

**Evaluation of
Stirling University Innovation Park
Operations 1996 – 2005**

Final Report For

Scottish Enterprise Forth Valley

Prepared by



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EXECUTIVE SUMMARY

PROJECT BACKGROUND

Stirling University Innovation Park (SUIP) was established in 1986 and was centred around the development of the Alpha/Beta Centres and subsequently extended with the development of Scion House and Logie Court. The four buildings provide 68 individual suites providing 5,275 sq m ranging in size from 40 to 300 sq m

The Park is designed to provide business accommodation for high tech businesses or R&D activities. It currently has around 40 tenant companies operating across a range of sectors. In addition to physical business accommodation, SUIP also provides tenant companies with a wide range of business support services to assist in the process of introducing new products and processes.

During the course of the study, EKOS Economics and Regeneration were commissioned to undertake an additional piece of related work. This involved preparation of a Future Development Plan for SUIP identifying key and supporting projects designed to improve the success and operating position of SUIP. A summary of the Development Plan is provided in the Conclusion Section of this report.

REVIEW OF SUIP

SUIP is one of 10 Scottish Science Park locations. It is a joint project between SE Forth Valley, Stirling Council and the University of Stirling.

Following the launch of Business Gateway services in 1999, the on-site business support service (Forthright Innovation) was closed. This removed the on-site business support services available to tenants but also resulted in a loss of technology/innovation specialists.

In July 2004, SUIP secured funding from Scottish Executive, ERDF and the three stakeholder partners to deliver the SCIP programme. The aim of this programme is to promote cooperation in research/development and knowledge transfer between SMEs, larger companies and the Scottish public sector science base across Central Scotland.

Our strategic review identified that SUIP has a good policy fit and a clear potential to make a strong contribution to the aims and objectives of national economic development policy.

Our financial review of SUIP was based on the audited accounts for the period March 2000 to March 2004. The audited accounts to March 2005 were not 'signed-off' and therefore were not made available to the study team. Our review highlighted the relative volatility of SUIP's financial position and the reliance on rental income. This leads to conflict between the dual targets of on the one hand generating income by accepting any tenant that is able/willing to pay the rent and on the other only leasing space to target businesses in knowledge/innovation sectors.

Our good practice review highlights the relatively poor performance (in terms of employment, tenant quality and satisfaction) with both Hillington Innovation Centre and the West of Scotland Science Park. It also, however, suggests a relatively small gap between a good practice guide and the baseline conditions at SUIP.

CONSULTATIONS

In total, consultations were conducted with ten individuals that had a role in, or remit for, SUIP. These included representatives from SE Forth Valley, Stirling Council, University of Stirling and the current and previous SUIP Chief Executives.

In general there was a good level of support from the stakeholder organisations for continued activity at SUIP. There is, however, recognition that SUIP has not been entirely effective over the past five years (due to a wide range of factors) but that there have been some improvements over the past twelve to eighteen months.

The key issue identified by consultees was the lack of on-site business support services for tenant companies. There is an acknowledgement that some form of on-site business support for tenant would support their future growth.

BENEFICIARY SURVEY

The study involved (primarily) face-to-face interviews with 26 current SUIP tenants that enabled us to gather detailed information on their views of, and estimated impacts from, being located at SUIP. The main focus of consultations was to establish the impact of SUIP on business outputs and their performance since locating there.

The survey of tenant companies identified the following:

- 62% of tenants are companies that have been established for more than five years;
- lease lengths ranged from a few months to ten years, with 81% of surveyed businesses reporting that their leases had been extended in the past;
- the central location and good transport/communication links are the major strengths and attractions of SUIP;
- 93% of all jobs on the part are full-time;
- none of the companies reported a drop in turnover;
- the admin support and conference facilities are the services that tenants report using on the most regular basis;

- there is a high level of overall satisfaction with the premises; and
- customer and competitor bases range from the immediate area to national and international locations.

On the negative side, however, tenants identified a number of issues or areas of concern. These include:

- limited awareness of business support services;
- low level of contact with the University or with other tenant companies; and
- limited contact with the SUIP team, and general feeling of isolation, particularly between the different properties, but also within units.

Finally, the tenants made a number of recommendations that they believed would improve the SUIP facility in the future:

- improve the awareness of other tenants – particularly between buildings where awareness is extremely limited – to promote cross-fertilisation of ideas and ventures;
- improve the quality of the buildings – this is more of an issue for tenants in the Alpha/Beta Centres, but also for some tenants at Scion House. Specific issues include energy use, level of natural daylight, lack of air conditioning and quality of décor;
- the need to develop a sense of community across the Park to remove the sense of isolation that some tenants have;
- parking is becoming increasingly difficult and would be much worse if the units were at full occupancy; and
- facilitate a tenants forum – this could consider issues of communal interest e.g. joint procurement and cleaning, consideration of service charges, future development on the Park and the availability of business support services.

ECONOMIC IMPACT APPRAISAL

This section considers the economic impact of the companies located at SUIP. A key requirement was to quantify the employment impact that SUIP has had on businesses that have benefited from occupation.

Based on the sample of 26 tenants, we prepared an economic impact assessment that considers the impact of each individual company. This takes the gross employment impacts (as identified by the businesses themselves) and applies factors for leakage, additionality/deadweight, displacement and multipliers to provide estimates of net additional employment.

Our assessment identified that the 26 sample businesses accommodated 300 direct gross on-site FTEs and that these represented 105 net additional FTEs at the local level and 120 net additional FTEs at the national level.

We used the information provided by the survey sample to gross-up the employment impacts to provide an estimate of the employment impacts for SUIP as a whole. We used a method of grossing-up that reflects the proportion of floorspace accommodated by the sample against the total available floorspace and then makes a further allowance to reflect the level of vacant floorspace. We then made a further allowance for sensitivity analysis – this reflects the fact that economic impact assessment is an art and not a science and that it is inappropriate to provide an exact number – spurious accuracy.

Based on this method we have estimated that at the date of our survey (July 2005) SUIP accommodated between 141 and 205 net additional FTEs at the local level and between 162 and 240 net additional FTEs at the national level.

Finally we estimated the GVA impact of these jobs. GVA is a measure of the income generated by businesses after the subtraction of input costs but before costs such as wages and capital investment are paid prior to arriving at a figure for profit.

Based on the net additional FTEs identified above, we have estimated that at July 2005, the net additional GVA impact for SUIP is likely to be in the order of:

- between £5.2 and £7.5 million at the local level; and
- between £5.9 and £8.8 million at the national level.

This equates to between 0.4 and 0.7% of the total GVA for the Stirling economy.

RECOMMENDATIONS

Based on our evaluation and in particular the conclusions presented at Chapter 7, we have made eight recommendations for future activity at SUIP:

1. there is a need to provide a more integrated and focused approach to the provision of business development support services from relevant agencies and organisations;
2. there is a need to improve the take-up of business support services from SUIP tenant companies through the promotion of support, particularly for companies that demonstrate growth potential;
3. stronger and closer working relationships should be developed between:
 - the SUIP management team and the tenants
 - the University and the tenants
 - the tenant businesses themselves

In locations such as SUIP where the physical linkages are weak, social networks become increasingly important as they contribute to and facilitate local networking, resource flows and the processes of innovation and entrepreneurship;

4. SE Forth Valley should consider the disposal of the SE interest in Scion House to an appropriate investor – if SUIP Ltd are to be considered, they must demonstrate their ability to fund and manage the property;
5. there is a need for better record-keeping in SUIP. As a condition of future funding SEFV should call for the collection, analysis and provision of regular monitoring data, in particular relating to:
 - tenants – lease, employment and business performance data
 - enquiries – sector, size and outcome
 - finances – management accounts, public sector contributions and expenditure;
6. future SUIP activity should be based on a formalised Business Plan prepared by the Board, which must be deliverable and achievable, taking into account likely resources (staffing and funding);
7. there should be commitment from the Board to the adoption of the Development Plan and delivery of the key and support projects contained therein; and

8. there is a real need to increase the level of occupancy at SUIP. We have addressed this issue specifically in the Development Plan and would recommend that additional resources are made available for marketing activity (targeted at key sectors) but that this should only take place following implementation of key projects as identified in the Development Plan, specifically tenant focus, Business Plan and staffing.

Finally, SEFV have advised that the output from the study will be used to inform future development and operations at SUIP. From our study analysis we identified support from the stakeholder partners in continuing to support SUIP. There is, however, a sense of doubt from the consultees as to the level of commitment to long-term stakeholder support.

With this in mind, however, we recommend that SE Forth Valley should continue to support SUIP through financial and other resource inputs. Future support should, however, be conditional on formal adoption of the Development Plan by the SUIP Board and delivery of the key and support projects described therein.

1. **BACKGROUND**

1.1 **PROJECT BACKGROUND**

Stirling University Innovation Park (SUIP) was established in 1986 and was centred around the development of the Alpha and Beta Centres. The Park was subsequently extended with the development of Scion House and Logie Court.

The Park is designed to provide accommodation for high tech businesses or R&D activities. It currently has around 40 tenant companies across a broad range of organisations from high tech new starts to R&D groups of major multi-national companies. Tenant companies operate across a range of sectors including biotechnology, environmental technology engineering, telecommunications, software, etc.

SUIP provides business accommodation to tenant companies from four buildings with 68 individual suites providing 5,275 sq m (56,787 sq ft) ranging in size from 40 to 300 sq m (430 to 3,230 sq ft). Suites are offered on flexible lease terms to suit individual company requirements. While there are restrictions on the type of occupier, in recent years the policy has moved away from only R&D activity to firms involved in innovation in its widest sense.

SUIP also offers sites for bespoke development packages, however, with the recent announcement by Stirling Medical Innovations (SMI) for development of a 4,800 sq m (51,600 sq ft) unit, the Park has only one remaining immediately available development site (Phase 5 site) of around 0.5 hectares (1.3 acres). One further development site (East Site) of 0.7 hectares (1.7 acres) is likely to be available for development within 5 to 10 years.

In addition to physical business accommodation, SUIP also provides tenant companies with a wide range of business support services to assist in the process of introducing new products and processes. A business support programme provides a range of services including technical information, design assistance, sourcing finance, innovation management support and technology development.

Finally, SUIP is specifically designed to foster a close working relationship between tenant companies and the University's research staff. The aim of this close collaboration is to promote commercialisation, spin-out and start-up activity and to attract inward investment.

During the course of the study, EKOS were commissioned to undertake an additional piece of related work. This involved preparation of a Future Development Plan for SUIP identifying key and supporting projects designed to improve the success and operating position of SUIP. A summary of the Development Plan is provided in the Conclusion Section of this report.

1.2 OBJECTIVES

The overall objective of the study is to evaluate the outputs and performance achieved by SUIP. This will focus on the economic output (GVA) achieved at both the Forth Valley and Scottish levels. In particular, SEFV wish to:

- establish the economic benefits that have been achieved at SUIP between 2000 and 2005;
- identify the level of financial investment and value for money since 1986;
- review occupancy levels and past/current SUIP tenant companies since 1986;
- assess the quality of relationship between SUIP tenant companies and University research staff between 2000 and 2005; and
- benchmark the performance of SUIP against other UKSPA Scottish Science Parks between 2000 and 2005.

The output from the study will be an independent assessment of the impact and benefits of SUIP and clear recommendations on future activity, public sector input and opportunities to maximise economic benefits.

In addition, the outcomes from the study will also be used to inform the future development and operations of the SUIP.

While the study did not involve a detailed assessment of SUIP Ltd, as the organisation charged with overall management and development of the Park, a review of the operation and structure of the company is vital to providing a robust analysis.

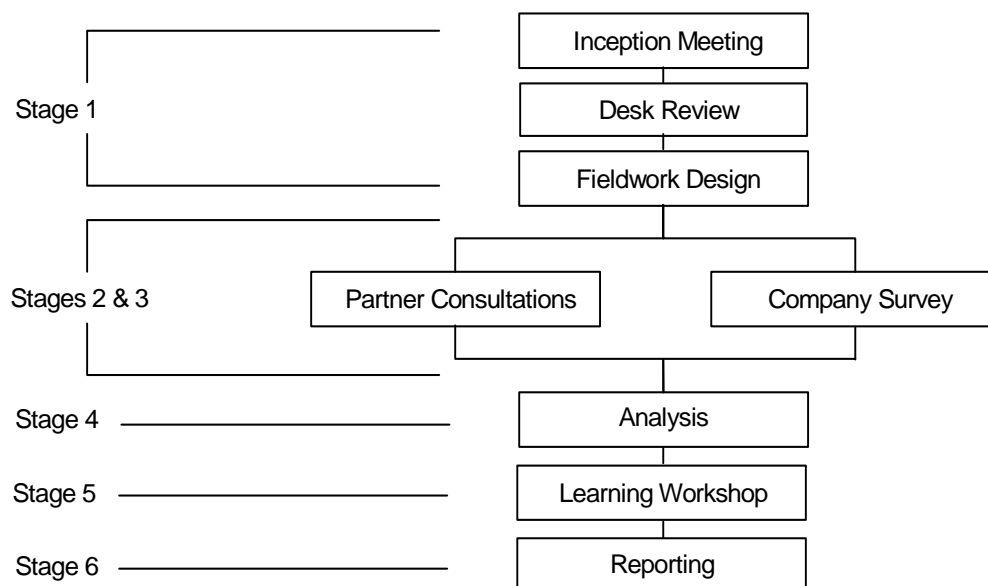
1.3 STUDY METHOD

The study was undertaken in six stages, as outlined below:

- Stage 1: Inception Period;
- Stage 2: Consultations;
- Stage 3: Company Surveys;
- Stage 4: Analysis;
- Stage 5: Learning Workshop; and
- Stage 6: Reporting.

The structure of our work programme is outlined in **Figure 1** below.

Figure 1: Method



1.4 FORMAT OF REPORT

The remainder of this report is structured as follows:

- **Chapter 2** provides a review of SUIP activity and identifies progress against targets and objectives;
- **Chapter 3** contains the feedback from our consultation meetings with stakeholders;
- **Chapter 4** presents the results of the business interviews with current tenant companies;
- **Chapter 5** presents the results of the business interviews with past tenant companies;
- **Chapter 6** provides an analysis of the economic impacts that SUIP currently delivers; and
- **Chapter 7** outlines our study conclusions and recommendations.

2. REVIEW OF SUIP

This review is based on information provided by SE Forth Valley and SUIP Ltd. As such, the accuracy of the information is not warranted or guaranteed by EKOS.

2.1 INTRODUCTION

Stirling University Innovation Park (SUIP) was opened in 1986 and is now one of ten Scottish Science Park locations. It is a joint project between Scottish Enterprise Forth Valley, Stirling Council and the University of Stirling.

It was established on a fourteen acre (5.7 hectare) site adjacent to Stirling University. Development has been split into four buildings:

- Alpha Centre (1986) – providing 14 industrial units varying in size from 450 to 1,650 sq ft with a total floorspace of 13,000 sq ft (1,208 sq m);
- Beta Centre (1988) – providing 16 units of similar size and a total floorspace of 13,000 sq ft (1,208 sq m);
- Scion House (1992) Phase 1 and 2 – two storey office development of 22,800 sq ft (2,119 sq m) providing generic business units and innovation suites; and
- Logie Court (2002) – providing six modern office units with a total floorspace of 25,000 sq ft (2,322 sq m).

Alpha and Beta Centres were constructed at costs of around £831,000, initially met by SDA and CRC but later purchased by Scottish Metropolitan. They are currently owned by SUIP Ltd. Scion House was constructed with funding of over £1.5m from Scottish Enterprise together with a £230,000 capital investment in access roads from CRC. Logie Court was developed by a private sector developer at a total cost of £3.1m with financial support from SE Forth Valley and ERDF grant. In addition to its financial contribution, SE Forth Valley also provided a rental guarantee for the four years following completion.

SUIP now provides total accommodation of 73,800 sq ft (6,856 sq m) for rental on a strictly commercial basis in 60 units ranging from 430 to 3,300 sq ft (40 to 300 sq m). In addition, a 6,500 sq ft (604 sq m) bespoke facility was built on site in 1992 for BioReliance with £600,000 financial input from Stirling Council (formerly Central Regional Council) on a build and lease-back basis.

SEFV are clear on the rationale for the evaluation – to evaluate the outputs and performance achieved by SUIP – did it deliver what was expected? The outcome of this evaluation will be used to consider future activity at SUIP and to identify any requirement to provide additional development land for expansion of the Park.

2.2 PROJECT BACKGROUND

The SUIP concept had a long build-up from the date of its initial approval by the Stirling University Court in October 1981. The original scheme was shelved in March 1982 and it was not until 1983 that the concept re-emerged and the participation of the two other partners was confirmed i.e. Central Regional Council (now Stirling Council) and Scottish Development Agency (now Scottish Enterprise).

The original objectives of the partners were to:

- provide a high quality business environment;
- build upon Stirling University's strengths as a Higher Educational Institution (HEI) through improved commercial links;
- capitalise upon Stirling's location and excellent transport infrastructure to encourage inward investment;
- encourage the presence of a cluster of knowledge-based, innovative companies;
- attract high-value, high-growth companies bringing quality jobs to the region; and
- encourage technology transfer and foster innovation amongst local companies.

Over the period to 1999, SUIP provided two distinct types of service:

- serviced property accommodation for lease; and
- business support services through Forthright Innovations – providing innovation advice and services to both tenant and non-tenant businesses.

Following the launch of Business Gateway services in 1999, Forthright Innovation was closed and staff relocated to SE Forth Valley's office. This removed the on-site business support services available to tenants but also resulted in a loss of technology/innovation specialists.

SUIP has an agreed letting policy that acts as a guide to assess the appropriateness of tenants. The prime objective is to attract "knowledge-based companies and organisations that will contribute to the overall innovation development agenda within the region". Target sectors include Life Sciences, Bio/Medical Related, Electronics, Energy, Environmental, Sports Science, Aquaculture, Software and IT, Creative Industries, Engineering, Chemicals and Fine Chemicals.

In addition, companies which, in their own right, may not meet the above criteria but that provide valuable services to the Park tenants, will be encouraged to locate at the Park. These companies will include specialist technical expertise as well as financial, legal, business and other non-technical support services.

There is also an interest in companies and organisations with strong social impact aims and objectives, particularly where there are clear linkages with the University's strengths.

Companies are assessed on an individual basis following completion of a letting form. Following assessment by the Chief Executive, the Board has the final decision on whether a lease is offered.

In July 2004, SUIP secured funding from Scottish Executive, ERDF¹ and the three stakeholder partners to deliver the SCIP programme (formerly SEEKIT). The aim of the programme is to promote co-operation in research/development and knowledge transfer between SMEs, larger companies and the Scottish public sector science base across Central Scotland.

The Programme aims to increase the commercialisation of research and innovation, however, it has an external focus on any Scottish company or organisation. It has not had a large take-up from amongst the SUIP tenant businesses.

As outlined in Section 2.1, the Park comprises four separate buildings, one of which (Scion House) is owned by Scottish Enterprise Forth Valley. The building was constructed in 1991 with completion early in 1992, on a 3.4 acre site leased to SE from SUIP. Following Board approval in April 1997, SEFV acquired the leasehold interest from SE and therefore gained direct control of the building.

SE continues to meet the ground rental payments of circa £13.5k per annum and receives all the rental income, with SEFV receiving a management fee of 10% of rent collected. There is a real issue, however, in that SEFV is responsible for payment of the service charge and other costs where these cannot be recovered from tenants, primarily due to vacant space. The lower the occupancy level, therefore, the higher the cost to SEFV. An anomaly arises due to the fact that the building, when considered in its entirety, is profitable i.e. the total rent collected meets all the outgoings. It would therefore be prudent for SEFV to dispose of its interest in the property.

Over recent years the cost to SEFV has increased significantly², however, a number of temporary lettings to SMI has provided short-term income. The cost of ownership of Scion House is dictated by market conditions and unless an alternative ownership structure can be established, it is likely to require continued financial support from SEFV.

¹ 95% funded by ERDF and Scottish Executive with minor contribution from the three stakeholder partners

² The budget for the period July 2004 to March 2005 has been set at £100,000

2.3 AIMS, TARGET SECTORS AND PARTNERS

The aim of SUIP is to stimulate innovation, product/process development and technology transfer within Scottish firms. By assisting companies, SUIP aims to promote enhanced growth, competitiveness, creativity, customer satisfaction and market share.

The vision for SUIP is closely linked to the criteria required for achieving UKSPA status:

- encourage and support the start-up and incubation of innovative knowledge based companies that are committed to growth;
- provide an environment of dedicated and sympathetic business support where businesses of all sizes can develop specific and close interactions with the University of Stirling for mutual benefit; and
- develop formal and operational links with centres of knowledge creation e.g. universities, higher education institutes and research organisations.

While the three original stakeholder partners remain in place, there have been considerable changes to the structure of SUIP Ltd and the role of the stakeholder partners over recent years. In April 2003 SE Forth Valley transferred its shareholding in SUIP to Stirling Council and the University of Stirling. SE therefore no longer retains an ownership interest in the company.

The current aims and objectives of SUIP Ltd (as presented in the Operating Plan 2004-05) are to:

“... provide both high quality space and services to the tenants within the Innovation Park, and to extend activity in a relevant and consistent way to assist the partner organisations achieve wider benefits related to the areas of innovation, commercialisation and business incubation.”

This is split into two distinct areas:

- the property offering: providing accommodation for businesses from initial start-up (in incubation space) through growth at different stages to stand-alone or bespoke facilities; and
- added value services: providing business support services to support the growth and development of tenant businesses. Services are split into three forms:
 - direct services provided by SUIP
 - sign posting to services offered by partners and other organisations

- the creation and provision of infrastructure, both operational and physical, to hold together and generate access to added value services on offer.

The key service offerings for SUIP are:

- property management and development;
- administration and services support for tenants;
- provision of networking/exchange activity for tenants;
- support services for partner organisations;
- client support for specific tenants (in partnership and supporting Business Gateway); and
- provision of networking/exchange for the wider region.

The first three are identified in the Operating Plan as already being delivered. While review and development should be undertaken for these existing services, the focus should be on developing the additional services outlined in the last three points.

Target markets for SUIP are categorised as:

- companies and organisations in the UK that require new (or additional) locations for the innovative enterprises;
- new entrants to the UK (predominantly the FDI base);
- existing tenants or selected existing businesses in the region;
- new start-up organisations including academic spin-outs; and
- intermediary organisations that act on behalf of target companies.

A partnership approach is identified in the Operating Plan as essential to realising the full potential for new business opportunities. It is also important to maximise the use of scarce resources for both personnel and finance. The key partner organisations for SUIP are:

- Stirling Council;
- University of Stirling;
- Scottish Enterprise Forth Valley;

- Scottish Enterprise/Scottish Development International;
- Partner Service Providers located both on and off the Park; and
- Large global OEMs and UK plc companies that are IP rich.

2.4 STRATEGIC/POLICY FIT

We have conducted a strategy and policy review to identify the level of strategic fit between the SUIP and the key policy documents. These can be split into two distinct groups – science/knowledge/innovation strategies and economic development strategies. This first group comprise a range of national strategies while the second cover local, regional and national strategy and policy documents.

2.4.1 Science/Knowledge/Innovation

SCIENCE STRATEGY FOR SCOTLAND

The Scottish Executive published its first Science Strategy - [A Science Strategy for Scotland](#) - in August 2001. The strategy provides a framework of policies to guide the detailed development of policy for the support and use of science to achieve the Scottish Executive's objectives.

The Science Strategy was the result of a wide consultation process based on the report of the Science Strategy Review Group, commissioned by the Scottish Executive in 2000, to identify the questions to be addressed by a science strategy.

The five main objectives of the strategy are:

- to maintain a strong science base fully connected to UK and international activity and funding sources;
- to increase the effective exploitation of scientific research to grow strong Scottish businesses and provide cutting edge science to meet the needs of the people of Scotland;
- to ensure that enough people study science to a standard which will enable the future needs of the country to be met;
- to promote the awareness, appreciation and understanding of science across society; and
- to ensure the effective use of scientific evidence in policy formulation and resource allocation by Government.

The Executive is planning to publish a progress report on "A Science Strategy for Scotland" in 2005.

The *Strategy for Scotland* states that one of its key priorities is to increase the effective exploitation of scientific research to grow strong Scottish businesses and provide cutting edge science to meet the needs of the people of Scotland.

The strategy also stresses the importance of maintaining a strong international reputation for research and states that this requires:

“..access to global scientific knowledge and expertise....The sharing of ideas and information and working together to influence science policy is key to the advancement of science.”³

HIGHER EDUCATION

Scotland's Higher Education Institutes (HEIs) have a deserved reputation for excellence. While Scotland itself is home to approximately 8.6% of the UK population, Scottish HEIs receive around 12% of UK research funding. They also account for 16% of new UK patents, 20% of the licences from UK HEIs and 19% of UK spin-outs from HEIs⁴.

However, despite this strong record, Scotland still lags the UK and international competitors in research and development (R&D) and innovation performance. Recent figures published by the Department of Trade and Industry show that business expenditure on R&D in Scotland in 2000 was £78 per head of population compared to £193 for the UK. However, more encouraging is the finding from the UK Innovation Survey that 27% of enterprises in Scotland that responded cited the science and engineering base as an important source of information compared to 28% at UK level⁵.

2.4.2 Economic Development

FRAMEWORK FOR ECONOMIC DEVELOPMENT IN SCOTLAND

Framework for Economic Development in Scotland (2004) seeks to build up economic activity throughout Scotland by promoting skills, enterprise and innovation everywhere. It recognises, however, that there may be a need for targeted regional interventions in specific areas to promote balanced growth and social inclusion.

The strategic challenge of improving Scotland's performance in innovation and R&D has long been recognised in national economic development policy. The Scottish Executive's policy statement on economic development, *The Way Forward: Framework for Economic Development in Scotland (FEDS)*, while recognising the quality of Scotland's HEIs, notes that:

“the best of our research tends to be exploited outwith Scotland.”⁶

³ *Science Strategy for Scotland*, Scottish Executive, 2001, p18

⁴ *Bridging the Gap: Discussion Paper on Knowledge Transfer in Scotland*, Technology Ventures Scotland, 2003

⁵ *Regional Innovation Performance in the UK*, Department of Trade and Industry, 2004

⁶ *The Way Forward: Framework for Economic Development in Scotland*, Scottish Executive 2000 p60

SMART, SUCCESSFUL SCOTLAND

FEDS places innovation and R&D high on the economic development agenda, a theme developed further through the subsequent strategy for the Enterprise Networks, *Smart Successful Scotland*.

A Smart Successful Scotland is the Scottish Executive's key economic development strategy and it outlines their ambitions for the Enterprise Networks. The document identifies three themes for activity: Growing Businesses to produce a fast learning, high earning nation; Global Connections to develop a globally connected European nation; and Learning & Skills to ensure that every Scot is ready for tomorrow's jobs.

*Smart Successful Scotland*⁷ calls for increased commercialisation of research and innovation through:

- increased levels of R&D spending in Scottish companies;
- more effective links between our universities and businesses, including the 'industry pull' of ideas; and
- increasing the number of ideas being registered for patents in Scotland.

In the recent refresh of *Smart Successful Scotland*, this theme was further emphasised within the priority objective of increased innovation and commercialisation of research:

*"Universities should be helped to package the knowledge generated by their research and bring it to the attention of business."*⁸

SCOTTISH ENTERPRISE STRATEGIC INVESTMENT PLAN

The Strategic Investment Plan details how the Competitive Place Community within SE, together with partner organisations, will deliver a focused economic development agenda to deliver the objectives of Smart, Successful Scotland.

Stirling is included within the Central Scotland Strategic Economic Development Zone – one of eight major economic development zones across Scotland. Within this zone various locations across Stirling are identified including the National Park, Stirling Riverside and Stirling City.

While the Plan does not specifically identify SUIP as a key future project, its potential in supporting the future growth of Stirling puts it in a good position to attract future Strategic Investment Plan funding from the Stirling City Development budget.

⁷ *Smart Successful Scotland*, Scottish Executive, 2001 p11

⁸ *A Smart Successful Scotland: Strategic Direction for the Enterprise Networks and an Enterprise Strategy for Scotland*, Scottish Executive, 2004, p16

EAST OF SCOTLAND OBJECTIVE 2 PROGRAMME

For the period 2000 - 2006, the East of Scotland Objective 2 Programme will invest a total of €250 million (£151 million) in the East of Scotland Programme area. There are three development priority areas, which the Programme is aiming to support: strategic economic development, strategic locations and sectors and community economic development. The core strategic aim of the Programme is:

"to promote sustainable economic development in the East of Scotland which is founded on the key principles of enterprise, learning and social justice."

The three priorities contain a range of measures to focus the Programme's effort on specifically regional needs of the area.

During 1999 and early 2000, the Single Programming Document (SPD) was developed following extensive consultation among the partnership of local and regional agencies. The SPD, which was approved by the Commission in March 2001, sets out the policy context and provides a quantified description of the current economy, the environment and SWOT analyses of areas and sectors. The SPD represent the essential regional conversion strategy for the Programme area and should be soundly based on the area's identified needs.

The vision for the East of Scotland Programme area is to attain:

"A dynamic, innovative and competitive regional economy where people and businesses are well equipped to face the challenges of new and emerging European and international markets."

In line with the wider European and national employment policies and strategies, the East of Scotland Objective 2 Programme incorporates the following specific strategic development drivers:

- *Sustainable Development*, which encompasses the Partnership's activities for equal opportunities, economic and social inclusion and for environmental enhancement;
- *Enterprise Development*, which addresses the Partnership's goals for business creation and growth, social entrepreneurship and community enterprise;
- *Learning and Innovation* through which the Partnership seeks to radically enhance and establish life-long learning activities and attitudes throughout the region, to encourage and support programme and project innovation; and
- *Building Regional Capacity* in the East of Scotland through Partnership support for both hard infrastructure projects in terms of spatial Development Priorities and strategic sites and soft infrastructure initiatives encompassing innovation in strategic development partnerships and financial engineering.

SUIP complements the ESEP Objective 2 Programme under two measures:

- Measure 1.3 Technology & Knowledge Transfer – support is available for interventions to increase the number of innovative business start-ups using advanced technologies, building stronger links between Universities and SMEs, encourage commercialisation of R&D activities and to build on local strengths in environmental sciences and technologies; and
- Measure 2.2 Strategic Locations and Sectors (Capital) – SUIP is identified as a key location within the M9/M876 Development Corridor (one of nine strategic locations/corridors within the Programme). ERDF support can be awarded for a range of property, site infrastructure, IT, training, transport and technology-transfer initiatives that can strengthen and promote their economic quality and potential.

Measure 1.3 provides resources to work directly with technology and knowledge SMEs to support their growth and development. Measure 2.2 provides support for capital infrastructure and development projects to create sites and premises in which technology and knowledge SMEs can locate.

FORTH VALLEY REGIONAL ECONOMIC DEVELOPMENT STRATEGY

This strategy, developed through the Local Economic Forum, sets out a framework for action at local and regional levels across Forth Valley – Stirling, Falkirk and Clackmannanshire. The overarching vision for the future of Forth Valley is:

“a thriving and diverse economy, well connected nationally and internationally where prosperity is growing throughout the population.”

The vision for Forth Valley is focussed on increasing prosperity and economic growth while ensuring that this growth is distributed as widely as possible throughout the region. The main thrust of this vision is reflected in the three main closely related strategic measures.

- increasing prosperity: economic development is about providing greater prosperity, generating a better quality of life for people and allowing business to reinvest in new products, processes and skills. Shifting more of the region’s economic base into higher value, higher income activity is key to future success;
- increasing productivity: productivity (the level of economic output per worker) is the key driver of economic growth and lies at the heart of the Framework for Economic Development and Smart Successful Scotland. Increasing productivity levels in the Forth Valley economy will lead to greater competitiveness, higher output, increased employment opportunities and greater market share; and

- Increasing participation: economies cannot sustain growth if insufficient numbers of people are not engaged in some form of economic activity. Increasing the number of people participating in the economy will show that more employment and economic opportunities are available to the people of Forth Valley.

In all three key measures, Forth Valley lags behind Scotland and the United Kingdom. The Forth Valley Economic Forum believes that its aspiration is to narrow the gap in the performance of the Forth Valley economy and that of the UK economy in terms of these three strategic measures over the next ten years.

Two additional supporting objectives have been identified to focus on particular challenges facing the Forth Valley economy:

- increasing business density: businesses are the main driver of future economic success. Currently Forth Valley has fewer businesses per head of population than Scotland as a whole. Increasing the number of businesses is therefore critical to generating sustainable growth; and
- increasing the number of knowledge based businesses⁹: economic value is increasingly found in the knowledge embedded in products and services and those businesses that exploit their knowledge to add value will meet with greatest success. National economic development policy is strongly focussed on making the transition in Scotland to a modern knowledge economy, Forth Valley is currently under represented in knowledge-based industries. Developing strengths in key knowledge sectors is a critical strategic objective for the region.

Finally, the regional economic strategy identified Physical Business Infrastructure as a key driver of economic growth. It highlights that *“Forth Valley needs excellent physical infrastructure to support business growth and diversification”*.

A key theme is: *Fit for purpose business locations*: Forth Valley must be seen as a central and accessible place with few congestion problems, in central Scotland to do business with high quality available business property meeting the needs of modern companies. Business locations must be fit for purpose and have the appropriate supporting infrastructure. Many companies require attractive locations and reliable high bandwidth internet connections. This is now an essential part of the property offering.

⁹ Based on OECD definitions and defined as SIC 1992 class (4 digit) 2441: Manufacture of pharmaceutical products; 2442: Manufacture: pharmaceutical: preparations; 3530: Manufacture of aircraft and spacecraft; 6420: Telecomms; 7411: Legal activities; 7412: Accounting/book-keeping activities etc; 7413: Market research/public opinion polling; 7414: Business/management consultancy activities; 7415: Management activities: holding companies; 7420: Architectural/ engineering activities; 7430: Technical testing and analysis; 7440 : Advertising; 7450 : Labour recruitment etc.

MAKING STIRLING WORK

Making Stirling Work is a partnership Action Plan to guide the development of the Stirling economy over a 10 year period. The strategic aim is to transform the local economy, increase prosperity and create new jobs. The document focuses on creating a working economy, improving partnership working and Making Stirling Work through business prosperity.

The strategy has five development themes:

- working for enterprise: building Stirling as the home for new and innovative businesses in the for-profit and social enterprise sectors operating in sustainable markets;
- learning for work: equipping Stirling's people with the skills to win and sustain employment and enhance productivity;
- work for everyone: with a focus on including individuals, groups and communities vulnerable to exclusion;
- making the place work: exploiting Stirling's physical assets to create an environment that works well and that stimulates and attracts sustainable economic activity; and
- working together: drawing the partners together at strategic and operational levels.

SUIP is identified as one of the key projects under the Stirling City umbrella alongside regeneration of Raploch, Castle Business Park, Forthside and Stirling events strategy.

STIRLING AREA BUSINESS SPACE STRATEGY

SE Forth Valley and Stirling Council have recently completed a Business Space Strategy for the Stirling area. This strategy document included a supply and demand assessment of business property within the Stirling area for the next 10 – 20 years.

Stirling University Innovation Park is identified as a key employment location, however, it is recognised that at present the site has limited expansion capacity. The Stirling area is identified as having an imbalance between supply and demand, particularly of high quality accommodation, therefore the potential for SUIP to attract further business activity, is linked to the physical expansion of the site.

2.4.3 Strategic Fit and Contribution

As identified above, there is a clear strategic rationale for continued support at SUIP, and the Project has the potential to make a strong contribution to the aims and objectives of national economic development policy through increased commercialisation of research.

The key policy messages arising from the strategic document review can be summarised as follows:

- innovation and R&D are central to the success of regional and national economies and the Scottish industry is currently underperforming relative to the UK and other international competitors;
- Scotland is failing to capitalise fully on the strengths of its academic research base and lacks close collaboration between industry and HEIs; and
- national economic development policy places innovation and R&D at the heart of a strategy for increased productivity and economic growth. It provides a clear and supportive context for the work of the Link in seeking to foster international academic collaboration and the commercialisation in Scotland of leading edge technologies.

2.5 FUNDING

Funding for the construction of the individual buildings at SUIP has come from a range of sources including Scottish Enterprise, Stirling Council, University of Stirling, ERDF and the private sector.

Revenue funding for SUIP comes from a variety of sources including:

- annual revenue funding contributions of circa £36,000 per annum from each of the three main stakeholders (SE Forth Valley, Stirling Council and University of Stirling);
- rental income from Alpha/Beta Centres;
- service charge surplus from Park tenants; and
- grant income from the SCIP Programme, but expenditure here is limited to eligible costs.

Based on financial information¹⁰ provided by SUIP Ltd we have undertaken a financial review over the period March 2000 to March 2004. The financial accounts to March 2005 were not 'signed off' and therefore not available to the study team.

The three stakeholder partners fund the salary costs of the Chief Executive and Park Manager, however, other staff costs are met either from the service charge budget paid by tenants (reception and general assistant) or the SCIP Programme (programme staff).

¹⁰ SUIP Ltd Directors Reports and Financial Statements for years ending March 2001, March 2002, March 2003 and March 2004

Over the period management salaries¹¹ have risen from £25,500 at end 2001 to almost £60,000 at end March 2004, representing almost a 130% increase in costs. Administration salaries have also increased from a low of £30,000 at end 2000 to almost £45,000 at end 2004, representing a 45% increase.

On the surface these would appear to be excessive cost increases, however, as we have already identified the management structure of SUIP Ltd was significantly reduced in the period up to 2000 (with the wind-up of Forthside Innovations and the resignation of the Chief Executive) but in the period since 2000 SUIP has re-grouped and re-staffed.

It is clear from our review that Operating Profit has varied significantly over the five year period from a low of almost £1,500 at March 2000 to a high of £135,000 at March '02 before dipping to almost £55,000 at March '04. This indicates the volatility of SUIP's financial position and the reliance on rental income, i.e. the conflict between filling vacant space as quickly as possible and accepting only technology/innovation target businesses.

Marketing is one budget heading that has not increased over the period and expenditure at 2004 (£7,000) was even lower than in 2000 (£8,200). The marketing budget makes up a very small proportion of overall expenditure, at only 1.6% of administration expenses, however, we have been advised that the budget for 2005-06 has been increased and is estimated at circa £14,000.

2.6 STRUCTURE AND MANAGEMENT

SUIP has five direct members of staff, four temporary contract staff (SCIP Programme Manager and Executives) and one external marketing consultant/contractor. The five permanent SUIP staff comprise:

- Chief Executive who has responsibility for overall strategic management and development of the property and services offerings of SUIP;
- Park Manager: responsibility for the marketing and development of services in addition to the management and letting of the Park;
- Reception Services Manager: responsibility for day-to-day running of the Park's reception and provision of tenant services;
- Administration Assistant: assists both SUIP Ltd and tenants with the provision of admin and reception services; and
- General Assistant: responsibility for general Park maintenance.

In addition, the University of Stirling provides financial accounting support for SUIP Ltd transactions.

¹¹ Management salaries for the period to March 2000 have been excluded as these appear to be incorrect. We have used the amended March 2001 figure (as altered for the March 2002 accounts) but do not have an equivalent amended figure for March 2000.

2.7 GOOD PRACTICE REVIEW

SUIP is one of only 10 Scottish locations accredited with the UK Science Park Association (UKSPA). The UKSPA website describes SUIP as:

SUIP was established in 1986. Its aims are to assist the regeneration of the regional and national economies by:

- *promoting the commercialisation of innovative research work being carried out within the University;*
- *encouraging companies to develop new products and processes; and*
- *attracting companies and research establishments from outside the Region to enter into new ventures based on the attractions of the University.*

The site infrastructure was developed by the share-holding partners. The first and second phase buildings, the Alpha and Beta Centre, were funded by Scottish Metropolitan Property plc, the first investment of private capital in any such venture in Scotland. More recent development has been funded by Scottish Enterprise Forth Valley, Stirling Council and Private Sector Development.

With fast access to Scotland's major cities, airports and academic institutions and the quality of life associated with a major tourist area, the Park offers strategic and environmental qualities that help to stimulate the growth of innovative companies.¹²

The other nine UKSPA registered locations in Scotland are:

- Aberdeen Science and Technology Park was established in the early 1990s and comprises a 60 acre site owned by SE and Aberdeen City Council. The Park accommodates 130 companies and 1,400 employees. The Park has a range of multi-occupancy, incubation and stand-alone buildings and has 10 acres of development land, available in plots from 1 acre;
- Edinburgh Technopole was re-launched in 2001 and comprises a 126 acre parkland campus owned by the University of Edinburgh and a private property investment company. It accommodates 30 companies with an estimated 1,500 jobs with office and lab space suitable for spinouts in multi-occupancy units to multinationals in large stand-alone facilities;
- Elvingston Science Centre was established in 1997 and comprises two incubation units (25,000 sq ft total with units from 350 – 1,540 sq ft) linked by a central administration core on a 5 acre site. The site is owned by SE and a private property investment company and has capacity for a further 60,000 sq ft;

¹² <http://www.ukspa.org.uk>

- Heriot Watt University Research Park was established in 1971 on a 110 acre campus owned by SE and Heriot Watt University. The park, which accommodates 27 companies, provides a mix of multi-occupancy and stand-alone lab units in sizes from 1,000 to 23,000 sq ft;
- Hillington Park Innovation Centre was established in 2000 and comprises a three storey multi-occupancy building with 65 incubator units. The unit accommodates over 40 companies but would require extension of the existing building or a new development to increase capacity. The site is owned by SE and a private property investment company;
- Pentlands Science Park was established in 1997 and comprises a mix of multi-occupancy and stand-alone lab, office and incubation facilities linked to Moredun Research Institute. The site, which is owned by SE and Moredun, accommodates 25 companies and has a total of 1.6m sq ft. The Park has no development capacity but there are plans for a Technology Transfer Training Centre on an adjacent site;
- Roslin BioCentre was established in 1997 and accommodates 14 companies and 400 jobs on a 36 acre site owned by Roslin BioCentre Ltd. The Park comprises a mix of self-contained and multi-occupancy units plus an accelerator unit for new and established biotech companies;
- Scottish Enterprise Technology Park – this 84 acre Park was acquired by SE in 1994 and accommodates 90 companies and around 1,000 jobs in single and multi-occupancy buildings; and
- West of Scotland Science Park was established in 1983 and is a joint initiative between SE, SE Glasgow, University of Glasgow and University of Strathclyde on a 61 acre site. The Park accommodates 23 companies in a range of multi-occupancy and stand-alone units.

Further details on these and other science/technology locations in Scotland are provided in **Appendix 1**.

UKSPA produced an evaluation of the UK Science Park Movement in 2003. The aim of the report¹³ is to identify the nature of the additionality of the science park movement on the performance of knowledge-based firms located on Science Parks in the UK. At the time of review there were 55 full UKSPA members with a further seven associate parks under development.

¹³ Evaluation of the past and future economic contribution of the UK Science Park Movement, Angle Technology, 16 October 2003

The report confirms that Science Parks play a positive role in supporting the growth of technology-related businesses and hence wealth creation in the UK as evidenced by the:

- steady growth of tenant companies, which on average, have increased in size as measured by the number of employees and floor area whilst maintaining their level of investment in R&D;
- enhanced growth in employment for science park based businesses compared with similar companies at other locations;
- higher proportions of qualified scientists and engineers employed by science park based companies; and
- growing relative proportion of independent/single site companies.

However, the analysis also shows that Science Parks are failing to perform as well as might be expected with regard to:

- the promotion of HEI/industry linkages; and
- the transfer of technology from HEIs to Science Park firms.

The single most important factor affecting the performance of individual Science Parks is the state of the sub regional knowledge economy within which they operate.

The report concludes with six recommendations to enable the UK's Science Parks to achieve their full potential. These conclusions are relevant to the current evaluation of SUIP:

- UKSPA should re-examine the market positioning of the 'Science Park' brand in order to ensure that the key constituencies fully appreciate what precisely the brand represents and how it can be of mutual benefit to all parties. *SUIP needs to review its activity and product offering to ensure that it meets any revised market branding criteria;*
- UKSPA should take a positive lead in welcoming, encouraging and fostering the involvement of the commercial property sector in science park developments and the science park movement. *There could be a role for the private sector in the future development of SUIP;*

- UKSPA should campaign to ensure that the proven benefits and track record of Science Parks in relation to the innovation agenda are clearly understood and integrated into future policy initiatives. *Clear articulation of the benefits and therefore policy support will protect SUIP's position and resources for the future;*
- UKSPA should develop a range of best practice, training and case study materials to support its members in enhancing their technology transfer and commercialisation management processes. *These materials will be of benefit to SUIP and, where appropriate, should be adopted as soon as available;*
- UKSPA should take the lead in investigating the provision of value added services for tenants using, for example, the combined purchasing power of its members, that have real and tangible bottom line impact on the tenants of UKSPA's member parks. *SUIP should participate in this review and, where appropriate, should adopt its recommendations;* and
- UKSPA should develop for its members a Client Value Proposition concept for UK Science Parks with a view to quantifying the benefits that tenants should expect to accrue. *SUIP should use the output from this review in its marketing efforts.*

A recent research article¹⁴ identifies the essential features of a successful incubator facility:

- having a minimum size of 50,000 sq ft of space to rent in order that the incubator has the potential to be financially self-sufficient;
- from a commercial point of view it should be located within easy travel of a major conurbation;
- the location of economic development support agencies at the incubator facility to provide additional support to businesses as well as prestige and guaranteed rental income to the incubator;
- the widest possible variety of business support, not necessarily employed by the incubator, but accessible when required;
- flexibility of accommodation in terms of size, use and specification;
- easy-in, easy-out rental agreements;
- 24 hour per day, seven days a week access;

¹⁴ The Performance of Business Indicators and their Potential Development in the North East Region of England, Pooran Wynczyk & Arnold Raine, Local Economy, Vol.20, No.2, 205-220, May 2005

- good security and mail handling service;
- adequate car parking in close proximity; and
- available conference and meeting facilities.

Our review of good practice activity has identified three key lessons:

- the comparatively poor performance of SUIP, particularly against recent reviews at Hillington Park Innovation Centre and West of Scotland Science Park;
- other Science Park locations have achieved better University linkages e.g. the i10 approach in the East of England (www.i10.org.uk); and
- the relatively small gap between SUIP and the baseline conditions presented in a recent good practice guide outlined above.

2.8 RESEARCH & DEVELOPMENT EXPENDITURE

Finally, we reviewed the level of expenditure on R&D performed in businesses – Business Enterprise Research & Development (BERD). Based on a report published by Scottish Executive¹⁵ we have identified that in 2003:

- BERD in Stirling was £1.9m equating to 0.37% of the total Scottish BERD of £521m;
- BERD in Scotland equates to 3.8% of the total UK BERD;
- BERD in Scotland equals 0.58% of GDP, compared with 1.23% in the UK and an OECD average of 1.51% of GDP;
- BERD in Scotland is lower than most important competitor countries;
- the average Scottish business expenditure on R&D is £319 per employee, compared with a UK average of £702; and
- US based firms undertook 50% of the total R&D, followed by Scottish firms at 29%.

The Scottish Executive analysis shows that Scotland performs poorly compared to the UK average and that the UK in turn performs poorly compared to the OECD average.

¹⁵ Business Enterprise Research & Development in Scotland 2003, Scottish Executive, September 2005

Almost half of the total Scottish BERD is accounted for by two Unitary Authority (UA) areas – City of Edinburgh and West Lothian. Of the 20 UAs in Scotland where BERD is disclosed for 2003, Stirling is ranked 15th, immediately behind Aberdeenshire (£4.9m) and Dumfries & Galloway (£5.7m) and immediately ahead of Angus (£1.8m) and Borders (£1.5m).

While the report provides BERD data at UA level, it does not provide sub-national GDP data. In order to provide some comparisons we have therefore used an additional report that identifies GDP/GVA at UA level across Scotland. This comparison shows that BERD equates to 0.71% of total Scottish GVA, but that BERD in Stirling equates to only 0.16% of GVA.

The analysis is best understood when it is set in the context of the following baseline economic data for Stirling:

- 1.7% of Scottish jobs are located in Stirling;
- 2.3% of VAT registered businesses are located in Stirling; and
- 1.6% of large companies (200+ employees) are located in Stirling.

3. **CONSULTATIONS**

A key aspect of the study was to adopt a strong consultative approach. This required consulting with a range of organisations and individuals that had a role in, or remit for, Stirling University Innovation Park (SUIP).

In total consultations were undertaken with ten individuals from Scottish Executive, SE Forth Valley, Stirling Council, University of Stirling and the current and previous SUIP Chief Executives. Consultee details are provided at **Appendix 2**.

With one exception¹⁶, all consultations were undertaken through face-to-face interview, using a semi-structured approach with an agreed pro-forma. A range of issues were covered including:

- management;
- operations;
- outputs and impacts; and
- future of SUIP.

Not all of these issues were relevant to all organisations and the consultations were tailored to fit the particular organisation being consulted.

The output from the consultations is presented in aggregate form and reflects the general consensus of the Consultees. In particular, no reference or attribution is made to any specific organisation or individual.

In general terms, the consultees were very supportive of the objectives and activities of SUIP and expressed a desire to see it continue in the future, albeit in a refreshed format. However, on more detailed examination it is clear that SUIP is not a high priority for any of the stakeholder organisations, and there is a level of doubt from each of the consultees about the stakeholders long term commitment to the project.

3.1 **SUIP MANAGEMENT**

As outlined earlier in this report, each of the three stakeholder partners has at least one representative on the SUIP Board. In addition Board membership includes the Scottish Executive and local private sector business representatives. There are also other individuals across the three stakeholder partners that have a close working relationship with SUIP management and staff.

Following the resignation of the previous Chief Executive, there was a period of around three years when SUIP did not have an independent CEO, but was managed by a senior manager from Stirling Council. The Current CEO has been in place for around two years.

¹⁶ One interview was conducted via postal questionnaire

The management responsibility within SUIP can be split into two distinct areas, management of the physical asset and management of the business/innovation support services.

SUIP has a Park Manager in place, supported by a Handyman, who has responsibility for management of the physical asset. Consultees expressed an element of dissatisfaction with the performance of the Park Manager over recent years. This is primarily due to the lack of integration between the Park Manager and the tenant businesses and is supported by the views of tenants as expressed in our beneficiary survey chapter.

Consultees also acknowledged that there had been a period in the early 2000's when SUIP lost its sense of direction and purpose. This relates to the period when the previous Chief Executive left post and the interim period until the new Chief Executive was appointed and was further affected by an earlier decision to remove the business support services provided by SUIP (Forthright Innovation).

It was acknowledged by consultees that over the past two years this situation has begun to improve following the appointment of a permanent Chief Executive and success in winning SCIP grant. There is, however, a need to review staff roles and responsibilities to ensure that they meet the requirements of tenants.

3.2 SUIP OPERATIONS

Consultees were asked to rate the effectiveness of SUIP management and tenant services. Administrative support services were rated between very good and average, however, other support services (product development advice, marketing assistance and technical advice) were rated between average and very poor.

There was a general view that there was a lack of support for tenant companies to help them grow and develop. This is partly a reaction to the loss of Forthright Innovation who provided dedicated on-site business support, but is also a real concern to the economic development stakeholder partners i.e. SE Forth Valley and Stirling Council.

Consultees commented on the external focus of SUIP (through the SCIP funding) on non-tenant businesses. While this activity is widely supported, it does highlight the lack of resources and therefore focus on internal tenant businesses.

Consultees were asked to rate the effectiveness of SUIP compared to other Science/Innovation Parks. Issues identified were:

- the quality of environment at SUIP is very good, but there is a lack of purpose built incubation space;
- the quality of linkages between SUIP, the tenants and the University are poor;

- the quality of centre management at SUIP is average – consultees thought that there was too much focus on technology transfer and not enough focus on general business development services; and
- the quality of services provided was poor – there is a lack of basic business development support for tenant businesses.

Consultees also identified key lessons for SUIP from other UK Science Park locations:

- there is an urgent need for clarity on the target market for SUIP and to develop the right combination of business support services to meet demand;
- SUIP must get its on-site business support services in better order – this requires a joined-up approach to delivery from SE Forth Valley and Stirling Council;
- there is a need to create closer contact with, and linkages between, tenant companies in order to maximise the effectiveness of SUIP as an incubator facility;
- linkages with the university need to be improved – the University acts as a draw in bringing tenants to the site, but links do not happen automatically and there is a need for SUIP to identify and foster relationships;
- SUIP needs to understand the key strengths of the University and to promote these as locational advantages to potential tenant businesses;
- ensure that each of the stakeholder partners and Board members are fully committed to SUIP for the foreseeable future; and
- SUIP should hold to its principles – it is a Science/Innovation Park not a Business Park.

Consultees believed that SUIP services and facilities had been 'dumbed down' in recent years. They identified two key factors that contributed to this, firstly a lack of political and strategic support for SUIP from the stakeholder partners and secondly the separation of business support services from the physical product.

There was, however, a recognition that the operation and profile of SUIP has improved over the past twelve to eighteen months, however, the focus of SUIP staff efforts and activities should be on improving the performance and growth prospects of its tenant businesses.

Consultees were asked to identify the strengths and weaknesses of SUIP. The strengths are identified as:

- the Science Park branding;
- the location in central Scotland;
- it provides a different product that is not available elsewhere in Stirling;
- it has the potential to create closer links with the University, but this needs considerable work to make effective;
- it has brought new companies to the area that otherwise wouldn't have come; and
- the ownership structure i.e. it is owned and managed by the public sector who have a more flexible approach than a fully commercial Park.

The weaknesses were identified as:

- there is limited clarity of purpose between the partners over the type of businesses that should be attracted to the Park and the services that should be provided to support these businesses;
- the multiple ownership structure of the SUIP property portfolio – the buildings are owned by different organisations and this confuses property management issues;
- the three stakeholder partners all have different objectives and agendas;
- the quality and scope of business support services is limited;
- some of the property accommodation is tired and requires to be upgraded to attract modern businesses;
- the overall property portfolio is too small and lacks critical mass – this affects the type and level of business support services that are viable to deliver; and
- Stirling University does not have an obvious focus on science and technology so it is difficult to build up linkages between tenant businesses and academics.

3.3 OUTPUTS AND IMPACTS

Consultees believe that SUIP has attracted businesses and jobs to the Stirling area that would otherwise not be there. This is due to a combination of the facilities offered at SUIP (the incubator approach) but more importantly to the quality of the physical product and site environment.

The majority of consultees believed that SUIP had been successful, however, they recognise that the Park lacks critical mass and its image needs to be improved to attract more tenants.

SUIP was identified as being very successful up to 1999 when the Park was full and job creation was high, but has been less successful since the closure of Forthright Innovations.

Over the 2000 – 2004 period, the effects of earlier changes and staff departures resulted in reduced staff morale and therefore performance of the Park. Over this period, demand for property at SUIP reduced and a wider range of tenants accepted, that were not innovative or technology related. This was largely driven by the financial pressure of having vacant space and pressure from the Board to fill.

From 2004 consultees recognised that some major improvements had been delivered at SUIP but that it will take a while to re-establish appropriate on-site services, build up SUIP's reputation and attract a better quality tenant mix. SMI are identified as a positive step forward and will help to attract new tenants.

3.4 FUTURE OF SUIP

Finally, the consultees were asked a range of questions around the future activities of, and requirement for, Stirling University Innovation Park.

Consultees believed that SUIP should be supported in the future – both financially and through partnership working. SUIP is identified as having the potential to play a key role in supporting the growth of innovative businesses in Stirling, but there is a need to provide on-site business support services with a focus on innovation.

The physical product requires to be upgraded, but it is important to recognise that SUIP will not be successful as a property facility. There is an opportunity to work with existing innovative or technology tenants and to attract more companies to the site. There is a desire amongst the consultees for SUIP to revert to a greater focus on science/technology tenants as these are likely to create better value for money for the public sector investment.

There is a need for continued public sector support for both the physical product and business development services. In particular, there is a need for greater support to deliver business support services.

3.5 SUMMARY

In general, there is a good level of support from stakeholders for continued activity at Stirling University Innovation Park. There is, however, recognition that SUIP has not been entirely effective over the past five years, due to a range of factors discussed above, but that there have been some improvements over the past twelve to eighteen months.

The key issue identified by consultees was the lack of on-site business support services for tenant companies. There is no desire to replicate the earlier Forthright Innovation services, but there is an acknowledgement that some form of on-site business support for tenants would support their future growth.

Finally, consultees identified a lack of linkages for SUIP, these can be identified as:

- linkages between tenant businesses to support an innovative culture with spin-off of ideas and joint development of projects;
- linkages between tenants and academics to encourage spin-out of new academic research; and
- linkages between tenants and the business support networks to promote uptake of services.

4. BENEFICIARY SURVEY – CURRENT TENANTS

4.1 INTRODUCTION

This element of the study involved carrying out primary research into the views, activities and future growth of current and past SUIP tenant companies. Our approach encompassed face-to-face and telephone interviews to enable us to probe for detailed information from the businesses.

In order to enhance participation in the survey, introductory letters were issued (via post and email) to all of the tenant companies, a total of 38 businesses. From this, a total of 26 businesses participated in our research programme (68%), the vast majority through face-to-face interview.

The main focus of consultations was to establish the impact of SUIP on business outputs and performance since locating on the park. Additionally the survey assessed the facilities available to the organisations and how effective SUIP had been at meeting individual business needs. Topics covered were:

- background and employment details;
- property details;
- project outputs and impacts;
- reasons for locating at SUIP; and
- displacement and additionally.

It is encouraging to note that the vast majority of tenants contacted participated in the survey. A few of the tenants were happy to participate but were unavailable on the dates that we were at SUIP, but nine companies refused to participate in the process, or did not respond to repeated contacts.

4.2 SAMPLE CHARACTERISTICS

The following section provides an overview of the types of businesses that participated in our evaluation of SUIP. The actual questionnaire format used in our research is attached at **Appendix 3**. The premises occupied by the 26 interviewed businesses (the sample) included all of the SUIP locations:

- 14 (58%) in Scion House I and II;
- four (17%) in the Alpha centre;
- six (25%) in the Beta centre; and
- one in Logie court.

Of the tenant organisations 68% did not originally start up their businesses on the Innovation Park and had premises either elsewhere in Scotland, previously worked from home or had bases within the University itself.

23% of companies identify that they had other Scottish operations. Of these the most popular locations were the North East located in Aberdeen and Inverness.

Business type and activity varied greatly amongst tenants. Half indicated that their business undertook some form of development activity. Of these 42% identified design activity and 38% research activity. Additionally a number of other business activities were highlighted in forming all or part of their regular business activities. These include, consulting, IT support, design and implementation, heritage/ agriculture and health.

The vast majority (69%) of the organisations were Limited Companies, three are registered charities and two are a private partnership. One of the organisations is a public body and another part of the Scottish Executive.

Table 4.1 shows the current life cycles of the businesses housed at SUIP.

TABLE 4.1: BUSINESS LIFE CYCLES	
<u>Life Cycle</u>	<u>%</u>
Start-up Business (0-12 months)	15.4%
New Business (12-36 months)	11.5%
Established Company (Over 2 Years)	7.7%
Established Company (Over 5 Years)	61.5%
Other	3.8%

Nearly two thirds (61.5%) of the sample are established businesses that have been up and running for five years or more. Around 15% of the tenants are start-up businesses and are less than one year old. Six of the current tenants originated within a university, with three coming directly from Stirling University.

4.3 PROPERTY DETAILS

Tenants were surveyed on how many units and how much floor space they occupied at SUIP, both currently and also when they moved in to the park. We also questioned whether the terms and conditions of their lease met their business needs and expectations.

Table 4.2 shows the total floor space occupied by the tenants.

TABLE 4.2: TOTAL FLOOR SPACE OCCUPIED	
<u>Total Floor Space (Sq Ft)</u>	<u>%</u>
0 – 499	29
500 – 999	12
1,000 – 1,999	12
2,000 – 3,999	29
4,000 – 6,000	18

Of the tenants that could identify the total floor space that they occupy¹⁷, 29% had small sized accommodation (0 – 499 Sq Ft) with an equal number occupying medium to large units (2,000 – 3,999 Sq Ft). A fairly large sample, 18% of tenants, had accommodation that was greater than 4,000 Sq Ft.

The majority of the tenants, 48%, have an annual lease, and it is reviewed on that basis. However, some clients have shorter lease periods of three to six months that roll forward continuously dependent on business and financial circumstances. Other tenants reported lease periods of between two and five years and two organisations reported holding leases of 10 years or over.

Table 4.3 shows how businesses rate the conditions and price of the lease

TABLE 4.3: TENANT LEASE AND ACCOMMODATION		
	<u>Yes</u>	<u>No</u>
Has your lease been extended in the past	81%	19%
Do the terms of the lease suit your business needs	91%	9%
Is the rental level reasonable for the accommodation provided	71%	29%
Is service charge reasonable for the scope/standard of services	65%	35%

Note: not all respondents answered the questions entirely so data is % of those tenants that did answer.

81% of the tenants have had their lease extended in the past with 91% stating that the lease agreement meets their individual business needs. It is evident from this table that the SUIP 'case by case' lease agreement is popular amongst tenants as it accommodates their different and changing business needs and demands.

There was however less support regarding the rental and service charge levels level with 29% and 35% respectively reporting it was too high for the facilities/ services provided.

4.4 PROJECT OUTPUTS AND IMPACTS

Tenants were asked what they perceived as being the main business outcomes that they received from being located at SUIP. A range of answers were reported including:

- the central location: Stirling has good transport links with central Scotland and attracts companies/employees from a wide base;
- the infrastructure: SUIP has good IT connections and support;
- the environment: the prestige/image of the site has helped improved the image of companies; and
- the independence: for companies with close university links, SUIP provides less bureaucracy than working inside the University, but still allows for nearby University support.

¹⁷ Total sample size = 13 (50%)

The survey also determined how many jobs the business accommodated and whether they were highly skilled (2nd degree or equivalent), skilled or unskilled. The vast majority of jobs are full time and of these, the majority are highly skilled (2nd degree). This reflects the type of organisations and staff that are located at the SUIP:

- 93% of the jobs are full-time;
- 63% of these full-time jobs are classed as highly skilled (2nd degree) with 34% skilled and only 3% unskilled; and
- of the part-time jobs 39% are highly skilled (2nd degree) and 61% are skilled.

Companies were asked to provide details of their turnover when they first took occupancy at SUIP as well as their current turnover levels. This could provide some evidence that SUIP has had an effect on the performance of its tenant companies. **Table 4.4** shows previous and current turnover levels for those companies that were able/willing to provide details.

	<u>Turnover on Arrival</u>	<u>Turnover Now</u>
< £99,999	31%	20%
£100k – £249,999	44%	20%
£250k – £499,999	-	5%
£500k – £999,999	-	20%
£1m – £2,499,999	19%	10%
£2.5m – £4,999,999	6%	25%
£5m – £9,999,999	-	-
> £10m	-	-

Note: not all respondents answered the questions entirely so data is % of those tenants that did answer.

Turnover was reported in brackets to encourage companies to provide data, therefore we are only able to report change where it occurred between brackets. Our analysis shows that of 16 companies that provided data for arrival and now, nine increased their turnover brackets and seven remained in the same bracket (but some reported increases within the bracket).

While caution should be taken in interpreting these figures (based on reported and not actual turnover) they do provide an indication that individual turnover levels have increased in the time that they have been located at SUIP:

- the percentage of companies earning less than £99,999 is down nearly half what it was when they first took occupancy;
- none of the companies reported any reduction in turnover with all increasing or remaining static; and
- almost 20% of companies reported current turnover levels of between £2.5m and £5m.

All of the companies that provided details of turnover reported either marginal increases in turnover or remained relatively static. The reasons for this, however, are less clear. Relocating/locating can be viewed as having no negative impacts upon turnover, however, the companies were also asked if they had developed new products/processes since locating at SUIP or any change in performance because of locating at the Innovation Park.

Less than half of the companies interviewed (12 in total) could report development of any new products/processes over the period that they had been at SUIP. Examples included:

- establishing a website support team;
- developing new integrated working systems; and
- becoming more innovative in terms of processing information.

As well as outputs arising from locating in the park, companies were also asked to detail (activity and value) what inputs and capital investments they had made over the period 2000 to 2005 and also if they had plans for future investment. Almost every company had spent some capital on equipment or fit out of their work units, including updating IT. The level of capital invested ranged from £2,000 up to £75,000. None of the companies interviewed reported any significant future investment plans, however, a small number said that they would be most likely to upgrade IT networks and/or premises.

4.5 REASONS FOR LOCATING AT SUIP

This section examines the principal reasons that companies reported for originally locating at SUIP. It also identifies what services the park provides and the level of contact with the university or other tenants. **Tables 4.5** presents reasons companies gave for originally deciding to locate at SUIP.

Founder lived locally	23.1%
Already located in the area	38.5%
Access to HEI facilities	19.2%
Availability of additional premises	30.8%
Access to communal space/meeting rooms	42.3%
Transport/communications	61.5%
Access to materials/components	11.5%
Scope for attracting HEI students	7.7%
Founder worked at Stirling University	3.8%
Cost of premises	42.3%
Prestige/image of the site	42.3%
On-site management/business advice	19.2%
Availability of skilled labour	11.5%
Access to markets	30.8%
Proximity to similar companies	15.4%
Other	7.7%

As can be seen, the principal factor that originally drew businesses to SUIP was transport/communications, selected by over 60% of companies. This is followed by access to communal meeting facilities, cost of premises and prestige/image of the site which were identified as key attractors by over 40% of companies.

The availability of skilled labour in the area and scope for attracting HEI students was not really a factor in deciding on location – possibly due to Stirling’s central location and proximity to Edinburgh and Glasgow.

It is important to note, however, that 65% of the interviewed companies reported that they would have located elsewhere in the Stirling area if SUIP had not been available. We return to this issue later in the report when considering levels of additionality.

It is also important to note that companies did not locate at SUIP with high expectations of on-site management/business advice – this was identified as important by less than 20% of interviewed tenants.

Companies were asked to report which elements of SUIP they had found most useful since locating there.

<u>Aspects</u>	<u>% of Companies Reporting</u>
Prestige/image of the site	61.5%
Cost of premises	50%
Access to communal space/meeting rooms	53.8%
Proximity to similar companies	11.5%
Scope for attracting HEI students	7.7%
Access to markets	38.5%
On-site management/business advice	23.1%
Transport/communications	61.5%
Access to HEI facilities	11.5%
Availability of additional premises	19.2%
Availability of skilled labour	11.5%
Access to materials/components	3.8%
Other	7.7%

Companies were also asked to identify and rank in order the three most important aspects of SUIP to their business. The single most popular response was transport and communications, followed by cost of premises and access to markets. The aspect that achieved the top ranking most often was the cost of premises.

The same elements are used in **Tables 4.5 and 4.6** thereby allowing for comparison of anticipated with actual benefits.

Of the specific elements, five have delivered better benefits than companies expected with prestige/image showing the greatest increase, at 19% points. While we reported a fairly low expectation in on-site management/business advice, companies actually reported a slight increase in how useful this was to their business – up 4% points.

Four elements in **Table 4.6** delivered lower benefits than anticipated, with the advantage of additional premises showing the greatest drop 12% points. Other reduced benefits include the potentially important benefit of proximity to similar companies and access to HEI facilities, both reported as actual benefits by just 10% of interviewed companies.

All companies surveyed were asked to identify any linkages with Stirling University or other Higher Educational Institute (HEI) along with the type of facilities provided by the university and SUIP they regularly use.

Just under half of the tenants interviewed reported any form of contact with universities around Scotland. This contact included having the university as a customer and academics providing consultancy advice. Apart from Stirling, other universities included Glasgow, Edinburgh, Strathclyde, Heriot Watt and Abertay.

Almost one quarter of companies that reported links, said that this was on a weekly or daily basis.

Table 4.7 identifies the facilities at SUIP and Stirling University that companies reported using.

Computer	26.9%
Conferences	61.5%
Sports Facilities	57.7%
University as a customer	26.9%
Library	19.2%
Dining facilities	61.5%
Audio-visual equipment	23.1%
On-Site Admin support	92.3%
Product development advice/support	15.4%
Technical advice/support	26.9%
Marketing support/assistance	23.1%

Almost all of the companies (92%) reported regular use of the on-site admin facilities – this primarily involved mail, photocopying and faxing services. Other popular facilities include conference and dining – used by 60% of interviewed companies, and University Sports Facilities – by almost 60%.

Only four companies reported using on-site SUIP product development advice or support services. This makes it the least popular service provided/offered at SUIP.

Tenants were then asked to report on the quality of the facilities and business services provided by the SUIP, and to identify any additional facilities that could be offered in order to improve this service.

It is encouraging to note that one third of tenant companies rated the quality of services as excellent. Only one company believed that the quality had deteriorated over the past three years, while all others though it had either remained static, or improved.

Suggested improvements included:

- upgrading of the physical business units;
- providing a wider range of networking opportunities with other SUIP tenants; and
- fostering a sense of community across the Park.

Businesses were asked to identify any contact that they had with other tenant companies. Only 35% reported contact, and of these, half advised that this was on a purely social/personal level. Around one quarter of those that reported any contact said that this was important to them.

4.6 DISPLACEMENT AND ADDITIONALITY

The final section of this chapter establishes where the main target markets and competitors are located for SUIP tenant companies. It also reports on future investment or relocation possibilities.

Table 4.8 presents a breakdown of where non-labour inputs are purchased and where customers/competitors are based.

TABLE 4.8: ADDITIONALITY			
<u>Area</u>	<u>Purchase of non-labour inputs</u>	<u>Customer base</u>	<u>Competitor base</u>
Stirling Council Area	34.4%	15.9%	4.2%
Central Scotland	28.1%	44.3%	39.9%
Other Scotland	12.3%	18.5%	13.1%
Other UK	25.3%	13.3%	31.9%
Overseas	0%	8.0%	10.9%

4.6.1 PURCHASE OF NON-LABOUR INPUTS

Non-labour inputs include all company expenditure outwith staffing costs and include equipment, stationary, business services and consultancy advice.

Table 4.8 shows that 34.4% of companies' purchase all or some of their non-labour inputs locally in the Stirling council area. More than half the tenants purchase some or all of their inputs at a Scottish and UK level.

None of the companies interviewed reported purchasing non-labour inputs from outwith the UK.

4.6.2 CUSTOMER BASE

Most of the tenants at SUIP reported a wide customer base. 77% and 61% have a stable customer base in Central Scotland and Stirling council areas respectively. Eight (30.8%) organisations reported some form of overseas business or trade.

Companies were asked to consider whether they expected their customer base to change over the next few years. A small number expected their market focus to change with more emphasis on overseas and international business, however, the majority believed that their markets will remain stable for the foreseeable future (three to five years).

4.6.3 COMPETITOR BASE

Less than 20% of interviewed businesses reported having any competitors in the immediate Stirling Council area, but more than half identified competitors in Central Scotland. Half of the sample reported having competitors based outside Scotland either at the UK or Worldwide level.

4.6.4 LOCATION

Tenants were asked how they found out about the premises at SUIP. A number of sources were identified, including word of mouth, direct contact from the University, Local Enterprise Agencies and Business Advisors. Half of the sample tenants considered other potential locations before choosing to locate at SUIP. Five of these included other Science/Innovation Parks, but deemed them to be less suitable for their business needs as SUIP.

Our sample of tenants found that if SUIP had not been available, 75% would have chosen to locate in the Stirling/Forth Valley area in other premises. Almost 20% of tenants believe that they could easily have found other suitable accommodation in Central Scotland, but were less sure how the rental price and business services would compare. Our sample identified that over one quarter (27%) could not locate other suitable property in Central Scotland when they were originally choosing a business location.

Since locating at SUIP, 42% of the interviewed companies have received some form of public sector support. This includes support from SE Forth Valley, Stirling Council and other grant funded agencies.

Finally, companies were asked about their longer term business forecasts. Almost 70% reported plans to extend their operations in the near future. 27% were considering moving – this was either to accommodate these expansion plans or for other business reasons.

4.7 SUMMARY

In summary, our survey of current SUIP tenant companies identified the following:

- 61.5% of tenants are established companies that are over five years old;
- lease lengths ranged from a few months to 10 years, depending on individual business needs, with 81% previously having their lease extended;
- the central location and good transport/communication links are the major strengths and attractions of SUIP;

-
- 93% of all jobs on the park are on a full-time basis;
 - none of the companies reported a drop in turnover since occupancy at the park;
 - admin support and conference facilities at the university/SUIP are the services that tenants use on the most regular basis;
 - there is high levels of overall satisfaction with the premises provided; and
 - customer and competitor bases range from the immediate local area to national and international levels.

On the negative side, however, tenants identified a number of issues or areas of concern. These include:

- limited awareness of business support services available;
- low level of contact with the University or with other tenant companies; and
- limited contact with the SUIP team, and feeling of isolation, particularly between the different properties, but also within units.

The tenants also made a number of the recommendations that would improve the SUIP facility in the future:

- improve the awareness of other tenants – particularly between buildings where awareness is extremely limited – to promote cross-fertilisation of ideas and ventures;
- improve the quality of the buildings – this is more of an issue for tenants in Alpha/Beta Centres, but also for some tenants at Scion House. Specific issues include energy use, level of natural daylight, lack of air conditioning and quality of decor;
- the need to develop a sense of community across the park to remove the sense of isolation that some tenants have;
- parking is becoming increasingly limited and would be much worse if the units were at full occupancy; and
- facilitate a tenants forum – this could consider issues of communal interest e.g. joint procurement and cleaning, consideration of service charges, future development on the Park, the availability of business support services, etc.

5. PRIMARY RESEARCH – PAST TENANTS

5.1 INTRODUCTION

The final element of research work for the evaluation of Stirling University Innovation Park was to conduct interviews with past SUIP tenant companies.

The objective of this element of work was to identify the impacts and benefits that SUIP has delivered to businesses and to establish why they left and where they moved to.

We aimed to conduct telephone interviews with five past tenant companies, but limited information was available to identify previous tenants, and these companies also had a low level of interest in the study. We were able to identify 11 previous tenant companies, however, from these we were only able to complete interviews with three companies.

While the results may help us to identify (or confirm) some broad trends, the results are not statistically reliable and cannot be used for any wider trend analysis.

5.2 SAMPLE CHARACTERISTICS

Of the three past tenant companies, two are in the field of computer software, sales or systems. The third is a machine tool engineering company.

The companies were based at SUIP between 1996 and 2000 and were based there for between six months and four years. Two of the companies were based in the Software Centre, the third was located at Beta Centre.

5.3 LOCATION

All three companies identified that the location of SUIP in central Scotland, with easy transport/infrastructure linkages, was an important consideration when deciding on their business location.

One of the interviewees was previously a partner with an established SUIP company and felt that the location was ideal for his new company.

The central location was an important factor for these companies in deciding where they would move to after leaving SUIP. One of the companies stayed within Stirling itself, one moved to nearby Callander but the third pulled out of the Scottish market entirely, and retreated to its base in Sheffield.

The two companies that retained a presence in Forth Valley both purchased or built bespoke premises to meet their exact business needs.

Looking at the wider group of past tenant companies it is difficult to identify whether companies have retained a base within the Stirling area. Based on a search from Yellow Pages we can identify that three of the eight non-interviewed companies appear to have a Scottish base, one in Stirling, one in Glasgow and one in Edinburgh. We could not identify any Scottish location for the other five companies, however, as we did not speak with them we cannot confirm that this is the case.

5.4 IMPACTS

The businesses were questioned on whether SUIP has allowed them to expand their business operations beyond what they could have achieved in any other premises that they considered. Only one company could identify any specific impacts related to SUIP, the other two felt that they could have achieved the same impacts in another location.

Only one of the businesses reported receiving any business related support or advice while being located at SUIP – this was in relation to telephone systems and was recorded as very good in comparison with support that they have received elsewhere.

Finally, the companies were asked what they would have done if SUIP hadn't had premises available with all three responding that they would have found alternative premises (presumably within the wider Stirling area as this was a key factor).

6. ECONOMIC IMPACT APPRAISAL

This section considers the economic impact of the companies located at SUIP. A key requirement of the study was to quantify the employment impact that the project has had on businesses that have benefited from occupation.

From the beneficiary SME survey we have identified the total employment (FTEs) that are accommodated by each business. This equates to the gross employment impact. These gross employment impacts need to be translated into net impacts, taking account of additionality, displacement, leakage and multiplier effects. These areas are discussed in more detail in the following sections.

It is not, however, a straightforward process to translate gross into net employment impacts. Difficulties arise in isolating and attributing the effects of the premises on the businesses sales and employment figures. Businesses often receive other assistance from public sector agencies, particularly in business development and skills support. The objective of this assistance is to improve the effectiveness and/or efficiency of business operations and performance – influencing employment and turnover. For the businesses located at SUIP we have identified a low degree of interaction between business support services and the beneficiary sample of businesses in our survey, however, where identified we have taken account of this assistance and reduced impacts to reflect ‘double counting’ i.e. where employment impacts are attributed to the other form of support.

In addition, support (whether provided in the form of business/skills measures or the provision of sites/premises) can and often does, have a long lead-time before the effects become evident on the financial performance of the company. This is more relevant for projects and businesses that have only recently moved into the premises.

Economic impacts can be expressed by either the output and income created or the number of jobs supported by a particular activity. For this study consideration will be given to the employment effects attributable to the sites and premises measures within the Objective 1 Programme. The employment effects examined within this economic impact assessment include:

- **direct employment** – derived from the actual number of personnel employed by the assisted companies;
- **indirect employment** – captured through estimates of the number of employees supported by the purchase of goods and services to supported companies; and
- **induced employment** – generated from direct and indirect employees who spend part of their wage and salary incomes on goods and services within the economy, thus generating extra economic activity.

The impact assessment was undertaken using an Excel based spreadsheet that allows gross to net impact assessment that is sufficiently flexible to accommodate sensitivity analysis of the results.

The Economic Impact Appraisal is company specific at both local and national level and is based on individual responses to the beneficiary SME questionnaire. The detailed results of our analysis are presented at **Appendix 4**.

6.1 LEAKAGE

Leakage relates to the proportion of outputs that benefit those outside of the target group i.e. businesses and residents outwith the Stirling or Scotland area (depending on whether reporting at local or national level). In identifying the appropriate multiplier factor that should be applied to each company, the Scottish Input-Output Tables for 2001 were used. These tables take into account leakage factors for indirect and induced employment, however, there is a need to consider leakage for gross direct on-site jobs.

In appraising relevant leakage ratios (at both local and national level) we considered the likelihood that employees would travel (from outwith the local or national area) to each company for employment.

Unfortunately, the SME questionnaire did not gather information on company specific leakage, therefore we have used a standard factor, which has been increased in seven cases, to reflect particular circumstances.

Our estimate of employment leakage is based on the following factors:

- the location and accessibility of Stirling within central Scotland;
- the quality of residential accommodation in the surrounding area and the increasing population in Stirling; and
- the number of businesses that were previously based in Stirling University or are managed by former students.

Based on these factors, we have adopted a standard leakage rate of 20% at the local level and zero at the national level.

As outlined above, we have varied this rate to 30% at the local level for seven of the tenant companies. This reflects either the structure of the organisation (e.g. large national public sector agency) or the activity undertaken (e.g. scientific or other specific research activity).

6.2 ADDITIONALITY

A key aspect of the assessment is to determine the role that the project has played in the decision of tenant businesses to locate in Stirling and Scotland, i.e. the level of additionality for each business. Deadweight is the inverse of additionality and represents the economic impacts that would have happened in the absence of the project.

To identify the level of additionality it was necessary to ascertain the previous location of each tenant and their reasons for locating at SUIP. There are a number of possible scenarios that will affect the scale of the additionality factor applied to any employment impacts that can be attributed to the sites and premises projects:

- **Scenario 1:**
 - the tenant was previously located outwith Stirling/Scotland and was attracted by the project, therefore
 - employment and sales achieved by the company will be highly additional at the local level. Additionality at the national level will be low unless the company is an inward investor from outwith Scotland, where it too would be high;
- **Scenario 2:**
 - the tenant was previously located in Stirling/Scotland but business growth was constrained by inadequate premises, and moving to the new supported premises enabled its growth plans to be realised, therefore
 - the additional sales and employment generated over and above that which could be achieved in their previous premises will be additional at both the local and national level. This only holds true, however, where businesses could not have relocated to other suitable premises;
- **Scenario 3:**
 - the tenant was previously located in Stirling/Scotland but their premises were inadequate for current needs and they were considering relocating outwith the area, consequently moving to new premises enabled them to remain in the area, therefore
 - sales and employment equal to those achieved in their previous premises will be safeguarded at both local and national levels, enhanced sales and employment levels will also be additional at the local and national level; or
- **Scenario 4:**
 - the tenant was previously located in Stirling/Scotland and moved to new premises for non-business performance reasons, therefore
 - sales and employment generated by this tenant will have low or nil additionality at the local and national levels.

These scenarios are used as a guide to assess additionality. In practice, individual assessments for each company were made based on the companies' response to relevant issues and in particular six key questions:

1. where was your previous business location? (Q7, Appendix 3);
2. Do you have other Scottish Plants/Operations? (Q11, Appendix 3);

3. What have been the main business outcomes resulting from locating at SUIP? (Q21, Appendix 3);
4. Can you attribute any change in performance (employment/turnover) to your location at SUIP? (Q24, Appendix 3);
5. Would your company have located in the Stirling area if SUIP had not been built? (Q30, Appendix 3); and
6. Could you have found similar premises in Central Scotland? (Q53, Appendix 3).

Our economic impact appraisal identified that at a local level, additionality ranged from 10% to 70% (deadweight therefore from 90% to 30%) and at a national level it ranged from 5% to 60% (deadweight therefore from 95% to 40%).

6.3 DISPLACEMENT

Displacement is an estimate of those impacts that may reasonably have been attained by other competitors in the absence of the particular project. For example, the sales contracts/business secured by the businesses located at SUIP could have been awarded to the same company at their previous address or to other local companies.

Displacement has been estimated at the local and national levels as shown in the analysis.

Our investigation of displacement considered those factors that would dilute the gross impact of any increases in business activity. It included collecting information on a variety of areas including the location of major competitors, location of main markets and current market conditions.

Individual assessment were made for each company, based on their response to relevant issues and in part the following three questions:

1. Where are your customers based? (Q46, Appendix 3);
2. Where are your major competitors based? (Q48, Appendix 3); and
3. Generally, are the markets for your products/services growing or declining? (Q49, Appendix 3).

Displacement can be considered at the following levels¹⁸:

- high displacement: where the company sells most of their products or services locally and where there is a high level of local competition. This produces displacement in the range of 70% to 90%;
- medium displacement: where the company is a partial exporter with limited Stirling/Scottish competition and operates in a growing market. This produces a displacement in the range of 40% to 60%; and
- low displacement: where the company operates mainly in export markets with only a few Stirling/Scottish based competitors and their market is growing. This produces a displacement in the range of 10% to 30%.

The assessed levels of displacement are shown for the 26 companies that participated in the research programme:

- at the local level, 13 companies displayed low levels of displacement, 10 medium levels with three displaying high levels of displacement; and
- at the National level, 11 companies displayed low levels of displacement, 11 medium levels and four high levels.

The analysis shows that SUIP has supported a mix of low to medium levels of displacement at the local and national levels.

6.4 MULTIPLIERS

Economic multipliers refer to the indirect employment impacts generated by the purchase of goods and services by businesses located at SUIP and the induced employment generated by the consumption expenditures of those directly and indirectly employed there. These have again been calculated at the local/regional and national level.

The increase in economic activity as a result of the SMEs locating at SUIP could have two types of wider impact on the economy:

- supplier effect: an increase in sales in a business will require it to purchase more supplies than it would otherwise have done. A proportion of this 'knock-on' effect will benefit suppliers in the local/national economy; and

¹⁸ Scottish Enterprise Project Appraisal Guidance

- income effect: an increase in sales in a business will usually lead to either an increase in employment or an increase in incomes for those already employed. A proportion of these increased incomes will be re-spent in the local/national economy.

We have used the Input-Output Tables and Multipliers for Scotland 2002 to identify the Type II multiplier that should be attributed to each individual company, based on their industrial sector. This identifies the direct, indirect and induced impacts to be attributed to each FTE.

These tables do not, however, identify local multiplier factors, therefore we have assumed that local factors would be equal to half that of the national factor.

This analysis produced company specific Type II multiplier factors at both the local and national levels that we have attributed to each company. Multiplier factors at the local level ranged from 1.21 to 1.55, with an average local multiplier for our sample businesses of 1.36. At the national level multiplier factors ranged from 1.42 to 2.10, with an average of 1.73.

6.5 GROSS TO NET EMPLOYMENT

Based on our sample survey of 26 tenants, we have prepared an economic impact assessment that considers the impact of each individual company. This takes the gross employment impacts as identified by the business themselves, and applies factors for leakage, additionality/deadweight, displacement and multipliers (supplier and income) to provide estimates of net additional employment levels.

Our assessment has identified that the 26 businesses that participated in our survey sample accommodated 300 gross FTEs, however, after allowing for leakage, additionality, displacement and multipliers this translates into a total estimate of 105 net additional FTEs at the local level (Stirling) and 120 net additional FTEs at the national (Scottish) level.

The analysis is presented in **Table 6.1**.

TABLE 6.1: ECONOMIC IMPACT ANALYSIS		
	<u>Local Stirling Level</u>	<u>National Scottish Level</u>
Gross FTEs	300	300
Less Leakage	-70	-0
Less Deadweight	-102	-163
Gross Additional FTEs	128	137
Less Displacement	-38	-53
Non-Displaced FTEs	90	83
Add Multiplier Jobs	+32	+59
Net Additional FTEs	122	142
Less Double Counted FTEs	-17	-22
Net Additional less Doubled	105	120

NOTE: Numbers may not add due to rounding

6.6 GROSSING UP

The net additional FTEs identified above represent the sample of 26 companies that participated in our study fieldwork programme from across the four SUIP premises. We do not have a detailed understanding of the businesses located in the other units and have therefore assumed that our sample businesses will have achieved broadly similar employment impacts as the other beneficiary businesses.

In order to identify the total employment impact that SUIP has in aggregate, we have adopted a process of 'Grossing Up' the sample to represent the full range of businesses located there.

There are two ways in which this can be done and each produce different employment impacts:

- grossing up based on the proportion of tenants included in our survey work – interviews were undertaken with 26 tenants from a total of 39 (at the date of interview). Grossing up on this basis produces 157 net FTEs at the local level and 179 net FTEs at the national level; and
- grossing up based on the proportion of floorspace that the sample tenants occupied – interviewed tenants accommodated 42,500 sq ft from a total available floorspace of 89,000 sq ft. Grossing up on this basis produces 219 net FTEs at the local level and 250 net FTEs at the national level.

In this case, we would recommend using the latter method i.e. grossing up based on the proportion of floorspace occupied as this is likely to produce a more accurate result, since we only secured interviews with one of the six tenants in the larger premises at Logie Court.

Therefore if we assume that the sample of companies included in our fieldwork survey is broadly representative, our assessed employment impacts for the whole site would result in 219 net additional FTEs at the local level and 250 at the national level. These results, however, assume 100% occupancy and significantly over-estimate the employment impacts.

Based on information provided by SUIP we have identified that at the time of our survey SUIP property achieved 78% occupancy level. We have therefore adjusted the 100% employment occupancy identified above to reflect the actual employment impact at the date of our evaluation survey (July 2005).

The data is presented in **Table 6.2** below.

TABLE 6.2: ESTIMATED NET FTEs (ASSESSED IMPACTS)		
	Local Level	National Level
Net FTEs (Sample)	105	120
Grossing Up Factor (48% Floorspace Included)	2.08	2.08
Estimated Net FTEs (Full Occupancy)	219	250
Adjusted for 78% Occupancy	171	195

We have therefore estimated that the total employment impacts¹⁹ of SUIP at the date of our survey (July 2005) were 171 net additional FTEs at the total level and 195 net additional FTEs at the national level.

This analysis shows that at 78% occupancy, SUIP is losing 48 net additional FTEs at the local level and 55 net additional FTEs at the national level.

6.7 SENSITIVITY ANALYSIS

Economic impact appraisal is not, however, an exact science. The employment impacts outlined above indicate an exact figure that SUIP can be accredited with. It is therefore normal practice to adopt a sensitivity analysis approach that allows for a +/- 10% variation in the different factors applied (i.e. leakage, additionality, displacement, multipliers and double counting).

Based on this sensitivity analysis method, we have reviewed the employment impacts presented in section 6.6 and would estimate that SUIP can be accredited with impacts in the range of:

- 141 – 205 net additional FTEs at the local level; and
- 162 – 240 net additional FTEs at the national level.

These employment impacts represent the total grossed-up impacts, allowing for 78% occupancy.

6.8 GVA ASSESSMENT

Gross Value Added (GVA) is a measure of the value of goods and services produced before allowing for depreciation or capital consumption²⁰. It measures the income generated by businesses after the subtraction of input costs but before costs such as wages and capital investment are paid prior to arriving at a figure for profit.

Based on the net additional FTEs identified in the sensitivity analysis above, we would estimate that the net additional GVA for SUIP²¹ is likely to be in the order of:

- between £5.2 million and £7.5 million at the local level; and
- between £5.9 million and £8.8 million at the national level.

¹⁹ Net Additional FTEs take into account leakage, additionality, displacement, multipliers and double counting.

²⁰ Gross Value Added (GVA) is equivalent to Gross Domestic Product (GDP) at basic prices

²¹ GVA is based on total estimated GVA per employee in Scotland (2002) of £34,552 per annum

Total estimated GVA²² for Stirling was £1,246 million in 2004, equating to 1.6% of the total Scottish GVA in 2004 of £76,501 million. Based on the total estimated GVA for the project this would account for between 0.4% and 0.6% of total Stirling GVA at the local level and between 0.5% and 0.7% of total Stirling GVA at the national level.

²² Estimates of Local Economic Output (GDP/GVA) in Scotland, 2004, Mackay Consultants, July 2005

7. CONCLUSIONS & RECOMMENDATIONS

7.1 CONCLUSIONS

Our conclusions are based around the original study objectives, as stated in Section 1. In forming our conclusions we have made use of all relevant data gathered through the study process i.e. baseline data, strategy/policy review, benchmarking, stakeholder consultations and tenant interviews.

7.1.1 Performance & Outputs

Based on the information gathered during our evaluation we would estimate that SUIP has achieved the following outputs and results:

- number of new businesses accommodated: 39 SMEs;
- sq m of business space created: 89,000 sq ft (8,268 sq m);
- total number of gross jobs accommodated: 300 FTEs;
- total number of net additional jobs created: 141-205 FTEs at the local level and 162-240 FTEs at the national level; and
- based on net additional employment impacts, GVA of between £5.2m – £7.5m at the local level and £5.9m – £8.8m at the national level.

7.1.2 Economic, Environmental & Social Impact

The economic impact appraisal produces lower employment impacts than would have expected. This can be attributed to three main factors:

- low occupancy rates – this has in part been off-set recently by the level of SMI short-term lets but will increase significantly when they relocate to their bespoke unit;
- limited additionality – assessed as 47% at the local level and 38% at the national level (in the main due to the presence of a small number of businesses and organisations that have a high level of displacement); and
- when asked specifically about their choice of location, 75% of businesses reported that they would probably have chosen Stirling as their business based if property at SUIP had not been available.

The development undoubtedly has a quality environmental setting – this is one of the main attractors for companies moving into SUIP – however, the quality of the development itself is mixed. The Alpha/Beta Centres are now very dated and have limited aesthetic value. The newer developments at Scion House and Logie Court are better quality and more modern units and therefore have a greater environmental appeal.

In terms of social impact, we have identified above that SUIP creates net additional employment and therefore wages and salaries, however, we have been unable to identify any specific social impact that the development has delivered.

7.1.3 Qualitative Impact

The key qualitative impact that SUIP has delivered to its tenant businesses is the quality of setting that the Park has and the positive impact that this has on their image. This is more appropriate to tenants at Scion House and Logie Court but was also identified by tenants at both Alpha/Beta Centres.

We can identify one key qualitative impact that SUIP is missing out on – promoting linkages between tenant businesses and the lost spin-off business opportunities that this could promote. Due to the physical distance between buildings it has been difficult to foster business connections between tenants in different buildings. However, the links between tenants within buildings is also not well developed.

In addition, the qualitative impacts that could be created through linkages from the tenant businesses and the University are also not evident. This is a notoriously difficult area to address. The recent UKSPA review of UK Science Parks highlights that Science Parks are failing to perform as well as might be expected with regard to HEI/industry linkages and the transfer of knowledge from HEIs to Science Park firms.

7.1.4 Impact on Businesses

Chapter 4 presents the findings from our beneficiary business survey. In summary, the businesses reported a high level of overall satisfaction with SUIP, but they also noted low levels of contact with the University, SE Forth Valley, Stirling Council, the SUIP management team and other tenants.

Increasing the level of contact and integration at SUIP would have a positive impact on the performance of the tenant businesses.

7.1.5 Leverage

One of the key outputs from the study is to identify the level of public to private sector leverage that SUIP has achieved.

From the business survey we have been able to identify only very limited levels of private sector business investment. Where investment was reported it was primarily against computer and other IT investment that the business would have incurred no matter where they were located.

7.1.6 Overall Conclusion

Our overall conclusion is that SUIP is performing well below its potential. Performance is significantly worse than the previous evaluation in 1995 when it was reported as being a 'successful and cost effective economic development mechanism, the outputs and impacts of which have justified the strong lead role taken by public sector agencies'.

It is still producing economic impacts (i.e. net additional employment) and other benefits to the tenant businesses (primarily qualitative around the prestige/ image of the site) but its current performance is well below that reported in 1995.

The following section outlines a number of issues that have affected the overall performance of SUIP.

7.2 KEY ISSUES

There are a number of key issues that we have identified that indicate the relative performance of SUIP. Based on our analysis, as presented above, we have outlined below our assessment of how well SUIP is performing against these issues:

1. Does SUIP have a clear role/remit – what level of additionality is achieved?

We have identified a clear role and remit for the SUIP i.e. the provision of business support and accommodation to support the start-up, development and expansion of technology businesses, however, we would question the implementation of this.

We would also identify the low level of additionality that has been achieved by SUIP over recent years and the fact that 75% of the interviewed businesses reported that they would probably be located in Stirling if property at SUIP had not been available.

This low level of additionality is primarily due to the specific tenants accommodated and in particular to the presence of a small number of public sector organisations and quangos. There are also a small number of businesses that do not appear to have a good level of fit with the stated aims and objectives of SUIP.

2. Does SUIP minimise duplication of public sector activity?

SUIP requires a high level of public sector resource – revenue funding to enable the organisation to deliver services and provide accommodation, capital funding to deliver new accommodation/sites and staff resource (time input) from the public sector partners.

There are no similar single purpose delivery vehicles within Forth Valley, therefore in this sense, there is no duplication of public sector activity. Given the level of resource required to manage and deliver the SUIP product, we would, however, question whether it encompasses value for money at the present time.

At an operational level, SUIP should be interacting with a range of other organisations involved in the provision of support to R&D, high-tech and innovation businesses. From our business survey, however, SUIP tenants do not appear to be accessing much business support services. At present therefore there is limited overlap between public sector business support services, however, there is significant potential for this to be improved in the future.

3. Does SUIP have a clear business plan with specific targets?

SUIP has a draft Business Plan and Marketing Plan which we have reviewed. The Business Plan dates from February 2004 and the Marketing Plan from July 2005. It is imperative that the Board review the content of these documents, refresh and complete them. These will provide strategic guidance to the SUIP Chief Executive in the execution of their duties.

4. Does activity clearly link/contribute to key strategy/policy objectives?

Our policy analysis outlined above identifies that SUIP does fit with key strategic documents, at both the local and national level. What it does not identify, however, is whether the SUIP itself is the most appropriate delivery model or location and whether a greater contribution could have been made through an alternative approach.

To meet the strategic policy objectives, there is a need at regional and national levels to have dedicated technology business locations. SUIP was established in 1986 to support the growth of this sector, however, since then the market environment has become increasingly competitive and a number of similar projects have been developed across Scotland.

For SUIP to continue to provide an attractive proposition for tenant businesses, it must ensure that it provides the right type of accommodation and business support services to target companies.

5. What are the identifiable and measurable outputs?

Based on the tenant interviews we have prepared an economic impact assessment, the results of which are presented above.

In addition to the employment impacts, the recent UKSPA Science Park review identified mean annual vacancy rates ranging from between 3.5% to 13%. We have identified that at the time of our interviews, SUIP had a vacancy rate of 22%, significantly higher than the average.

6. Does SUIP have clear stakeholder support?

While the stakeholder partners were eager to confirm the commitment of their own organisation to SUIP, there was some dubiety expressed by each of the consultees regarding the commitment of other partners.

We return to each of these issues in the Conclusion and Recommendations.

7.3 DEVELOPMENT PLAN SUMMARY

As outlined in Chapter 1.1, during the course of this study EKOS were commissioned to undertake a further piece of work in relation to SUIP – the preparation of a Development Plan for the company. A summary of this Plan is presented below.

The Development Plan takes the recommendations and findings from this evaluation exercise and outlines how they can best be implemented by the stakeholder partners. In summary, the Plan provides SUIP with:

- a focus for future activity through articulation of aims and objectives;
- the strategic and market rationale to continue;
- the case for long-term stakeholder support and commitment;
- a detailed project delivery plan; and
- a clear staffing and structure plan for SUIP staff and Board.

The Plan presents roles and structures for the Board, the partners and the management team and outlines a proposed staffing structure for SUIP:

- a Chief Executive with overall responsibility;
- a Business Support Officer with responsibility for promoting tenant liaison;
- a Reception Administration Officer to provide support services to tenants, visitors, SUIP management and Board;
- a Finance Administration Officer with day-to-day responsibility for financial matters; and

-
- a Facilities Management Officer with responsibility for the physical assets.

The Plan presents a set of key and supporting projects that are required to improve the success and operating position of SUIP.

The key projects are:

- providing a greater internal focus on SUIP tenant businesses;
- complete the Business/Operating Plan
- review staff workload and resources;
- enhance external marketing (but only on completion of the first three projects);
- improve the regularity of Board Meetings;
- review the potential to create a central area for multi-functional space to support networking between tenants;
- obtain clear and shared understanding of partners objectives and if possible obtain long-term commitment to the future; and
- investigate the potential to access finance for physical upgrade, particularly the Alpha/Beta Centres.

In addition to these key projects, a number of supporting projects are identified:

- more rigorous tenant selection, appraisal and activity monitoring;
- greater engagement with the University staff and academics through SURE;
- if the central area (multi-functional space) is not deliverable, improve the internal circulation of Scion House;
- either upgrade or withdraw conference/meeting facilities; and
- review the finance and/or ownership structure (including Scion House) to provide future income generation for investment in future projects.

The Plan also presents a Monitoring & Evaluation Framework for activity and progress toward targets.

7.4 RECOMMENDATIONS

Based on the evaluation study and in particular the conclusions outlined above, we would make eight recommendations for future activity at Stirling University Innovation Park:

1. there is a need to provide a more integrated and focussed approach to the provision of business development services from relevant agencies and organisations;
2. there is a need to improve the take-up of business support services from SUIP tenant companies through the promotion of support, particularly for companies that demonstrate growth potential;
3. stronger and closer working relationships should be developed between:
 - the SUIP management team and the tenants
 - the University and the tenants
 - the tenant businesses themselves

In locations such as SUIP where physical linkages are weak, social networks become increasingly important as they contribute to and facilitate local networking, resource flows and the processes of innovation and entrepreneurship;

4. SE Forth Valley should consider the disposal of the SE interest in Scion House to an appropriate investor – if SUIP Ltd are to be considered, they must demonstrate their ability to fund and manage the property;
5. there is a need for better record keeping in SUIP. As a condition of future funding, SEFV should call for the collection, analysis and provision of regular²³ monitoring data, in particular relating to:
 - tenants – lease, employment and business performance data
 - enquiries – sector, size and outcome
 - finances – management accounts, public sector contributions and expenditure;
6. future SUIP activity should be based on a formalised Business Plan prepared by the Board, which must be deliverable and achievable, taking into account likely resources (staffing and funding);
7. there should be commitment from the Board to the adoption of the Development Plan and delivery of the key and support projects contained therein; and

²³ The regularity of data collection should be tailored for each individual element but as a minimum an annual performance report should be provided to the three stakeholders.

8. there is a real need to increase the level of occupancy at SUIP (78% at the date of our business interviews). We have addressed this issue specifically in the Development Plan and would recommend that additional resources are made available for marketing activity (targeted at the key sectors), but that this should only take place following implementation of key projects as identified in the Development Plan, specifically tenant focus, Business Plan and staffing.

Finally, in addition to the study objectives, SE Forth Valley will also use the study to inform the future development and operations of the SUIP. From our study analysis (baseline research, partner consultations and business surveys) we identified support from the stakeholder partners in continuing to support SUIP. There is, however, a sense of doubt from consultees as to the level of commitment from partners and therefore a need to obtain clear commitment to long-term stakeholder support.

A number of key factors are presented in our baseline analysis:

- there are significant gaps in the level of Business Enterprise Research and Development (BERD) expenditure between businesses in:
 - Stirling and the Scottish average
 - Scotland and the UK average
 - UK and the OECD average

Economic development mechanisms that have the potential to increase the level of BERD investment should be encouraged – SUIP will need, however, to demonstrate how it will achieve this;

- SUIP has a good fit with the key policy and strategy documents reviewed and has the potential to make a contribution towards their aims and objectives; and
- the baseline conditions in SUIP have a good fit with the good practice identified. The main gap is around the provision of business development support services.

We therefore recommend that SE Forth Valley should continue to support SUIP through financial and other resource inputs. Future support should, however, be conditional on formal adoption of the Development Plan (as outlined above) by the SUIP Board and delivery of the key and support projects.

Appendix 1 – Science/Technology Location Review

Park Name	Location	LEC Area	Description	Rent / Costs	Business Support/ Advice	No. of Companies	No. of Employees	Date Established	Size (Acres)	Development Capacity	Ownership	Uni Links	Key Sectors	Websites
Aberdeen Science & Technology Park & Aberdeen Offshore Technology Park	Aberdeen	SEGr	Range of multi-occupancy, incubation and stand alone buildings. Objective = double number of jobs in 10 yrs		Yes - SE Grampian	130	1,400	Early 1990s	ASTP=60 AOTP=72	ASTP = 10 acres (plots available from 1 acre)	SEGr & Aberdeen City Council	Local HE Institutions & North East Scotland Research Community	ASTP = Life Sciences, Software, ICT, specialist engineering/ instrumentation and environmental sciences. AOTP = Energy Industries	www.asip.co.uk
Edinburgh Technopole	Bush Estate, Edinburgh	SEEL	Parkland campus with office and lab space for all size co's from spinouts to multinationals with 500,000 sq ft. 3 m ulti occupancy buildings.			30	1,500	Est 1946 + Re-launched Sep 2001	126	Ph3 3 storey office/lab unit (opens late 2005) with 35,000 sq ft	Uni of Edinburgh & Grosvenor Property Investments	Edinburgh	Biomufacturing, Science & Technology	www.edinburghtechnopole.co.uk
Elvingston Science Centre	Haddington, East Lothian	SEEL	Two incubation buildings (10k & 15k sq ft) linked by central adm in core. Units from 350-1540 sqft.		Yes - provided by Simpson Research Investment, SEEL & East Lothian Council			1997	circa 5	Further 60,000 sq ft	Simpson Research Investment/ SEEL	Napier	High tech & knowledge based	www.elvingston.co.uk
Heriot Watt Uni Research Park	Riccarton, Edinburgh	SEEL	Mix of multi-occupancy and stand-alone laboratory units in sizes from 1,000 to 23,000 sq ft. 5 Hses/buildings leased.	Circa £11-15psf or £17,500 per acre pa.		27		1971	110 (plus 45 future)	25 acres of serviced development plots	HW Uni & SEEL	Heriot Watt	Microelectronics, optoelectronics, precision engineering, medical instrumentation, biotechnology & offshore engineering	www.hw.ac.uk/research-park
Hillington Park Innovation Centre	Hillington	SER	3 storey multi-occupancy building with 65 units for business incubation		Yes - Innovation Centres (Scotland) Ltd & SER	43		2000		Would require extension to existing building or build on adjacent site	Caledonian Land & SER	Paisley	High technology incubation	www.innovationcentre.org
Pentlands Science Park	Penicuik, Midlothian	SEEL	Mix of multi-occupancy and stand-alone lab, office and incubation facilities linked to Moredun Research Institute (Centre of Excellence in Vet Science). Site has 1.6m sq ft. Established 1994 + completed 1999			25		1994		Local Plan identifies expansion land - plans for Technology Transfer Training Centre	Moredun & SEEL		Biotechnology and other R&D activities	www.pentlands.co.uk/psp.asp
Roslin BioCentre	Roslin, Midlothian	SEEL	Mix of self-contained and multi-occupancy in an accelerator unit for new and established biotech companies.			14	400	1997	36	Adjacent 15 acres for office & lab developments	Roslin BioCentre Ltd		Life sciences R&D	www.roslin-biocentre.com
Stirling University Innovation Park	Stirling	SEFV	118,000 sq ft in 6 buildings on park campus for incubation, new start and existing businesses from 430 sq ft		Yes - SUiP Ltd	45		1986	14	One development plot on park remains, but SEFV considering expansion options	Uni, SEFV & Stirling Council	Stirling	Knowledge, R&D and Innovation	www.innovation.stir.ac.uk
SE Technology Park	Bellshill, Lanarkshire	SEL	Established over 50 years ago as National Engineering Laboratory now accommodates a wide range of technology related businesses in single and (5) multi-occupancy office and workshops from SMEs to large international including Strathclyde Software Innovation Centre		SEL	90	1,000	1994	84	Considering options for future expansion	SE	Scottish Universities Environmental Research Centre	All technology related companies - strengths in advanced engineering & electronics, environmental technology, medical & pharmaceutical, IT & software, biotechnology and business consultancy	http://www.scottish-enterprise.com/seedotcom_home/services-to-the-community/stc-keyprojects/lanarkshiregeneral/enttechnologypark.htm
West of Scotland Technology Park	Glasgow	SEGI	Kelvin (3 buildings = 72,500 sq ft) & Todd Campus (Single User Occupied Units)		Targeting Innovation Ltd	23		1983	61.5	7.4 on Todd Campus. Considering longer term expansion options	SE & Glasgow Uni	Glasgow & Strathclyde		www.wasip.co.uk
Nova, Robroyston	Robroyston, Glasgow	SEGI	Serviced development site. Plans to develop flexible business space (hub = 37,000 sq ft, plus 2x13,000 sq ft units) plus serviced development sites for sale/lease.					2005	67	Planned 670,000 sq ft	SE		Science & technology companies. Targeted at companies expanding from research to manufacturing	www.scottish-enterprise.com/novatechnologypark
City Science Park	Glasgow	SEGI	Planned creation of a science and technology district in city centre with business, residential and retail for start-up, incubation and existing business				Target = 1,600	2005	5	Planned 390,000 sq ft		Strathclyde plus other Glasgow Unis	Innovation led, high growth & knowledge based	http://www.scottish-enterprise.com/seedotcom_home/about_se/local_enterprise_compa_nia/glasgow/glasgow_initiative/glasgow_cityscience.htm#newsletter
Dundee Technology Park	Balgarnho, Dundee	SET	Technology and business park with self-contained units.							Considering expansion to provide additional 500,000 sq ft (expected 2007)				http://www.scottish-enterprise.com/seedotcom_home/services-to-the-community/stc-keyprojects/dundee/dundeewestgateway/dundeetechnologypark.htm?ablnatoadge#
Dundee Medi Park	Ninewells Hospital, Dundee	SET	Located on Ninewells Hospital site the medipark provides fully serviced sites from 1 acre for lab, production and office development. Have two vacant units (circa 10,000 sq ft) that can be leased as single occupancy or suites from 1,500 sq ft						25	SET considering options for future expansion	Dundee Teaching Hospitals & SET		Medical & biotech	http://www.scottish-enterprise.com/seedotcom_home/services-to-the-community/stc-keyprojects/dundee/dundeewestgateway/dundeemedipark.htm

Appendix 2 – Consultee List

Allan Anderson, Scottish Enterprise Forth Valley

John Craig, University of Stirling

Liam Fennell, Scottish Enterprise Forth Valley

Ian Fraser, Stirling Council

John Gordon, University of Stirling

Christine Hallett, University of Stirling

Tom Ogilvie, Hillington Innovation Centre (former Chief Executive SUIP)

Joe Pacitti, Stirling University Innovation Park

Donald Pollock, formerly Stirling University

Hugh Ross, Scottish Executive

Appendix 3 – Beneficiary Survey Questionnaire

SECTION 1: COMPANY BACKGROUND DETAILS

1. Company:
2. Contact:
3. Location:
4. Year Established:
5. What year did your company/organisation move to the Innovation Park
6. Did your organisation start-up on the Park?
7. If you relocated to the Park, where was your previous base?

SECTION 2: BUSINESS DETAILS

8. Description of main activities:
9. What is your target market segment (e.g. Life Sciences, Health, Computer, etc)

10. What percentage of your business activity is:

Research	
Development	
Design	
Other (pleas specify)	

11. Do you have other Scottish Plants/Operations:
12. Please indicate the type and current life cycle stage of your business

Start-up business (0-12 months)	
New business (12-36 months)	
Existing company (more than 2 years old)	
Existing company (more than 5 years old)	
Other (please specify)	

13. What is your company status: e.g. JV, Ltd Co, Public/Private Partnership?
14. Did your company originate in a University? If yes, which?

SECTION 3: PROPERTY DETAILS

15. How much accommodation do you occupy at SUIP?

	On Arrival	Now
Number of Units		
Total Floorspace (Sq Ft)		

16. What is your lease/license duration at SUIP?

17. Has this been extended in the past?

18. Do the terms suit your business needs?

Yes	
No (please comment)	

19. Is the rental level reasonable for the accommodation provided?

Yes	
No (please comment)	

20. Is the service charge reasonable for the scope and standard of services?

Yes	
No (please comment)	

SECTION 4: PROJECT OUTPUTS AND IMPACTS

21. What have been the main **business** outcomes resulting from locating at SUIP? (Do not probe)

.....

22. How many of your company's jobs are

	Full time	Part time
Highly skilled (2 nd degree)		
Skilled		
Unskilled		

23. Organisation size

	On Arrival	Now
Full-time Employees		
Part-time Employees		
Turnover (refer below for bands if not willing to provide actual)	£	£
Under £99,999		
£100k - £249,999		
£250k - £499,999		
£500k - £999,999		
£1m - £2,499,999		
£2.5m - £4,999,999		
£5m - £9,999,999		
Over £10m		

24. Have you developed any new products/processes since locating at SUIP?

No	
Yes (please specify type and value)	

24. Can you attribute any change in performance (employment/turnover) to your location at SUIP?

.....

25. What rationale do you have for estimating this level of attribution?

.....

24. What capital investment have you made whilst based on the Innovation Park (Value and Activity)

Period	Activity	Value
Prior to 2000		
Jan 00 – Dec 02		
Jan 03 – Jun 05		

25. What **planned capital investment** do you plan to make over the next three years (Value/Activity)

Period	Activity	Value

SECTION 5: REASONS FOR LOCATING AT SUIP

26. Did you receive any assistance with start-up, relocation or fitting out when you moved to SUIP?

.....

27. If yes, please provide details (Value and Activity)

.....

28. If yes to Q26 Would you have set up at SUIP without this assistance (probe for size/scale/ timing)

.....

29. What reasons did you have for locating at SUIP?

Founder lived locally	Founder worked at Stirling University	
Already located in the area	Cost of premises	
Access to HEI facilities	Prestige/image of the site	
Availability of additional premises	On-site management/business advice	
Access to communal space/meeting rooms	Availability of skilled labour	
Transport/communications	Access to markets	
Access to materials/components	Proximity to similar companies	
Scope for attracting HEI students	Other (please specify)	

30. Would your company have located in the Stirling area if SUIP had not been built?

31. Which aspects of SUIP have been most useful to your organisation (please order by importance)

Prestige/image of the site		On-site management/business advice	
Cost of premises		Transport/communications	
Access to communal space/meeting rooms		Access to HEI facilities	
Proximity to similar companies		Availability of additional premises	
Scope for attracting HEI students		Availability of skilled labour	
Access to markets		Access to materials/components	
Other (please specify)			

32. What links do you have with Stirling University?

Informal contact with academics		Employment of academics as consultants	
Access to specialist equipment		Employment of recent graduates	
Training by University		Assistance in HEI teaching	
Other (please specify)			

33. Do you have contact with any other University? If so, which and for what?

34. If yes to Q.32 and/or Q.33, How frequently do you have contact with Universities

	Stirling	Other Uni
Daily		
Weekly		
Monthly		
Less Frequently		

35. What Stirling University/SUIP facilities does your organisation regularly use?

Computer		Library	
Conferences		Dining facilities	
Sports facilities		Audio-visual	
University as a customer		Other (please specify)	

36. Were there particular facilities/aspects of Stirling Uni that influenced your decision to locate here?

37. Which of the following on-site facilities do you regularly use, order by level of use

Administrative support		Technical advice/support	
Product development advice/support		Marketing support/assistance	

38. Has the quality of these changed since you set up on the park?

Improved	
Stayed the same	
Deteriorated	

39. Please comment on the quality of on-site facilities and services

.....

40. Are there any services not offered that would be useful to your organisation?

.....

41. Do you have any business contact with other SUIP tenants?

No	
Yes (please specify)	

42. If yes to Q.41, How important is this contact to your business/organisation

Very important	
Important	
Slightly important	
Not important	

43. Do you have knowledge of other Scottish Science Parks?

No	
Yes	

44. If yes, how would you rate SUIP compared with these Parks

Aspect (SUIP compared to	Very Good	Good	Average	Poor	Very Poor
For quality of property/environment					
For quality of University linkages					
For quality of centre management					
For quality of services provided					
Other					

SECTION 6: DISPLACEMENT AND ADDITIONALITY

45. What proportion of non-labour inputs do you purchase from

Stirling	
Other Central Scotland	
Rest of Scotland	
Other UK	
Overseas	

46. Where are your customers based?

Stirling Council Area	%
Central Scotland	%
Other Scotland	%
Other UK	%
Overseas	%

47. How do you expect this market focus to change over the next three years?

.....

48. Where are your major competitors based?

Stirling Council Area	%
Central Scotland	%
Other Scotland	%
Other UK	%
Overseas	%

49. Generally, are the markets for your products/services:

Growing strongly	
Growing	
Static	
Declining	
Declining strongly	

50. How did you find out about the premises at SUIP?

Press advertisement	
Business advisor	
Estate agent	
Promotional leaflet	
Billboard	
Word of mouth	
Other (please specify)	

51. Did you look for other premises before choosing SUIP?

No	
Yes (please specify)	

52. If yes to Q.51, Did you look at other Science/Innovation Park locations prior to moving to SUIP?

No	
Yes (please specify)	

53. Could you have found similar premises in Central Scotland

Yes, easily		If yes, would the premises be:	
Yes, but with difficulty		At the same cost	
No		At higher cost	
Don't know		At lower cost	

54. If SUIP had not been available, what would have been your second choice location?

.....

55. Do you receive any other type of public sector support for your business?

No	
Yes (please specify)	

56. Do you have any plans to extend your business in the near future?

No	
Yes (please specify)	

57. Do you have plans to move to a different location in the near future?

No	
Yes (please specify)	

Thank you for your time, do you have any other comments that you would like to make?

Appendix 4 – Economic Impact Appraisal

Stirling University Innovation Park - Economic Impact Appraisal
 October 2005
 Local Impacts

Unit Name	Total Sq Ft Created	Company Name	No Units Occupied	Sq ft Occupied	Gross FTEs	Leakage Factor	Gross less Leakage	Additivity	Deadweight	Gross Additional	Displacement Factor	Displaced Jobs	Non-Displaced	Multiplier Factor	Net FTEs	Double Counting Factor	Double Counted Jobs	Net less Doubled	Gross to Net Ratio	GtoN Ratio less Double
Scion House	33,000	SC.1	1	514	5	20%	4	30%	70%	1.2	10%	0.12	1.1	1.25	1.3	0%	0.0	1.3	27%	27%
		SC.2	3	4,530	50	20%	40	70%	30%	28.0	20%	5.6	22.4	1.49	33.3	1%	0.3	33.0	67%	66%
		SC.3	1	1,306	7	20%	5.6	60%	40%	3.4	40%	1.344	2.0	1.49	3.0	0%	0.0	3.0	43%	43%
		SC.4	0.5	450	2.5	20%	2	70%	30%	1.4	40%	0.56	0.8	1.49	1.2	1%	0.0	1.2	50%	49%
		SC.5	1	1,778	13.5	30%	9.45	70%	30%	6.6	10%	0.6615	6.0	1.25	7.4	0%	0.0	7.4	55%	55%
		SC.6	1	912	13.5	20%	10.8	60%	40%	6.5	70%	4.536	1.9	1.32	2.6	0%	0.0	2.6	19%	19%
		SC.7	1	1,030	6	20%	4.8	40%	60%	1.9	50%	0.96	1.0	1.49	1.4	0%	0.0	1.4	24%	24%
		SC.8	0.5	150	1	20%	0.8	70%	30%	0.6	20%	0.112	0.4	1.49	0.7	7%	0.0	0.6	67%	62%
		SC.9	6	9,078	31	30%	21.7	70%	30%	15.2	15%	2.2785	12.9	1.25	16.1	95%	15.3	0.8	52%	3%
		SC.10	0.5	150	1	20%	0.8	70%	30%	0.6	60%	0.336	0.2	1.30	0.3	55%	0.2	0.1	29%	13%
		SC.11	1	514	6	20%	4.8	50%	50%	2.4	70%	1.68	0.7	1.28	0.9	0%	0.0	0.9	15%	15%
		SC.12	1	2,130	1.5	20%	1.2	60%	40%	0.7	50%	0.36	0.4	1.32	0.5	0%	0.0	0.5	32%	32%
		SC.13	1	1,614	4	20%	3.2	70%	30%	2.2	30%	0.672	1.6	1.32	2.1	0%	0.0	2.1	52%	52%
		SC.14	0.5	150	2	20%	1.6	60%	40%	1.0	40%	0.384	0.6	1.42	0.8	2%	0.0	0.8	41%	40%
		SC.15	2	1,147	10	20%	8	50%	50%	4.0	30%	1.2	2.8	1.49	4.2	0%	0.0	4.2	42%	42%
Alpha Centre	13,000	AC.1	2	900	8	30%	5.6	60%	40%	3.4	20%	0.672	2.7	1.25	3.4	5%	0.2	3.2	42%	40%
		AC.2	1	1,100	2.5	30%	1.75	30%	70%	0.5	10%	0.0525	0.5	1.36	0.6	25%	0.2	0.5	26%	19%
		AC.3	1	450	2	20%	1.6	20%	80%	0.3	50%	0.16	0.2	1.32	0.2	1%	0.0	0.2	11%	10%
		AC.4	1	450	6.5	20%	5.2	50%	50%	2.6	20%	0.52	2.1	1.32	2.8	10%	0.3	2.5	42%	38%
Beta Centre	13,000	BC.1	1	1,100	4	30%	2.8	40%	60%	1.1	10%	0.112	1.0	1.36	1.4	0%	0.0	1.4	34%	34%
		BC.2	1	1,100	14	30%	9.8	50%	50%	4.9	10%	0.49	4.4	1.25	5.5	5%	0.3	5.2	39%	37%
		BC.3	5	2,625	24	30%	16.8	20%	80%	3.4	10%	0.336	3.0	1.36	4.1	0%	0.0	4.1	17%	17%
		BC.4	4	2,550	65	20%	52	60%	40%	31.2	40%	12.48	18.7	1.32	24.8	0%	0.0	24.8	38%	38%
		BC.5	1	450	5	20%	4	70%	30%	2.8	40%	1.12	1.7	1.21	2.0	0%	0.0	2.0	41%	41%
		BC.6	1	450	3	20%	2.4	40%	60%	1.0	50%	0.48	0.5	1.49	0.7	0%	0.0	0.7	24%	24%
Logie Court	30,000	LC.1	1	5,800	12	20%	9.6	10%	90%	1.0	70%	0.672	0.3	1.55	0.4	0%	0.0	0.4	4%	4%
		89,000	26 Companies	40	42,428	300		230.3				128		38	90		122		17	105

**Stirling University Innovation Park - Economic Impact Appraisal
October 2005
National Impacts**

Unit Name	Total Sq Ft Created	Company Name	No Units Occupied	Sq M Occupied	Gross FTEs	Leakage Factor	Gross less Leakage	Additionality	Deadweight	Gross Additional	Displacement Factor	Displaced Jobs	Non-Displaced	Multiplier Factor	Net FTEs	Double Counting Factor	Double Counted Jobs	Net less Double	Gross to Net Ratio	GtoN less Double
Scion House	33,000	SC.1	1	514	5	0%	5	20%	80%	1.0	20%	0.20	0.8	1.50	1.2	0%	0.00	1.20	24%	24%
		SC.2	3	4530	50	0%	50	60%	40%	30.0	30%	9.00	21.0	1.97	41.4	1%	0.41	41.02	83%	82%
		SC.3	1	1306	7	0%	7	50%	50%	3.5	50%	1.75	1.8	1.97	3.5	0%	0.00	3.45	49%	49%
		SC.4	0.5	450	2.5	0%	2.5	60%	40%	1.5	50%	0.75	0.8	1.97	1.5	1%	0.01	1.47	59%	59%
		SC.5	1	1778	13.5	0%	13.5	60%	40%	8.1	20%	1.62	6.5	1.50	9.7	0%	0.00	9.70	72%	72%
		SC.6	1	912	13.5	0%	13.5	50%	50%	6.8	80%	5.40	1.4	1.65	2.2	0%	0.00	2.23	16%	16%
		SC.7	1	1030	6	0%	6	30%	70%	1.8	60%	1.08	0.7	1.97	1.4	0%	0.00	1.42	24%	24%
		SC.8	0.5	150	1	0%	1	60%	40%	0.6	30%	0.18	0.4	1.97	0.8	7%	0.06	0.77	83%	77%
		SC.9	6	9078	31	0%	31	60%	40%	18.6	25%	4.65	14.0	1.50	20.9	95%	19.83	1.04	67%	3%
		SC.10	0.5	150	1	0%	1	60%	40%	0.6	70%	0.42	0.2	1.60	0.3	55%	0.16	0.13	29%	13%
		SC.11	1	514	6	0%	6	40%	60%	2.4	80%	1.92	0.5	1.55	0.7	0%	0.00	0.75	12%	12%
		SC.12	1	2130	1.5	0%	1.5	50%	50%	0.8	60%	0.45	0.3	1.65	0.5	0%	0.00	0.49	33%	33%
		SC.13	1	1614	4	0%	4	60%	40%	2.4	40%	0.96	1.4	1.65	2.4	0%	0.00	2.37	59%	59%
		SC.14	0.5	150	2	0%	2	50%	50%	1.0	50%	0.50	0.5	1.84	0.9	2%	0.02	0.90	46%	45%
		SC.15	2	1147	10	0%	10	40%	60%	4.0	40%	1.60	2.4	1.97	4.7	0%	0.00	4.74	47%	47%
Alpha Centre	13,000	AC.1	2	900	8	0%	8	50%	50%	4.0	30%	1.20	2.8	1.50	4.2	5%	0.21	3.98	52%	50%
		AC.2	1	1100	2.5	0%	2.5	20%	80%	0.5	20%	0.10	0.4	1.72	0.7	25%	0.17	0.52	28%	21%
		AC.3	1	450	2	0%	2	10%	90%	0.2	60%	0.12	0.1	1.65	0.1	1%	0.00	0.13	7%	7%
		AC.4	1	450	6.5	0%	6.5	40%	60%	2.6	30%	0.78	1.8	1.65	3.0	10%	0.30	2.70	46%	42%
Beta Centre	13,000	BC.1	1	1100	4	0%	4	30%	70%	1.2	20%	0.24	1.0	1.72	1.7	0%	0.00	1.65	41%	41%
		BC.2	1	1100	14	0%	14	40%	60%	5.6	20%	1.12	4.5	1.50	6.7	5%	0.34	6.37	48%	45%
		BC.3	5	2625	24	0%	24	10%	90%	2.4	20%	0.48	1.9	1.72	3.3	0%	0.00	3.31	14%	14%
		BC.4	4	2550	65	0%	65	50%	50%	32.5	50%	16.25	16.3	1.65	26.8	0%	0.00	26.80	41%	41%
		BC.5	1	450	5	0%	5	60%	40%	3.0	50%	1.50	1.5	1.42	2.1	0%	0.00	2.14	43%	43%
		BC.6	1	450	3	0%	3	30%	70%	0.9	60%	0.54	0.4	1.97	0.7	0%	0.00	0.71	24%	24%
Logie Court	30,000	LC.1	1	5800	12	0%	12	5%	95%	0.6	80%	0.48	0.1	2.10	0.3	0%	0.00	0.25	2%	2%
	89,000	26 Companies	40	42,428	300		300			137		53	83		142		22	120	47%	40%

**Stirling University Innovation Park
Grossing Up to Full Occupancy
October 2005**

Project	Company	Total Project Floorspace (Sq Ft)	Co. Floorspace (SqM)	% of Total	Net Employment		Net Employment Less Double Counting		
					Local	National	Local	National	
					Net Additional FTEs		Net Additional FTEs		
Scion House	SC.1	33,000	514	2%	1.3	1.2	1.35	1.20	
	SC.2		4,530	14%	33.3	41.4	32.97	41.02	
	SC.3		1,306	4%	3.0	3.5	3.00	3.45	
	SC.4		450	1%	1.2	1.5	1.24	1.47	
	SC.5		1,778	5%	7.4	9.7	7.43	9.70	
	SC.6		912	3%	2.6	2.2	2.57	2.23	
	SC.7		1,030	3%	1.4	1.4	1.43	1.42	
	SC.8		150	0%	0.7	0.8	0.62	0.77	
	SC.9		9,078	28%	16.1	20.9	0.81	1.04	
	SC.10		150	0%	0.3	0.3	0.13	0.13	
	SC.11		514	2%	0.9	0.7	0.92	0.75	
	SC.12		2,130	6%	0.5	0.5	0.48	0.49	
	SC.13		1,614	5%	2.1	2.4	2.08	2.37	
	SC.14		150	0%	0.8	0.9	0.80	0.90	
	SC.15		1,147	3%	4.2	4.7	4.16	4.74	
Alpha Centre	AC.1	13,000	900	7%	3.4	4.2	3.19	3.98	
	AC.2		1,100	8%	0.6	0.7	0.48	0.52	
	AC.3		450	3%	0.2	0.1	0.21	0.13	
	AC.4		450	3%	2.8	3.0	2.48	2.70	
Beta Centre	BC.1	13,000	1,100	8%	1.4	1.7	1.37	1.65	
	BC.2		1,100	8%	5.5	6.7	5.23	6.37	
	BC.3		2,625	20%	4.1	3.3	4.12	3.31	
	BC.4		2,550	20%	24.8	26.8	24.79	26.80	
	BC.5		450	3%	2.0	2.1	2.04	2.14	
	BC.6		450	3%	0.7	0.7	0.71	0.71	
Logie Court	LC.1	30,000	5,800	19%	0.4	0.3	0.45	0.25	
	26 companies		89,000	42,428	48%	122	142	105	120
	39 tenants				67%				

Fieldwork = 67% of SUIP Tenants & 48% of total SUIP floorspace

Grossing up based on 67% of tenants included							
Factor	1.49			182	212	157	179

Grossing up based on 48% of floorspace included							
Factor	2.08			254	295	219	250

Occupancy Rate - linked spreadsheet 78%

Adjusted for 78% occupancy	171	195
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Loss from 100% occupancy	48	55
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Stirling University Innovation Park - Economic Impact Appraisal - Positive Sensitivity

October 2005

Local Impacts

Unit Name	Total Sq Ft Created	Company Name	No Units Occupied	Sq ft Occupied	Gross FTEs	Leakage Factor	Gross less Leakage	Additionality	Deadweight	Gross Additional	Displacement Factor	Displaced Jobs	Non-Displaced	Multiplier Factor	Net FTEs	Double Counting Factor	Double Counted Jobs	Net less Doubled	Gross to Net Ratio	GtoN Ratio less Double
Scion House	33,000	SC.1	1	514	5	18%	4.1	33%	67%	1.4	9%	0.12177	1.2	1.25	1.5	0%	0.0	1.5	31%	31%
		SC.2	3	4,530	50	18%	41	77%	23%	31.6	18%	5.6826	25.9	1.49	38.5	0.9%	0.3	38.1	77%	76%
		SC.3	1	1,306	7	18%	5.74	66%	34%	3.8	36%	1.363824	2.4	1.49	3.6	0%	0.0	3.6	51%	51%
		SC.4	0.5	450	2.5	18%	2.05	77%	23%	1.6	36%	0.56826	1.0	1.49	1.5	0.9%	0.0	1.5	60%	60%
		SC.5	1	1,778	13.5	27%	9.855	77%	23%	7.6	9%	0.6829515	6.9	1.25	8.6	0%	0.0	8.6	64%	64%
		SC.6	1	912	13.5	18%	11.07	66%	34%	7.3	63%	4.602906	2.7	1.32	3.6	0%	0.0	3.6	27%	27%
		SC.7	1	1,030	6	18%	4.92	44%	56%	2.2	45%	0.97416	1.2	1.49	1.8	0%	0.0	1.8	29%	29%
		SC.8	0.5	150	1	18%	0.82	77%	23%	0.6	18%	0.113652	0.5	1.49	0.8	6.3%	0.0	0.7	77%	72%
		SC.9	6	9,078	31	27%	22.63	77%	23%	17.4	13.5%	2.3523885	15.1	1.25	18.8	85.5%	16.1	2.7	61%	9%
		SC.10	0.5	150	1	18%	0.82	77%	23%	0.6	54%	0.340956	0.3	1.30	0.4	49.5%	0.2	0.2	38%	19%
		SC.11	1	514	6	18%	4.92	55%	45%	2.7	63%	1.70478	1.0	1.28	1.3	0%	0.0	1.3	21%	21%
		SC.12	1	2,130	1.5	18%	1.23	66%	34%	0.8	45%	0.36531	0.4	1.32	0.6	0%	0.0	0.6	39%	39%
		SC.13	1	1,614	4	18%	3.28	77%	23%	2.5	27%	0.681912	1.8	1.32	2.4	0%	0.0	2.4	61%	61%
		SC.14	0.5	150	2	18%	1.64	66%	34%	1.1	36%	0.389664	0.7	1.42	1.0	1.8%	0.0	1.0	49%	48%
		SC.15	2	1,147	10	18%	8.2	55%	45%	4.5	27%	1.2177	3.3	1.49	4.9	0%	0.0	4.9	49%	49%
Alpha Centre	13,000	AC.1	2	900	8	27%	5.84	66%	34%	3.9	18%	0.693792	3.2	1.25	3.9	4.5%	0.2	3.8	49%	47%
		AC.2	1	1,100	2.5	27%	1.825	33%	67%	0.6	9%	0.0542025	0.5	1.36	0.7	22.5%	0.2	0.6	30%	23%
		AC.3	1	450	2	18%	1.64	22%	78%	0.4	45%	0.16236	0.2	1.32	0.3	0.9%	0.0	0.3	13%	13%
		AC.4	1	450	6.5	18%	5.33	55%	45%	2.9	18%	0.52767	2.4	1.32	3.2	9.0%	0.3	2.9	49%	45%
Beta Centre	13,000	BC.1	1	1,100	4	27%	2.92	44%	56%	1.3	9%	0.115632	1.2	1.36	1.6	0%	0.0	1.6	40%	40%
		BC.2	1	1,100	14	27%	10.22	55%	45%	5.6	9%	0.50589	5.1	1.25	6.4	4.5%	0.3	6.1	46%	44%
		BC.3	5	2,625	24	27%	17.52	22%	78%	3.9	9%	0.346896	3.5	1.36	4.8	0%	0.0	4.8	20%	20%
		BC.4	4	2,550	65	18%	53.3	66%	34%	35.2	36%	12.66408	22.5	1.32	29.8	0%	0.0	29.8	46%	46%
		BC.5	1	450	5	18%	4.1	77%	23%	3.2	36%	1.13652	2.0	1.21	2.4	0%	0.0	2.4	49%	49%
		BC.6	1	450	3	18%	2.46	44%	56%	1.1	45%	0.48708	0.6	1.49	0.9	0%	0.0	0.9	29%	29%
Logie Court	30,000	LC.1	1	5,800	12	18%	9.84	11%	89%	1.1	63%	0.681912	0.4	1.55	0.6	0%	0.0	0.6	5%	5%
		89,000	26 Companies	40	42,428	300		237.27			145		39	106		144		18	126	48%

Stirling University Innovation Park - Economic Impact Appraisal - Positive Sensitivity
 October 2005
 National Impacts

Unit Name	Total Sq Ft Created	Company Name	No Units Occupied	Sq M Occupied	Gross FTEs	-10%	10%	-10%	-10%	Gross Additional	Displacement Factor	Displaced Jobs	Non-Displaced	Multiplier Factor	Net FTEs	Double Counting Factor	Double Counted Jobs	Net less Double	Gross to Net Ratio	GtoN less Double
						Leakage Factor	Gross less Leakage	Additionality	Deadweight											
Scion House	33,000	SC.1	1	514	5	0%	5	22%	78%	1.1	18%	0.20	0.9	1.50	1.3	0%	0.00	1.35	27%	27%
		SC.2	3	4530	50	0%	50	66%	34%	33.0	27%	8.91	24.1	1.97	47.5	0.9%	0.43	47.10	95%	94%
		SC.3	1	1306	7	0%	7	55%	45%	3.9	45%	1.73	2.1	1.97	4.2	0%	0.00	4.18	60%	60%
		SC.4	0.5	450	2.5	0%	2.5	66%	34%	1.7	45%	0.74	0.9	1.97	1.8	0.9%	0.02	1.77	72%	71%
		SC.5	1	1778	13.5	0%	13.5	66%	34%	8.9	18%	1.60	7.3	1.50	10.9	0%	0.00	10.93	81%	81%
		SC.6	1	912	13.5	0%	13.5	55%	45%	7.4	72%	5.35	2.1	1.65	3.4	0%	0.00	3.43	25%	25%
		SC.7	1	1030	6	0%	6	33%	67%	2.0	54%	1.07	0.9	1.97	1.8	0%	0.00	1.80	30%	30%
		SC.8	0.5	150	1	0%	1	66%	34%	0.7	27%	0.18	0.5	1.97	1.0	6.3%	0.06	0.89	95%	89%
		SC.9	6	9078	31	0%	31	66%	34%	20.5	22.5%	4.60	15.9	1.50	23.7	85.5%	20.28	3.44	77%	11%
		SC.10	0.5	150	1	0%	1	66%	34%	0.7	63%	0.42	0.2	1.60	0.4	49.5%	0.19	0.20	39%	20%
		SC.11	1	514	6	0%	6	44%	56%	2.6	72%	1.90	0.7	1.55	1.1	0%	0.00	1.15	19%	19%
		SC.12	1	2130	1.5	0%	1.5	55%	45%	0.8	54%	0.45	0.4	1.65	0.6	0%	0.00	0.63	42%	42%
		SC.13	1	1614	4	0%	4	66%	34%	2.6	36%	0.95	1.7	1.65	2.8	0%	0.00	2.79	70%	70%
		SC.14	0.5	150	2	0%	2	55%	45%	1.1	45%	0.50	0.6	1.84	1.1	1.8%	0.02	1.09	56%	55%
		SC.15	2	1147	10	0%	10	44%	56%	4.4	36%	1.58	2.8	1.97	5.6	0%	0.00	5.56	56%	56%
Alpha Centre	13,000	AC.1	2	900	8	0%	8	55%	45%	4.4	27%	1.19	3.2	1.50	4.8	4.5%	0.22	4.59	60%	57%
		AC.2	1	1100	2.5	0%	2.5	22%	78%	0.6	18%	0.10	0.5	1.72	0.8	22.5%	0.17	0.60	31%	24%
		AC.3	1	450	2	0%	2	11%	89%	0.2	54%	0.12	0.1	1.65	0.2	0.9%	0.00	0.17	8%	8%
		AC.4	1	450	6.5	0%	6.5	44%	56%	2.9	27%	0.77	2.1	1.65	3.4	9.0%	0.31	3.13	53%	48%
Beta Centre	13,000	BC.1	1	1100	4	0%	4	33%	67%	1.3	18%	0.24	1.1	1.72	1.9	0%	0.00	1.87	47%	47%
		BC.2	1	1100	14	0%	14	44%	56%	6.2	18%	1.11	5.1	1.50	7.6	4.5%	0.34	7.22	54%	52%
		BC.3	5	2625	24	0%	24	11%	89%	2.6	18%	0.48	2.2	1.72	3.7	0%	0.00	3.73	16%	16%
		BC.4	4	2550	65	0%	65	55%	45%	35.8	45%	16.09	19.7	1.65	32.4	0%	0.00	32.42	50%	50%
		BC.5	1	450	5	0%	5	66%	34%	3.3	45%	1.49	1.8	1.42	2.6	0%	0.00	2.59	52%	52%
		BC.6	1	450	3	0%	3	33%	67%	1.0	54%	0.53	0.5	1.97	0.9	0%	0.00	0.90	30%	30%
Logie Court	30,000	LC.1	1	5800	12	0%	12	55%	45%	6.6	72%	4.75	1.8	2.10	3.9	0%	0.00	3.88	32%	32%
		89,000	26 Companies	40	42,428	300		300		156		57	99		169		22	147	56%	49%

**Stirling University Innovation Park - Positive Sensitivity
Grossing Up to Full Occupancy
October 2005**

Project	Company	Total Project Floorspace (Sq Ft)	Co. Floorspace (SqM)	% of Total	Net Employment		Net Employment Less Double Counting	
					Local	National	Local	National
					Net Additional FTEs		Net Additional FTEs	
Scion House	SC.1	33,000	514	2%	1.5	1.3	1.54	1.35
	SC.2		4,530	14%	38.5	47.5	38.14	47.10
	SC.3		1,306	4%	3.6	4.2	3.60	4.18
	SC.4		450	1%	1.5	1.8	1.49	1.77
	SC.5		1,778	5%	8.6	10.9	8.62	10.93
	SC.6		912	3%	3.6	3.4	3.58	3.43
	SC.7		1,030	3%	1.8	1.8	1.77	1.80
	SC.8		150	0%	0.8	1.0	0.72	0.89
	SC.9		9,078	28%	18.8	23.7	2.73	3.44
	SC.10		150	0%	0.4	0.4	0.19	0.20
	SC.11		514	2%	1.3	1.1	1.28	1.15
	SC.12		2,130	6%	0.6	0.6	0.59	0.63
	SC.13		1,614	5%	2.4	2.8	2.44	2.79
	SC.14		150	0%	1.0	1.1	0.97	1.09
	SC.15		1,147	3%	4.9	5.6	4.89	5.56
Alpha Centre	AC.1	13,000	900	7%	3.9	4.8	3.77	4.59
	AC.2		1,100	8%	0.7	0.8	0.58	0.60
	AC.3		450	3%	0.3	0.2	0.26	0.17
	AC.4		450	3%	3.2	3.4	2.90	3.13
Beta Centre	BC.1	13,000	1,100	8%	1.6	1.9	1.59	1.87
	BC.2		1,100	8%	6.4	7.6	6.10	7.22
	BC.3		2,625	20%	4.8	3.7	4.78	3.73
	BC.4		2,550	20%	29.8	32.4	29.82	32.42
	BC.5		450	3%	2.4	2.6	2.45	2.59
	BC.6		450	3%	0.9	0.9	0.88	0.90
Logie Court	LC.1	30,000	5,800	19%	0.6	3.9	0.62	3.88
	26 companies	89,000	42,428	48%	144	169	126	147
	39 tenants			67%				

Fieldwork = 67% of SUIP Tenants & 48% of total SUIP floorspace

Grossing up based on 67% of tenants included								
Factor	1.49				215	253	188	220

Grossing up based on 48% of floorspace included								
Factor	2.08				300	353	263	307

Occupancy Rate - linked spreadsheet 78%

Adjusted for 78% occupancy	205	240
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Stirling University Innovation Park - Economic Impact Appraisal - Negative Sensitivity
 October 2005
 Local Impacts

Unit Name	Total Sq Ft Created	Company Name	No Units Occupied	Sq ft Occupied	Gross FTEs	10%	-10%	10%	10%	Gross Additional	Displacement Factor	Displaced Jobs	Non-Displaced	Multiplier Factor	Net FTEs	Double Counting Factor	Double Counted Jobs	Net less Doubled	Gross to Net Ratio	GtoN Ratio less Double
						Leakage Factor	Gross less Leakage	Additivity	Deadweight											
Scion House	33,000	SC.1	1	514	5	22%	3.9	27%	73%	1.1	11%	0.11583	0.9	1.25	1.2	0%	0.0	1.2	23%	23%
		SC.2	3	4,530	50	22%	39	63%	37%	24.6	22%	5.4054	19.2	1.49	28.5	1.1%	0.3	28.2	57%	56%
		SC.3	1	1,306	7	22%	5.46	54%	46%	2.9	44%	1.297296	1.7	1.49	2.5	0%	0.0	2.5	35%	35%
		SC.4	0.5	450	2.5	22%	1.95	63%	37%	1.2	44%	0.54054	0.7	1.49	1.0	1.1%	0.0	1.0	41%	40%
		SC.5	1	1,778	13.5	33%	9.045	63%	37%	5.7	11%	0.6268185	5.1	1.25	6.3	0%	0.0	6.3	47%	47%
		SC.6	1	912	13.5	22%	10.53	54%	46%	5.7	77%	4.378374	1.3	1.32	1.7	0%	0.0	1.7	13%	13%
		SC.7	1	1,030	6	22%	4.68	36%	64%	1.7	55%	0.92664	0.8	1.49	1.1	0%	0.0	1.1	19%	19%
		SC.8	0.5	150	1	22%	0.78	63%	37%	0.5	22%	0.108108	0.4	1.49	0.6	7.7%	0.0	0.5	57%	53%
		SC.9	6	9,078	31	33%	20.77	63%	37%	13.1	16.5%	2.1590415	10.9	1.25	13.6	100.0%	13.6	0.0	44%	0%
		SC.10	0.5	150	1	22%	0.78	63%	37%	0.5	66%	0.324324	0.2	1.30	0.2	60.5%	0.1	0.1	22%	9%
		SC.11	1	514	6	22%	4.68	45%	55%	2.1	77%	1.62162	0.5	1.28	0.6	0%	0.0	0.6	10%	10%
		SC.12	1	2,130	1.5	22%	1.17	54%	46%	0.6	55%	0.34749	0.3	1.32	0.4	0%	0.0	0.4	25%	25%
		SC.13	1	1,614	4	22%	3.12	63%	37%	2.0	33%	0.648648	1.3	1.32	1.7	0%	0.0	1.7	44%	44%
		SC.14	0.5	150	2	22%	1.56	54%	46%	0.8	44%	0.370656	0.5	1.42	0.7	2.2%	0.0	0.7	33%	33%
		SC.15	2	1,147	10	22%	7.8	45%	55%	3.5	33%	1.1583	2.4	1.49	3.5	0%	0.0	3.5	35%	35%
Alpha Centre	13,000	AC.1	2	900	8	33%	5.36	54%	46%	2.9	22%	0.636768	2.3	1.25	2.8	5.5%	0.2	2.7	35%	33%
		AC.2	1	1,100	2.5	33%	1.675	27%	73%	0.5	11%	0.0497475	0.4	1.36	0.5	27.5%	0.2	0.4	22%	16%
		AC.3	1	450	2	22%	1.56	18%	82%	0.3	55%	0.15444	0.1	1.32	0.2	1.1%	0.0	0.2	8%	8%
		AC.4	1	450	6.5	22%	5.07	45%	55%	2.3	22%	0.50193	1.8	1.32	2.4	11.0%	0.3	2.1	36%	32%
Beta Centre	13,000	BC.1	1	1,100	4	33%	2.68	36%	64%	1.0	11%	0.106128	0.9	1.36	1.2	0%	0.0	1.2	29%	29%
		BC.2	1	1,100	14	33%	9.38	45%	55%	4.2	11%	0.46431	3.8	1.25	4.7	5.5%	0.3	4.4	33%	32%
		BC.3	5	2,625	24	33%	16.08	18%	82%	2.9	11%	0.318384	2.6	1.36	3.5	0%	0.0	3.5	15%	15%
		BC.4	4	2,550	65	22%	50.7	54%	46%	27.4	44%	12.04632	15.3	1.32	20.3	0%	0.0	20.3	31%	31%
		BC.5	1	450	5	22%	3.9	63%	37%	2.5	44%	1.08108	1.4	1.21	1.7	0%	0.0	1.7	33%	33%
		BC.6	1	450	3	22%	2.34	36%	64%	0.8	55%	0.46332	0.4	1.49	0.6	0%	0.0	0.6	19%	19%
Logie Court	30,000	LC.1	1	5,800	12	22%	9.36	9%	91%	0.8	77%	0.648648	0.2	1.55	0.3	0%	0.0	0.3	3%	3%
		89,000	26 Companies	40	42,428	300		223.33			112		37	75		102		15	87	34%

Stirling University Innovation Park - Economic Impact Appraisal - Negative Sensitivity
 October 2005
 National Impacts

Unit Name	Total Sq Ft Created	Company Name	No Units Occupied	Sq M Occupied	10%		-10%		10%		10%		Non-Displaced	Multiplier Factor	Net FTEs	Double Counting Factor	Double Counted Jobs	Net less Double	Gross to Net Ratio	GtoN less Double
					Gross FTEs	Leakage Factor	Gross less Leakage	Additionality	Deadweight	Gross Additional	Displacement Factor	Displaced Jobs								
Scion House	33,000	SC.1	1	514	5	0%	5	18%	82%	0.9	22%	0.20	0.7	1.50	1.1	0%	0.00	1.05	21%	21%
		SC.2	3	4530	50	0%	50	54%	46%	27.0	33%	8.91	18.1	1.97	35.7	1.1%	0.39	35.30	71%	71%
		SC.3	1	1306	7	0%	7	45%	55%	3.2	55%	1.73	1.4	1.97	2.8	0%	0.00	2.80	40%	40%
		SC.4	0.5	450	2.5	0%	2.5	54%	46%	1.4	55%	0.74	0.6	1.97	1.2	1.1%	0.01	1.19	48%	47%
		SC.5	1	1778	13.5	0%	13.5	54%	46%	7.3	22%	1.60	5.7	1.50	8.5	0%	0.00	8.51	63%	63%
		SC.6	1	912	13.5	0%	13.5	45%	55%	6.1	88%	5.35	0.7	1.65	1.2	0%	0.00	1.20	9%	9%
		SC.7	1	1030	6	0%	6	27%	73%	1.6	66%	1.07	0.6	1.97	1.1	0%	0.00	1.09	18%	18%
		SC.8	0.5	150	1	0%	1	54%	46%	0.5	33%	0.18	0.4	1.97	0.7	7.7%	0.05	0.66	71%	66%
		SC.9	6	9078	31	0%	31	54%	46%	16.7	27.5%	4.60	12.1	1.50	18.2	100.0%	18.16	0.00	59%	0%
		SC.10	0.5	150	1	0%	1	54%	46%	0.5	77%	0.42	0.1	1.60	0.2	60.5%	0.12	0.08	20%	8%
		SC.11	1	514	6	0%	6	36%	64%	2.2	88%	1.90	0.3	1.55	0.4	0%	0.00	0.40	7%	7%
		SC.12	1	2130	1.5	0%	1.5	45%	55%	0.7	66%	0.45	0.2	1.65	0.4	0%	0.00	0.38	25%	25%
		SC.13	1	1614	4	0%	4	54%	46%	2.2	44%	0.95	1.2	1.65	2.0	0%	0.00	1.99	50%	50%
		SC.14	0.5	150	2	0%	2	45%	55%	0.9	55%	0.50	0.4	1.84	0.7	2.2%	0.02	0.73	37%	36%
		SC.15	2	1147	10	0%	10	36%	64%	3.6	44%	1.58	2.0	1.97	4.0	0%	0.00	3.98	40%	40%
Alpha Centre	13,000	AC.1	2	900	8	0%	8	45%	55%	3.6	33%	1.19	2.4	1.50	3.6	5.5%	0.20	3.41	45%	43%
		AC.2	1	1100	2.5	0%	2.5	18%	82%	0.5	22%	0.10	0.4	1.72	0.6	27.5%	0.17	0.44	24%	18%
		AC.3	1	450	2	0%	2	9%	91%	0.2	66%	0.12	0.1	1.65	0.1	1.1%	0.00	0.10	5%	5%
		AC.4	1	450	6.5	0%	6.5	36%	64%	2.3	33%	0.77	1.6	1.65	2.6	11.0%	0.28	2.30	40%	35%
Beta Centre	13,000	BC.1	1	1100	4	0%	4	27%	73%	1.1	22%	0.24	0.8	1.72	1.5	0%	0.00	1.45	36%	36%
		BC.2	1	1100	14	0%	14	36%	64%	5.0	22%	1.11	3.9	1.50	5.9	5.5%	0.32	5.56	42%	40%
		BC.3	5	2625	24	0%	24	9%	91%	2.2	22%	0.48	1.7	1.72	2.9	0%	0.00	2.90	12%	12%
		BC.4	4	2550	65	0%	65	45%	55%	29.3	55%	16.09	13.2	1.65	21.7	0%	0.00	21.71	33%	33%
		BC.5	1	450	5	0%	5	54%	46%	2.7	55%	1.49	1.2	1.42	1.7	0%	0.00	1.73	35%	35%
		BC.6	1	450	3	0%	3	27%	73%	0.8	66%	0.53	0.3	1.97	0.5	0%	0.00	0.54	18%	18%
Logie Court	30,000	LC.1	1	5800	12	0%	12	4.5%	96%	0.5	88%	0.48	0.1	2.10	0.1	0%	0.00	0.14	1%	1%
	89,000	26 Companies	40	42,428	300		300			123		53	70		119		20	100	40%	33%

**Stirling University Innovation Park - Negative Sensitivity
Grossing Up to Full Occupancy
October 2005**

Project	Company	Total Project Floorspace (Sq Ft)	Co. Floorspace (SqM)	% of Total	Net Employment		Net Employment Less Double Counting	
					Local Net Additional FTEs	National Net Additional FTEs	Local Net Additional FTEs	National Net Additional FTEs
Scion House	SC.1	33,000	514	2%	1.2	1.1	1.17	1.05
	SC.2		4,530	14%	28.5	35.7	28.18	35.30
	SC.3		1,306	4%	2.5	2.8	2.45	2.80
	SC.4		450	1%	1.0	1.2	1.01	1.19
	SC.5		1,778	5%	6.3	8.5	6.33	8.51
	SC.6		912	3%	1.7	1.2	1.73	1.20
	SC.7		1,030	3%	1.1	1.1	1.13	1.09
	SC.8		150	0%	0.6	0.7	0.53	0.66
	SC.9		9,078	28%	13.6	18.2	0.00	0.00
	SC.10		150	0%	0.2	0.2	0.09	0.08
	SC.11		514	2%	0.6	0.4	0.62	0.40
	SC.12		2,130	6%	0.4	0.4	0.38	0.38
	SC.13		1,614	5%	1.7	2.0	1.74	1.99
	SC.14		150	0%	0.7	0.7	0.65	0.73
	SC.15		1,147	3%	3.5	4.0	3.50	3.98
Alpha Centre	AC.1	13,000	900	7%	2.8	3.6	2.66	3.41
	AC.2		1,100	8%	0.5	0.6	0.40	0.44
	AC.3		450	3%	0.2	0.1	0.17	0.10
	AC.4		450	3%	2.4	2.6	2.10	2.30
Beta Centre	BC.1	13,000	1,100	8%	1.2	1.5	1.17	1.45
	BC.2		1,100	8%	4.7	5.9	4.43	5.56
	BC.3		2,625	20%	3.5	2.9	3.51	2.90
	BC.4		2,550	20%	20.3	21.7	20.31	21.71
	BC.5		450	3%	1.7	1.7	1.67	1.73
	BC.6		450	3%	0.6	0.5	0.56	0.54
Logie Court	LC.1	30,000	5,800	19%	0.3	0.1	0.30	0.14
	26 companies 39 tenants		89,000	42,428	48% 67%	102	119	87

Fieldwork = 67% of SUIP Tenants & 48% of total SUIP floorspace

Grossing up based on 67% of tenants included									
Factor	1.49					152	178	130	149

Grossing up based on 48% of floorspace included									
Factor	2.08					212	249	181	208

Occupancy Rate - linked spreadsheet 78%

Adjusted for 78% occupancy	141	162
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