STRATEGY FOR ENTERPRISE HUBS IN THE GREATER CAMBRIDGE AREA

Final report to the Greater Cambridge Partnership

SQW

economic development consultants

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JC6077 May 2006

SQW Quality Statement

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Table of Contents

Page

Annexes (separate document)

Executive Summary

1. This report provides an assessment of the initial enterprise hub bids submitted to the Greater Cambridge Partnership (GCP) for onward transmission to EEDA for consideration for funding. It also proposes a model for sub-regional hub development, together with a five year strategy and action plan to take Enterprise hub development forward in a way which will contribute both to the objectives of the Regional Economic Strategy (for which enterprise hubs are one of four core products), and to the implementation of the Sub-Regional Economic Strategy.

2. The assignment was commissioned by GCP, in collaboration with EEDA, and was undertaken by SQW Limited as lead contractors, with the Cambridge Technopole Group (CTG) providing specific inputs to map the existing provision of enterprise hubs and similar facilities in the Greater Cambridge area, and identify appropriate sectors, clusters or emerging technologies which would benefit from the development of additional enterprise hubs. The project was undertaken in the period February to May 2006.

EEDA's Enterprise Hub Product

3. According to EEDA, enterprise hubs are "(virtual or physical) spaces where entrepreneurs and high growth start-ups can come together and learn and share knowledge to de-risk their business and increase productivity". They are intended to provide a region-wide network of support for knowledge-based businesses at pre-start, start-up and early stages of development.

4. One of the issues faced in this study is that the interpretation of what constitutes an enterprise hub varies considerably, including premises, networks, training and business advice programmes, specialist funding, or any combination of these elements. This has led to a wide range of submissions to GCP, many of which can be considered as potentially forming one component of an enterprise hub rather than a complete hub.

The sub-regional context

5. The overall conclusion of CTG's research is that the Greater Cambridge area has an excellent support infrastructure for knowledge-based businesses, with relatively few gaps. The main generic shortcomings are in relation to:

   - funding – particularly for seed funding, proof of concept and prototype development, as well as the overall amount available for high tech business growth, and the tendency of venture capital funds to secure exits through overseas buyers who may subsequently move activity elsewhere

- a perceived failure of Cambridge firms to achieve their real growth potential – a lack of 'big gorillas' relative to overall number of high tech firms in the sub-region
- negative attitudes to entrepreneurship in schools
- insufficient support for women entrepreneurs
- the high cost and inflexible terms of premises for established businesses
- problems relating to the awareness of what is available, and to the perceived opportunity cost of selecting and engaging help.

6. In addition, there are relatively few sector-specific needs – most knowledge-based businesses, whatever sector they operate in, have similar support requirements. The main exception is in life sciences, where there are perceived shortages of specialist premises, from incubation units up to 1,000 square metres, and a shortage of funding at all stages of business development and growth.

The role of the University of Cambridge in stimulating and supporting enterprise

7. The CTG report identified University spin outs as a key consideration in a sub-regional enterprise hubs strategy, mainly because of their advanced technology content rather than absolute number (they account for about 10% of all businesses concerned with the commercial application of scientific knowledge in the GCP area). It noted the importance of the University's business planning competition and the recent i-teams initiative in stimulating spin outs.

Key sectors and emerging technologies

8. The CTG report highlighted the ICT and life sciences sectors as key to the Greater Cambridge area. At a finer grain of sectoral definitions they concluded that the situation is very dynamic and it is "futile to try and spot winners".

The enterprise hub bidding process

9. The bidding process for the region began in May 2005 when, following a series of road shows delivered by EEDA and hosted by the respective Sub-Regional Economic Partnerships, initial expressions of interest (EOIs) were invited to be submitted[1]. Following this process, SQW was asked to assess 17 EOIs, ranging from quite detailed proposals to a verbal communication of interest in principle (see Table 1).

[1] Enterprise Hubs – Working in Partnership. Presentation to the East of England Sub-Regions by EEDA. May 2005.

Table 1: List of bids assessed in the development of the sub-regional strategy	
Title	**Lead organisation**
Technology/ICT	
Cambridge Enterprise Hub	St John's Innovation Centre
The Learning Collaboration	Cambridge Network
Cambridge Enterprise Hub	University of Cambridge
Encouraging prototype and high value-added manufacturing	Institute for Manufacturing
Advanced Manufacturing Hub	The Welding Institute
Technology Growth	DDA/PA
Knowledge Creation to Exploitation	Pera
Women into Technology	University of Cambridge
Life Sciences	
Cambridge Biomedical Campus	Addenbrooke's NHS Trust
Health Enterprise East	Health Enterprise East
Cardio-Thoracic Bio-Incubator	Papworth NHS Trust
Babraham Bio-Incubator	Babraham Bioscience Technologies
Other	
Environmental Technology	envirolink
Energy Enterprise	New organisation
High Growth SMEs	Cambridgeshire Business Services
Social Enterprise Hub	Citylife
GEIF	NW Brown

10. The EOIs were assessed in relation to: EEDA's definitions of an enterprise hub and its priority sectors; the Sub-Regional Economic Strategy; the strengths of the proposal in relation to existing provision and evidence of needs (based on the CTG review); the degree of policy, organisational and financial support; and the relationship with other proposals. Consideration was also given to whether each bid had primarily a Greater Cambridge focus or was part of a wider regional hub concept the main focus of which may be outside the sub-region. The assessment process involved a review of the available documentation and a discussion with each bidding organisation to update and expand on the proposals as necessary, and to explore the rationale for, and focus of, the bid in some depth.

11. The assessment led to a number of bids being excluded for various reasons, including:

- the logical focus for the hub was elsewhere in the region, therefore it should not be considered specifically as part of the proposals channelled through GCP
- there was not a good fit with the EEDA definition of enterprise hubs

- there was insufficient information to enable the bid to be considered in this current round, or the timing was not right for the proposal.

Developing the model

12. Various ways in which the remaining proposals could be organised into a coherent framework were then considered, taking into account the strengths of the sub-region, and current commitments to fund enterprise hubs in the Greater Cambridge area[2]. The possibilities ranged from a single hub with many component parts, to a large number of inter-related but essentially separate hubs. Having considered these alternatives, our conclusion was that the model which is most likely to make the most of the assets and potential in the Greater Cambridge area is the development of two enterprise hubs, each consisting of a number of components: a Life Sciences Hub and a Technology/ICT Hub.

13. Both hubs will require some 'glue' which facilitates the effective interaction between each of the hub components and thereby helps ensure that the whole is more than the sum of the parts. We considered various options for this glue and concluded that the two hubs are sufficiently different – in sectoral and geographical focus – to warrant different mechanisms.

A five year strategy and action plan for enterprise hubs in the Greater Cambridge sub-region

14. The strategy is a development of the above model. The vision is that *the Enterprise Hubs Programme will contribute to the development of Greater Cambridge as a world leader in the knowledge-based economy by supporting the start-up and growth of high growth potential SMEs in knowledge-based sectors in which the sub-region has outstanding and distinctive strengths*.

15. In pursuing this vision, the principle objective for the Programme will be to add value by:

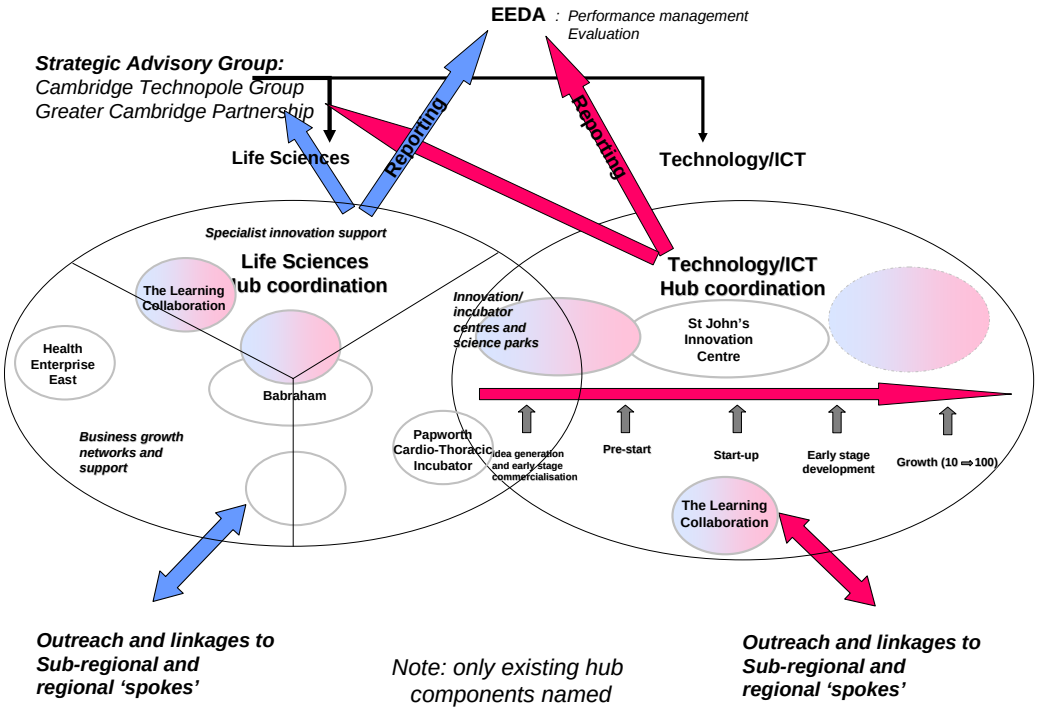
- providing essential funding for a variety of initiatives which demonstrate excellence in their own right, but also complement and fill gaps in existing support for knowledge-based businesses
- linking existing and new activities together to facilitate firms' access to specialist support and facilities which match their needs, and to ensure that "the whole is more than the sum of the parts".

Strategy components

16. The strategy is to develop two main enterprise hubs – one focused on life sciences, the other on high technology businesses more generally, but with a particular emphasis on information and communication technologies (ICT). The Life Science

[2] St John's Innovation Centre, Babraham Bioconcepts Research Campus, Health Enterprise East

Hub should be explicitly recognised from the outset as a regional hub which has its main (but not only) focus in Greater Cambridge, whereas the Technology/ICT Hub is more specifically Greater Cambridge focused, though also with links to the rest of the region and beyond.



17. The two hubs are overlapping, having some distinct, but also some common, components. The *Life Sciences Enterprise Hub* should include four distinct, core components at the outset: Addenbrooke's, Babraham, the Papworth Incubator and Health Enterprise East. Each of these provides a mix of support to life sciences businesses which it wishes to expand and deepen with (in some cases additional) enterprise hub funding. In addition, the University plays a key role in relation to the life sciences sector, and relevant aspects of its research commercialisation and business support infrastructure should therefore form part of the hub.

18. There are also numerous other organisations and initiatives within the life sciences cluster which form a key part of the specialist support infrastructure but which are not involved in bids for enterprise hub funding (e.g. Granta Park, the Genome Campus, Great Chesterford Research Park, Norwich Research Park, the former Roche Laboratories at Welwyn, and ERBI).

19. The component parts of the *Technology/ICT Enterprise Hub* provide for a continuum of support from pre-start through start-up and early stage development to growth into substantial businesses. They include the University, St John's Innovation Centre and various initiatives to accelerate the growth of established businesses. Again, some of these are existing, and have already received enterprise hub funding, others are proposed. The cluster also includes a great many sub-regional activities which are not seeking enterprise hub funding (e.g. the Cambridge Network), and links into the

rest of the region with other proposed hubs (e.g. Hethel, HBIC and the Bury Incubator).

Coordination

20. The separately funded, but inter-related components of each hub will need to be actively networked together by *Enterprise Hub Coordinators.* The coordination role will include: facilitating access to information, networks, facilities and specialist support; promoting collaboration between hub components and externally, including the shared use of resources; facilitating the exchange of good practice, both within and from outside the enterprise hub; compiling regular reports on progress against various objectives and targets agreed with EEDA; and supporting implementation of relevant goals and actions of the Greater Cambridge Economic Strategy.

21. The Coordinator for each hub will need to be employed by an organisation responsible for one of the component parts, with funding likely to come from a combination of EEDA, GCP and appropriate alternative sources. In addition, the Cambridge Technopole Group is ideally equipped to provide strategic guidance and coordination across the two hubs, since it includes many of the organisations located in each.

Reporting

22. Monitoring the performance of the hubs and reporting against agreed indicators will need to be directly to EEDA, as the main funder of hub facilities and activities. In addition, as a key part of the Greater Cambridge sub-region's strategy, there will be a need to report to the GCP against Goal 1 of the Sub-Regional Economic Strategy.

Action Plan

23. A detailed action plan is included in the main report. Initially, the priorities are to: agree the response to the existing proposals and put funding in place; agree the host organisations and funding for the Coordinators; design and develop sharing and signposting protocols; gain the commitment of the member organisations to sign up to the protocols; and ensure all key players are included as hub members, not just those funded under this round of EEDA funding.

24. Over the five years of the strategy the two enterprise hubs should develop in various ways, including:

- strengthening of existing components, for example through expansion of facilities or development of further specialisations
- development of new components, particularly to fill gaps in provision
- strengthening of the glue which links them together, and of the effectiveness of the coordination mechanisms
- outreach into the rest of the region, and - for the Life Sciences Enterprise Hub in particular – beyond.

1 Introduction

1.1 This report provides an assessment of the initial bids for funding submitted by the Greater Cambridge Partnership (GCP) to be considered under EEDA's Enterprise Hub Product, and proposes a model for sub-regional hub development, together with a five-year strategy and action plan to take the hub development forward. The bids are all designed to contribute to the development of knowledge-based enterprise in the Greater Cambridge sub-region.

Remit

1.2 The brief was issued by the Greater Cambridge Partnership in response to EEDA's request that they coordinate and lead the Greater Cambridge area's strategic response to the Enterprise Hub Programme, and contained the following elements:

(a) Map the existing provision of enterprise hubs and similar facilities in the Greater Cambridge area including sectors and types of business served and links with other facilities, networks etc.

(b) Identify appropriate sectors, clusters or emerging technologies in the sub-region not served by existing or proposed enterprise hubs which would benefit from the development of additional enterprise hubs providing for their development needs

(c) Audit the recently submitted enterprise hub proposals, plus any other proposals that fall within the GCP area, identifying any complementarities or overlaps in the services provided or sectors/types of businesses to be served

(d) Consider which existing and potential types of projects should be included in the Enterprise Hubs Programme and outline the optimum process for ensuring coordination of enterprise hub activities including sharing best practice, providing business management advice and promoting innovation

(e) Develop a five year strategy/action plan for the development of the enterprise hubs in the Greater Cambridge area which:

- *sets out a vision for the Enterprise Hub Programme in Greater Cambridge*
- *identifies priorities for future enterprise hub development*
- *suggests synergies between existing, proposed and future hubs*
- *identifies criteria for judging and selecting between competing proposals*
- *provides a checklist to guard against the duplication of facilities and services*

- *prioritises and provides a provisional timetable for the initial enterprise hub expressions of interest*
- *provides recommendations for ensuring coordination of enterprise hub activities within Greater Cambridge and with Greater Cambridge and the rest of the region.*

1.3 The assignment was commissioned to be undertaken jointly by SQW Limited and the Cambridge Technopole Group (CTG), with SQW as lead contractor sub-contracting the full delivery of Elements (a) and (b) of the brief to the CTG.

1.4 The work started at the end of January 2006, was carried out over a three month period, and consisted of a number of key methodological elements:

- the research carried out by the CTG, which involved a review of key documents, a structured recording of the knowledge and expertise of a range of the Group's members, and consultations amongst the Group
- a review of the documentation that comprised the seventeen initial bids submitted to the GCP
- the development of assessment criteria
- consultations with each bid's lead organisation
- consultations with a range of key stakeholders involved in the East of England's enterprise hub development
- regular meetings with the Steering Group for this assignment, whose membership comprised the Chief Executive of the GCP, the Economic Development Manager from Cambridgeshire County Council, EEDA's Enterprise Hub Manager, and two representatives from the Cambridge Technopole Group.

1.5 The remainder of this report is structured as follows: Chapter 2 provides a context for the assessment of the enterprise hub bids and the development of a sub-regional hub model and Chapter 3 summarises the CTG's mapping report. In Chapter 4 we report on the assessment of the bid proposals, and Chapter 5 presents a model for the sub-region's enterprise hub development. Finally, Chapter 6 contains a five year hub development strategy and action plan for Greater Cambridge.

2 Context

2.1 Before considering the individual hub bids, it is important to establish the context within which the bids, and the overall hubs themselves, will be developed. The enterprise hubs are central to the delivery of the East of England's Regional Economic Strategy (RES) and will form a key component of the Greater Cambridge Sub-Regional Strategy and Investment Plan. Whilst there is considerable agreement about the overarching aims of enterprise hubs, as a relatively new 'product' for the East of England there has been, and continues to be, considerable debate as to the shape, constituency and detailed objectives of the hubs. This chapter provides a backdrop to the enterprise hub initiative as a prelude to considering the bids, and the options for developing the sub-regional hubs.

EEDA's Enterprise Hub Product

2.2 In 2002 EEDA defined the enterprise hubs as one of the RDA's four core products, building on the RDA's previous activity focused on innovation. The argument underlying the creation of the enterprise hubs as a core product was based on the East of England having "the highest per capita expenditure on research and development in the UK … and being well positioned to take advantage of the research work of a small number of large businesses in the region, capitalising especially on the large research-based economies already established around the region. The Enterprise Hubs Programme is an EEDA 'core product' and the delivery vehicle through which EEDA deploys its interventions in response to the Government's 10 year Science and Innovation Investment Framework published in 2004 and RES Goal 3 'global leadership in developing and realising innovation in science, technology and research".

2.3 The most recent of EEDA's descriptions of the Enterprise Hub Product and the associated strategic aims are contained in Table 2.1.

Table 2.1: Definition and strategic aims of EEDA's Enterprise Hub Product[3]
An enterprise hub is an initiative designed to stimulate economic activity at an early stage, primarily amongst knowledge-intensive and high-tech businesses. It is NOT any physical infrastructure supporting businesses nor is it directed at supporting traditional industry sectors which are neither knowledge-based nor predicated on science or technologically intensive.
The Enterprise Hubs Product's strategic aims are to: • develop a network of high level support for the region's knowledge-based businesses. They are (virtual or physical) spaces where entrepreneurs and high growth start-ups can come together and learn and share knowledge to de-risk their business and increase productivity • support pre-start, start-up and early stage business in regionally supported knowledge-intensive clusters • foster a culture of innovation among the region's knowledge-intensive businesses which are part of the driving force behind the region's economy.

[3] EEDA Enterprise Hub Product Delivery Plan 2006-7.

2.4 There is a range of views as to what constitutes an enterprise hub, and the priority activities and services that comprise a hub. Views have ranged from the physical infrastructure, to access to high level networks and contacts, to providing opportunities for those involved in knowledge-based commercial activities to interact, network and collaborate, measured by 'footfall'. In December 2005 EEDA described the enterprise hub model as consisting of three integrated component parts[4], including:

Innovation/incubator centres and science parks

- EEDA will contribute to the provision of **incubators, innovation centres and science parks** across the region. Incubator centres play a crucial role in improving business survival rates and growth; innovation centres tend to be located near centres of excellence, research institutes and/or Universities and assist in 'spin outs' and engaging businesses with the research base; science and technology parks provide space for a critical mass of knowledge based enterprises (KBEs) to co-locate and assist in translating academic research into commercially exploitable technologies. These centres have a strong sector focus, and are linked to higher education establishments and areas of high concentration of private sector R&D development. EEDA will focus its support on key sectors and clusters which currently and in future will add greatest value to the region's economy and quality of life.

Specialist innovation support

- EEDA will support the development and enrichment of a consistent and cohesive **innovation support model for high growth knowledge-based enterprises**. Such support may be accessed through Gateway2Innovate (G2I) which offers a regional service across all hubs. It will include facilities to link networks and enterprise hubs with each other and other research centres and will remain an integral part of the business support landscape. It will strive to ensure that there is a seamless lifecycle support service for KBEs which both signposts and integrates each part of the service at point of customer need. Examples of the suite of services on offer include R&D grants, i10 and the Innovation Relay Centre (IRC).

Business growth networks and support (clusters/sectors)

- EEDA will play a lead role in supporting the **development of knowledge-intensive business clusters of excellence**, building on and linking areas of high growth innovative businesses with the region's world-class research base. These clusters are mutual self support networks and enable KBEs in a sector or technology field to develop collectively and support the growth and innovation capability of the members of such cluster networks. This programme will ensure that each of the region's major clusters has access to tailored support and infrastructure within a ten year timescale. Work will centre around the key sectors and clusters set out in the Regional Economic Strategy.

2.5 Within a flexible approach designed to meet the needs of prospective users, these three components are envisaged as incorporating a range of characteristics, including:

- high quality accommodation for new Knowledge-Based Enterprise (KBE) start-ups, designed to meet the needs of the sector/cluster, with accessible communal space to promote network-building
- access to a centre manager, enterprise and/or network facilitator, together with a network of coaches, mentors, partners and sector/cluster sponsors
- access to relevant training and educational programmes, networks, finance opportunities, R&D centres and institutions, and support services

[4] EEDA presentation: Enterprise Hub Delivery Plan Forward Look, 5th December 2005.

- a consistent regional approach to ICT platforms and knowledge management development for the network(s) on which the enterprise hub is based
- international relations' management with relevant overseas networks/hubs/clusters
- funding, legal and intellectual property support for knowledge exploitation through future Higher Education Innovation Fund, R&D, proof of concept, and licensing/spin out packages
- access for a range of companies who participate in the centre on an outreach or extension basis
- a dynamic link to the region's R&D expertise to create the basis for ongoing innovation and provide the new business models to support future value generation.

2.6 EEDA's Enterprise Hub Delivery Plan 2005-6[5] provides a regional perspective of existing and ongoing commitments that are included under the Enterprise Hub Product, with specific activity for the Greater Cambridge sub-region falling under a number of headings:

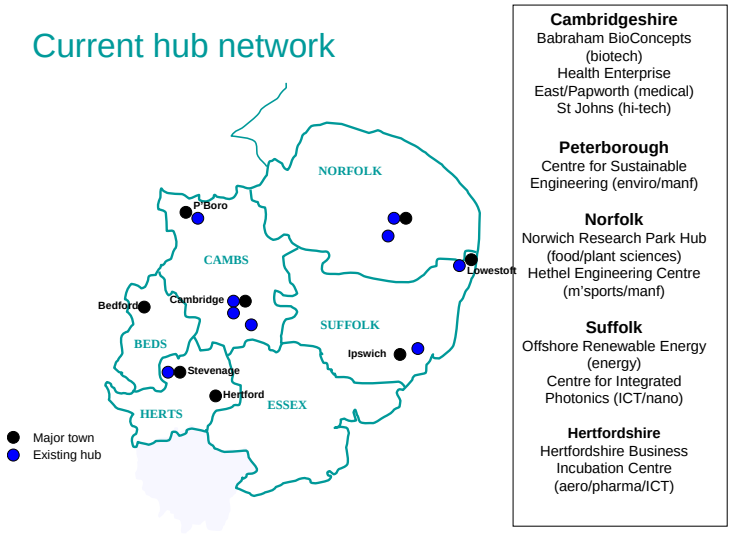
- ***Incubator, innovation centres and science parks – existing and ongoing commitments:*** complete build of Papworth incubator; ongoing development of Babraham Bioconcepts
- ***Incubator, innovation centres and science parks – new priorities and ongoing commitments 2006/07 include:***
  - Addenbrooke's BIC/Hub
  - Babraham BIC/Hub
- ***Innovation support services – existing and ongoing commitments***: Innovation Relay Centre ("Innovation East" – European technology business to business partnering service; recently voted the best relay centre in Europe, and funded jointly by the Commission and EEDA). Again, it is important to examine closely the Centre's functions and complementarity to the hub network. It is currently hosted in Hertfordshire BIC (HBIC), Norwich, and St John's Innovation Centre, and is likely to be co-hosted in other hubs in the near future.

2.7 A series of maps have been produced, two of which are reproduced below, which illustrate the existing regional enterprise hub network, and EEDA's projection forward five years as to the possible regional picture of 'Clusters of Excellence' as they mature[6].

[5] EEDA's Enterprise Hub Delivery Plan has recently been updated, and a draft version was also made available to inform this study. However, given that the 2006/07 Plan is still developing, we have referred to the 2005/06 Delivery Plan to inform this Chapter.

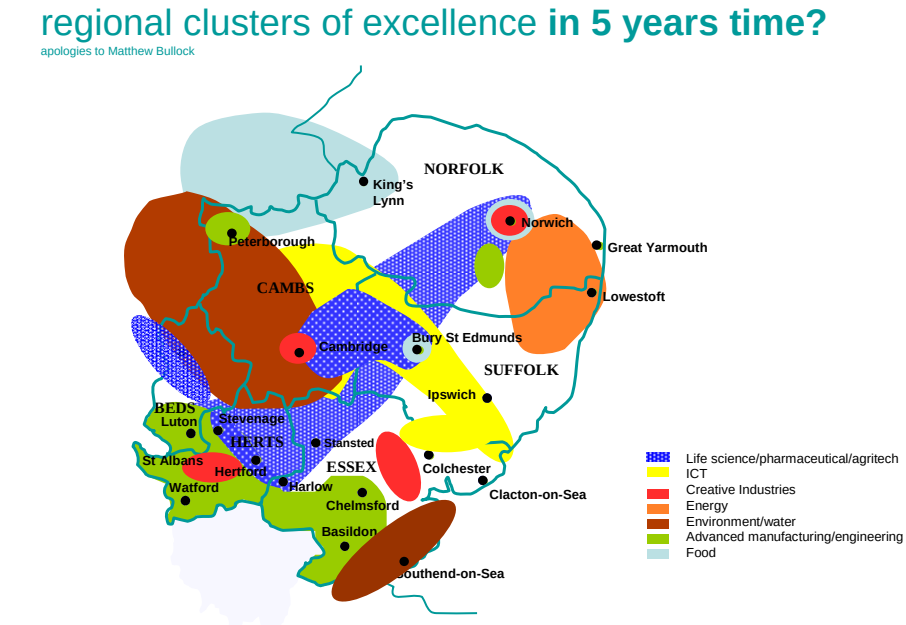
[6] Note: EEDA will shortly publish a forward look for Enterprise Hubs for 2006/07 which will take into account recent recommendations and developments relating to EEDA's Enterprise Hub Product.

Map 2.1: East of England's current enterprise hub network (December 2005)



Source: EEDA presentation: Enterprise Hubs – Delivery Plan Forward Look, 5th December 2005.

Map 2.2: An illustrative map of the East of England's Regional Clusters of Excellence in 5 years' time[7]



Source: EEDA Presentation: 16th January 2006.

2.8 The forward projection shows Cambridge as having a lead and pivotal role in two regional centres of excellence – Life Sciences and Technology/ICT – due to the critical mass of businesses, the development of new technologies and the expertise that is located in the sub-region.

[7] Note that this map shows the linkages across the region but is illustrative rather than literal in terms of the breadth of sectoral reach.

2.9 It is within this regional context, together with the Greater Cambridge Partnership's Sub-Regional Economic Strategy (SRES), that the expressions of interest submitted to EEDA and the Greater Cambridge Partnership have been reviewed.

The regional context

2.10 EEDA's vision for the East of England is for it to be *"a leading economy, founded on our world-class knowledge base and the creativity and enterprise of our people, in order to improve the quality of life for all who live and work here."*[8]

2.11 At a regional level, the strategy consists of eight strategic goals which address the sustainable economic development of the region and are designed to realise the vision. The full list of strategic goals and related priorities are contained in the RES; those goals and associated priorities directly relevant to the Enterprise Hub Product in the Cambridge sub-region are identified below in Table 2.2.

Table 2.2: East of England Regional Economic Strategy: strategic goals and related priorities relevant to the Cambridge sub-region's enterprise hub strategy
Goal 1: A skills base that can support a world-class economy
Related priorities: • Developing higher level skills to support the knowledge economy
Goal 2: Growing competitiveness, productivity and entrepreneurship
Related priorities: • Building a more enterprising culture • Providing a coherent and integrated business support service • Supporting the accelerated and sustained growth, productivity and competitiveness of the region's businesses • Developing the capacity of the region to engage in global markets and to improve the level and quality of foreign investment into the region
Goal 3: Global leadership in developing and realising innovation in science, technology and research
Related priorities: • Stimulating demand for research and development and knowledge transfer among the region's SMEs • Ensuring strong links between regional universities, research institutes and the private sector • Making full use of the research assets and global reputation of Cambridge to achieve benefits for the region
Goal 7: A leading information society
Related priorities: • Promoting the use of network based technologies among businesses, organisations and individuals

2.12 Enterprise hubs are one of EEDA's four Core Products. Together with 'Business Support', 'Investing in Communities' and 'Regional Renaissance', these form the basis for delivering the region's Regional Economic Strategy, and associated budgetary decisions. Cross cutting

[8] 'A Shared Vision': the Regional Economic Strategy for the East of England. EEDA, November 2004.

the four Core Products are twelve sectors, identified as "sectors that are important in delivering the vision and the eight goals of the Regional Economic Strategy"[9]. Of these twelve, six are relevant to enterprise hub development, and will inform the prioritisation of the enterprise hub bids within the region, and also inform the hub strategy for each sub-region. They are:

- Life Sciences (including Health Care)
- High technology manufacturing and advanced engineering (including motorsports)
- ICT
- Energy
- Environmental goods and services
- Creative and cultural industries.

2.13 Three of these - high technology manufacturing and advanced engineering, ICT and life sciences - are of particular significance to the Greater Cambridge sub-region, as described in the GCP Three Year Sub-Regional Economic Strategy 2005-2008 (October 2005) where the distinctiveness, strengths and potential of the Cambridge sub-region's high tech cluster are described (as well as other key sectors for the sub-region including tourism, leisure and culture and health and education).

The sub-regional context

2.14 The Cambridge sub-region's economic strategy sets out the Greater Cambridge Partnership's vision as follows: *"Greater Cambridge should be a world leader in the knowledge-based economy which combines business success with a high quality of life for all"*.

2.15 The strategy goes on to state that: *"over the next decade, the Greater Cambridge sub-region will strengthen its position as the leading sub-region in the East of England. The growth of the high tech cluster will be sustained and the businesses and research institutions within it will excel internationally. In supporting the dynamism of the economy, partners will work to ensure that more people who live across the sub-region are able fully to contribute to and benefit from its economic growth, and that communities genuinely thrive – in Cambridge city, in the market towns and in the rural areas within Greater Cambridge. The sub-region will grow significantly, but in a sustainable way which protects and enhances quality of life."*

2.16 The SRES is an holistic plan for the economic development of the sub-region, which seeks to draw on both EEDA and non-EEDA funding to deliver an inter-related series of programmes and projects. Five sub-regional strategic goals and 17 related priorities have been identified

[9] A Shared Vision: the Regional Economic Strategy for the East of England. EEDA, November 2004.

in the SRES to support the achievement of the sub-regional vision. Each of the goals and related priorities will lead through into actions by GCP or its partners. The two SRES goals and priorities to which EEDA's Enterprise Hubs Core Product principally relates, and which inform the actions proposed in the Investment Plan, are listed in Table 2.3.

Table 2.3: Greater Cambridge Sub-Regional Economic Strategy: goals and related priorities of particular relevance to the Cambridge sub-region's enterprise hub strategy
SRES Goal 1: Encouraging global success in entrepreneurship, research and development and business growth across the high tech cluster
Related priorities: • Encouraging entrepreneurship • Supporting processes of commercialisation • Encouraging high tech and high value-added businesses which are formed in the Cambridge sub-region to grow locally and compete globally
SRES Goal 2: Encouraging business growth and economic development which will underpin a growing and sustainable sub-regional economy
Related priorities: • Raising the profile of the Cambridge sub-region as a high quality – but differentiated – business location • Supporting the sustainable and appropriate growth of businesses and sectors which are critical to the future of the Cambridge sub-region • Encouraging resource use efficiency across the business base

2.17 These sub-regional goals will be achieved by a range of strategic interventions, some of which relate directly to the enterprise hubs, and for which funding is being sought through EEDA's Enterprise Hub Product budget.

2.18 The SRES therefore forms the framework within which the initial bids submitted to GCP for funding under the regional Enterprise Hub Product will be assessed, taking into account also the 'market intelligence' provided by the Cambridge Technopole Group's report mapping the strengths and excellence, gaps and needs of the sub-region in relation to the knowledge-based business community. The outputs from this mapping study are reported in the next chapter.

3 Regional and sub-regional mapping

3.1 This chapter contains a summary of the report delivered by the Cambridge Technopole Group as part of the contract to develop a sub-regional hub strategy. The full report is contained in Annex C.

Cambridge Technopole Group mapping report: General Summary and Recommendations

3.2 CTG's research indicates that each technology wave has produced both 'formal' and 'informal' initiatives to meet the needs of emerging businesses. Business needs are business needs irrespective of sector and, on the evidence available, Cambridge has met the challenge and is likely to continue to do so.

3.3 The key issues if Greater Cambridge is to build on its potential are:

- Funding
- Failure of companies to reach their potential
- Attitudes to entrepreneurship
- Women.

3.4 Each of these issues is reviewed in turn in the following paragraphs.

Funding

3.5 The main problem remains funding for early stage businesses despite the substantial investments made by Venture Capital Funds in businesses in the sub-region relative to the rest of the UK. There are specific problems at Seed Stage. It is understood that EEDA is to launch a Proof of Concept Fund and is investigating the need for Mezzanine Finance for start-up businesses with a product seeking around £250,000 to get into the market place, but whose product will create a turnover in the millions rather than hundred of millions of pounds. The CTG does not believe that the proposed Enterprise Funds are likely to fill this gap.

Failure of companies to reach their potential

3.6 It has been argued that Cambridge businesses have failed to reach their potential and that 'there are no big gorillas!'. However, there are now around 40 stock market quoted companies compared to about five companies fifteen years ago. CTG has also argued that the way the world is moving means that opportunities in niche markets are increasing. This does not mean that new areas of significant opportunity will not emerge but these are likely to do so over a period of years rather than on a more routine basis. It is likely, too, that such

opportunities will emerge from the University of Cambridge rather than from the commercial sector. It is sensible, therefore, to keep a watching brief as CTG has recommended rather than, given the public sector's track record in this regard, trying to spot winners. It is important, however, from the cluster's perspective that the University increases the amount of support that it gives to such emerging technologies. Continuing with the business planning competitions and possibly the appointment of 'Ferrets' on the old AEN model are two specific suggestions in the CTG report.

3.7 The number of Cambridge businesses purchased by overseas (and particularly US) companies and then closed remains a cause for concern. The result is that too often these businesses have been closed down in the UK and the nation loses the benefits. CTG has argued in the report that venture capital funding requires exits and too often this leads to an overseas sale. The problem is more profound than this; Cambridge businesses are technology rather than business (market) focused. Cambridge also appears to be less ambitious in a commercial sense than their counterparts in the USA or the Far East. In addition, therefore, to creating funding mechanisms to assist sustainable businesses it is necessary to encourage the formation of more entrepreneurial business teams (and at an earlier stage) who will not only exploit technologies better commercially but who will seek to acquire rather than be acquired. Initiatives such as the Accelerator may be worth considering to speed up the business process.

Entrepreneurship

3.8 There remains a European-wide problem about attitudes to entrepreneurship. Relatively few EU nationals enter the University of Cambridge business planning competitions or attend Enterprise Events. Even if it is not possible to encourage entrepreneurship amongst UK citizens, there should be mechanisms to at least ensure that those who benefit from the plethora of support available in the sub-region remain and start businesses in the UK.

3.9 CTG's research indicates that there is insufficient promotion of entrepreneurship in schools in the GCP area. Further research is being carried out into this issue by St John's Innovation Centre and Kate Britten.

Women

3.10 The new YTKO-led initiative to support women entrepreneurs is to be welcomed and it will be interesting to see how, if at all, it will assist women wishing to start up and run knowledge-based businesses. There is also an initiative being promoted by Cambridgeshire County Council and the University of Cambridge to look specifically at the lack of female 'high tech' entrepreneurs. There is a perceived danger that this may just be another 'talking shop'. A suggestion has been made by Walter Herriot of St John's Innovation Centre, however, that a focus group be established involving women who are well qualified to be high tech entrepreneurs but have chosen to return to, or remain in, paid employment. Herriot has

identified six such individuals and the research will provide insights as to why these individuals have taken the 'safer' route.

In conclusion:

3.11 The overall performance of the Cambridge Cluster needs to be looked at in a wider UK and international context, and the CTG's research took into account the findings of 'Creating an Innovative Europe'[10]. A number of other reports relevant to the theme of this research are still to be published, so could not be reviewed by the CTG for this study. These include:

- 'Bridging the Innovation Gap in the UK': Report to the Design Council by the Institute for Manufacturing, University of Cambridge.
- The Cudby Report on the Life Sciences in the East of England[11] (for EEDA)
- The Pease Report on the ICT Sector in the East of England (for EEDA)
- The Hornby Review of Early Stage Bank Finance (for St John's Innovation Centre).

3.12 Although slightly outside the scope of this report, CTG believe consideration should be given to:

- better understanding of the dynamics of the Cambridge Cluster. Perhaps consideration should be given to the appointment of a full time Information Office for GCP not just to collect numbers of companies but also to build up a picture of turnover and employment in individual businesses
- increasing awareness internationally of what the sub-region has to offer by the production of a Cambridge Video to encourage more 'Kodaks' and 'Microsofts' to have a significant presence in the sub-region – as well as supporting the need to recruit nationally and internationally during the boom phase of Cambridge's economic cycles
- supporting and sustaining a synchronised calendar of international events
- encouraging the Relay Centre to build on its enterprise hub funding to expand its activities by creating more linkages with non-EU growth economies and businesses
- GCP formally supporting the David Connell initiative for the introduction of US SBIR Programme within the UK. Under this initiative Government Departments will be tasked with placing a certain percentage of their budget with early stage SMEs. This should enable businesses to soft start more easily

[10] Report of the Independent Expert Group on R&D and Innovation appointed following the Hampton Court Summit, January 2006.

[11] A Strategic Framework for Life Sciences in the East of England – the life force of the region's economy. The Cambridge Cluster Consultancy Ltd, March 2006 (Confidential Draft).

- considering whether more support should be available to inventors – i.e. people with an idea but no wish/ability to form a business. Currently such people are simply signposted to the Trevor Baylis Academy. Does demand justify the formation of a regional club along Enterprise Link lines?

- Support the next generation of business leaders. The Young Turks initiative to stimulate the involvement of such people is an acknowledgement of the continuing need for the cluster to regenerate itself.

3.13 The growth of the Cambridge Cluster has been very much a bottom-up initiative. Enterprise hub funding and programmes are essential, however, if Cambridge is to retain its position as one of the world's leading clusters: it must build for the future.

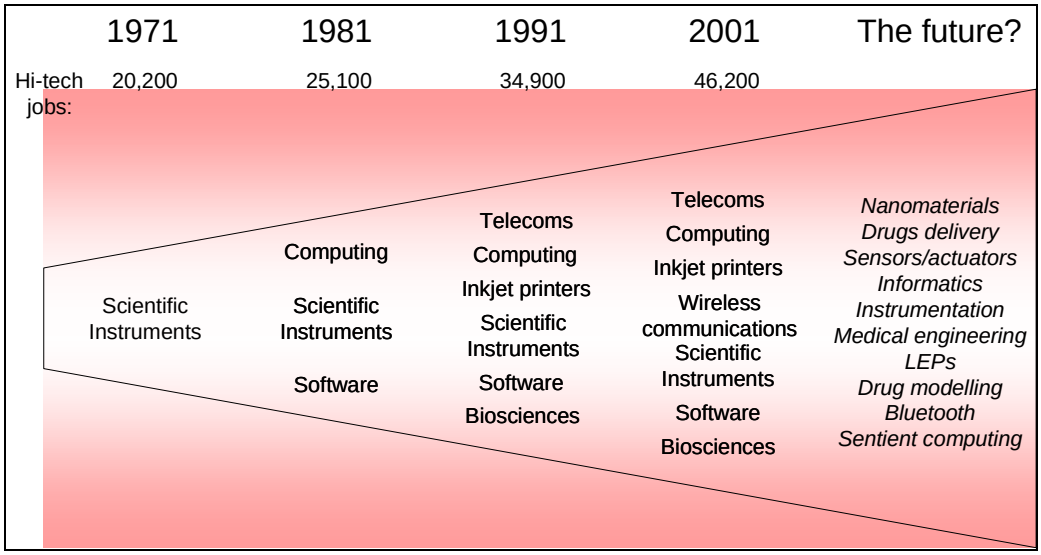
Emerging Technologies: summary and conclusions

3.14 The importance of the key sectors of ICT and life sciences is clear, but at the sub-sector level the situation is very dynamic. CTG's research reflects the richness, diversity and speed of change of the sub-sectors. For example, the PACEC report in 2003 highlighted Bluetooth as an emerging area for the sub-region. Since then, Cambridge Silicon Radio has become the world's leading Bluetooth IC company with over 60m chips shipped and over 60% of design wins for this technology. Through the activities of this company alone, the sub-region became a leading centre for Bluetooth technology in 2005. This example illustrates the need for frequent review of emerging sub-sectors within the sub-region in order to ensure that sub-regional policy actions keep pace with the changing landscape of the technology, market and business process sectors. It would, in the experience of the authors of this report, be futile to try and "spot winners" and second guess where research will lead.

3.15 Instead the GCP, with its partners, should coordinate an annual review of key sectors and sub-sectors by bringing together a small group of key players and commission them to produce a brief update on the latest trends. The management of this review would be one of the tasks of the new International Relations Officer to be funded through the St John's Innovation Centre enterprise hub initiative as agreed by EEDA. This information should be shared with EEI to ensure that their international investment focus is in tune with the latest economic development trends within Greater Cambridge.

3.16 The CTG report has indicated, however, that support services have developed to meet the commercialisation requirements of technologies as they have emerged (see Figure 3.1). There is no reason to think that this will not continue to be the case in the future. Most knowledge-based business issues and needs are similar irrespective of sector, although in some sectors there are distinctive needs – for example, the long timescale for investment needed by drug discovery companies in the biotechnology sector.

Figure 3.1: Changing sector strengths in Greater Cambridge (PACEC, 2003)



Commentary on the findings of the CTG report, and identification of gaps and needs – towards an Enterprise Hub Strategy for Greater Cambridge

3.17 The above summary of the CTG report and its recommendations focused on the key issues for the further development of the Cambridge Cluster. This chapter concludes with some observations on the implications for the enterprise hub strategy for Greater Cambridge.

Advice for early stage businesses

3.18 The report was unable to identify any significant shortfalls in the provision of business support services to the knowledge-based sector, in particular for start-ups and early stage businesses. Similarly, when considering the support available to businesses in the life sciences sector, there was no evidence that start-up businesses are unable to progress due to lack of quality business support. There may, however, be problems relating to the awareness of what is available, and to the perceived opportunity cost of selecting and engaging help.

Finance

3.19 Finance is considered to be one of the main barriers to the stimulation of commercial activity, and to the optimum development of start-up and early stage businesses. In the high tech sector, there is a shortage of seed funding available in the Cambridge area and this was highlighted as a key need, as was proof of concept and prototype funding. The structure of equity funding also causes the sub-region, the region and indeed the UK to lose intellectual capital due to the problems experienced when venture capitalists exit through sale of businesses to foreign buyers who may then close the local facility.

3.20 Whilst these issues are also relevant to the life sciences sector, it also faces some specific barriers to development. Of particular note was the need to provide researchers with support

to enable them to reach the stage where they can attract first stage funding, and funding to progress to market. Funding for established businesses, at all stages, was also identified as a need, with significantly less equity funding available to support the development of life sciences businesses than there was a few years ago.

Premises

3.21 There is reported to be no shortage of 'generic' start-up or quality accommodation with 'easy in easy out' leases for businesses in the early growth phase, with the Greater Cambridge sub-region being well served with this resource. In relation to move-on space, there is no absolute shortage in the area, but there is a lack of premises available on flexible terms and costs are high.

3.22 The situation is somewhat different for businesses with special requirements in the life sciences sector where incubation space and facilities of less than 1,000 square metres were identified as a need. However, there is development in this area, with the Babraham Incubator and Minerva Building and Papworth all planning to address this gap. Nonetheless, the view was that this is an area where, due to the cost of the specialist space, there is a market inefficiency with small early-stage businesses often being unable to afford the full commercial cost of such premises. This, incidentally, was not the case for more mature businesses.

Training, skills and education

3.23 A lack of skills, rather than access to appropriate training, was identified as a barrier faced by businesses in the Cambridge area. In general, the loss of highly skilled people from the high tech economy over recent years due to the effects of 'boom and bust' was identified, and there are difficulties in acquiring and retaining people with, in particular, relevant technical and marketing skills. The view was that there are a number of relatively new initiatives that have emerged in response to the perceived needs for specific management training, that there is sophisticated guidance available on a one-to-one basis, the University provides a range of student placement programmes and other initiatives which make available specialist skills to local businesses, and that Cambridge is rich in groups where mutual learning is shared.

3.24 The life sciences sector faces particular challenges in the availability of skilled technician-level staff (defined as a relevant degree and 'solid lab experience'). There is also a lack of appropriate managerial and technical skills, but the view was that this was a global problem and that the Greater Cambridge area is in a stronger position than the rest of the UK in this respect.

The role of the University of Cambridge in stimulating and supporting enterprise

3.25 The CTG report identified four broad headings which describe the technology transfer activities of the University:

- Graduates entering the workplace
- Public availability of research results
- 'Soft' transfer (e.g. consultancy, training events, student programmes)
- 'Hard' transfer (e.g. licensing, IP, formation of spin out firms).

3.26 Of the above, the CTG considered the area of hard knowledge transfer to be of most interest in the context of enterprise hubs as it involves the creation of spin out businesses, an area which is now coordinated by Cambridge Enterprise, a central foundation of the University. Whilst in numerical terms the report concludes that university spin outs, however defined, are responsible for only around 10% of all businesses concerned with the commercial application of scientific knowledge in the GCP area, direct spin outs from the University are significant because new fundamental technologies are more likely to spin out from the University than elsewhere.

3.27 The CTG report noted the importance of the University's business planning competition, run by students through their club, Cambridge University Entrepreneurs, in stimulating entrepreneurial interest and activity within the University. However, recently the competition has reduced in scale due to the inability to award a substantial cash prize which has had a negative effect on entries. The CTG believes it is important to continue to stimulate and support the business planning competition in the University of Cambridge as source of new business ideas.

3.28 The report also noted the strengths of the recent i-teams initiative, and identified a need to actively search out technologies with commercialisation potential from within the University's departments, reminiscent of the previous AEN model.

Emerging technologies

3.29 Within the context of many business support needs for knowledge-based businesses being generic, the CTG report highlighted the ICT and life sciences sectors as key to the Greater Cambridge area, a finding which supports the logic for establishing two hubs in the Greater Cambridge area, albeit with considerable overlap and connection.

3.30 The report also identified a number of sub-sectors, although the conclusion they reached was that below the broad sectoral definitions the situation is very dynamic, it is difficult to predict novel applications for new technologies, and as such it is "futile to try and spot winners".

4 Audit of enterprise hub proposals and complementary activity

4.1 The previous chapters established the context for the consideration of the bids, and summarised the 'intelligence' provided by the Cambridge Technopole Group in relation to the gaps and needs which exist to develop the sub-region's key areas of excellence. This chapter describes the enterprise hubs' bidding process and the criteria developed for assessing the hub bids, and provides a brief overview of the seventeen bids.

The sub-regional bid process

4.2 The bidding process for the East of England's bids for funding under the Enterprise Hub Product began in May 2005 with a series of regional road shows delivered by EEDA and hosted by the respective Sub-Regional Economic Partnerships, where EEDA informed partners about the change in direction of the enterprise hub model and its approach. As a result, expressions of interest for enterprise hubs were invited, which set out the importance and the sub-regional/regional significance of the proposal. The intention was that these expressions of interest would form the basis of strategic discussion and further consultation with EEDA. Broad guidance as to the shape of the expressions of interest was provided in a request for a two-page submission[12] outlining:

- origins and background of the project
- key features and beneficiaries
- funding and resources
- timescales
- development milestones.

4.3 The presentation also set out next steps which included EEDA fortnightly internal progress reviews, recommendations made quarterly to the Science and Industry Council, and the continued communication of the Delivery Plan for 2005-6.

4.4 As a result of the request for bids, over the period between May 2005 and January 2006 fifteen expressions of interest were submitted, either in written form or – in a number of cases – articulated verbally and/or as a result of the potential project being included in the GCP's

[12] Enterprise Hubs – Working in Partnership. Presentation to the East of England Sub-Regions by EEDA. May 2005.

Draft Business/Investment Plan 2006/07[13]. To these fifteen, another two proposals were added at the beginning of this assignment.

Development of the sub-regional assessment criteria

4.5 The basis for the assessment process was the development of a set of criteria to enable a structured and objective assessment to be carried out. The starting point was a long list of possible criteria designed to enable a thorough assessment of the bids, organised under the following headings:

- Regional, national and international significance
- Overall contribution to the Enterprise Hub Programme
- Rationale for the proposition
- Resource and funding implications
- Timescales and probability of success
- Commitment from partners
- Additionality and funding leverage.

4.6 It is appropriate that these detailed measures are applied at the full application stage, when detailed applications are submitted to EEDA. However, the information bidders were requested to submit at this initial expression of interest stage was insufficiently detailed to carry out a rigorous evaluation of each of the bids and the measures proved to be too stringent for this first step in the bidding cycle.

4.7 Rather, the process at this stage was to assess the concepts in the context of the Enterprise Hub Product, the Sub-Regional Strategy, the strengths, needs and potential for the development of excellence, and to act as a filter for the expressions of interest to provide guidance as to which ones merited progressing to full bid stage. The assessment criteria nonetheless needed to enable an objective appraisal to be undertaken of each bid's existing and forecast significance in the Greater Cambridge area, their sectoral significance, as well as the regional context (taking account of EEDA's priorities), the relationship to existing hubs, as well as to identify the degree of policy, organisational and financial support. The assessment also took account of existing provision, the regional context, and distinctive existing and emerging technology trends, as well as overlaps between proposals.

4.8 Table 4.1 contains the assessment criteria used to review each of the bids.

[13] Draft Business/Investment Plan 2006-07. The Annual Delivery Plan for the Greater Cambridge Sub-Regional Economic Strategy. Greater Cambridge Partnership, January 2006.

Table 4.1: Assessment criteria for GCP initial bids
Scope and scale of the proposed support
Regional importance
Suitability of location within the region
Importance for the sub-region
Strength of management/leadership
Strength of networks and links to: • the research base • the private sector • the public sector • associated services • national • international
Scale of funding sought from EEDA and leverage of other funding
Additionality of EEDA funding
Fit with other GCP bids
Fit with hub core components: • Property • Enterprise hub management • Networks support • Complementary support services for KBEs
Sectoral focus
Target stage of business development
Structure of the partnership
Additionality of the bid
Timing

4.9 The process involved a discussion with each bidding organisation to provide the opportunity to update the bid proposition - given the elapsed time since the submission of the bids in many cases changes had occurred and activity had moved forward - and to explore the rationale for, and focus of, the bid in some depth. Each bid was then assessed both qualitatively, through the provision of a narrative, and systematically against the criteria, in order to facilitate comparison between proposals, to gauge the bid's relevance to the sub-region, to screen out ideas that – for a variety of reasons – did not fall within the sphere of the Enterprise Hub Product, and to clarify the development timescale of the bids.

Overview of the bids

4.10 The seventeen bids received were categorised sectorally to enable their fit to be assessed in terms of sectoral strength and fit with sub-regional and regional priority sectors. This initial stage also enabled a judgement to be made as to whether the bid should be included in the sub-regional 'portfolio' of bids, or whether its relevance was to the wider, regional sector

strengths and should therefore more logically be assessed by EEDA within a regional context rather than on the basis of its sub-regional fit and strengths.

4.11 A sectoral categorisation of the bids resulted in the following segmentation as a starting point (Table 4.2).

Table 4.2: Sectoral segmentation of the enterprise hub bids	
Technology/ICT	6
Life Sciences	4
Advanced Manufacturing	2
Energy	1
Environment	1
Other	3
Total:	**17**

4.12 Some strong inter-relationships exist between the sectors and cross-cutting technologies and therefore opportunities for cross-sectoral benefits and transfer were identified and the bids were considered in the context of the full range of hub activity proposed for the sub-region. The identification of linkages and cross-sectoral benefits contributed to the development of the sub-regional enterprise hub model presented in Chapter 5.

4.13 Some submissions, whilst containing interesting ideas relevant to the Cambridgeshire sub-region's technology base and economy, would be more appropriately matched with existing hubs located in other parts of the region. This report's recommendation is that these bids need to be considered within the wider context, initially through a meeting brokered between the bidders and the existing providers.

4.14 The seventeen bids, the majority of which appear in the GCP's Draft Business/Investment Plan 2006-07 as potential projects contributing to SRES Goal 1, are listed in detail in Table 4.3.

Table 4.3: List of bids assessed in the development of the Sub-Regional Strategy	
Bid title	**Lead organisation**
Technology/ICT	
Cambridge Enterprise Hub	St John's Innovation Centre
The Learning Collaboration	Cambridge Network
Cambridge Enterprise Hub	University of Cambridge
Encouraging prototype and high value-added manufacturing	Institute for Manufacturing
Advanced Manufacturing Hub	The Welding Institute
Technology Growth	DDA/PA
Knowledge Creation to Exploitation	Pera
Women into Technology	University of Cambridge
Life Sciences	
Cambridge Biomedical Campus	Addenbrooke's NHS Trust
Health Enterprise East	Health Enterprise East
Cardio-Thoracic Bio-Incubator	Papworth NHS Trust
Babraham Bio-Incubator	Babraham Bioscience Technologies
Other	
Environmental Technology	envirolink
Energy Enterprise	New organisation
High Growth SMEs	Cambridgeshire Business Services
Social Enterprise Hub	Citylife
GEIF	NW Brown

4.15 In the process of developing the strategy the initial bids submitted under the Enterprise Hub Product have been assessed, and the GCP and EEDA provided with the information to relate back to each bidder.

5 The development of a sub-regional hub model

5.1 Several factors contributed to the recommendations for taking forward initial bids to EEDA's full application process, as described in Chapter 4.

5.2 The assessment led to a number of bids being excluded on the basis that variously:

- they were of potentially regional significance, but there was no logic for a hub to be located in the sub-region
- they did not fit sufficiently closely with the Enterprise Hub Product definition to be considered for this stream of funding
- they were not sufficiently developed conceptually or supported by evidence to be recommended for further consideration under this current bidding round
- the timing was not right for the proposal.

5.3 Having identified a list of relevant bids recommended for more detailed consideration, a model for sub-regional enterprise hubs has been developed for the Greater Cambridge sub-region. The model has evolved through the review, and it has been refined through consultations with key stakeholders to ensure there is support for the concept, and to test out propositions about various aspects of the model.

The proposed enterprise hubs model for the Greater Cambridge sub-region

5.4 There is considerable consensus that a convincing rationale exists for two enterprise hubs, each consisting of a number of key hub components, to be located and centred in the sub-region: a Life Sciences Hub and a Technology/ICT Hub[14]. The strength of existing activity and knowledge that resides in the area, combined with the existing strong and relevant networks (for example, the Cambridge Technopole Group, the Cambridge Network, the Great Eastern Investment Forum, ERBI), the ambitious development plans, particularly in the sphere of life sciences with the development of the Cambridge Biomedical Campus over the next decade, and the benefits of the University of Cambridge's presence in and interaction with the area, support the argument for locating the hubs in Greater Cambridge.

5.5 In addition, EEDA has already funded a range of activity in the GCP area under their Enterprise Hub Product, designating St John's Innovation Centre, Babraham Bioconcepts

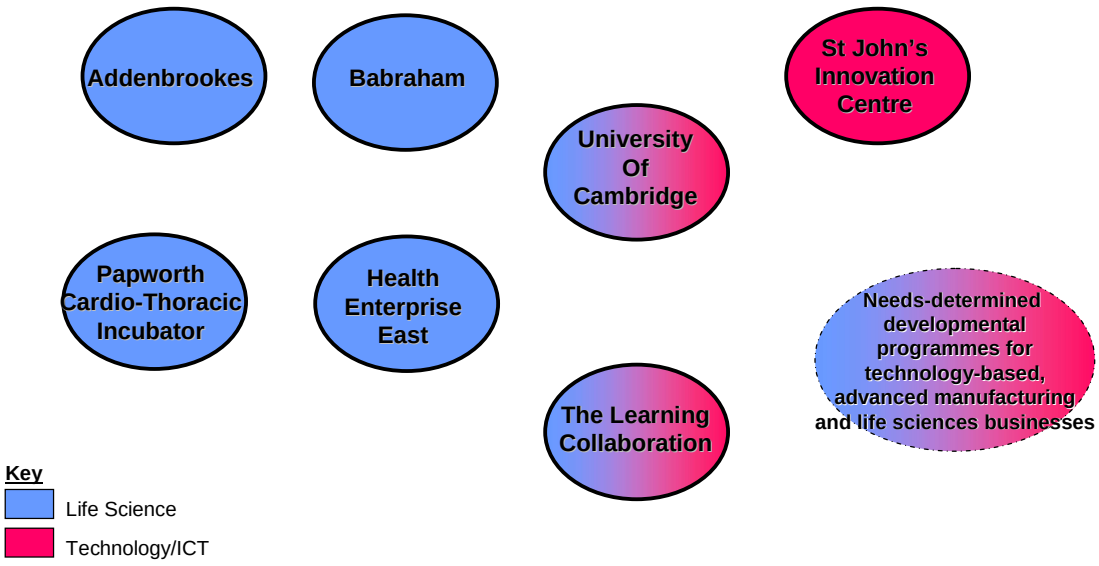
[14] In the course of this assignment, one stakeholder made the distinction in the life sciences sector between pharma and medical related technologies, and activities such as food related R&D and commercialisation, and the sensitivities of associating the two segments of the sector, particularly in relation to consumers. The particular focus of the life sciences hub activity in the Greater Cambridge area, and the marketing of the hub, will require further detailed clarification. However, this issue is a regional, rather than sub-regional, concern and, as such, needs to be addressed by EEDA.

Research Campus, Health Enterprise East (and the Centre for Sustainable Engineering located in Peterborough) as four of the seven hubs that are currently included in the region's enterprise hub network.

The basis for the hubs

5.6 Assuming the bids recommended to go to the full application process are successful, the Greater Cambridge sub-region's hub landscape will initially consist of a number of independent hubs or hub components, each contributing one or more key hub ingredients to the sub-region, and beyond, but each operating on a discrete basis, albeit linked together through the strong formal and informal networks that exist in the Cambridge area. Figure 5.1 depicts the starting point for the sub-regional hub development.

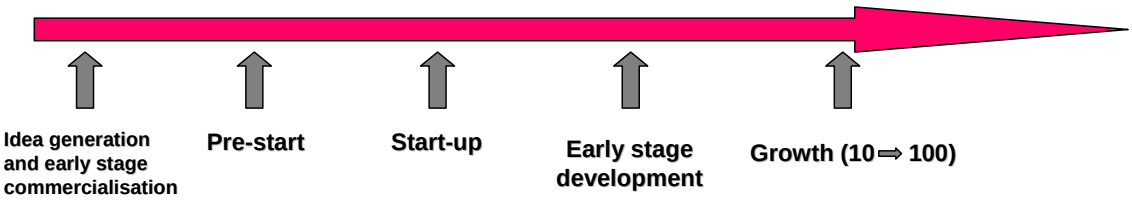
Figure 5.1: Greater Cambridge – initial building blocks for the two enterprise hubs



5.7 Each existing hub component would contribute one or more of the core components that constitute a full enterprise hub, and will also have a distinctive offer in terms of the focus of the support it brings. In the case of the Life Sciences Hub, the constituent parts offer a different mix of facilities and services to different types of firms at different stages in their development.

5.8 In the case of the Technology/ICT Hub, the needs for support can clearly be defined by the stage of development of the business, with the aim of providing a business with a seamless progression from the pre-start early commercialisation stages to the other end of the spectrum where established businesses are seeking to optimise their growth potential. The developmental continuum is depicted in Figure 5.2.

Figure 5.2: Enterprise support – developmental continuum



5.9 This developmental continuum will be as relevant to life sciences enterprises as to those identified as technology/ICT businesses, and many of the components and services relating to one hub will be equally relevant to the other. Even at this embryonic stage, therefore, there is a logic for the two hubs to be closely linked, with many common and overlapping inputs.

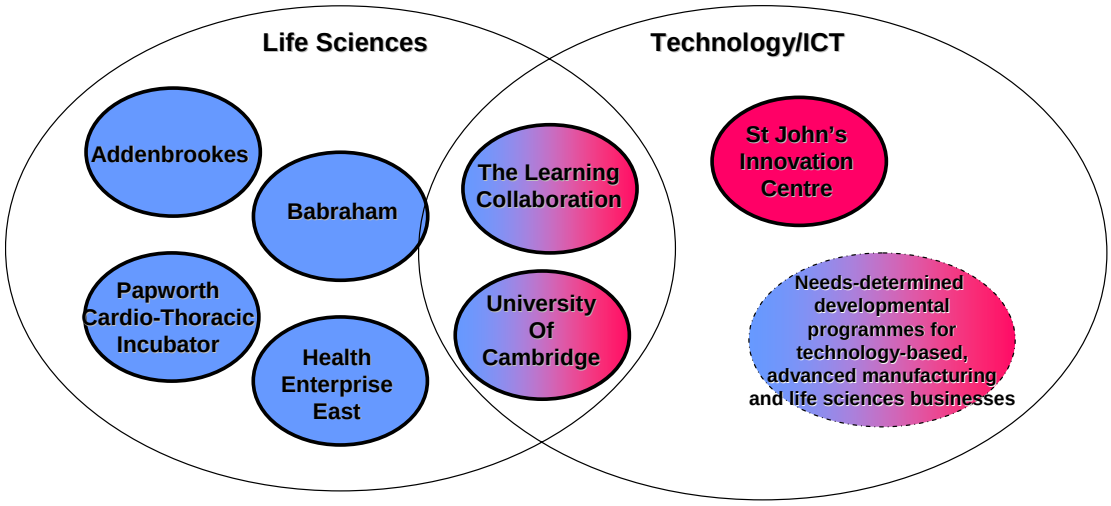
5.10 However, the two hubs will be distinctive in their geographic as well as sectoral focus. Whilst the main focus of the region's activity in the life sciences sector is in Greater Cambridge, there are other important nuclei in the East of England which should be linked into the Life Sciences Hub activity, and have similar access to the networks, contacts, support and services offered as do those enterprises located in the Greater Cambridge area.

5.11 The Technology/ICT Hub, on the other hand, whilst also reaching out beyond the sub-region, is not defined so clearly by sector and the provision is therefore more generic, albeit focused clearly on knowledge-based and technology-based businesses. It could, therefore, be considered more as a sub-regional resource, serving the very strong knowledge-based business community in the Greater Cambridge area, and cutting across a range of sectors to which the support will have relevance. It should nonetheless be charged with enhancing the already-existing regional axes, again to ensure that businesses – wherever they are located in the region – have access to the excellence that is offered by the hub.

5.12 At this early stage, the hub components are quite separate and there is no provision for activating linkages between them; in short, there is no 'glue' which can bind them together and help ensure that the whole is more than the sum of the parts.

5.13 The starting point for the strategy to develop the two hubs should therefore be to describe the boundaries of each of the hubs, the areas of intersection, and the common tools already available to the two hubs. Figure 5.3 presents a starting point for the hub model.

Figure 5.3: Greater Cambridge enterprise hubs: the basis for development



5.14 Figures 5.4a and 5.4b show the same starting point, this time with the developmental continuum overlaid in the Technology/ICT Hub to demonstrate how the different hub components might deliver support at each stage of business development. For the Life Sciences Hub, each of the bids is placed at the intersection most accurately reflecting which of the three integrated component parts of a hub they address.

Figure 5.4a: Greater Cambridge enterprise hubs: Technology/ICT Hub structure

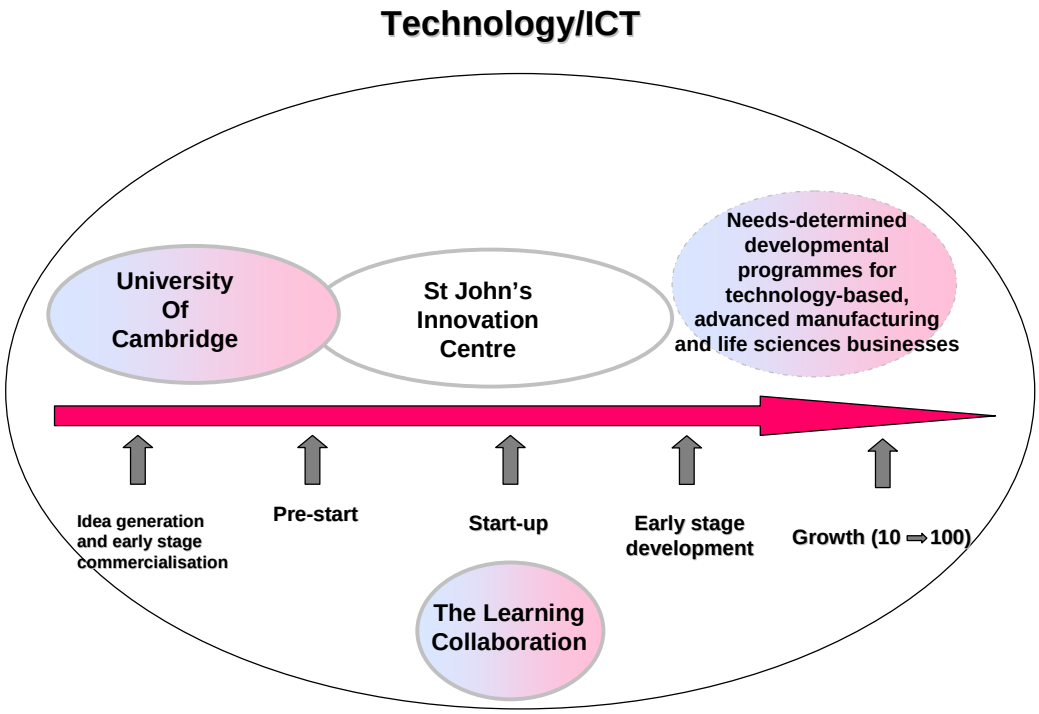
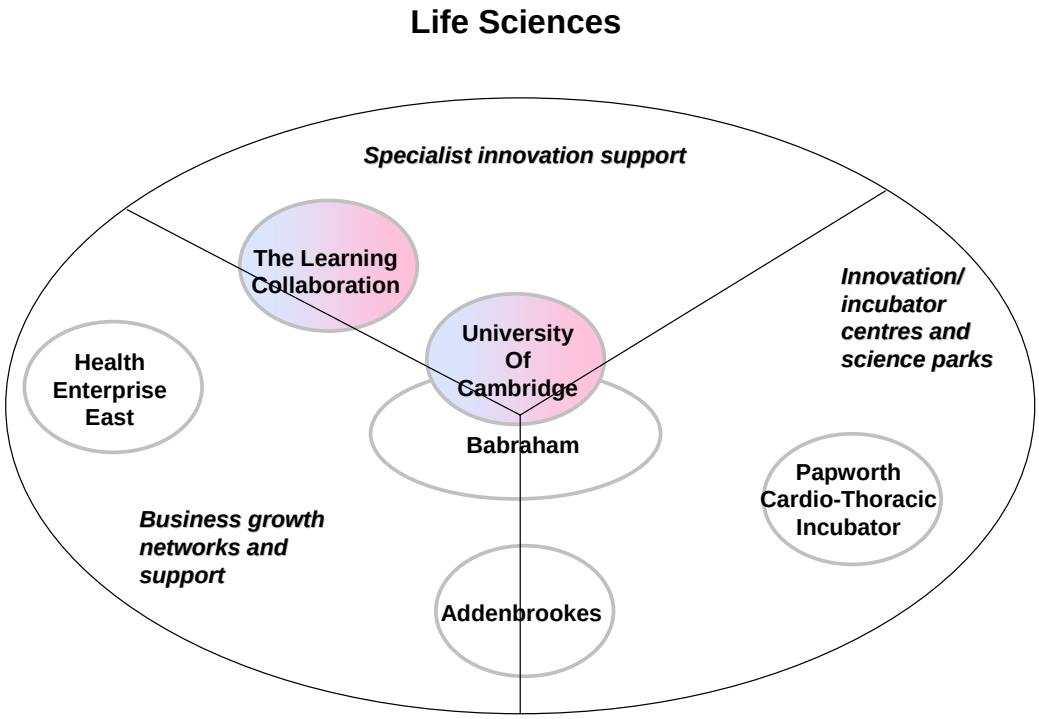


Figure 5.4b: Greater Cambridge enterprise hubs: Life Sciences Hub structure



5.15 The first priority is for a mechanism which facilitates the effective interaction between each of the hub components. The starting point needs to be a mechanism to bring the hub components and other complementary organisations together, to strengthen the links between them and to formalise the process of sharing resources, information, contacts, networks and knowledge, thus adding value to the service provided to the hubs' business populations. We propose, therefore, that the first phase of development of the two hubs should focus on:

- putting in place a coordination mechanism for each of the two hubs, charged with supporting interactions and networking, both internally and externally
- the design and development of sharing and signposting protocols
- gaining the commitment of the member organisations to sign up to the protocols
- ensuring all key players are included as hub members, not just those funded under this round of EEDA hub funding.

Hub coordination – the 'glue'

5.16 Considerable thought has been given to whether one shared resource will be appropriate to coordinate and 'glue together' the various components in the two hubs. This model of managing and developing the hubs was supported by the arguments that:

- despite their distinctive characteristics, there is considerable common ground to the activities and resources of the two hubs and it is important that they are integrated and that the added value of that sharing of knowledge and good practice is optimised

- the Cambridge Technopole Group has as its members most of the organisations who will be responsible for delivering one or more of the hub components, across the two hubs, and therefore this group could potentially provide the 'glue'.

5.17 However, two counter-arguments persuade us to propose two separate management and coordination functions, one for each hub. First, whilst the overlap and synergies between the two hubs are recognised, and must be built on, there are clear differences between the two hub constituencies, and considerable effort will be needed to reach out beyond the core components to ensure that all relevant organisations in the sub-region, and in the region and beyond the East of England are connected into the hub to form the powerful network and linkages that form the foundations of a true regional hub. These organisations and activities do differ between the two hubs, with the Life Sciences Hub reaching out primarily to other life sciences activity in the East of England; whereas the Technology/ICT Hub will link up with other complementary activity that fits with the Hub and, for example, with the region's Advanced Manufacturing Hub activity located elsewhere in the region, ensuring that expertise that resides in the Greater Cambridge area is linked strongly across to other regional hubs.

5.18 The second argument against a single 'glue' mechanism is that the Cambridge Technopole Group, whilst being a potent alliance of organisations, is not a formal organisation and therefore is not in a position to 'host' the management/coordination function. Its explicitly Greater Cambridge focus also argues against CTG taking on this regional role.

5.19 Our recommendation is to establish a coordination function for each of the two hubs. There are various options for managing this coordination function: the Coordinator could either be located in and employed by one of the member organisations in the hub, or be employed by the GCP - as impartial broker - with their location rotating on an annual basis to give a degree of neutrality and to support coordination between organisations. However, the latter option may be less appropriate for the Life Sciences Hub with its clear regional role. There are a number of options for the host organisation in each hub; appointment of the host organisations forms one of the initial actions in the Hub action plan. The Coordinators will take responsibility for a number of aspects of hub development. These are developed in more detail in the Strategy in the next Chapter. It is not envisaged initially that this will be a full-time role for either of the Hub Coordinators - most probably two/three days a week will be sufficient to initiate the process, although this will need to be reviewed as the hubs develop.

Strategic advisory group

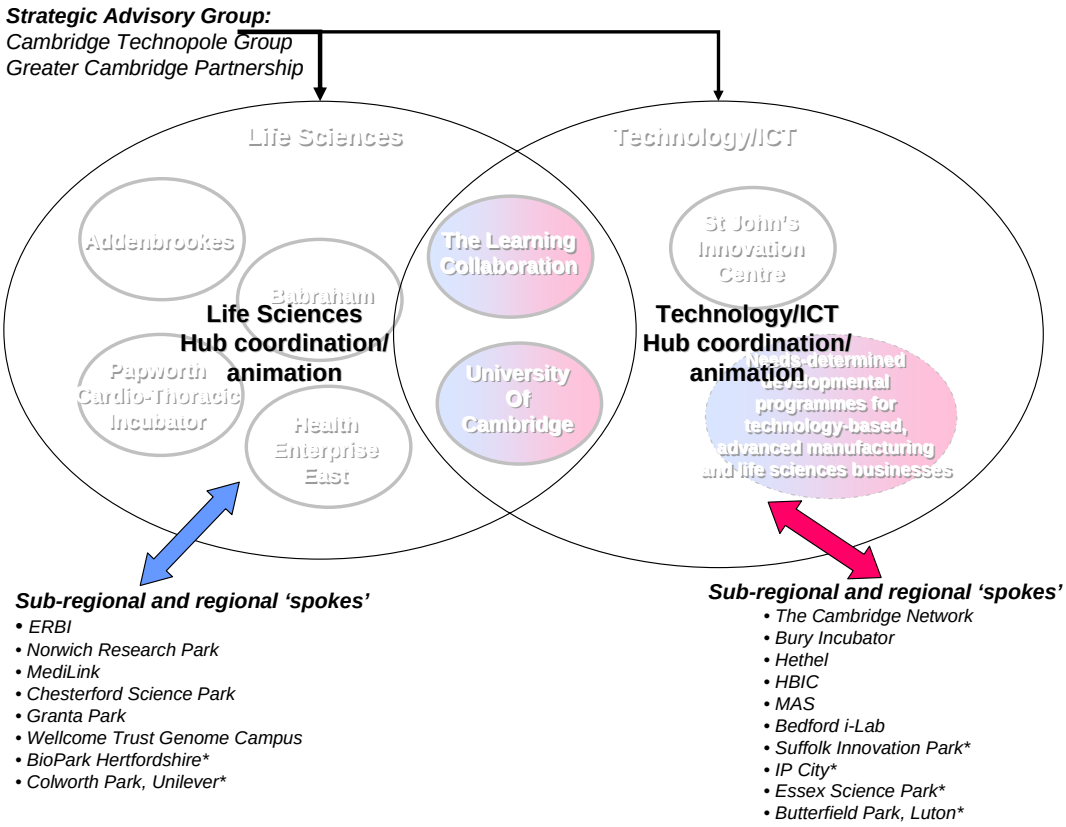
5.20 Whilst not being an appropriate mechanism to manage the hubs formally, the Hub Coordinator and the disparate components of each hub will need guidance as to how they

develop in shape, focus and reach. The Cambridge Technopole Group, representing a large percentage of the sub-region's hub stakeholder organisations, is the obvious vehicle for providing strategic guidance to the two hubs. The CTG already links to the Greater Cambridge Partnership (which is a member of the Group) and in particular it supports implementation of Goal 1 of the SRES. We propose that the CTG should comprise the Strategic Advisory Group and deliver this function to the two hubs. This model is illustrated in Figure 5.5, and the relationship is elaborated in paragraph 5.21.

Linking hub development to the SRES

5.21 Hub development in the sub-region will be guided by the Greater Cambridge Partnership's sub-regional enterprise hub strategy, whilst also reflecting EEDA's regional hub plan. The GCP's lead role in the sub-regional hub development involves responsibility for articulating the needs of the sub-region and coordinating the delivery of the enterprise hub strategy to meet Goal 1 of the SRES. In delivering this, the GCP will link closely with the CTG in its Strategic Advisory role, the Coordinators of each of the two enterprise hubs, and also with other relevant enterprise hub activity located elsewhere in the region.

Figure 5.5: Greater Cambridge enterprise hubs: Management structures



** Due to come on stream or be further developed during 2006/07.*

Hub management in the future

5.22 During this review process, there has been considerable discussion about the need for a 'charismatic, high profile and powerfully networked' hub Animateur to lead each hub, or to provide combined leadership for the two hubs, in the local, regional, national and international environments. Our view is that the first priority is for effective coordination of existing activities rather than building profile, and the latter can come later, once the two hubs have been established. It will then be clear whether or not this role can be delivered by existing Coordinators, whether a natural Animateur has emerged, or whether this is a gap which needs to be filled by a formal appointment. It will also be possible to define the role more clearly once the groundwork in establishing the hubs has been undertaken. In the meantime, each of the hub component leaders naturally contributes a similar role to their own sphere of operation, and in committing themselves and their organisation to hub membership, will automatically deliver an animation role for their own elements of the hub.

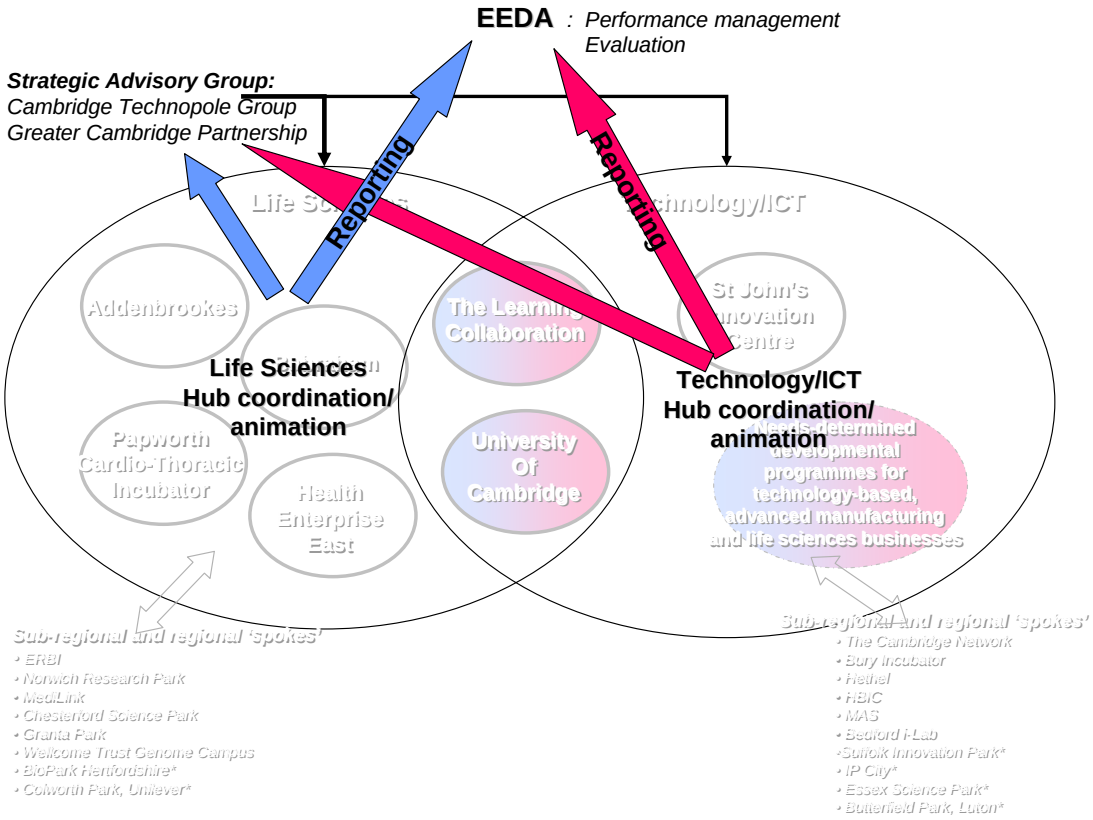
Reporting

5.23 The final dimension of the hub structure to be put in place is the reporting function. Recommendations for measuring progress are made as part of the action plan. However, as the final dimension of the hub development model reporting lines are proposed here to satisfy both funding and strategic requirements.

5.24 A contribution towards funding for the enterprise hub development may come from EEDA, alongside several other sources of funding in some cases. Monitoring the performance of the hubs and reporting against agreed indicators will therefore need to be directly to EEDA, both in terms of direct added value generated through EEDA's funding, and in relation to the Strategic Added Value delivered by EEDA contributing to funding the hub components and development.

5.25 In addition, as a key part of the Greater Cambridge sub-region's strategy, there will be a need to report to the Greater Cambridge Partnership against Goal 1 of the SRES. This can form part of the report to the Strategic Advisory Group (the GCP is a member), but there should also be a formal reporting process to GCP which sets out progress against the GCP SRES and the Greater Cambridge sub-regional hub strategy. Figure 5.6 illustrates the proposed reporting lines for the two hubs.

Figure 5.6: Greater Cambridge enterprise hubs: Proposed reporting lines



** Due to come on stream or be further developed during 2006/07.*

5.26 Table 5.1 includes a possible list of indicators to assess the delivery of the GCP Enterprise Hubs Strategy, and the required data sources to support the monitoring. It would be desirable to collect these data to obtain a thorough understanding of the added value of the strategy, although if monitoring resources are constrained a minimum would be to collect data relating to the two condition indicators for Goal 1 of the SRES – that is:

- number of high tech businesses
- employment in high tech businesses.

Table 5.1: GCP Enterprise Hubs Strategy - proposed macroeconomic monitoring indicators	
Indicators	**Source of data**
Supply side: how effectively is the Enterprise Hub network working?	
Gaps in supply that have been filled	Assessment against CTG report on current situation (Annex C of this report)
Improvements in the quality of business support provision	Commissioned survey
Individual hub components working effectively as a network	Number of referrals (collected data) Commissioned surveys of: • Individual Hub Component Managers • Hub business 'clients'
Outcomes of Enterprise Hub network development:	
Number of new start-ups in targeted sectors	Publicly available data
Number of businesses in different sizebands	Publicly available data
Number, size and sector of inward investments linked to hub components	Commissioned survey of Hub Component Managers and inward investors, and analysis of Invest East's database
Overall change in the size of the targeted sectors, measured by: • number of businesses • number of employees • profitability	Publicly available data

6 Five year hub strategy and action plan for Greater Cambridge

6.1 The Brief requires a five year strategy and action plan for development of enterprise hubs in the Greater Cambridge area which:

- sets out a vision for the Enterprise Hubs Programme in Greater Cambridge
- identifies priorities for future enterprise hub development
- suggests synergies between existing, proposed and future hubs
- identifies criteria for selecting between competing proposals
- provides a checklist to guard against duplication of services and facilities
- prioritises and provides a provisional timetable for the initial enterprise hub expressions of interest
- provides recommendations for ensuring coordination of enterprise hub activities within Greater Cambridge and with Greater Cambridge and the rest of the region.

6.2 Some of these requirements have already been addressed – at least in part - elsewhere in this report. Criteria are considered in Chapter 4; the mapping exercise described in Chapter 3 identifies gaps in services and facilities which is used in combination with the criteria to identify priorities, assess bids and avoid duplication in provision; and the development of potential sub-regional hub models in Chapter 5 includes consideration of synergies between existing, proposed and future hubs. This Chapter therefore summarises the overall strategy for the next five years, and proposes an action plan which focuses primarily on the first two years, but gives an indication of how the strategy will be implemented over the period.

Vision and objectives for the enterprise hubs programme in Greater Cambridge

6.3 The vision for the Enterprise Hubs Programme in Greater Cambridge should reflect both GCP's vision for the development of the sub-region, and EEDA's objectives for the Enterprise Hubs Programme as a whole.

6.4 Accordingly, the proposed vision is that:

The Enterprise Hubs Programme will contribute to the development of Greater Cambridge as a world leader in the knowledge-based economy by supporting the start-up and growth of high growth potential SMEs in knowledge-based sectors in which the sub-region has outstanding and distinctive strengths.

6.5 The enterprise hubs strategy will form a key means of achieving Goal 1 of the Greater Cambridge Economic Strategy, which is to "encourage global success in entrepreneurship, research and development and business growth across the high tech cluster".

6.6 In pursuing this vision, the principle objective for the Programme will be to add value by:

- providing essential funding for a variety of initiatives which demonstrate excellence in their own right, but also complement and fill gaps in existing support for knowledge-based businesses
- linking existing and new activities together to facilitate firms' access to specialist support and facilities which matches their needs, and to ensure that "the whole is more than the sum of the parts".

6.7 Greater Cambridge has huge strengths which the Enterprise Hubs Programme can help exploit to local, regional and national advantage. EEDA therefore has a responsibility to enable Greater Cambridge to exploit those strengths, but equally Greater Cambridge has a responsibility to develop enterprise hubs within, and for the benefit of, the regional context.

Strategy components

6.8 The strategy is to develop two main *"enterprise hubs"* – one focused on life sciences, the other on high technology businesses more generally, but with a particular emphasis on information and communication technologies (ICT) – see Figure 5.6. Each of the enterprise hubs has a number of separately funded, but inter-related components, both existing and proposed. These will need to be actively networked together by *Enterprise Hub Coordinators*, with responsibility for coordination between organisations, and facilitating access for firms to any part of the hub through any entry point.

6.9 The hubs are overlapping, having some distinct, but also some common, components, reflecting the fact (demonstrated by the background analysis) that much of the support infrastructure is common to all types of knowledge-based businesses, with only life science businesses having unique requirements in some significant aspects of support (notably in relation to property and funding).

6.10 The *Life Sciences Enterprise Hub* includes four distinct, core components: Addenbrooke's, Babraham, the Papworth Incubator and Health Enterprise East. Each of these provides a mix of support to life sciences businesses which it wishes to expand and deepen with (in some cases additional) enterprise hub funding. In addition, the University plays a key role in relation to the life sciences sector, and relevant aspects of its research commercialisation and business support infrastructure should therefore form part of the Life Sciences Enterprise Hub.

6.11 There are also numerous other organisations and initiatives within the cluster which form a key part of the specialist support infrastructure but which are not involved in bids for

enterprise hub funding. Many of these are located within the Greater Cambridge sub-region: for example, Granta Park, the Genome Campus and the Great Chesterford Research Park (although the latter is within the funding remit of Essex Economic Partnership rather than GCP). Others are elsewhere in the region (e.g. the Norwich Research Park and the new incubator at the former Roche Laboratories at Welwyn), or have a base in Greater Cambridge but a regional remit (e.g. ERBI).

6.12 Although the Life Sciences Enterprise Hub is clearly focused on Greater Cambridge, it is, in our view, a regional hub with components throughout the East of England. Furthermore, it has the potential to become an enterprise hub cluster which extends beyond the region to include at least the greater south east (i.e. including the South East and London regions as well as the East).

6.13 The *Technology/ICT Enterprise Hub* also has a significance which extends well beyond the Greater Cambridge area, but its focus is more distinctly sub-regional. The component parts provide for a continuum of support from pre-start through start-up and early stage development to growth into substantial businesses. They include the University, St John's Innovation Centre and various initiatives to accelerate the growth of established businesses. Again, some of these are existing, and have already received enterprise hub funding, others are proposed. The cluster also includes a great many sub-regional activities which are not seeking enterprise hub funding (e.g. the Cambridge Network), and links into the rest of the region with other proposed hubs (e.g. Hethel, HBIC and the Bury Incubator).

6.14 For the hubs to be more than a collection of separate components they need *coordination mechanisms which support interactions and networking*, both internally and externally. We considered various options for this glue in the previous Chapter. Our conclusion is that the two hubs are sufficiently different – in sectoral and geographical focus – to warrant different mechanisms. In both cases there should be a person appointed to facilitate linkages, acting as a Coordinator to each hub. This person could be employed by one of the organisations within the hub, and logically day-to-day reporting would be to the Chief Executive or equivalent of that organisation, on behalf of the hub; alternatively, the host location could rotate on an annual basis to provide a degree of neutrality and to support coordination between organisations. Funding for the Coordinators may come from a combination of EEDA, GCP and appropriate alternative sources. EEDA and GCP will therefore expect periodic reporting of progress against targets relating to the coordination role.

6.15 The principle elements of the role will be to:

- facilitate access to information, networks and contacts, facilities and specialist support, for businesses accessing a hub component and for hub member organisations
- promote shared use of resources where appropriate

- facilitate the exchange of good practice, both within and from outside the enterprise hub
- promote collaboration between hub components and externally
- promote external linkages with the rest of the region and beyond
- ensure as far as possible that all needs for businesses operating in the hub's orbit are catered for
- support implementation of relevant goals and actions of the Greater Cambridge economic strategy.

6.16 The Cambridge Technopole Group can provide strategic guidance and coordination across the two clusters. The Group includes many of the organisations located in each hub, and is ideally placed for this strategic role. However, we do not consider that it could undertake the active coordination role for two reasons:

- The Life Sciences Enterprise Hub is regional in scope, whereas the CTG has an explicitly Cambridge focus
- The CTG is not constituted as an organisation, and therefore could not be the employer or manager of the Coordinator. This would have to fall to one of its member organisations, in which case it would revert to the model we propose.

Priorities for the future

6.17 Over the five years of the strategy we expect the two enterprise hubs will develop in various ways, including:

- strengthening of existing components, for example through expansion of facilities or development of further specialisations
- development of new components, particularly to fill gaps in provision. Existing proposals cover some of the gaps identified in the background research - for example, for specialist incubator space for life science businesses. Remaining gaps include funding for start-up and early stage businesses, and business space for established firms on flexible terms (there is a question, however, about whether public funding can be used to fill these gaps)
- strengthening of the glue which links them together, and of the effectiveness of the coordination mechanisms
- outreach into the rest of the region, and - for the Life Sciences Enterprise Hub in particular – beyond.

6.18 The next section identifies some key actions which will support implementation of the strategy over the next few years.

The Action Plan

Projects	Timescale	Lead/Partner	Funding source	£	Comments
Secure agreement to the enterprise hub strategy from the main component parts and from the Cambridge Technopole Group	Immediate	GCP	GCP	Time cost only	Essential to achieve this before proceeding with other actions
Coordination of the implementation of the Greater Cambridge enterprise hub strategy	Immediate and ongoing	GCP	GCP	Time cost only	GCP to be responsible for coordination and implementation of the strategy with the support of EEDA and the CTG
Agree on Hub Coordinator host model, and identify appropriate organisations to host the Enterprise Hub Coordinators	Short	GCP	GCP	Time cost only	GCP could facilitate round table discussions for the main organisations within each enterprise hub with the specific purpose of them selecting a host organisation, or organisations. If they cannot decide, GCP and EEDA should decide based on invited proposals
Develop detailed job specifications for Hub Coordinators, including performance targets	Short	GCP/host organisations	GCP/host organisations	Time cost only	EEDA will need to define performance targets if they are to provide most of the funding
Secure funding for a Coordinator for each enterprise hub and make appointment	Short	Host organisations and GCP	EEDA/GCP and/or other sources	£50,000 per year, including overheads	Funding covers two-part time Hub Coordinators, estimated to deliver on average 2/3 days per week each, and should be included as part of an individual component hub bid, or as a separate new bid, to GCP/EEDA as a revenue element
Establish strategic direction arrangements for enterprise hub coordination	Short	GCP	EEDA/GCP	Time cost only	EEDA, GCP and CTG should between them provide strategic guidance and direction. The mechanism envisaged for this is that the CTG delivers the Strategic Advisory Group role
Develop a detailed map of each Member Organisation's hub offer and broader services	Short	Enterprise Hub Coordinators		Time costs included in the Hub Coordinator role	As a starting point for the development of the hubs it will be important to have a detailed picture of the current landscape, including each Member Organisation's hub offer and broader services, the existing linkages between Member Organisations, and with other organisations and hubs in the sub-region and region
Develop collaboration protocols	Short	Enterprise Hub Coordinators		Time costs included in the Hub Coordinator role	

Projects	Timescale	Lead/Partner	Funding source	£	Comments
Secure commitment of Member organisations and key partners to the protocols	Short	Enterprise Hub Coordinators		Time costs included in the Hub Coordinator role	
Develop a programme of activities for each enterprise hub	Short	Enterprise Hub Coordinators		Time costs – already itemised above	
Tighten the definition of enterprise hubs and the process for securing funding, to provide clearer and more focused guidance for future applicants	Short	EEDA	n/a	Time costs only	Needed to avoid speculative applications and reduce timescale for approval. In retrospect, it may have been a more fluent process had the strategy been developed first, followed by inviting applications.
Formation of an enterprise hub component group, consisting of a representative from each contributing enterprise hub component in the sub-region	Short/ Medium	GCP and Enterprise Hub Coordinators	n/a	Time costs only	The purpose of this group will be to share information and update each other on developments, identify cross-cutting benefits, exchange good practice and develop proposals for collaborative activities. The group should decide on the frequency of meetings – a quarterly meeting is suggested to be the minimum.
EEDA, GCP and other stakeholders, as appropriate, to give consideration to the development of Terms of Reference for a support service to established high tech businesses to help foster the growth in size of businesses	Short/ Medium	GCP	n/a	Time costs only	This action is based on the identification of a need for support to established businesses to help them achieve optimal growth, and the range of initial bids received for similar proposals. The Terms of Reference, once developed, should be agreed with the Strategic Advisory Group before going out to tender.
If appropriate, arrange competitive tendering for support services to established high tech businesses to help foster the growth in size of businesses	Short/ Medium	GCP	n/a	Time costs only	There are various existing applications which should be put on hold until the exact requirements are identified, then tenders invited in response to those requirements (at applicants' expense)
If appropriate, decide on tenders and fund initiatives	Short/ Medium	GCP	To be determined	To be determined	The scale of funding will inform the scale of the work that can be undertaken with businesses. An estimate of funding based on the smallest and largest initial bids submitted for delivering this support suggests a funding figure of between £100K and £500K p.a.
Develop links with other enterprise hubs in the region	Short/ Medium	Enterprise Hub Coordinators	EEDA	Mainly time costs	Should be integral in funding support and performance targets

Projects	Timescale	Lead/Partner	Funding source	£	Comments
Introduce regular review process of emerging sub-sectors in the region	Short/ Medium	CTG/GCP	SREP core funding	Take forward within the GCP hub stakeholders' remit	This function was a recommendation in the CTG's report as a sensible means of ensuring that hub developments keep track and are targeted at emerging technologies. It is recommended that this is, at minimum, an annual process. The exercise should be undertaken by GCP and CTG as part of the hub development activities within the context of the five year framework.
Identify gaps in provision and invite applications to fill them	Medium/ Long	GCP	EEDA	Mainly time costs	Should follow monitoring and review, after the first year. Bids must be forwarded to the GCP to assess fit with the sub-regional enterprise hub strategy. The GCP to then forward to EEDA for funding.
Agree additional facilities/services and provide funding accordingly	Medium/ Long	GCP	EEDA	To be determined	
Review the Hub Coordinator role and redefine based on the first year's experience	Medium/ Long	GCP and CTG	EEDA/hub member organisations	Potentially an additional £30-£50K	The role may have grown into a full time undertaking for each of the hubs, and additional funding may therefore be required.
Development of hub management systems such as: shared customer relationship management software; common access to databases, or shared databases; common data collection; signposting systems	Medium/ Long	Hubs	Hubs plus EEDA	To be determined	
Explore possibility for a greater SE network of Life Science Enterprise Hubs	Medium/ Long	Life Science Enterprise Hub Coordinator	EEDA/ SEEDA/LDA	To be determined	
Develop national and international links as appropriate	Long	Enterprise Hub Coordinator	EEDA/GCP	To be determined	Link to International Relations Manager role.

Measuring progress

6.19 EEDA and GCP will need to monitor progress in the implementation of both the overall strategy and of individual enterprise hub initiatives. Consistent with the economic strategy for Greater Cambridge, the strategy will need a monitoring and evaluation framework in two parts. A *top-down* component will monitor data for knowledge-based business formation and growth in Greater Cambridge and will require the use of *condition indicators* (examples include number of business start-ups, number of businesses in total, and employment in the relevant sectors). The enterprise hubs may have some impact on these condition indicators, but other factors will also be important, many of them nothing to do with Greater Cambridge or the East of England (e.g. £/$ exchange rates, the stage of the business cycle). The second component will be *bottom-up*, and will enable the Strategy's activities, outputs, and impacts to be assessed by using appropriate *response indicators* (these will relate to specific actions – for example the effectiveness of the Coordinator may be measured by attendance at networking events, the number of cross cluster business referrals, etc). Proposed macroeconomic indicators have been included in this report (see Table 5.1) as a starting point to the development of a monitoring framework.

6.20 Our recommendations are that monitoring and reporting progress should be on, at minimum, a quarterly basis, to EEDA and to the GCP.

6.21 When taken together, the two components should provide a clear and robust insight into the strategy's effectiveness, allowing funding priorities to be adjusted accordingly over time.