



The OxIT Cluster Story

ICT is crucial

ICT is a truly global industry. This is as true for niche software products as it is for commodities, such as operating systems. The core reason for this is that ICT software and content is one of only a handful of industries where the exchange of value can be completely electronic i.e. you pay with a credit card and you can use it immediately. All the other industries where this is possible, e.g. finance, publishing and gaming rely on ICT. Hence ICT, it can be argued, is the fundamental industry for any and all economies in the 21st century; genomics, nanotechnology and bioscience all rely on innovation in ICT.

What can be forgotten in the hype, is that real opportunities to dominate an ICT technology area, and generate significant economic benefit, open up each year.

The UK ICT Industry has unrealised potential

The UK's ICT industry has suffered since ICL's heyday. There a small number of medium size ICT service companies, such as Capita, and a large number of small and micro sized companies. However none have grown to the point of generating the massive economic benefits that the global multi-nationals such as Oracle, SAP and Microsoft. Very few even dominate the global niches that are their markets, for example Sophos is ranked 3rd or 4th largest anti-virus software company worldwide but they only employ 800 people.

The good news is that there are still many innovative ICT companies in Britain, the bad news is that nearly all are small and the ones that show signs of being interesting are hoovered up by the large global players. These organisations know how to buy well, in the main, ensuring the greater economic benefit stays offshore to the UK.

The other good news is that there is also significant ICT invention in the research institutions. The bad news is here that the culture in and current commercialisation processes of academia prevent the rapid engagement with the market that is crucial to success in software particularly. This is compounded by the fact that academia is not engaged with SME's who could provide entrepreneurial spark.

Inward investment in the UK ICT industry should be regarded as ambiguous. On the positive side jobs have been created over the years and UK talent has taken the opportunity to shine on a global stage, however indigenous intellectual property has either not flourished or it has been neglected or taken abroad. IBM is possibly the only one of the global ICT companies that still does research in the UK.

What needs to be done?

The first thing that needs to happen is to recognise that ICT is not only a strategic industry for the UK and particularly the South East, but also a significant source of growth and innovation. The right sort of strategic intervention from the Regional Development Agencies, particularly SEEDA, will make a significant difference. Without pre-judging any strategy that may be developed, it is very likely that organisations like OxIT will be part of the solution so it is important that OxIT's success to date is maintained.

What is the OxIT Cluster?

Purpose of the Cluster

The question "What is the purpose of the OXIT Cluster?" was posed at a workshop in January 2004 and generated the diagram below.

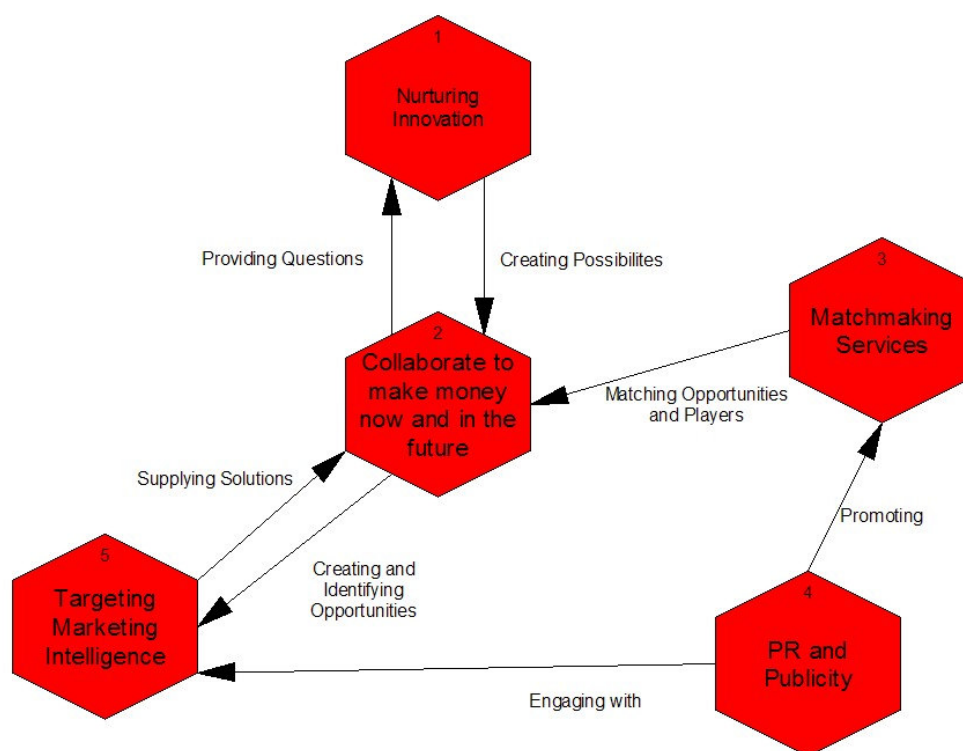


Figure 1 – Influence diagram of OxIT Cluster's Purpose

In summary, the Cluster exists to help its stakeholders create value through collaborating with each other.

Value of the Cluster to its members

The next level of detail reveals a number of key themes for areas of collaboration that will help members create value:-

- **Collaborating to share/develop best practice** – This is where members either get together and share their knowledge on a specific topic or ask an expert to come in and share their expertise. Examples in this theme include the strategic marketing workshop in February 2005 and the pricing workshop to be held in March 2005.
- **Collaborating on shared inputs** – OxIT's members are mainly micro businesses (<10 employees) and have similar needs. By working together members get a better deal on things that they all might buy. Examples include template legal agreements and access to market research

- **Collaboration to get business from the public sector** – the Federation of Small Businesses have made the point recently by in a submission to the Office for Fair Trading, that public sector procurement is biased against SME's. OxIT is realistic that this situation may not change and any change will be slow, however working together members may be able to overcome some of the barriers. Examples include looking for larger companies to "parent" smaller ones and accreditation schemes to lower the risk for public sector buyers in buying from small companies, and educating SME's on the niceties of the public procurement regime.
- **Collaboration/creating opportunities for members to win more business from the private sector** – local buyers of IT services need to be made more aware of the systems and service providers on their doorstep, with whom they can forge long-term, mutually beneficial relationships.
- **Collaboration on new "products"** – Oxfordshire is one of the centres of academic research in the UK. However, in a recent membership survey it is clear that academia is not interfacing with the ICT SME community on their doorstep. This is a missed opportunity for both communities. There are also opportunities for members to collaborate with each other to access opportunities that they could not individually. Examples of activity in this theme include the workshops with Oxford Brookes and Rutherford Appleton Laboratories.

OxIT's Values

In order for collaboration to deliver anything real, there needs to be a significant level of trust between the participants. The Cluster steering group believes that to allow this trust to develop that the Cluster needs to demonstrate openness and transparency and be fair, helpful and trustworthy.

At the next level of detail these were developed at a workshop in February 2004

- 1) **Fair Hearing** - This was seen as being particularly important to the small businesses involved in the cluster. SME's would be able to bring opportunities to the Cluster and they would get a fair hearing.
- 2) **Safe Environment** – a safe environment again was important to the SME's so that they could feel that they could bring ideas without worrying too much about having them ripped off. Also it was seen to be important to have a "level playing field" with the bigger companies where their power due to commercial size was moderated.
- 3) **Encourage Entrepreneurialism and Innovation** - this is fundamental to creating new business ideas and linking those with parts of the solution together
- 4) **Professionalism** - this was felt to be most important to large companies and the professions associated with the Cluster. It got 5 votes but this may indicate that this may have been a hygiene factor rather than a differentiator.
- 5) **Seeing it through** - was seen as being important to everyone. The Cluster must be seen to be helping putative projects move forward even through the difficult patches. It was linked with professionalism on the day, but on reflection it may be more important than professionalism.
- 6) **Promoting Collaboration and Facilitation** - again core to the proposition is the belief that working together and being actively encouraged and helped to work together is valuable to members and core to achieving the purpose of the Cluster.

Offerings

What OxIT Cluster offers its members includes:-

- A variety of events; workshops, seminars and training
- Lobbying public sector
- The OxIT Cluster "Marque" a brand that leverages the value of Oxford as a location
- Opportunities to sell to the Public Sector and in future to the private sector
- Sample legal agreements
- An information portal website

- A searchable competencies database for prospective customers to find suppliers and OxIT members to find potential sub-contractors or collaborators
- Links with local research institutions
- Benchmarking/Accreditation Scheme
- Marketing services, specifically PR for Oxfordshire ICT

Constitution and operation

OxIT is a company limited by guarantee controlled by its membership on a 1 organisation, 1 vote basis.

How is OxIT run?

OxIT has a board of directors as any other company. These directors are elected at the AGM, typically held in Q2 of each year. There are currently 7 directors who typically serve a term of 2 years and 1/3rd of the posts are up for election each year. This helps balance continuity and fresh ideas. The chair of OxIT is elected by the directors.

One of the conditions of the Cluster contract with SEEDA is that a separate Cluster Steering Group (CSG) was set up to specifically manage the cluster funds. All directors are members of the CSG. The CSG includes co-opted members that are not directors e.g. Membership Secretary and Facilitator to ensure smooth running of the Cluster.

Joint CSG/board meetings are held every 3-4 weeks, typically at the Magdalen Centre, Oxford Science Park.

Who is OxIT?

The Members:	Everyone listed on the website http://www.oxit-cluster.org.uk/MemberOrganisations/
The Directors:-	
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What has OxIT Cluster achieved?

The primary achievement of the Cluster is generating an environment for collaboration to happen.

This is significant as it is clear collaboration was no where near on the agenda of the Oxfordshire ICT community in the spring of 2003 when the first moves were made to establish OxIT Cluster. OxIT itself could not be considered a collaborative project at this stage. One can speculate about the

reasons for this, possibly the culture was not right or perhaps the people involved did not see the advantages. The point is that it was not happening.

This has now fundamentally changed. The Cluster Steering Group is a strongly collaborative team who are very committed to delivering the objectives agreed with SEEDA and creating an organisation sustainable in the long term. The membership has increased to over 160 and we are numbers are steadily increasing at events with over 40 at some evening meetings. More importantly members are generating new ideas about how OxIT could work for the overall community.

Collaboration takes time to achieve significant results as it requires trusted relationships to be established before moving into the detail of what products to develop to meet an identified opportunity. This can take from 1-3 years depending on the circumstances and requires both tangible and intangible investment.

At a different level OxIT is steadily engaging the research community. The point has been made before that the research community is not currently seen as a source of new products by SMEs, and the government has recognised the difficulty getting universities to interface with SME's. This is a major issue for UK PLC if the government's targets for the commercialising of research are to be met. OxIT Cluster is part of the solution through running focussed collaboration events with Oxford Brookes, Rutherford Appleton Laboratories and, in April, the Open University, to explain their research to established companies.

Specific milestones include:-

- Cluster conference in March 2004. Over 80 participants listened to presentations from Brookes, RAL, OCC and Malcolm McDonald regarding clustering and collaboration.
- Brookes Collaboration Workshop June 2004. Approx. 30 participants were exposed to research in data mining and visualisation. From this 3 potential collaboration projects were identified of which 1 is still ongoing
- Public Procurement Workshop Sept 2004. Over 30 attendees looked at the issues involved with getting business from the public sector. Mark Winstanley and Stephan Connaway from OCC provided guidance.
- Market Research Presentation. Clive Longbottom of Quocirca presented on trends in the IT industry to over 30 members
- Brookes Collaboration Workshop, Nov 2004. Brookes presented on Datamining, Agents and Network Security to over 30 members. 3 collaboration projects were identified, 1 is underway and 1 has applied for funding to the Knowledge Transfer Partnerships round the DTI launched in December.
- Market Led, Sales Driven workshop Feb 2005. Over 40 members were inspired by a workshop on how technology markets work. A programme of lectures and workshops has been requested by the membership from this event.
- RAL Seminar, March 2004. Approx 30 members are understanding RAL's work in GRID computing and experience management.
- Agreement with Oxford to Cambridge Arc to become their ICT Cluster partner.

Specific achievements include:-

- Over 160 members as of Feb 2005
- Of which at least 50 are considered "active"
- First ever deal struck with Forrester Research by a membership organisation
- 3 Active collaboration projects

The Vision

Why is the ICT Industry Important?

The reality of the 21st Century is a global economy where commodity work, e.g. volume manufacturing and call centres, is cheaper to undertake in the developing world rather than the UK. One of the few ways that UK PLC can keep generating new wealth and new jobs is by continuously innovating.

ICT is an industry that the UK pioneered and failed to protect its leading position. It is possible to underestimate the importance of the ICT industry, in fact just by using the acronym one falls into that trap.

Information and Communications Technologies are technologies that communicate knowledge between people, sometimes directly through e.g. video conferencing or often more indirectly through the massive knowledge and know how accumulated over many years that is now embedded in software systems such as SAP. If you accept this definition, there can be no more important sector for a knowledge economy; it is a dominant part of digital media. ICT technologies are in the same position as the people that sold spades in the gold rush, the key to wealth in other sectors, and the ones that profit the most.

While at one level it can be viewed as a mature industry, the pace of innovation and wealth creation is as fast as it ever was. Who would have thought that Google or Ebay would be worth billions when they were launched less than 10 years ago? New opportunities to create huge wealth for UK and Oxfordshire emerge regularly, however UK PLC has not yet learnt to exploit them properly.

ICT, it can be argued, is the industry that can have the biggest and quickest impact on the economy for 3 main reasons:-

- The opportunities to innovate are only constrained by the imagination
- ICT, because software can be transmitted electronically, is the only industry where a global market can be reached by any innovator
- It is a key infrastructure for virtually all other economic activity in developed economies

Why are organisations like OxIT Cluster important?

The UK and the South East in particular, is still a source of tremendous innovation in ICT. The economic impact of this innovation is not maximised because when it comes to market is bought cheaply, or out marketed, by the global multi-nationals.

In addition, the government has already identified that much of the research in academia does not get to the point of commercialisation. Hence much of the potential economic benefit of the taxpayer's investment in academia is lost. Academia has very few links with ICT SMEs.

Compounding both of these issues is the inward investment dilemma. Inward investment delivers short term economic benefit, however, should there be a down turn it is always the locations remote from head office that are closed first. In the ICT, industry IBM is the only global player that still does significant research in the UK. Others "partner" UK academia making little long term investment and getting priority access to the best research.

For the economic benefit of the region and the UK, what are needed are strong indigenous ICT companies that can compete globally.

The raw materials are present, entrepreneurs with ideas, technical skills, research and investment. Five key areas need to be addressed

- Building skills and confidence in strategic marketing so companies know their value to customers and potential purchasers
- Creating a culture of excellence so that local SMEs are, and are perceived to be, world class
- Building solid links with academia to ensure a strong flow of new invention to be commercialised
- Raising the profile of the community so that potential customers are drawn to the excellence.
- Ensuring that the largest consumer of ICT in the UK, the public sector, provide opportunities for indigenous ICT SMEs.

ICT Clusters, such as OxIT, are excellent ways of making progress in all of these 5 areas.

What Next?

While we have a vision of creating a strong indigenous ICT industry the reality is more prosaic. We have to build on what is a solid foundation with small steps.

Strategic Marketing

Building on the inspiration created by the "Market Led, Sales Driven" presentation in February, the members have requested a series of more detailed workshops on aspects of strategic marketing. They have even indicated that they would be willing to pay extra for them

Oxford to Cambridge Arc

OxIT has been asked to develop an ICT cluster concept across the Oxford to Cambridge Arc. Initially this will be working with the Central Innovation Network to extend our activities to ICT companies and research institutions in Bucks Beds and Milton Keynes.

This will allow OxIT access to new academic institutions, the Open University and Cranfield, new local authorities and additional members, helping move the organisation to critical mass. This will require investment as it is again a standing start and a similar process to what has already happened in Oxfordshire will be required.

Public Sector

The current project is tasked to deliver at least one "parent", a larger ICT company that is prepared to act as prime contractor for OxIT companies that may be solid, but do not yet have the track record that Public Sector purchasers need to minimise their risks. The next step is to work with them and the membership to identify projects in the Public Sector where the smaller OxIT member can add value. OxIT can facilitate the process of building the partnership.

In addition we are planning to extend our links with the public sector, currently focussed on Oxfordshire County Council and the Council for the Central laboratory of the Research Councils (CCLRC) to include the Berkshire Unitary Authorities, Buckinghamshire, Bedfordshire and Milton Keynes Councils and Thames Valley Health Authority. What we want to do is to arrange "showcases" of relevant technology and get early notice of potential requirements so that local companies get a chance to bid for projects on their doorstep.

Competencies Database

OxIT is in the process of capturing the competencies of its members as part of developing the website into a fully fledged portal. The intention is for visitors to the website to be able to search for the type of capabilities they need and be presented with a list of organisations that meet these needs. One of

the key differences between OxIT's service and other supplier matching services is that OxIT's system will require evidence to be presented alongside the claim. This could be a customer reference or case study and/or, for more specific skills, copies of certificates.

OxIT is planning to market this database to purchasers of IT services and products to start to develop a flow of opportunities for members.

Benchmarking/Accreditation

There are two reasons for creating an accreditation scheme, one is to generate a brand that sets an expectation of capability and the second is to generate business for people that have the accreditation. Most schemes are good at the former and generally poor at the latter.

Part of the reason for an OxIT scheme is to go to the Public Sector procurers in particular and get them to use it as part qualification towards being able to bid for work, helping OxIT's members to at least get on the playing field if not levelling it. It also starts the process of creating a culture of excellence.

Extending the membership

OxIT was established to facilitate an ICT community in Oxfordshire. This should include the user community as well as the academic and vendor communities. Recently, OxIT has not spent much time understanding and delivering what the needs are for collaboration between the users and between the user, academic and vendor communities. We have had some enquiries from the user community and are looking at how to engage with them at the right level.

Progress towards sustainability

In the work the CSG has done in analysing the membership survey undertaken in Feb 2005, it is clear that OxIT has yet not shown the full value of the Cluster concept. This is only to be expected with a membership that has been quango initiatives come and go. The fact that they are in the main the survivors from the tech-bust also makes them naturally cautious. They need to see real revenue going to members from new collaborative products or business from the public sector, for example, for them to pay the real costs of running the cluster.

However they are already prepared to pay for OxIT at a similar level to other trade organisations such as the Chamber of Commerce or Federation of Small Business. Projecting the probable revenue from this level suggests that OxIT could survive. It would however have to curtail activities, such as access to Forrester, that help build the collaboration environment. There is a danger that this could lead to a "half-dead" organisation that limps from crisis to crisis.

The survey does suggest that if OxIT was able to point to case studies of how members had got business through Cluster membership, then we would be able to charge the sorts of fees that would be needed to run a true collaborative cluster sustainably without grant funding.

The CSG's estimate is that to become properly sustainable needs another 12 months of the level of activity underway at the moment. This suggests we have a shortfall of at least £80,000 for the financial year 2005/6.

What happens if there is no additional funding?

A golden opportunity would be lost.

It is possible that some kind of collaboration may continue, particularly amongst the members of the CSG, as the relationships have already been established. However it is very unlikely to grow beyond

that. OxIT networking activity may continue. It is very likely that everyone involved will get more cynical about SEEDA specifically and government initiatives generally.

Background

OxIT was set up in 2000 and in its first few years focussed on networking and education, the latter funded by the Learning and Skills Council.

When SEEDA decided to set up a number of clusters across the South East, OxIT was one of the only commercially based organisations to apply for funding. This funding was agreed in Spring 2003 and contracts signed and the project started in Autumn 2003. In the contract was included a requirement to account for the monies allocated separately from OxIT's other activities. This was interpreted as requiring almost a separate structure. The Cluster Steering Group was constituted in December 2004.

The SEEDA clusters were set incorporating ideas from Ifor Williams a senior New Zealand academic with a world wide reputation for developing clusters. This template, at a high level, consisted of the following elements:-

- A Business Champion
- A Facilitator
- A Vision
- A Plan on how to get there
- Companies who are prepared to invest their effort to make it work
- A commercial approach
- Support
- Collaboration

Importantly a "cluster" was positioned differently to a "network" in that it requires active, rather than passive, member company involvement.

The initial objectives of the Cluster were to recruit and educate members to the benefits of collaboration and build relationships with the research organisations to start the process of technology transfer to SME's.

Lessons Learnt

Collaboration has to come from within

The difference between passive and active company involvement to achieve collaboration is easy to understand logically but has a massive practical impact. It has to be emphasised that OxIT is building something from nothing in Oxfordshire working with a generally sceptical membership who have the scars from the tech bubble. It takes time to build the relationships and trust necessary and this trust can be destroyed in an instant.

Collaboration has no ego

Collaboration is about the team not the individual. One or two individuals that look to impose their own ideas destroy any chance of collaboration. It has to be remembered at all times that the OxIT members are all peers, there is no hierarchy. Teams are more powerful than individuals, they have more resources and diversity of opinion and outlook. They do however take time and facilitation, if only informally, to get to the point of being able to perform

It takes time and the right resources

To build the right culture and organisation from scratch takes time. This is particularly true in OxIT's case where the CSG have other jobs to do. OxIT Cluster had to re-start when it was realised that the necessary skills were different to the ones that were in place. From what we know now establishing a sustainable cluster from scratch takes at least 2 years and a commitment to on going funding should have been sought in 2003 to avoid losing momentum.

Separation of Board and CSG was wrong

It lead to unnecessary friction between the two groups and it slowed down development of the cluster.

Needs a high profile chair, not a champion.

Getting access to the right people would be much easier with a chairperson who was known in the corridors of power. This chair, however, does need to be part of the business of the Cluster, not just a figurehead. OxIT is searching for the right individual.

Scale matters

To be able to be sustainable and get the requisite variety of skills and outlook needs lots of members prepared to pay a reasonable amount for their part of the costs of running the business.

Networking is a pre-requisite for collaboration

This may seem obvious, but because it is it is, it can be overlooked. Collaborative relationships develop from a discussion about what is important to both parties. This builds on an established social contact.

It is complex

The stakeholders involved in the Cluster, e.g. Academia, Public Sector, Small and Large ICT companies, have varied and complex requirements. Managing the complexity requires new skills and takes time.

Conclusion

From a standing start OxIT feels that it has made good progress towards creating a vibrant ICT Cluster in Oxfordshire. We now know what we need to do to prove the value of collaboration to the community; however this takes time. With the work that is planned, on the foundations that have been laid, we strongly believe that we establish a sustainable Cluster. This will require funding through until March 2006.