest
Programming				
Programming: please define, e.g. C++, Java	2			
Database development: please define, e.g. Access, Oracle	1			
Web Design: Please define, e.g. Frontpage, Dreamweaver, HTML	1			
Other programming skills, please define e.g. CAM, EDI	2		1	
System Admin e.g. Unix, NT, Oracle	3		1	
Design e.g. Object oriented, client-server, 3-tier, internet applications	1			
Hardware				
Design/Development	0			
Installation	1			
Service	2			
Professional				
System Analysis	0			
Project Management	2			
Quality Assurance/Testing	0			
Line Management	1		1	
Appraisal Skills	0			
Motivation	0			
Managing Dispersed Staff	1			
Selling	0			
Other				

14. Would you attribute the difficulty in recruiting staff to any of the following reasons:

	Yes	No	Other, please suggest
National shortage	18		
Unwilling to relocate	7		
Cost of housing in Oxfordshire	20		
High wage premium for area	13		
Corporate poaching	4		
Lack of career path	5		

If you would like further information on any of the following, please put a cross in the appropriate box

OxIT (Oxfordshire Information Technology Enterprise Network)	1 2	Oxford University (Business Liaison Unit)	8
Education Business Partnerships	8	Oxford Brookes University	7
Oxfordshire Learning Partnership	1 2	Local Training organisations	1 0
Connexions	3		

If you would like to receive information on the progress of this initiative please put a cross in this box 2 0 If you would like to receive further mailings on OxIT's activities please put a cross in this box 1 6

Thank you for taking the time to complete this questionnaire.
Please fax back to: 01865 201811 or Post to: 151 Southern Bypass, Oxford, OX2 0LN