

**SHEFFIELD ICT STRATEGY
WORKING GROUP**

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**INTERIM REPORT
to The Hallam Group**

July 1998

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Sheffield ICT Strategy

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1. Background

1.1 Many cities throughout the world have developed (or are developing) Information or ICT strategies. This is in recognition of the fact that the supporting technologies have advanced to a stage where many believe the future economic strength and social well-being in their community will be heavily related to the relative progress they are able to achieve in harnessing these technologies. Conversely it is believed that those who ignore or are unable to understand the implications will sink to the bottom in terms of economic prosperity with associated social deprivation. It is unlikely that, in the future, any urban conurbation will be able to successfully evolve, or maintain, a recognised position without the under-pinning of an effective and efficient ICT policy. Any current strengths, whether manufacturing, commercial or service industry, will be weakened without the support of a strong information base and the technologies to use it to the advantage of the indigenous economic structure.

1.2 It is generally accepted that South Yorkshire lags behind most of the UK in the use of ICT and the UK in turn is not well placed amongst the European countries. Obtaining Objective 1 status is a clear indication that overall economic performance is low and this is very much reflected in the application of technologies. Unless this aspect is recognised in the future investment policies for the City and sub-region then any economic gains will be unbalanced and short lived.

1.3 While there are many excellent initiatives relating to ICT across the City they are very much independent and often isolated from similar or overlapping projects in other fields. It is generally acknowledged that a “top down” strategy that seeks to impose would not be either acceptable or practical there is but there is scope, indeed a need, for some over-arching direction that (a) creates a unified approach to information and the technologies to handle and distribute it (b) creates an image of a City that knows where it is going (as it is doing in other fields) (c) produces an infrastructure of consistent information and technology that is appealing to inward investors (both general and relevant to the ICT industries) and (d) has the support of both prominent individuals and organisations.

1.4 ICT could become yet another social divisor. The information “have nots” will be just as disadvantaged as those at the bottom of the economic scale and any City wide ICT initiative that does not recognise and seek to avoid this will create further social tensions in the years to come. To produce anything like a homogeneous information society will require widespread participation both as producers as well as consumers. This, in turn, will mean a large increase in the need for both basic skills in the use of ICT and the more in-depth skills of those who will be able to harness the power of the technology.

1.5 The potential ability to deliver a vast increase in local IT literacy already exists in our schools (underused facilities outside school hours), the College (greatly improved resources over the last few years), the Universities (enormous state-of-the-art facilities), TEC funded initiatives and a plethora of private sources of training and expertise.

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1.6 Views sought across a spectrum of Sheffield “opinion formers” are almost wholly in favour of a strategy. Around this consensus, however, a number of points were made some of which are sufficiently widespread to be worthy of mention. These were:

- need for high visibility of what is proposed and regular progress reports.
- clear and concise communication of what is expected of the strategy in “**layman’s terms**”. In the same context spell out the benefits for the layman as well as the City as a whole.
- ensure benefits across the community, not concentrated in the “already have” sectors.
- demonstrable early benefits that the “opinion formers” understand and can use to carry support out into their “constituencies”.
- explore the potential of a wider geographic area consistent with other factors (eg Objective 1 region)

In addition to individual “opinion formers” the collective support of the Hallam Group (about 30 business and public service leaders) at the inception was unanimous and enthusiastic to the extent that they wish the Group to be associated with the initiative.

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2. Methodology

2.1 In order to progress the acceptance of the need for some level of strategic approach to ICT at the City level (and possibly beyond) a representative Group was set up to discuss ways in which this could be achieved. The complete list of participants is given in Appendix "A".

2.2 A starting point was established in a Paper prepared jointly by Seb Schmoller, David Jennings, Chris Sullivan and Mike Powell. This is reproduced in its entirety at Appendix "E". Attention is drawn, in particular, to the last page in which the range and complexity of existing ICT initiatives across the City is illustrated.

2.3 The Group has met on a number of occasions over the last 6 months during which a variety of alternative directions were explored. The agreed remit was that the Group should have a finite life by the end of which it would determine a "strategy" and how that should be achieved. The latter would include whether the Group, as currently constituted, would have a continuing role, be re-shaped according to the context of the recommendations or be completely replaced by something more like a Steering Group. Although independent of the City Liaison Group at this stage it is acknowledged that it should be firmly linked to it in some way for the future.

2.4 At present only the geographic area of the City itself has been considered but there is a strong body of opinion, both inside and outside the Group, that the opportunity should be taken to invite others in the sub-region to participate and hence reflect the wider involvement already apparent in some of the individual ICT projects and initiatives that are under way. This approach will clearly require a wider participation and have implications for the alternatives put forward under 2.3. Against this are some who believe that it will be difficult enough to obtain unanimity of purpose within Sheffield itself without inviting further divergence of views from outside.

2.5 In order to contain the deliberations an original time scale of "Spring 1998" was set for the Interim Report but this has inevitably slipped until early summer. The next stage will also require milestones to instill a discipline and these are suggested later in the document.

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3. Aims and Objectives

3.1 Taking into account the current position of the City as seen against progress in others (both UK and abroad) but bearing in mind the many independent initiatives already under way then the Group defined the aims as:-

3.2

(a) the overall aim is to bring the City from a lowly position in terms of it's application of technology to one which is a recognised leader. There is a strong feeling across the City (not restricted to the "technocrats") that this is a vital issue and one which has so far not been given the attention it deserves.

(b) the City strategy should be aimed at enabling the citizens of Sheffield to participate economically, politically and socially in the emerging 'information society' rather than be passive consumers. Only through participation can new habits and skills be learnt which may then be applied to securing the future prosperity of the city. The Group also recognises that such participation cannot be ensured through the imposition of some 'top down' mega-plan for the city, therefore it supports the aim of developing a "strategic direction" and in doing so it recognises the wealth of existing initiatives being developed in all sectors and seeks to build upon them.

(c) It aims to increase the level of cooperation across all sectors of the economic and social fabric The Group fully accepts the value of co-ordination, of ensuring progress in strategic areas, of avoiding the kind of confusion which can demotivate participants and alienate potential investors..

(c) The fourth aim should be to actively encourage the further development of the indigenous ICT sector itself. In doing so it should also aim to involve the sector in the strategic direction and it's implementation.

3.3 To achieve these aims a number of objectives are offered. These are inevitably broad at this stage and will need to be added to, detailed and, in some cases, subject to consultation before being incorporated in the overall strategy:

(i) to create an organisation that will drive the City towards an integrated ICT environment for the benefit of all it's citizens. It should reflect the need to involve every sector in all activities and seek the widest input to any proposals.

(ii) use the technology itself to disseminate information and encourage exchange of views. Create electronic forums both as a practical demonstration of the technology and to generate wider participation ensuring compatibility of technologies.

(iii) target high profile "opinion formers" in order to establish and maintain support at that level. Create highly visible applications that can be used to deliver this objective.

(iv) as part of (iii) establish formal links with the City Liaison Group and ensure that ICT becomes an integral part of it's future remit and planning.

(v) seek ways to involve the ICT industry sector to assist in defining and delivering individual elements of the strategy. Some will have a vested interest in doing so!

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(vi) define areas of information and relevant technology which have the potential for the broadest impact across the City. Evolve ways of ensuring the “have nots” figure highly in these.

(vii) develop coherent plans that use the technology, both in traditional and innovative ways, to bring together otherwise independent and disparate initiatives across boundaries that currently divide them.

(viii) bring together the relevant sections of the powerful “seats of learning” and other R & D facilities in the City to evolve new ways of applying the technology to a city conurbation.

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4. Conclusions

4.1 Throughout the deliberations there was the underlying conflict between the need for a “bottom up” approach to ensure widespread acceptance and the over arching direction that would provide consistency, high level “buy-in” and a visible policy for the outside world to appreciate. This was overcome by an acceptance that the obvious need for the latter could be encapsulated in providing “strategic direction” without the imposition of rigid plans.

4.2 The second point of concern was to ensure that whatever became the “strategic direction” it must cover the whole socio-economic spectrum of the City. The information “have nots” must have high recognition in the broad overview and be ultimately reflected in the practical manifestations of individual initiatives.

4.3 Thirdly it was acknowledged that any “strategic direction” must cover the whole range of activities across the City since ICT is now all pervasive. The Group believed that this could be more easily covered initially by splitting the more detailed planning into 3 distinct areas. These were:

- Business Support and Enterprise
- Community and Public Services
- Learning

Additionally it was felt that as the underlying technology (ICT) had an indigenous base a further Group should be formed to include representatives of this sector to explore their potential participation.

4.4 Volunteers from within the Group have produced initial papers for each of the above three sectors and these are included in the appendices (“B”, “C”, “D”). No attempt has been made at this stage to define a common approach but to encourage “free thinking” in order not to stifle innovation. It is accepted, however, that the final Report will need to develop themes and programmes across these sectors to establish a consistent and homogeneous approach.

4.5 Finally there was a body of opinion who felt that while emphasis should be in harnessing the tried-and-tested technologies there was also a strong case for considering the newly emerging developments if the City was to become a leader.

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5. Recommendations

5.1 The Group have reached a point at which it now seeks wider approval for the intended strategic direction and a “mandate” to continue along the path outlined below. It acknowledges that without the widest “buy in” to the proposals it cannot succeed in the longer term.

5.2 The recommendations are, therefore, that:

- (a) a “strategic ICT direction” be adopted for the City and the broader implications for the sub-region be considered with a view to inviting wider participation.
- (b) the “strategic direction” should encapsulate as many aspects of ICT as possible across all aspects of life within the City. A starting point is to divide this otherwise unmanageable task into three defined areas - Learning, Enterprise and Community/ Public Services.
- (c) the “strategic direction” should include the widest possible participation and, in particular, the socially deprived. This should extend to “user led” development to give the highest chance of success.
- (d) the three papers are adopted as the starting point on which to build the basis of taking forward the planning and attempts are being made, in parallel, to bring on board elements of the ICT industry within the City.
- (e) the current Group (or reconstituted as may be appropriate) be tasked with setting up a Steering Group to (i) define the Strategic Direction in more detail and (ii) to form the coordinating body between the three sub-groups.
- (f) the City Liaison Group are consulted with a view to their active participation and integration into the overall city strategic planning process.
- (g) while voluntary assistance from relevant organisations will continue to be central to the development of the plans there will be a need for some more substantial allocation of time and this should be funded. Sources for such funding will be sought.
- (h) those at the forefront of ICT (academic and commercial) are used to ensure the City has every opportunity to be the first to benefit from the latest developments in the technologies.
- (i) maintaining the momentum is essential and therefore setting milestones becomes imperative. It is recommended that the following are observed:
 - completion of consultation on the Interim report by October
 - detailed sub-group reports completed by November 1998
 - final report on the overall strategic direction and plans for its implementation by December 1998

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Appendix "A"

ICT STRATEGY GROUP MEMBERS

Mr Peter Cornick, Peter Cornick Associates - Chairman
Dr Jack Hobbs, Sheffield Hallam University
Mrs Brenda Tunney, British Telecom
Professor Ian Gow, School of Asian Studies, University of Sheffield
Mr Trevor Parsons, Sheffield Health
Mr David Jennings, David Jennings Associates
Mr Paul Williamson, Sheffield TEC
Mr Seb Schmoller, the Sheffield College
Mr Mark Webster, Sheffield City Council
Mr Ken Bellamy, Sheffield City Council
Dr Anthony Fretwell-Downing, Fretwell-Downing Data Systems Ltd
Mr Mike Powell, Open Information Project
Mr James Dixon, James Dixon
Mr David Lumley, South Yorkshire Passenger Transport Executive
Mrs Jane Webb, Benefits Agency
Mr Bob Price, CMS Management Services (Council IT Outsourcing Contractor)
Mr Paul Blackwell, CMS Management Services

Thanks are due to all those above and, in particular, to:

Seb Schmoller - for his work as Group Secretary and his contribution to the Learning Paper.

Jack Hobbs - also for his work on the Learning Paper

Paul Williamson - for the paper on Business Support and Enterprise.

Mike Powell - for the paper on Community and Public Service.

GTL/ Yorkshire Cable for the use of their premises and hospitality

BUSINESS SUPPORT AND ENTERPRISE WORKING GROUP

Introduction

1. This strategy is one element of an overall strategic framework for ICT in Sheffield which also encompasses *Community and Learning and Skills*.
2. The basis for this strategy is drawn to a great extent from Sheffield TEC's existing ICT strategy, which also focuses on the needs of people in education and training and the wider community, along with businesses. It is consistent also with the CLG's strategy for Enterprise and Employment.

Market Needs

3. Sheffield TEC has carried out a review of existing ICT initiatives in the city, and has surveyed local businesses on their ICT needs through their annual employer survey. The TEC has, in addition, carried out a research project with the aims of :

- identifying key generic trends in ICT development, and the nature of the skills likely to be required;
- examining the attitudes of people in business towards the use of ICT;
- assessing local organisations' present and future use of ICT; and
- assessing the local provision of ICT support and training.

4. In addition, The TEC's Network Brokers have carried out a considerable amount of field research, holding in depth discussions with over a third of the 534 local ICT companies currently on their database. Data from this fieldwork will form the basis of an IT Directory to be published in June 1998).

5. **Key messages and conclusions** to emerge from these studies are as follows :

- Over 40% of local SMEs anticipate a need for ICT skills if their companies are to be able to capitalise on growth opportunities.
- The multi dimensional nature of IT skills makes it difficult to determine where IT has a largely upskilling or downskilling effect; however research indicates that the acquisition of related skills is viewed as a positive step by both individuals and businesses.
- The existence of a 'mentor', whether a supplier, expert, or friend, is a key factor in opening up the eyes of users to the potential of IT, but the capability of these mentors varies enormously.
- The attitude of key decision makers is crucial to the extent / nature of usage of ICT in the workplace.
- When ICT systems are introduced, formal training takes place, but is usually undertaken on an ad hoc or informal basis.
- The decision to invest in ICT is also often taken on faith rather than a systematic analysis of business costs and benefits. As a result, computer based systems tend to automate existing practice as opposed to supporting change in organisations or improving working practices. *Formal training is more likely to take place if it were part of a package of systematic analysis.*
- Business often do not recognise their needs, particularly when compared to best practice standards.
- Recognised needs amongst businesses include : independent advice away from the pressure of a selling environment; assistance in understanding technical jargon. *IT Advice Net and ISI Local Support Centres are a start towards the provision of such services, but still needs to be developed.*

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- a means of assessing the implications of and contributions which ICT can make; demonstrations of equipment and training for ICT users.
- Barriers include : time available for ICT developments; recognition if ICT training needs; costs of training; need for in house support; existing ICT capabilities of owners / managers; the reluctance on the part of some smaller organisations to network with support agencies.
- Nearly one third of businesses surveyed by the TEC (particularly those most recently established) would like to access information using ICT, e.g., the Internet.
- Demand for support tends not to encompass ICT related NVQs.

6. In addition, Sheffield has a lower incidence of ICT or high technology based businesses than the national average. Given that this sector is and will continue to be a key driver for economic growth in the future, it is crucial that this imbalance is addressed. Some key issues to be addressed for this sector are as follows :

- Local ICT companies perceive that marketing of their products / services is weak. (Combined with the disinclination of many SMEs to actually invest in support and develop their ICT skills, the need for some catalyst / market making activity is highlighted).
- Local ICT companies will need support if they are to provide the mentoring support service to SMEs identified in para 5.
- Local ICT companies are threatened by both the discount mail order supply of hardware and software, and national and multi national companies.
- Many local ICT companies do not have any accreditation (e.g., TickIT, ISO 9000/1/2). *Support is required to identify the value of accreditation and to help local SMEs attain the relevant standards.*
- Awareness of local ICT companies and services is very low, and support is required to raise their profile, and to boost local take up of services.

Aims and Objectives

7. In the light of the above, it is possible to define broad aims, and supporting objectives, for the Sheffield ICT strategy for Business Support and Enterprise.

Aims

8. These are twofold, to reflect firstly the need to support the adoption and effective use of ICT in all Sheffield businesses, and secondly the need to ensure that we support the growth of a larger and more successful ICT based business sector.

Aim 1 : Business Support

To ensure that Sheffield businesses, particularly SMEs and those in key strategic sectors, make effective use of ICT to support their operations, to drive growth, and to support change and improvement in working practices.

9. We should measure our success against this aim through, for example :
- The number of businesses who improve business control, effectiveness, efficiency, and management decision making through the application of ICT.
 - The number of businesses who invest in the development of ICT skills.
 - The number of businesses who develop competitive edge capabilities through the application of ICT.
 - The number of businesses who access expert support.

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10. Given limited public funding to support activity in this area, it is proposed that agencies focus on SMEs and micro businesses (because larger businesses tend to have greater levels of internal resources devoted to ICT, and because SMEs and smaller businesses are likely to be a greater source of employment growth), and upon businesses in key strategic industrial sectors (to support the CLG's strategy, and because we would wish to prioritise sectors where there will be greater added value to the local economy).

Aim 2 : Enterprise

To support the growth and development of a healthy and vibrant ICT business sector in Sheffield.

11. We should measure our success against this aim through, for example :
- The number of businesses in the ICT sector located in Sheffield. (Measured as a percentage of the national figure).
 - The growth of businesses in this sector in terms of competitive measures such as employment, international trade, market share, turnover and profitability.
 - The number of businesses in this sector which access expert support.

Fieldwork by the Network Brokers has established a basis upon which action can be based.

Objectives

12. To support the attainment of the two aims, there are a number of objectives which should be adopted :

- (i) To ensure that local businesses are aware of and understand the opportunities and benefits which may accrue to them through the effective adoption of ICT.
- (ii) To support the effective introduction, adoption, and application of ICT within businesses, in terms of hardware, software, and systems. (*building on, for example, the BuyIT initiative*).
- (iii) To promote and support investment by local businesses in the development of ICT skills, particularly through the development of tools to enable organisations and businesses to recognise and address skills deficiencies. This should address labour market entry, management skills, and ongoing staff development.
- (iv) To provide / facilitate access to independent ICT related technical support for businesses.
- (v) To support the development of integrated approaches to business development, which links ICT developments to, e.g., management development, HRM, technology transfer, etc..
- (vi) To develop and implement an integrated programme of support for ICT based businesses, addressing : premises; funding; HRM; strategic planning; marketing; technology transfer; market development; quality approaches; etc..
- (vii) To support collaborative marketing and development amongst local ICT firms.

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(viii) To support continuing professional development for those working in ICT (*addressing ICT staff in SMEs, and those people requiring higher level technical skills*).

(ix) To initiate a local market making exercise which not only supports take up of ICT services from local SMEs, but also links them to local suppliers. (*The introduction of a local ICT exhibition / business to business event should be considered*). (*We should also consider the introduction of a local quality mark / charter for services*).

(x) To ensure effective local collaboration between local support agencies, including Business Link, Network Brokers, Universities, and the Sheffield College. Wherever possible, existing local fora should be used to co-ordinate action. (*The development of an ICT version of Medilink should be considered*).

(xi) To develop / exploit ICT based communications and information systems to support the strategy.

(xii) To ensure that local business support agencies are responsive to local needs on ICT, through research and evaluation of services.

(xiii) To ensure effective delivery of government led and funded initiatives to support ICT skills development, such as the Millennium Bug Training Programme, IT Centres of Excellence, Skills Challenge, etc..

Roles and Responsibilities

13. Overall strategic direction for the initiative will be through the City Liaison Group, and through the Sheffield ICT Group.

14. The South Yorkshire Partnership for Innovation and Technology are developing a sub regional approach to support the development of ICT based businesses, and, possibly, to support the effective use of ICT in all businesses. They will be a key conduit for EU funds to support work, and care must be taken to ensure consistency between the local and sub regional approaches.

15. Responsibility for the development and implementation of the local strategy should rest with Sheffield TEC and Sheffield Business Link, who will be the key sources of / conduit for public funding. They will work with the Business Link and local ISI partnerships to both develop and implement the strategy.

Next Steps

16. Much work is already underway in relation the aims and objectives outlined above. A key next step is to map this existing activity against our desired activity and outcomes, to identify gaps and priorities for service development, to assess the resources required to deliver interventions, and to pursue the securing of resources. Under each of the objectives, we should map out the service interventions required, responsibility for developing and delivering these interventions, and a resourcing / funding strategy for each.

17. We need to ensure clarification on proposed measures of success in terms of : establishing baselines; establishing targets and milestones; establishing evaluation methodology to track progress; etc.. key here will be the identification of resources to support, and responsibility for delivering, the work required to collect information and track progress.

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18. We should ensure that CLG, SYPIT, and other key partnerships and partners are aware of, are consulted upon, and endorse the strategy.

19. There are crucial overlaps between the Business Support / Enterprise strategy and that for Skills, particularly in relation to labour market entry. A key task is to ensure consistency, and to identify roles and responsibilities for delivery of these elements.

Paul Williamson
Sheffield TEC

COMMUNITY AND PUBLIC SERVICE WORKING GROUP.

Introduction

Representatives of a number of Sheffield organisations have been meeting to develop an Information and Communication Technology (ICT) strategy for the city. This is in the context of the ever increasing use of ICT in all areas of life, its integral role in future economic development and the clear priority given to its increasing use in the delivery of public service by the government and the EC. It is intended that this work, which was originally instigated by a working group set up by the City Liaison Group, will be integrated with the overall strategy for the city being developed by the latter.

Why link ‘Community’ and ‘Public Service’?

The opportunity of using ICT to create new channels of communication and of information exchange in the ‘public domain’ allows the re-statement of certain basic principles and understandings. Among these is the notion that ‘public information’ is produced by and used by individuals, businesses, community organisations and public bodies. In other words it is produced by, used by and should belong to everyone. For example a community group developing proposals for the use of some waste land will need to know how the council would like to it developed just as much as the council needs to know the communities views if it is to take a good decision. It therefore makes every sense to base the development of new information and communication channels on all who may contribute to or use them.

Such an approach is anyway compatible with two imperatives which must govern the development of work in this area. These are that :-

1. The work of the Group must promote social inclusion in the ‘information’ society. This is both a political imperative, given for example the decreasing public interest in local democracy, and a pre-condition of most available funding for work in this area.
2. It must involve potential users in the identification and design of the information, communication and service channels it seeks to encourage. If it doesn’t, those channels will not work. This is both an increasingly recognised element of good practice within the ICT industry and fully consistent with recent government directives concerning ‘best value’. These require public bodies not only to be aware of customer requirements in their delivery of services but to be able to demonstrate that this is so.

These points are emphasised in the light of research findings. In the widest ranging UK study on the role of human and organizational factors in the performance of Information Technology, Sheffield University’s Professor Cleggⁱ found that “80-90% of IT investments do not meet their performance objectives” and that “In most cases users do not have a substantial influence on system development. This has an adverse effect on subsequent performance”. Another paper ‘Community Based Initiatives and Social Inclusion’ⁱⁱ is critical of local authorities which see ICT “simply as the latest device for the one way transmission of information to the public”. It argues that the “early involvement of community and voluntary agencies” in the planning of digital networks “is essential to ensure the widest possible access, development of content, acquisition of skills and distribution of benefits”. This is what the Sheffield working group should intend to achieve.

ⁱ Clegg, Professor C. et al., “The performance of Information Technology and the role of human and organisational factors”, Report to the ESRC, January 1996

ⁱⁱ Day, P. and Harris K., “Down-to-Earth Vision, Community Based Initiatives and Social Inclusion”, IBM and Community Development Foundation, November 1997

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Vision

Sheffield has the potential to turn its late starting point in this area into an advantage. There is an opportunity to develop public service, third sector and community information and communication channels in ways better than that done elsewhere. This improvement will be based on the recognition of the imperatives of collaboration, user orientation and inclusion as well as of sustainability.

The processes adopted to achieve this will themselves form one example of that improvement because they will involve ways of working based on the above imperatives.

These processes will broaden the understanding of how ICT can enable efficient, collaborative working across multiple organisations. They will encourage the adoption of ICT in the appropriate, user-defined way to support the communication and management functions of key city partnership strategies such as that of Area Based Regeneration Partnerships (City Council) and Community Participation Strategy (Sheffield Health).

They will inform the development city-wide information architecture capable of providing seamless information geared to the needs of particular user groups. Thus for instance a member of the public starting with the word Alzheimer could be presented with information produced by City Libraries, Social Services, the Health Authority, the Benefits Agency and by a number of voluntary organisations according to what information they wanted rather than whose web site they approached initially. Information from the same databases, presented in different ways, could be used by organisations to understand the problem of Alzheimers, develop policy, plan and monitor services.

Areas of interest

The working group will focus on the following areas:

- Raising public awareness and use of ICT as a tool for information and communication
- Raising awareness and use of ICT amongst third sector and community organisations
- The interface between public services and the public in terms of two way communication, the development of electronic means of service delivery and the identification and delivery of that 'public' information which the public wants
- The interface between public services and third sector and community organisations, in particular the use of ICT for the development of mechanisms for consultation and for the creation and management of partnerships
- The organisation, delivery and use of information, from all sources, relevant to civil society, governance and social issues in Sheffield.

Objectives

The Group will develop a comprehensive strategy for the effective use of ICT within its areas of interest in time for inclusion within the city's plans for its **objective 1** status.

The strategy will recognise the role of work already being done in these areas, of new initiatives developed by the working group's members. It will also include analysis of any gaps and consider the longer term role of the working group as a mechanism for generating co-ordinated progress.

The strategy will establish long term goals and interim objectives for each area of interest adopted. These will seek to cover quantitative and qualitative targets, including the degree of participation achieved in its work.

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Role

In addition to its strategic role, the Group will be expected to maintain a knowledge of developments in its areas of interest adequate to support initiatives carried out by members and others; to encourage and facilitate collaboration; to identify areas where progress is not being made; and to develop or support new initiatives accordingly.

It should also function as a clearing house and unofficial 'approving' body for projects relevant to its sector and for co-ordination with the other groups.

Interaction with other groups

The community and public service working group would expect to work closely with the other working groups or with initiatives linked to them. Part of its co-ordination role will be to identify and pass on the training needs of its own participants. It should also be alert for and open to opportunities for the involvement of the local private sector in providing solutions relevant to its areas of interest. The proposed posting of information to the www and the use of cross working group mailing lists should facilitate this collaboration.

Interaction with 'Core Group'

This working group would expect to liaise closely with any 'over-arching' city-wide ICT strategy group and would expect one or some of its members to be represented on it.

It sees three continuing roles for an 'over-arching' city-wide group. These are:

1. Clarification of remit between the three first groups and any future ones and the resolution of any problems with 'overlap' which have not been settled between individual groups
2. Co-ordination on issues where there is clear advantage to doing so at this level - such as maximising public access to machines, technical standards, infrastructure
3. Maintenance and development of a city-wide vision and strategy so that we don't fall back to being just groups of poorly added up parts.

Membership and Organisation

It is proposed that the working group be established as an informal partnership which could become more formal should it develop projects itself. Membership of the partnership would consist of bodies providing public services, university departments active in the above areas of interest and third sector and community organisations active in the development of ICT usage. Initial membership would consist of all such bodies which wish to join. It should be open to any such body whose application to join is accepted by existing members.

Initial members might include: -

- Public Service Bodies - Sheffield Health, Sheffield TEC, the ICT manager, the Community Partnerships Unit and the libraries from the City Council, the Benefits Agency and South Yorkshire Police
- Academic Bodies - SHUCAN and SINTO from Sheffield Hallam University, the Departments of Information Studies and of Sociology at the University of Sheffield
- Community and Third Sector Organisations - Open Information Project, the Network Users Forum, emergent community networks in Manor and Castle, Stocksbridge, Netherthorpe and Handsworth,

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The working group should organise itself to work in an effective way. This may require the election of a steering group. It is likely to include the formation of sub-groups to develop work around specific tasks or issues. The working group and sub-groups should be free to invite the participation of non members or members of other groups if they believe that would be helpful.

The potential importance of the group's work, the areas it covers and the possible lack of bureaucratic control structures make transparency of its activities essential.. The working group and all sub groups will regularly post summaries of their work onto the world-wide web. Mailing lists will be developed to ensure that all partners, including those in other groups, are kept informed to the degree they require.

First Steps

1. To discuss these proposals and those of the other groups prior to integrating them within a revised and agreed ICT Strategic Framework document.
2. To secure the integration of such a document and these plans within the City Liaison Group's strategy and the strategies of other key bodies
3. To secure ERDF funding for the 'Regeneration Network' project which is based on an identical model of collaboration to that proposed in this document, albeit having a narrower 'information and communication for regeneration' focus.
4. To convene a half day meeting in late 1998 of the proposed participants in this strategy with a view to logging current work in these areas and brainstorming what might be done in the hope of developing a number of clusters of both information and organisations worthy of future work.
5. On the basis of what has happened in 1-4 above to revise this paper in time for the Final Report of the ICT strategy group and include plans for further progress in 1999.

Mike Powell

LEARNING WORKING GROUP

1. Purpose

The purpose of the strategy is to:

- Support local schools in developing IT literate pupils
- Service the IT skill needs of local and incoming people
- Ensure that Sheffield develops a producer economy in the IT sector and is not just a consumer
- Attract and create added-value IT employment in Sheffield, including jobs related to content creation in the knowledge industries
- Develop Sheffield as an on-line education centre of excellence using national initiatives such as UFI and NGL

2. Sectors to be addressed

- Schools
- Communities
- Further and Higher Education
- Companies
- Private Training Providers

3. Actions

3.1 Infrastructure

- Physical:

A city wide commitment to develop a common network concept which serves the purpose of the city and ensures that it has lead edge capability. This would need to reflect sub-regional, regional, national and international initiatives.

The Universities and the FE Colleges (SYNE) are for the sub-region and the development of the already networked “Knowledge House” concept with it’s nodes in Barnsley, Doncaster, Rotherham and Sheffield provides a conceptual and physical network framework. In Yorkshire and the Humber the YHMAN provides lead edge capability which links to Super-Janet and international networks. Within Sheffield, CITINET could form the framework for partnership development.

The Sheffield partnership would have to develop it’s strategy in line with partners in South Yorkshire, at least, and would need to ensure networking to community centres. The partnership would lead in setting standards, branding, identifying pathways and developing lead edge elements within the network.

- Human

IT literacy in communities
Teacher training
School pupils (national curriculum and NGL)
Employment skill shortages
SME staff development with enterprise as an integrated strand
Lead edge and higher skills capabilities

Sheffield ICT Strategy

4. Lead Edge Development Areas

- Electronic trading and information business trading on the web
- Software tools and their evaluation for Security/ Authorisation/ Certification/ Finance
- Network Software development
- Information provision and data warehouses
- Higher skills education and training
- Graphics (including virtual reality), particularly as applied to Sport, Medicine and Games Manufacture.

Jack Hobbs
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3 June 1998

SHEFFIELD IN THE INFORMATION SOCIETY - A DRAFT STRATEGIC FRAMEWORK

22 March 1998

Summary

Sheffield needs to coordinate and agree the vision of its potential as an active part of the a global information society. City-wide progress could be accelerated a co-ordinated effort to exploit information and communication technologies (ICT). Failure to respond (pro-actively) to existing opportunities will slow down the economic regeneration of the City and may hamper the City's ability to compete globally. Cities that exploit new technology first will gain the advantage and be reap economic and social rewards for doing so. Delay in investment will not become apparent for several years, when it may be too late to do anything about it.

Attempting to impose a "strategic blueprint" will not work. Instead we recommend a "strategic pattern" approach, based on shared vision, priorities and principles for how we initiate and cross-fertilise ICT development. This should allow flexibility and openness without stifling innovation.

The vision served by this strategy is that -

"Sheffield will help develop all its people to become
producers as well as consumers in the ICT economy"

Rationale - why Sheffield needs to be strategic about information and communications technology

We are already living in an information society. Successful organisations in the public, private or voluntary sectors are organisations which know how to use ICT to find, integrate, distribute, use and create value-added information.

The same will be said of places. Cities or regions which are able to bring together the totality of their information resources and use them for their economic and social development are the places which that will thrive. This "information architecture" should enable and improve communication, and enhance the human and technical infrastructure of the city.

Like any urban architecture, the information architecture does not need to be built, designed or controlled centrally. However, without any recognisable pattern (developed through planning and consultation, and evolving continuously through interaction and feedback) it will be ineffective.

The architecture must live and breathe. It must support and enhance relationships between groups and agencies in all sectors. The communications potential of ICTs is essential to achieving this. It should facilitate networking and coordination within and between interest groups, private, public and voluntary sectors, and support agencies. It will complement, but not replace, traditional forms of communication.

The potential of the information society has been and is being transformed by ICT. Any information strategy must include as a priority a number of ICT related strands. These include:-

- ICT as an enabling technology of a modern and efficient "information architecture"
- Universal ICT literacy as a precondition of people being able to apply it productively whatever their area of work, leisure or interest

Sheffield ICT Strategy

- ICT as a growth industry which if fostered - skills development, development foci, ICT rich environment/infrastructure - can create local employment and wealth.
- ICT as a potential social cost: one which may exclude people, create and accentuate divisions and weaken society in the process

SWOT Analysis for Sheffield

Strengths

- Plethora of relatively successful small projects (see lists at <http://www.shef.ac.uk/~nuf/websites.html> and ICT "Audit Report" commissioned by Sheffield TEC, December 1997)
- Some innovative academic departments (e.g. Centre for Study of Networked Learning, CREDO, University of Sheffield; Centre for Multimedia in Education, Sheffield Hallam University)
- Both Sheffield universities, the college, and some private training providers are large scale providers of ICT education and training
- The city is home to some significant ICT-related companies (e.g. Sanderson, Fretwell-Downing Group, Midland Bank, Gremlin Interactive, LightWord Design Ltd and a developing media sector)

Weaknesses

- Has a poor "Information Architecture", only likely to attract attention as a pub quiz question e.g. "which European City has 15 unlinked home pages on the Internet?"
- Suffers by comparison to the infrastructure, architecture and access in many other cities and towns (e.g. Manchester, Sunderland, Barnsley)
- Apparently little thought about the use of ICT for the delivery of public services (unlike Leeds, Kirklees, National Government and the EC)
- Currently has no senior figure or key organisation providing leadership
- At risk of projecting an image of a backward looking city unable to understand or respond to world wide trends. (The image of early 19th century Northampton refusing permission for the London - Birmingham rail line to go through the town springs to mind).

Opportunities

- Harness the role ICTs can play in economic regeneration, learning, and "culture" (by culture, we mean a combination of communication, and access to information, images, know-how etc.)
- Communications potential of new enterprises - visitor attractions, sport etc. - and marketing and process potential for established industries
- Chance to build on applications of ICT where local organisations have established a strong profile (particularly, but not exclusively in learning, and media applications)
- Chance to attract new investment from ICT using these sectors, based on the strong ICT "labour supply-side" package provided by local large scale ICT education and training providers
- Chance to access EC, Government, Lottery etc. funds for ICT projects, which will be enhanced by evidence of local ICT partnerships.

Threats

- Exclusion from developing regional information architecture by "missing the boat"
- Exclusion from new government initiatives (of all types) through inability to use preferred means of communication
- Better users of information dominate markets and local companies fail to remain competitive
- Ignored by potential ICT inward investors
- Development may be thwarted due to a growing shortage of people with ICT skills

Sheffield ICT Strategy

Benefits - what we can gain from a more strategic approach

Public discourse and accountability

- Raise awareness
- Enable "users" to shape Sheffield's approach
- Spread best (effective?) practice
- Actively work to include disadvantaged groups in the move to an information society through creating access to ICT resources

Practical actions

- Draw all key players into concerted action
- Create a regularly updated summary of significant local ICT projects and activities
- Help organisations (public/private/voluntary, big/small, etc.) think about how they manage information and how their ICT links with the wider context
- Tackle the local ICT skill shortage (e.g. by linking training and placement offerings by large providers)
- Ensure a minimum entitlement to/level of access to ICT resources (e.g. no-one in main urban areas should live more than 15 minutes walk from an ICT access point)
- Utilise talents within the City to develop State of the Art facilities (nationally and at a European level) which will support business development, training and assist in attracting inward investment (perhaps this should be in the section "positioning the City")

Coordination and economies of scale

- Encourage cross-project and cross-institution synergies/links between complementary facilities; and pre-empt "turf wars"
- Set up processes which will enable local policy makers to get policies put through an "ICT mill" before being finalised.

Positioning the city

- Increase the amount of funds which Sheffield attracts into ICT projects
- Inform local/regional etc. policy making
- Put Sheffield on the map when it comes to information communications and media developments of regional, national and international significance

Shape - our approach to strategy development

Information, communications and technologies are so all-pervasive that it is not possible for any group of players, no matter how "powerful", to control them and specify a blueprint for their development.

Accordingly we propose a strategy which is more "pattern" than "plan". That is a Sheffield ICT strategy which does not dictate to local organisation but which encourages them to approach ICT development in a broadly consistent way.

Such an evolutionary, pattern-based approach to developing information, communications and technologies in the city ensures flexibility in the face of a changing environment.

The flexibility should not be mistaken for vagueness. The pattern will need some defined features and values which organisations are encouraged to "sign up to". Signing up should commit them to approachability and accountability, without stifling innovation or their exploitation of their own good ideas .

Sheffield ICT Strategy

These may consist of:-

a vision :-

"Sheffield will help develop all its people to become producers as well as consumers in the ICT economy"

some common values :-

- avoid top-down imposition of projects, without the involvement of intended users
- avoid, where possible, competing provision and bids, and duplication of facilities
- exploit, wherever possible, opportunities for collaboration and connectivity between projects
- use generic, rather than proprietary standards, to support networking between initiatives
- widen access to, and use of, ICT infrastructure
- use ICT to support learning, and widen access to it, whenever opportunities arise.

agreement on priority development foci :-

These might start as

- a learning focus: to give people the skills to create their own, and/or use, digital "content" for business, community development, leisure, or learning, and to widen access to learning opportunities within Sheffield, through initiatives such as CITINET;
- an enterprise focus: creating "spin-off" companies from Universities and "incubator" units like Science Park developing products and services for on-line media (for distance learning, information services, culture and entertainment markets); encouraging ICT-using inward investment;
- a community focus: empowering people to use ICT to create and interpret their own circumstances, to interact with public services, to organise themselves, and to "publish" their own experiences (rather than have BskyB do it for them)

As developments in these foci reach out into the body politic, further strands may supplement them, including, for example, initiatives focused on investment and tourism.

some common understanding of how interventions interact :-

Interventions may be located on

- a "horizontal axis" - i.e. cross-sectoral developments such as training and development in ICT, using ICT to support learning, ICT infrastructure, inward investment

and on

- a "vertical axis" - focused on particular sectors such as cultural industries, multimedia and ancillary Internet services, education, business support, the third sector and its interaction with others - e.g. local government, health authority

A draft "map" of ICT interventions identified in the Sheffield ICT Project Audit (December 1997) is included in the Appendix.

Interventions should also be conscious of the global dimensions of ICT developments. Any actions must benefit the communications and infrastructure of the City itself, but should also enable the City, its people and enterprises to engage with the wider global market and society.

Sheffield ICT Strategy

Appendix - Map of ICT Interventions

