Qualitative Review of SE Large Grant Support – Case Study Research

Final Report

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Executive Summary

Research Objectives

The main research objective was to undertake a qualitative review of Scottish Enterprise's (SE) large grant programmes (2009/10 to 2017/18), covering around 1,300 individual companies that had received almost £512 million through 1,700 grants. The review covered the following grant programmes[1]: Regional Selective Assistance (RSA), SMART, R&D, Training Plus, High Growth Spinout Programme (HGSP), Proof of Concept (PoC), Environmental Aid and Young Innovative Enterprise (YIE).

The key aims were to assess the:

- rationale for providing grants
- impact of grants on company performance.

The review also considered administrative issues such as; the application and appraisal process, grant management, linkages with other support, marketing/promotion and performance metrics.

Consultation and Engagement

The review findings have been informed through a significant fieldwork programme, including engagement with strategic stakeholders and partners, operational and delivery staff, and 38 company case studies.

[1] Please note that PoC and YIE are legacy programmes and are no longer delivered.

Findings and Conclusions

Rationale for Providing Grant Support

Rationale

One of the key findings of the consultation programme was that (with a few exceptions) the rationale for grant funding - the issues and challenges faced by the companies, were not specific or unique to any one grant product.

There were significant synergies and overlap between the public sector and private sector rationale for providing, and requiring support.

There are three broad areas that provide the rationale and justification for public sector intervention and the provision of grant funding, albeit not all of these are "classic" market failures:

- addressing and alleviating commercial and technical risk;
- ensuring Scotland has a competitive public sector support offer to grow the indigenous base and attract inward investment in competition with other geographies; and
- promoting access to finance.

What is less clear from the feedback is why companies "needed" multiple grant awards. In part, this may be a consequence of how the grant programmes are delivered. They operate independently and applications are assessed and appraised on an individual basis. This lack of co-ordination means that it is hard to assess whether providing multiple grant awards to the same company is driving additional benefits such as strategic added value or economies of scale.

Market Failure

In some cases the grant funding has been an appropriate intervention to help address and target the root cause of the market failure. In other cases the market failure rationale is less clearly articulated, but the additionality of project activity and impact is evidenced, and this provides sufficient rationale for investment for individual projects.

How Grants are Being Used

As noted above, the review found that regardless of what grant programme(s) the companies had received support through, the issues, challenges and rationale for providing grant support were broadly similar.

In this sense, the grants were viewed (and have been used) interchangeably as a means and mechanism to support and leverage the private sector to drive activity that supports economic growth. The segmentation of the grant programmes has little strategic relevance in terms of supporting project activity.

Data and feedback suggests that other grant programmes are being used to address the “gap” left by the changes to RSA eligibility (in particular, the R&D grant). This is a clear example of the grant programmes and SE’s approach being flexible and adaptable to support the company base.

Grant Appraisal, Administration and Processes

Application and Appraisal

Stakeholders mostly felt that the application and appraisal process was robust and that an “appropriate” level of due diligence was undertaken to assess project eligibility and rationale. Companies identified some issues and challenges such as the length and detail required within the application (forecasting future performance, etc), delays in receiving a decision and a lack of clarity on contract conditions.

Key points to note include:

- appraisal and decision-making processes need to be agile and flexible to keep up with the needs of industry; and
- there is a sense that within the grant programmes there is an imbalance between protecting public sector investment and supporting higher risk projects.

Eligibility and Grant Management

The grant programmes are underpinned by robust processes that are informed by SE and State Aid policy. However, it is sometimes challenging for those advising companies to keep up to date.

Around one-third of companies felt that the evidence and information requirements were ‘excessive’, lacked clarity and the process caused delays to the projects. Some of the issues reported reflect the individual circumstances of the company/project, while others seem more systematic across the grant programmes (e.g. the requirement for individual claims to be externally audited).

To some extent this was tempered with a recognition that there has to be a level of due diligence associated with public sector finance (particularly in the case of large funding awards).

Promotion and Marketing

The promotion and marketing of the grant programmes was identified as an area that needs to be reviewed and overhauled to ensure that it is fit for purpose and contributes to SE’s Digital Transformation Strategy. Specifically, we would highlight that:

- the marketing and promotion of the grant programmes could be improved to help support project activity coming through the pipeline;
- the online presence is limited; and
- there is a lack of clarity within the company base, intermediaries and even within SE on what grant funding is available, what type of activity can be supported, and which companies are eligible for support.

Linkages to Other Support

Grant funding is viewed as an important mechanism/tool for SE to engage with, and support, companies. It has close alignment and synergy with other products and services available through Account Management and to the wider company base. It was less clear on whether companies were accessing strategic ‘wrap-around packages’ of support from SE - i.e. grant and/or wider non-financial support (advice, marketing, business planning, etc.), or whether the grant awards were seen as, and being used, as a standalone product to deliver a specific project.

Other Sources of Funding

The grant programmes are positioned as a funding source of minimum or last resort. However, in the majority of cases the grants were not regarded or treated as a “funder of last resort” in the strictest sense.

Stakeholders, operational/delivery staff and the companies view the grant programmes as comprising an important part of the wider funding package required to deliver project activity. While many companies could have accessed other financial support, the grants helped to reduce financial/commercial/technical risk and leverage additional private sector investment.

The availability of the grant support therefore allowed the case study companies to deliver project activity (and outputs) over an accelerated period and/or on a bigger scale - demonstrating clear additionality.

The Role of Account Management and Operational/Delivery Staff

The feedback was positive with regards to the formal and informal role played by SE staff in providing advice and guidance to help shape projects and act as an "informal sounding board" at various stages throughout the process.

Specifically, we would highlight that the Account Managers (through referring companies into the pipeline) and appraisal staff (through appraising applications) have an important role in ensuring a supply of 'good quality' projects that contribute to policy priorities and objectives and, importantly, deliver net additional activity and impacts for the Scottish economy.

Financial Transactions

Support for Financial Transactions was not universal across stakeholders or companies with some noting concerns that a significant change in the funding landscape could further weaken Scotland's offer in what is already a very competitive landscape (for example, other countries offer higher intervention rates and tax incentives for inward investors).

The Financial Transactions offer would therefore need to be aligned with, and add value to, the existing public sector support framework, including grant provision.

An outline of the key principles of a new Financial Transactions funding model include:

- a funding model that is tolerant of risk and failure;
- a funding model that is flexible and responsive to change (both at a macro and micro economic level); and

- a funding model that prioritises long-term commercial and financial sustainability for both the company and public sector over and above immediate impact and returns.

Impact and Benefits

Feedback from stakeholders and companies was consistently positive in the role that the grant awards have had in facilitating economic growth – delivering a significant observed impact.

Impacts included; increasing employment (in many cases creating higher value jobs), growing market share which led to an increase in turnover, utilising innovation and training as a means to drive productivity, leveraging additional investment from the private sector (investment in R&D) and enhancing Scotland's reputation within an international market.

In addition, less intangible benefits generated included; supporting companies to overcome challenges, testing and validating ideas/concepts, demonstrating the value of R&D (including specific technologies), growing capability and capacity within the supply chain and upskilling the labour force.

Below we provide some of the feedback with regards to the impacts and benefits that are specific to individual grant programmes.

R&D Grants

- securing and leveraging investment from indigenous and international partners;
- supporting the development of new products and allowing companies to respond quickly to changes in markets and customer demand;
- supporting companies to access new markets, and to grow and diversify company revenue;
- reducing the perceived risk of 'over-investing' in speculative R&D i.e. helping companies to achieve the required gearing ratio to secure internal approval and investment;
- helping to demonstrate and validate the value of R&D activity - potentially supporting companies to become more R&D active in the future;

- supporting early phase demonstrator projects to undertake proof of concept and prototyping with a view to accessing further funding and support from other sources;
- developing new products and growing the R&D workforce; and
- enabling advances in disruptive and novel technology and maintaining market position.

SMART Grants

- helping companies to develop new technologies and products that would not have been developed otherwise due to a lack of finance;
- supporting and testing and development of multiple generations of products in line with technological advances and changes in customer demand;
- complementing other programmes such as R&D to enable companies to start mass manufacturing with a view to taking products to international markets; and
- helping to demonstrate the commercial application and feasibility of original concepts.

RSA Grants

- helping kick start early-stage company expansion and growth through supporting salary costs and enabling companies to scale at pace;
- supporting the purchase of capital equipment to drive capacity and productivity within manufacturing processes; and
- scaling up production facilities to help deliver efficiency savings in companies' operations, demonstrating the cost-effectiveness of sites/plants.

Environmental Aid

- purchasing and testing of bespoke equipment that converted low value by-products as a source of waste driven fuel. This has resulted in cost savings (through reduced energy bills) and reduced the volume of waste (tonnage) sent to landfill; and
- reductions in CO_2 and other pollutants such as Nitrogen Oxide.

Training Plus

- attracting significant levels of capital investment and large single site employers;
- adopting new approaches to self-assessment and training as an approach to deliver efficiency improvements and boosting staff morale;
- generating efficiency savings through staff being trained to operate new equipment; and
- enabling workforce expansion.

HGSP

- supporting the successful spin-out from the academic base within emerging high technology sectors;
- supporting projects to achieve the required 'value inflection' to secure seed investment funding; and
- developing patents and licence agreements.

The level of additionality attributable to the grants is generally high and is mainly in relation to scale and timescales (supporting larger projects and accelerating activity).

SE appraisal staff in particular play an important role in ensuring that projects approved deliver additional impacts and benefits. EKOS' view, is that the current approaches are relatively robust.

At a high level, monitoring data being gathered is appropriate and relevant, however, there are two limitations in the current monitoring system:

1. monitoring systems gather data on the <u>forecast impact and benefits</u>, with little formal follow-up to assess the impacts that are actually achieved.

2. timescales for gathering and reporting impact often do not align with project activity.

Recommendations

1: Develop (or adapt existing) systems to gather bespoke data and intelligence to better inform the strategic position, delivery and operation of the grant programmes.

2: Consider opportunities to redesign and rationalise/simplify the grant programmes in line with the emerging Digital Transformation policy and inclusive growth framework.

3: The application and appraisal process should be streamlined and simplified (where feasible) to ensure a standard and consistent approach (where feasible) with the emphasis on the contribution to policy priorities and the net additional outputs, outcomes and impacts of supported project activity.

4: At a strategic and operational level there is a need to review how SE assesses 'risk' in relation to; intervention rates, evidence requirements and investment decisions.

5: As Financial Transactions become integrated into the support ecosystem, SE should undertake further assessment as to how these can be aligned to the grant programmes and address the needs of the business base.

6: As part of its Digital Transformation Strategy, SE should consider updating and refreshing how it markets and promotes the grant programmes via digital channels.

7: Adapt and better utilise the post-completion reviews as an approach to deliver added value and ensure continuity of support.

8: In line with Scottish Government policy to deliver inclusive growth, SE could pilot new approaches to help enhance the coverage (geographic, sectoral, thematic) of the grant programmes to promote access of opportunity.

9: Develop supplementary performance metrics to gather additional intelligence and monitoring data on the wider value of the grant programmes.

1. Introduction

This report presents the outputs of a review of Scottish Enterprise's (SE) large grant awards programme over the period 2009/10 to 2017/18.

The work was commissioned by SE with the over-arching objective to complete a number of 'case studies' with companies that have received grant funding support with the key aims of assessing the:

- rationale for intervention – why was grant support necessary?; and
- impact on company performance.

SE's grant application and grant administration processes were also considered as part of the review, with a view to understanding what is working well, and any issues or areas for improvement.

1.1 Contextual Landscape

SE provides a range of grant funding support for both Direct Relationship Managed (DRM)[2] and Non-Relationship Managed (NRM) companies – covering both the SE and Highlands and Islands Enterprise (HIE) areas[3].

The grant funding applications are assessed and awarded on a case-by-case basis and can be used to support and deliver a range of project activities including: purchasing capital equipment, creating and safeguarding employment, undertaking Research and Development (R&D), feasibility studies, new product or process development, testing ideas, delivering training, and supporting businesses to become more profitable and/or sustainable.

A brief summary of the grant programmes, their intended use and eligibility criteria is presented below.

[2] This includes companies that are within the Account Management portfolio. The Account Management process is facilitated by an Account Manager (AM) – a single point of contact who provides/coordinates one-to-one support, advice and guidance to a supported company. The AM has access to a team of Specialists (within SE/HIE and through external consultants) who provide support across key areas for business growth, including access to finance and investment, innovation, market development, business improvement, organisation and strategy development.

[3] Please note that companies based in the Highlands and Islands Enterprise (HIE) region can access RSA and SMART awards and the evaluation included a limited number of consultations with HIE executives and case studies that operate from the region.

Regional Selective Assistance (RSA) is one of the main forms of financial assistance (provided through both SE and HIE) to industry and offers grants to investment projects that will create and safeguard net employment in 'Assisted Areas'[4]. Funding awards range from <£100k, £100k - £250k, and > £250k, and the intervention rates are dependent on company location and (employment) size.

SMART: SCOTLAND is available to SMEs undertaking feasibility studies and R&D projects that have a potential commercial application. For feasibility studies lasting between 6 and 18 months, a maximum grant of £100,000 is available, and for projects lasting between 6 and 36 months, a maximum grant of £600,000 is available. Applicants must be an SME, university spin-out or an individual based in Scotland, and projects should exhibit an advance in technological innovation. SMART grants are available to businesses that operate in both the SE and HIE regions.

Research & Development (R&D) grants support projects that will lead to innovative new products, processes, and services to improve company competitiveness and benefit the Scottish economy. Lasting between 6 and 36 months, projects must be based in Scotland and must be new, as the grant will not cover routine or periodic changes made to products, processes and services. The amount of funding offered is at the discretion of SE and can cover up to 50% of project costs.

Training Plus is used to encourage investment in training by companies in Scotland. The funding is open to enterprises of all sizes with an intervention rate of 50% for large companies and 70% for small companies. Training projects can receive a maximum grant of €2m. There is also a Training for Disadvantaged Workers grant fund.

High Growth Spin-out Programme (HGSP) supports the pre-commercialisation of leading edge technologies emerging from Scottish universities, research institutes, and NHS Boards with a funding offer of up to £750,000. Projects must have the potential to create a Scottish company that could achieve £5m turnover or commercial investment of £10m within five years. The project must be approved by the principal/director and commercialisation office of the relevant institution and must not have carried out any pre-production developments or prototyping.

[4] Assisted Areas are those areas where regional aid can be offered to businesses under state aid rules to support the geographical and sectoral rebalancing of the Scottish/UK economy.

Proof of Concept (POC) is a historical grant which was paid prior to the establishment of HGSP grants. It aimed to develop intellectual property (IP) by extending the applicability of IP, improving confidence in its anticipated commercialisation, and underpinning the validity of its claims.

Environmental Aid encourages investment in environmental protection measures by companies in Scotland to secure both long-term economic impact benefits to Scotland and help achieve national low carbon targets. Eligibility and amount of funding varies across the different types of environmental aid on offer.

Young Innovative Enterprise (YIE) is a historical award that provided high-intensity support to young companies with extraordinary growth potential and significant funding needs.

1.1.1 SE Grant Awards – Value and Number of Awards

Over the period 2009/10 – 2017/18, SE awarded c. 1,300 individual companies almost 1,700 grants. The total value of grants awarded (but not necessarily paid out) is £512 million, see **Table 1.1**.

Table 1.1: SE Grant Awards, 2009/10 – 2017/18

Grant	Nos. of Grants	% of all Grants Awarded	Value of Grants (£m)	% Value of All Grants Awarded
RSA	863	51%	289	56%
SMART	608	36%	67	13%
R&D	89	5%	101	20%
Training Plus	50	3%	25	5%
HGSP	28	2%	4	1%
Proof of Concept	28	2%	10	2%
Environmental Aid	13	1%	12	2%
YIE	6	0%	4	1%
Total	**1,685**	**100%**	**512**	**100%**

Source: Scottish Enterprise
Note: the table presents the number and value of grants awarded, not what has been drawn down

Some key points to note include:

- as highlighted, only RSA and SMART grants are available to companies based in the HIE region. Companies based in the Highlands an Islands were awarded only a small proportion of grants (both by number of awards and value):
    - RSA - 29 grant awards to companies in the Highlands & Islands (representing 3.4% of the total number of grants approved)
    - SMART - 17 grant awards to companies in the Highlands & Islands (representing 2.8% of the total number of grants approved);
- RSA has been the primary means of supporting companies, and accounts for more than half the total number of grants awarded (by number and value);
- R&D grants only represent 5% of the total awards but 20% of the total value - indicating that these grants (on average) are of a proportionately larger value than other grant awards;
- of the 1,300 companies supported, 240 (19%) have been awarded more than one grant[5]:
    - 201 have accessed more than one grant from the same grant programme
    - 84 accessed more than one grant from multiple programmes;
- in terms of the value of grants awarded this varies significantly across the programmes:
    - 657 grant awards (39%) were for less than £100,000
    - 100 grant awards (6%) were for more than £1 million, however, these larger awards accounted for c. 50% of the total value of the grants awarded. The largest grant award was an RSA award for £9 million; and
- around two-thirds of the grants (by value) were awarded to companies that were/are Account Managed.

[5] Please note that where companies have accessed more than one grant from the same grant funding source and more than one grant from multiple grant funding sources – these companies have been counted twice, therefore the figures above do not sum to 240.

It should be noted that, as mentioned above, not all the grant awards that are approved are fully drawn down and/or paid out. The reasons for this include; some are accepted but the project does not proceed, some projects may change during the course of delivery so the full amount is not required, or the project does not meet the required eligibility criteria or contract milestones and the grant is repaid.

1.2 Reporting Structure

The report is structured as follows:

Chapter 2 presents a summary of the research approach and process.

Chapter 3 provides an overview of the current and emerging policy landscape and priorities that have, and will continue to, influence the future delivery of SE's grant programmes.

Chapter 4 summarises the feedback from strategic stakeholders, partners and SE operational and delivery staff.

Chapter 5 provides the detail of the company case studies.

Chapter 6 presents the conclusions and key messages.

Chapter 7 outlines the issues for further consideration.

2. Research Approach and Process

The review was designed to be qualitative in nature to complement an econometric analysis undertaken by the Fraser of Allander Institute (FoA) at the University of Strathclyde (over the period January to September 2019) and analysis of management data conducted internally by SE.

As such, our research has a strong focus on consultation and engagement across a broad cross section of strategic and delivery staff from SE, HIE and partners, and 'case studies' with companies that have received grant support over the period 2009/10 to 2017/18. It should be noted that much of the feedback is therefore anecdotal in nature with consultees not necessarily having access to empirical or monitoring data to support or validate their feedback.

The views and feedback gathered through the consultation research are synthesised and where appropriate we have attributed feedback to specific groups (e.g. strategic stakeholders, operational/delivery staff and companies). Throughout, the feedback has been supplemented by EKOS insight and analysis.

2.1 Research Objectives

Specifically, the research objectives were to complete a programme of detailed, semi-structured consultations to explore, test and validate the following:

Application and Rationale

- application process, compliance, and follow-up (aftercare and gathering M&E data);
- eligibility criteria;
- promotion/marketing – what worked well/less well;
- rationale for intervention, and in particular the 'need' for grant support - is there an evidenced/demonstrable market failure and how does the grant address the root causes?;
- other sources of funding that were available and considered, and why they were not 'appropriate';

- the counterfactual – what would the company have done in the absence of funding – e.g. accessed other funding sources, delayed project, etc; and
- appropriateness of the grant award in comparison with other types of finance (e.g. loan / equity funding).

Delivery of Grant Support

- how was the grant used;
- added value that the Account Management system brings – the role of the Account Manager, ability to draw down other (complementary) grant and/or wrap-around support from SE and other providers; and
- linkages with other SE products/grants and support providers – complementary or duplication of provision etc.

Impact of Grant Support

- the impact of this support on the company - what were the immediate outputs and longer-term outcomes and impacts;
- the additionally of impacts - scale, timing and quality;
- the difference that funding via alternative finance types (loan, equity, etc.) may have made to impacts; and
- identifying themes regarding what drives or limits impacts and what can be done to maximise impacts.

2.2 Consultation and Engagement

A summary of the consultation programme that informed the research is presented below.

Strategic Stakeholders

Interviews were undertaken with senior SE staff that have an operational, management, or policy development role in relation to the grant awards. These internal consultations were supplemented by interviews with partners, including HIE and the Scottish Investment Bank (SIB).

In total, 13 interviews were completed with strategic stakeholders.

Operational and Delivery Staff

In order to get a clearer sense of the operational issues, challenges and opportunities we hosted four participative workshops with a selection of SE delivery staff.

The sessions comprised: grant appraisal staff (responsible for appraising and approving applications), grant management staff (responsible for setting/issuing the terms of the awards and administering the grants) and Account Managers.

A breakdown of the sessions is presented in **Table 2.1**. In total, we engaged with 29 SE operational/delivery staff through the workshop sessions.

Table 2.1: SE Delivery and Operational Staff Workshops

Workshop Focus	Nos. of Attendees
SMART/R&D grants	10
RSA grants	8
Training Plus grants	6
Account Managers	5

Company Case Study Interviews

The primary focus of the review was to complete 'case studies' with companies that have received grant support over the period 2009/10 to 2017/18.

A sample population of 100 companies was selected by SE to participate in the review, thereafter direct contact was made by the Account Manager or appraisal officer to seek and encourage their participation and to identify the relevant contact(s)[6].

In total, 38 company case studies were completed which involved multiple interviews with some companies - resulting in a total of 50 individual interviews. In total these companies accessed 86 individual grant awards at a total value of £61.6m.

The case studies were supplemented by additional interviews with the SE staff who were involved in the project development or grant appraisal and approval process.

[6] It is important to note that the sample was not randomised but self-selected and as such may bias conclusions.

Interviews were typically undertaken with the Account Manager or Project Manager, Appraisal Officer and Grant Manager.

In total we undertook a further 125 interviews with SE operational colleagues.

Further detail on the profile of the case study companies is presented in **Chapter 5**.

3. Policy Context

This chapter sets the scene for the review, and takes account of the historical and emerging UK and national regulatory and policy landscape that has, and will continue to, influence SE's grant programmes.

3.1 Historical Policy Changes

Over the review period there have been numerous changes to the strategic and regulatory framework that govern SE's grant programmes, including changes to the level at which the public sector can provide financial support (intervention rates[7]), the type of companies and project activity that is eligible for financial support (eligibility criteria), and funding/repayment conditions.

Some changes have had a fundamental knock-on impact on how and when SE can intervene, and on the support it can provide to companies. Key changes include:

- changes to RSA eligibility criteria in 2014/15 driving a reduction in RSA grants for large companies unless they were diversifying their business activities in Scotland;
- an increase in R&D grant intervention rates in 2015/16 driving an increase in the number of R&D grant awards;
- changeover from Proof Of Concept (POC) grants following the introduction of HGSP grants in 2015/16; and
- introduction of Environmental Aid grants in 2014/15.

Tables 3.1 and **3.2** (over) present the changes in the annual number and value of grant awards approved, broken down by the different programmes (2009/10 - 2017/18).

[7] The intervention rate relates to the proportion of the total project cost that is eligible for grant funding – these are set by the General Block Exemption Regulations and SE internal policy.

Table 3.1: Annual Value of Grant Awards (£m), 2009/10 – 2017/18

	RSA	R&D	SMART	Training Plus	Enviro Aid	Proof of Concept	HGSP	YIE	Total
2009/10	£49.5	NA	£4.0	£2.5	NA	£1.2	NA	£0	**£57.3**
2010/11	£24.4	NA	£7.1	£3.0	NA	£1.0	NA	£0.5	**£36.1**
2011/12	£32.6	£4.2	£4.8	£3.5	NA	£0.8	NA	£0	**£45.8**
2012/13	£36.1	£3.0	£8.6	£0.7	NA	£1.4	NA	£3.0	**£52.7**
2013/14	£51.0	£11.4	£7.2	£2.6	NA	£2.2	NA	£0.5	**£74.8**
2014/15	£48.9	£8.0	£8.6	£2.9	£0.5	£3.0	NA	NA	**£71.9**
2015/16	£16.5	£10.2	£9.9	£0.7	£1.5	£0.9	£0.8	NA	**£40.5**
2016/17	£16.2	£22.5	£8.2	£1.7	£0.3	NA	£1.3	NA	**£50.2**
2017/18	£14.0	£41.3	£8.1	£7.5	£9.4	NA	£2.2	NA	**£82.6**
Total	**£289.2**	**£100.5**	**£66.6**	**£25.1**	**£11.7**	**£10.5**	**£4.3**	**£4.0**	**£511.9**
Average	**£0.33**	**£1.12**	**£0.11**	**£0.51**	**£0.90**	**£0.37**	**£0.15**	**£0.66**	

Source: Scottish Enterprise
NA – The grant was not offered during this period

Table 3.2: Annual Number of Grant Awards, 2009/10 – 2017/18

	RSA	R&D	SMART	Training Plus	Enviro Aid	Proof of Concept	HGSP	YIE	Total
2009/10	112	NA	49	11	NA	5	NA	0	**177**
2010/11	101	NA	76	8	NA	7	NA	1	**193**
2011/12	93	3	53	4	NA	2	NA	0	**155**
2012/13	112	3	72	5	NA	3	NA	4	**199**
2013/14	118	8	60	2	NA	4	NA	1	**193**
2014/15	119	10	80	4	1	5	NA	NA	**219**
2015/16	67	10	76	2	2	2	7	NA	**166**
2016/17	65	27	76	2	2	NA	9	NA	**181**
2017/18	76	28	66	11	8	NA	12	NA	**201**
Total	**863**	**89**	**608**	**49**	**13**	**28**	**28**	**6**	**1,685**

Source: Scottish Enterprise
NA – The grant was not offered during this period

A high level summary of the grant awards that have been approved is presented[8]:

- RSA:
    - average grant award of £330,000 with a range of £15,000 to £9 million
    - 62 grants approved (7.2%) were for more than £1 million;
- R&D:
    - average grant award of £1.1m, ranging from £27,000 to £7.3 million
    - 38 grants approved (43%) were for more than £1 million;
- SMART:
    - average grant award of £110,000 with a range of £22,000 to £600,000
    - On average, development projects were awarded larger grants than feasibility projects (£290,000 and £86,000 respectively);
- Training Plus:
    - average grant award of £510,000 with a range of £20,000 to £1.8 million
    - 10 grants approved (20%) were for more than £1 million;
- Environmental Aid:
    - average grant award of £900,000 with a range of £30,000 to £4.5 million
    - 4 grants approved (31%) were for more than £1 million;
- Proof of Concept:
    - average grant award of £370,000 with a range of £170,000 to £800,000;
- High Growth Spin Out:
    - average grant award of £150,000 with a range of £50,000 to £400,000; and
- Young Innovative Enterprise:
    - average grant award of £660,000.

[8] Figures have been rounded.

3.1.1 Regional Selective Assistance

In line with the new European Union (EU) structural and investment funding period (2014/20), guidelines for providing Regional Aid were amended in 2013/14 to reflect the relative economic performance of all EU member states. Regional State Aid is designed to promote the development of disadvantaged regions, and is a constantly shifting landscape as economic conditions and performance change.

The General Block Exemption Regulations (GBER) provide State Aid cover for most SE products, and the new map (2014 - 2020) changed the areas designated with Assisted Area status – this now covers 41% of Scotland's population. While the population designated as residing in an "Assisted Area" has increased from the previous funding period, the maximum intervention rate has been reduced by 5% for SMEs and large companies within Assisted Areas[9].

Further, the GBER introduced additional conditions and regulations with regards to the support that can be provided for large companies (250+ employees). The maximum intervention rate was reduced from 15% to 10% and only existing companies that set up a new standalone establishment (indigenous or inward investor), or diversified the activities of an existing establishment are eligible to receive regional aid.

As a result, the annual number of applications approved has reduced by 40% - 50% per annum. A review of monitoring data shows that: over the period 2009/10 to 2013/14, under the previous regulations SE approved 536 RSA grants worth a total value of c. £194m - averaging 110 grants and c. £39m per annum.

Over the period 2014/15 to 2017/18, under the current regional aid framework the average annual number and value of RSA awards has dropped to 80 awards and c. £24m per annum. This further highlights the impact of the changes made to the eligibility criteria.

[9] Further detail and an interactive map of the UK Assisted Areas is available on the UK Government website, here and here

In practical terms the regulation changes have had little material effect on the eligible project activity that SMEs can receive support to deliver (albeit the maximum level at which they can be supported has decreased).

However, the changes in the regulations have had a significant impact on how SE engages with, and supports, large companies. An internal review (undertaken by SE appraisal staff) of the two year period before the changes were implemented (2012 to 2014) identified that under the previous GBER there were 235 accepted RSA grant awards; of which 52 were for large businesses. Of the 52, only 11 would have been eligible for RSA under the new regulations[10].

We have provided a practical example of where these changes have limited SE's ability to work with large companies.

If we consider a large manufacturing company (250+ employees) that sought to increase the production capacity and productivity at an existing site through the expansion of its premises and purchase of new equipment and machinery. Under the previous regulations (pre-2014) this activity would have been eligible for financial support under the regional aid eligibility criteria. However, under the new regulations the project would not be eligible unless **a)** the activity taking place represented a new area of business/economic activity (e.g. development/manufacturing of a new product) or **b)** the expansion took place off-site at a new location.

3.1.2 Research and Development

There are numerous studies[11] that demonstrate at a macro-economic level, there is a strong link and correlation between R&D expenditure and higher levels of productivity[12].

Scotland has consistently been 'low-mid table' in comparison with other OECD countries in terms of R&D expenditure as a percentage of GDP. Specifically, the Scottish Government has ambitious targets for increasing investment within business R&D (commonly referred to as Business Enterprise Research & Development, BERD) – doubling the level of spend between (2015 and 2025)[13].

[10] Please note that these findings are based on an internal review undertaken by SE and we are unable to provide further commentary on the specific regulatory changes that impacted upon eligibility.
[11] UK Government, Innovation Report 2014; see here
[12] See for example The Economic Rationale For Public R&I Funding And Its Impact: EU 2017, see here
[13] The Scottish Government, The Programme for Government 2017 to 2018.

As the enterprise agency, SE therefore has a key role in stimulating, catalysing and leveraging greater levels of BERD within the company base.

A comparative analysis of European countries undertaken by SE in 2015 looked at BERD (as a proportion of GDP) and the R&D grant funding streams that were available to businesses. The research showed that countries that had a higher proportion of R&D expenditure such as Finland (3.5% of GDP), and Germany (2.1% of GDP)[14] also offered comparatively higher levels of financial intervention to support R&D activity.

Table 3.3 presents detail on the average value of SE R&D grant awards in comparison with the maxim intervention allowable.

Table 3.3: SE Intervention Rates (2006/07 – 2013/14)

	Large Companies	SMEs
SE R&D Grant – average offer	17%	23%
Allowable under EU regulations for Industrial Research	50%	70%
Allowable under EU regulations for Experimental Development	25%	45%

Note: SE policy allows large companies to receive up to 25% and SMEs 35% for eligible costs, however, the average level of grant awarded has historically been below this threshold.

SE offered R&D grants that are were well below the maximum level permitted under EU regulations. Feedback from strategic stakeholders within SE identified that, while the grant awards are not the only contributor (or even the biggest)[15] to supporting and encouraging business R&D, the comparatively lower intervention rates were seen as contributing to Scotland's low levels of investment in business R&D.

Further, SE's 2015 comparative analysis[16] of European countries noted that

- over the period 2012 to 2015, numerous EU countries increased the level of at which they supported company R&D and innovation (i.e. increased the intervention rate). The level at which the public sector was supporting Scottish companies remained static during this period.

[14] SE Internal Analysis, Achieving SE's ambition for Business Expenditure on R&D, 2015

[15] Scottish Government data on BERD shows that in 2017, 7% of all business R&D activity was funded through public sector, down from 10% in 2012. See here for further details.

[16] SE Internal Analysis, Achieving SE's ambition for Business Expenditure on R&D, 2015

For example, Scotland's business R&D spend as a proportion of GDP has remained around 0.4% to 0.6% for the past 10 years, whilst within the EU the average is 1.1% to 1.3% of GDP;

- SE funding for others schemes that supported R&D and innovation activity such as the Innovation Centres[17] and Catapults was decreasing and the grants were viewed by SE as important to help "fill the gap";
- the grant intervention rates are viewed by SE as the main differentiator between Scotland and other EU countries (other forms of innovation and R&D support are broadly comparable). It is therefore viewed as a key factor explaining lower performance;
- there have been previous examples of where Scotland was unsuccessful in securing large-scale mobile inward investment and the comparatively lower intervention rates were identified as a contributing factor[18]. For example, one opportunity was lost to Ireland where the public sector was able to offer a combination of grant and tax relief as part of an overall package;
- changes to RSA eligibility meant that the R&D grant became an important intervention to attract inward investment and ensure Scotland provided a competitive offer to mobile investors[19]; and
- the wider evidence[20] identifies that in addition to R&D spend there are a range of other factors that make a country/region more or less 'fertile' as a place to innovate, including the; availability of education/training; knowledge creation and transfer infrastructure; entrepreneurship culture; financing of innovation/access to finance; regulatory framework/government policies; and the availability and quality of business support services.

[17] Please note that following the phase 1 review of the Innovation Centre Programme in 2016, Phase 2 of the Innovation Centres includes financial contributions from SE. Phase 1 report is available here.

[18] The details of these opportunities are confidential.

[19] This therefore suggests that in addition to being used to drive up BERD activity, the R&D grants are also being used to "fill the funding gap" for large companies that are no longer eligible to receive RSA. This is considered further in future chapters.

[20] Technopolis – Scotland's Innovation Proposition, July 2015.

In order to help meet the Scottish Government's ambitious targets for BERD and to encourage/stimulate new R&D activity, a "composite intervention" rate was introduced[21]. This allowed individual work packages to be assigned a different R&D status.

The subsequent changes to the R&D grants were implemented in September 2015:

- the **minimum** intervention rate for a large company R&D grant award was reset to 25%, with an option to increase this by means of a composite intervention rate. Following EU policy guidelines, this allowed for up to a maximum of 40%; and
- the **minimum** intervention rate for an SME was reset to 35%, with an option to increase this by means of a composite intervention rate. Following EU policy guidelines, this allowed for up to a maximum of 50%.

Please note that previously there was no minimum intervention rate, however, as identified above, the average grant award approved was well below the maximum that was allowed.

The following trends across the R&D grants have been evident:

- between 2011/12 and 2013/14 there were 14 R&D grants awarded at a total value of c. £18.5 million (mean average grant award of c. £1.3m); and
- between 2014/15 and 2017/18 there were 75 R&D grants awarded at a total value of c. £82 million (mean average grant award of c. £1.1m).

While the average award value has remained broadly consistent, the total number of R&D awards has increased significantly from an average of four per annum to 19[22].

As identified in the feedback presented in later chapters, it is challenging to separate out the drivers for this increased uptake. It is likely a combination of: the increased intervention rates, an internal "push" from SE colleagues to drive up BERD activity, and changes to RSA eligibility i.e. R&D grants being used to "fill the RSA gap".

[21] For example, projects could be broken down into 'industrial research' and 'experimental development' and therefore be eligible for different levels of intervention.
[22] It should be noted that R&D awards were only introduced to the SE grant product portfolio in 2011/12 which likely had some impact on the lower levels of take-up in the earlier years.

3.1.3 Proof of Concept (POC) and High Growth Spin-Out Programme (HGSP)

The POC Programme was SE's grant funding intervention to support commercially focussed knowledge transfer from Scotland's academic research base. The aim was to test and develop the technology, build the commercial proposition, and aid the transition from idea to business start-up.

The focus of SE's intervention changed (c. 2015) with the new emphasis on supporting the formation of 'companies of scale' to spin-out from the research base. In practice, the changes meant that the HGSP had a target to support spin-out opportunities to achieve a growth profile of £5m turnover or £10m investment within five years.

In terms of programme delivery, there were five main changes that differentiated the HGSP from its predecessor programme (POC):

1. Earlier engagement with the academic research team to ensure the project has a strong commercial focus and application.
2. Focus on creating spin-out companies – not simply licencing of IP and technology, and other commercial outcomes. This was supported by:
    - measurable commercial milestones for the duration of the project
    - matching with a Commercial Champion[23] that leads the project
    - prioritising investor engagement.
3. Active Project Management, including peer review by an external panel of experts.
4. Flexibility – to terminate or disengage should the project not meet the technical or commercial milestones.
5. Provision of convertible loans as a "bridge fund" at the spin-out stage (prior to the spin-out securing external investment).

[23] Commercial champions are entrepreneurial individuals that are recruited (usually externally) to lead the strategy and business development of the proposed spin-out to help source and generate investment, develop market opportunities, etc.

The changes to the Programme resulted in a notable decline in the number of project propositions receiving funding (decreased from c. 30 - 40 to 8 - 10 applications per annum), and increased the average funding award (average grant award has increased from c. £150,000 - £200,000 to £300,000 - £400,000).

Consequently, the proportion of supported projects 'spinning out' and becoming incorporated has increased from 20% under POC to 60% under the HGSP. The increased levels of funding awarded and recruiting of a commercial champion to help develop the commercial aspects of the spin-outs are seen by SE and the technology transfer teams within the universities as an important driver for the growth in companies successfully spinning out from the Higher Education research base.

3.1.4 Training Plus

The conditions associated with the Training Plus grant were updated following the changes to Regional Aid regulations in 2013/14. There were two key changes:

- accommodation costs to cover employees travelling to off-site locations to access training were no longer eligible; and
- removal of the 'general and specific differentiation' clause[24].

In response, SE updated the Training Plus policy (2014/15) as follows:

- removal of the 50% cap on internal project costs (e.g. covering salary costs for the time spent by employees on delivering training) - this is now considered "by exception" on a case-by-case basis. This now means that companies can pay their own staff to deliver training; and
- 'Disadvantaged and Disabled Support' - discretionary funding for staff training to encourage companies to recruit disadvantaged or disabled workers. This also included a wage subsidy element.

[24] The clause set different intervention rates for eligible activity; training for 'specific' machinery/technology (up to 25% of eligible costs) and training that was more 'general' and could be transferable across sectors (up to 50% of eligible costs).

3.2 Emerging Policy

This section considers the emerging policy context that has/will influence the delivery and management of SE's grant products.

3.2.1 SE Strategic Framework 2019/22

SE launched its new Strategic Framework – Building Scotland's Future (June 2019)[25] – which sets out the organisation's ambitions for the future of Scotland's economy, and new ways of working and doing things.

SE's vision and purpose are articulated as follows:

- Vision – an economically vibrant Scotland making a positive impact on the world; and
- Our Purpose – create more, better jobs that nurture shared wealth and collective wellbeing.

Strongly aligned with the Scottish Government's Economic Strategy and National Performance Framework, there is a commitment to working more strategically, including with key partners, to support businesses to "create more, quality jobs that reduce poverty and support businesses, communities and families across Scotland".

Enhancing wellbeing, alongside sustainable and inclusive economic growth, are key cornerstones of the Strategic Framework, which also presents SE's new three-year Corporate Strategy and 2019/20 Operating Plan. The focus is on addressing long-term challenges and positioning Scotland to exploit future opportunities.

[25] Scottish Enterprise, Building Scotland's Future Today

Table 3.4: SE Strategic Framework 2019/2022

Corporate Plan Ambitions	Operating Plan Objectives
• Build vibrant economic communities across Scotland, spreading increased wealth and wellbeing • Build Scotland's reputation and reach in strategically important markets • Build resilience and growth in Scotland's businesses, sectors and regions • Build future economic opportunities that will drive our international advantage	• Attract, create and protect quality jobs and talent that will support wellbeing across Scotland • Drive research and innovation investment in businesses and sectors • Stimulate capital investment in local, regional and national economies • Give more businesses across Scotland the best chance to fulfil their potential • Grow export value and the number of exporters

A couple of points are worthy of further comment.

First, a Fair Work First approach is being adopted – ensuring that public sector support helps to create better quality jobs, and which considers pay, workplace environment, skills utilisation, and job security. As well as creating more employment opportunities for more challenged communities and for a more diverse workforce. This includes "making job-related grants contingent on fair work practices, including job security and payment of the real living wage".

Secondly, there is a focus on place-based approaches to help redistribute opportunity and contribute to inclusive growth. Across Scotland there is a growing policy emphasis on regional and place-based collaboration, as can be seen with the emergence of City and Region Deals and Regional Economic Partnerships (identified as a key action/recommendation in the Enterprise and Skills Review[26]).

There is a renewed focus within the Strategic Framework on place-based approaches to help deliver on economic development ambitions and a fairer Scotland for all – including greater targeting of under-invested communities[27]. There is a commitment to support a broader company base and to tackle issues such as regional pockets of deprivation to help ensure that companies realise their growth potential.

[26] Enterprise and Skills Review (2017), see here

[27] Please note that there is no definition within the new Framework for "under-invested communities". However, it is likely to include communities that suffer from widespread and multifaceted deprivation (as identified within the Scottish Index of Multiple Deprivation) and areas where there are proportionately lower levels of business activity and investment (for example, in R&D). As a consequence, some of these communities will likely overlap with the "Assisted Areas" as defined in the GBER, and may be eligible to access RSA.

With these new emerging policy priorities there is an opportunity for SE to align its grant awards with place-based approaches to delivering inclusive economic development. For example, this could include aligning support with the emerging Regional Economic Partnerships or 'regional calls' for projects in areas where there is a lower take-up of awards, face greater levels of disadvantage, or where there is sector or cluster strength that could be exploited. There are examples where SE has successfully stimulated activity and driven up demand for support by adopting a specific sectoral focus, most notably in the oil and gas sector (predominantly located in Aberdeen and the east coast).

We consider what this targeted approach might look like further within the **Conclusions** (**Chapter 6**).

3.2.2 Digital Transformation and Single Entry Point (SEP)

Scotland's Digital Strategy, *Realising Scotland's full potential in a digital world: a digital strategy for Scotland* identifies a number of key actions to deliver against its vison that "*Scotland is recognised throughout the world as a vibrant, inclusive, open and outward-looking digital nation*[28]".

Among these actions is utilising digital technologies to simplify and streamline public services through improving service delivery and sharing data – improving the customer journey, delivering better outcomes, and generating efficiencies.

SE is in the latter stages of designing its Digital Transformation Strategy with a view to launching it in c. 2020[29]. It will adopt a customer focused approach that will help modernise and improve how SE engages with companies across three key areas: process, people, and systems.

Over the next 12 to 18 months it is anticipated that a number of service delivery improvements will be rolled out across all SE products (including the grant programmes).

[28] Digital Scotland/The Scottish Government, A Digital Strategy for Scotland, 2017
[29] A definitive launch date has not been publicly announced.

The Digital Transformation Strategy will help deliver a number of potential impacts and benefits for the appraisal, management and delivery of the grant programmes, including:

- driving efficiencies within the application and appraisal process in terms of cost, staff input and timescales – freeing up staff resource to work with companies;
- ensuring grants are assessed and appraised in a transparent and consistent manner based on company need and opportunity – supporting inclusive growth principles through access of opportunity to the broader company base;
- minimising the elapsed time for processing applications and companies receiving a decision;
- improving the evidence base – using the data gathered at all stages (application and through project monitoring) to inform SE support and engagement/interaction. This will help transform data into intelligence and provide insights into company and market opportunity; and
- streamlining the due diligence process and evidence requirements for projects that are considered "lower risk".

3.2.3 UK Industrial Strategy

The Industrial Strategy Challenge Fund provides funding and support to UK businesses and researchers. The fund is part of the UK government's £4.7 billion commitment to increase investment in research and development as a driver of productivity and innovation.

The fund is on its 4th funding wave (as of October 2019) and is designed to ensure that research and innovation takes centre stage in the Government's Industrial Strategy.

Delivered by UK Research and Innovation (UKRI), UK Government has worked with businesses and academics to identify the core industrial challenges where:

- the UK has a world-leading research base and businesses ready to innovate; and
- there is a large or fast-growing and sustainable global market.

These challenges are aligned with the Industrial Strategy's four grand challenges, namely:

- Artificial Intelligence and Data;
- Ageing Society;
- Clean Growth; and
- Future of Mobility.

Scotland already benefits from this grant programme with awards having been made to the following projects:

- Accelerating the 4th industrial revolution across Scotland's Central Belt;
- Clyde Waterfront Innovation Campus;
- Global Centre of Excellence in Open Banking (COB); and
- The Living Lab: Implementation of Precision Medicine.

EKOS' view is that the Challenge Fund is complementary to the grants programme and has been used to successfully leverage significant investment into a range of revenue and capital project activity across Scotland. We would nonetheless, caution that, given the similarities between the scope of project activity that can be supported through the fund and SE grant programme (notably the R&D awards) there is potential for some overlap.

3.2.4 Account Team Working Approach

SE and HIEs Account Team Working approach represents the evolution of the Account Management system with the aim of delivering an enhanced service for clients and customers. This is achieved through the development of systems that encourage and enable SE colleagues and other partners/intermediaries to engage in "active co-ordination and open communication" when working with clients.

The broad principles of the Account Team Approach include:

- appointment of a team leader to co-ordinate inputs and activities - including identifying other relevant team members that could add value to the process;
- collective agreement on the objectives for the company and establishing and managing the delivery of an "Account Plan";
- proactive communication, engagement and feedback among team members – assigning roles to individuals who will lead on particular aspects of a project, and who will be the overall project owner;
- tracking the progress of the company and the team (ongoing self-assessment); and
- identifying any additional (internal or external) resources and support requirements where appropriate.

The Account Team approach has implications for the grant programmes as SE and partners seek to develop a more strategic relationship with companies.

3.2.5 Financial Transactions

The Scottish Government introduced Financial Transactions[30] in 2016/17as a complementary funding source for investment in companies. The funds are managed and administered by SE's investment arm, the Scottish Investment Bank (SIB), and are offered on 'fully commercial terms and conditions'[31].

The available funding sources include debt funding (e.g. fixed term loans) and equity funding (co-investment funds).

Since its inception, the value of the Scottish Government's Financial Transactions budget to support Enterprise, Trade and Investment has grown significantly from £35m in 2016/17m to £253m in 2019/20[32].

[30] These are allocated by HM Treasury to the Scottish Government and can only be used for the provision of loans or equity investment beyond the public sector i.e. they cannot be used to fund public service. The Financial Transactions are repayable to HM Treasury.

[31] Conditions are linked to the financial and technical risk of the investment and expected returns – they are set on a case-by-case basis.

[32] Scottish Government budget 2019/20, Table 7.06: Enterprise, Trade and Investment Spending Plans (Level 3) see here

A strategic priority for SE (and other public sector partners) is to evolve a funding model where it part-finances sustainable projects that generate a return for its investment. This includes integrating Financial Transactions into the wider package of support available to companies, for example through the use of blended funding packages that combine grants, loan and equity funding.

This potentially has significant implications for how SE and HIE engages with companies, and is considered in greater detail in the following chapters.

3.3 Policy Context Implications

This final section summarises EKOS' view on the main implications and impacts that the evolving policy environment has had on the SE grant programmes - these are explored further and reflected through the stakeholder consultation feedback and conclusions (**Chapter 4** and **6**, respectively):

Changes to RSA Eligibility

The changes to RSA eligibility has had two significant (interconnected) impacts in terms of the practical delivery and operation of the grant programmes. First, it has changed how SE can support large companies located within the Assisted Areas. Secondly, this has had a knock-on impact for other programmes (in particular R&D), which are now effectively being used as a direct replacement to "fill the gap" left by the changes to RSA eligibility.

This finding raises a number of interesting questions:

- is there a gap in the support provision for large companies and is this having a negative knock-on effect?;
- if other grant programmes such as R&D are being used as a direct replacement for RSA to support large companies, to what extent are these "real" R&D projects?; and
- conversely, if R&D grants are being used to fill the gap for large company support left by RSA, did the previous monitoring framework undervalue and under-represent the level of R&D activity that was being supported by RSA?

EKOS' view is that there are currently a number of other funding programmes (delivered by SE and external partners) that are available to large companies, and as evidenced by the monitoring data, the total annual number and value of grant awards approved by SE has remained relatively consistent. Therefore, while the changes to RSA have had a short-term negative impact, any perceived or actual gaps in the support has largely been addressed by filtering large companies to other grant programmes.

With regards to the final two sub-bullet points and the extent to which SE has over-represented or under-represented the R&D activity it has historically supported, the monitoring data does not allow any in-depth interrogation of these two last points.

Nonetheless, the sense from the consultations is that the monitoring and reporting framework has likely under-represented the R&D activity being supported. This is supported by a high level review of SE's monitoring evidence which shows that over the review period, c. 5% of all jobs created through RSA were classified as "R&D jobs". However, these won't necessarily have been captured within the reporting and performance data i.e. the R&D jobs are simply captured as jobs created.

Inward Investment

Attracting inward investment continues to be a key priority for the Scottish Government with the latest data for 2018 showing that (despite a decline in activity since 2017) Scotland remains the second most successful region in the UK outside Greater London for attracting inward investment projects[33].

The availability of non-repayable grants is viewed as crucial for Scotland to continue to compete for mobile investment – as reported within **Chapters 4** and **5** this point came thorough strongly in the discussions with stakeholders, operational/delivery staff and the company case studies.

It is worth highlighting here, and as discussed later on with **Section 4.1.2**, that the views of consultees are more subjective in nature and will not necessarily fully reflect the wider evidence base. For example, recent research undertaken by SDI in 2017 reviewed Scotland's performance in attracting and securing mobile investment[34].

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[33] Ernst & Young, Attractiveness Survey 2019, see here
[34] Strategic evaluation of SDI international activities, 2017, see here

This included consultation with recent investors and identified that the skills base and availability of a suitably skilled labour market was the main driver for investing in Scotland (citied by 37% of investors).

However, in order to secure this investment the public sector partners will often develop a wider package of support that could include; support to source premises, recruitment, supply chain development, financial aid (grants, loans, etc).

Within this wider package of support, the availability of grant funding is noted as a key differentiator when potential inward investors compared the Scottish offer with alternatives.

Business Enterprise Research & Development

Achieving the ambitious BERD and exporting targets set by the Scottish Government continues to be a key driver for SE and is again identified as a priority within the National Performance Framework (updated 2019) [35] and SE's Operational Plan (2019/20). The availability of grant funding undoubtedly has a role to play in supporting SE and the company base deliver against these priorities.

Nonetheless, it is EKOS' view that the grant programmes need to be used in collaboration with other SE and public sector support provision in order to achieve the required 'step-change' with regards to BERD and exporting.

Financial Transactions

The policy shift from non-repayable grants towards a greater use of blended funded models – combining grants, loans and equity finance – has significant implications for the grant programmes. As highlighted in later chapters, diverse views were provided on the demand for, and expected take-up of, Financial Transactions. In particular there are concerns on the potential impact of Scotland's ability to compete for inward investment with a "diluted" financial incentive.

[35] Scottish Government National performance Framework, see here

Account Team

While account team working (in its various forms) has been around for a number of years, the feedback from consultations and EKOS' view is that the current approach (to some extent) can be quite siloed as there are no formal requirements or mechanisms for engagement between SE colleagues (internal) and partners (external partners such as SDS, local authorities, SIB, etc).

This can be more challenging when relevant individuals are located in different locations, or may not know who the best person to speak with is within another organisation, etc.

Assembling a support network with all the relevant individuals at the outset with a formal remit and defined roles/responsibilities could help to improve the outcomes of the intervention. For example, this collaborative approach may support companies to develop and undertake projects that are more strategic and aspirational in nature.

Introduction of New Grant Programmes

In response to changes in policy SE have introduced new grant programmes (in the case of HGSP and Environmental Aid) or amended/updated existing programmes (Training Plus).

EKOS' view is that at the time, the introduction of the new programmes and amendments were an appropriate response to changing policy initiatives. However, this is now perhaps an appropriate time to re-evaluate the grant programmes offering as a whole to ensure it is fit for purpose and reflects the priorities of national policy.

For illustrative purposes we have provided an example of where the grant programmes offer could be updated.

Over recent years climate change and the low carbon agenda have become significant policy priorities, both in Scotland/UK and internationally. The Scottish Government has targets for Scotland to be carbon neutral by 2045[36] and this commitment is reflected strongly in the National Performance Framework and other relevant strategies.

[36] Climate Change Bill, see here

Aligned to this, SE's Strategic Framework recognises the significant market opportunity offered by low carbon industries, which have the potential to grow to over £30 billion by 2027.

The Environmental Aid grant was developed to address both these issues, however, to date the uptake has been relatively low (13 awards and £11.3m approved) and has mainly supported manufacturing companies to deliver fairly large scale projects (average award of £900,000).

There is a potential opportunity to more closely align the grant programmes to reflect these policy priorities.

SE Operational Plan 2019/20

The new SE Operational Plan has a strong emphasis on place-based approaches and inclusive growth. While it is not yet clear what the implications are with respect to the grant programmes, the new Strategic Framework (2019/22) and Operational Plan (2019/20) represent a "cultural shift" within SE that moves away from the previous approach that prioritised nationally important and higher value sectors.

One of the key challenges that SE and the grant programmes will need to address is the number and volume of businesses that are supported. Currently, only a small proportion of the business base are accessing the grant programmes, and many of these are 'repeat customers' (i.e. 19% of companies has previously received one or more grant awards).

At the very least it is understood that SE's grant offer would need to reach and support a broader portfolio of companies (by geography and sector) - promoting opportunity of access) and creating fair and progressive work (e.g. jobs that pay the Living Wage).

This therefore has implications with regards to how SE manages and utilises its resources – engaging with and supporting more companies with the same or less budget and resources.

4. Feedback from Stakeholders

This Chapter summarises the feedback from the one-to-one consultations with strategic stakeholders (SE, HIE and SIB) and from the participative workshops with SE delivery staff (account managers, appraisal staff and grant management).

The consultations/workshops covered the following broad themes:

- rationale for providing grant support;
- market failure;
- application and payments processes;
- fit with other funding and wrap-around support available to companies;
- why specifically grants (as opposed to loans, equity, etc); and
- impacts and benefits.

Where appropriate we have highlighted concurring and divergent viewpoints, and the key themes and critical learning points that emerged. The final section (**Section 4.7**) provides EKOS' view on the consultation feedback and their implications.

4.1 Rationale for Providing Grant Support

As part of the review, it is important that in reviewing the rationale for grant support we consider this from both the company and public sector perspectives – these will often be different but should be interdependent and overlapping.

Within this chapter specifically, we consider the public sector (SE) rationale for providing grant support (as opposed to other forms of support/intervention).

At a high level the rationale for public sector intervention is driven by SE's function as an economic development agency to support growth. This includes reacting to and supporting/incentivising opportunities, for example, within a particular sector or technology/service area. In addition, it was recognised that SE has a role to help address the challenges and constraints faced by companies (sometimes referred to as market failures).

Overall, the feedback suggests that there is a significant degree of consistency and overlap with regards to the issues and challenges that the grant programmes seek to address - i.e. the challenges and constraints faced by companies accessing the grants are not necessarily specific or unique to any one grant product.

The feedback from stakeholders identified four broad areas that provide the rationale and justification for public sector intervention and the provision of grant funding:

1. addressing and alleviating commercial and technical risk.
2. ensuring Scotland has a competitive public sector support offer to grow the indigenous base and attract inward investment.
3. promoting access to finance.
4. delivering against strategic priorities.

These are considered in turn below.

4.1.1 Addressing and Alleviating Risk

Addressing and alleviating risk within companies was highlighted as one of the key drivers for public sector intervention. There are two main inter-related components: **commercial/financial** and **technical** risk.

Commercial and financial risk was identified as uncertainty with regards to the scale and/or timescale for financial returns related to investment.

In the case of technical risk, this mainly relates to project activity where the commercial application or endpoint is uncertain – for example, technology that is unproven, early stage feasibility, and with products/services that are further away from the market with longer lead-in times to commercialisation.

The commonly held view from the public sector consultations (which was repeated through the private sector company case studies) is that the public sector has an important role to “pump prime” and incentivise economic activity and investment.

Stakeholders viewed the provision of non-repayable grants as an appropriate intervention to support the company base through sharing and reducing financial risk – limiting the liability/exposure of the companies being supported.

In a more general sense, Scottish companies are viewed as fairly risk averse in relation to taking on debt and equity finance (wider evidence shows that demand for finance amongst SMEs remains subdued, and data for the period 2012 – 2015 shows that there is negative net lending i.e. loan repayments are greater than the value of new loans[37].

It was reported by stakeholders that this is often linked to uncertainties around financial returns and the (perceived or actual) risk of "over-investing" in areas not considered core activity or delivering 'immediate' commercial returns (e.g. R&D and training). This risk averse approach will often ultimately result in the company under-investing in these activities.

There was little consensus among stakeholders on the drivers for this risk averse culture, however, four broad areas were identified:

- **under-capitalisation**: across SMEs in particular, where profit margins can be marginal/tight this often leads to a situation where companies choose not to invest, or do not have the capital to invest in areas where the returns are uncertain or have a long lead-in time to recoup the initial investment. For example, activities such as training and R&D are often assigned lower priority. There was no "typical company" to which this risk averse behaviour applied, which presents further challenges regarding how to target and address this constraint;
- **culture of reliance and dependency on grant awards**: while the public sector support and funding landscape has changed notably over the past 10 years, within some companies, stakeholders felt that there remains an expectation on the public sector to provide grant aid. It can also be viewed as a "symbolic gesture," i.e. the public sector values the contribution to economic growth that the company makes and is therefore willing to provide additional financial support[38].

  To some extent this is a difficult cycle to break, as feedback suggests that some relationships SE has established with companies are more "transactional" in nature i.e. the company's engagement is predicated on the expectation of financial incentives such as non-repayable grants.

[37] The Market for SME Finance in Scotland, Scottish Government. See here

[38] This does, however, raise questions regarding the extent to which these impacts are "additional". At the point of capturing and reporting impacts these are reported as "gross" and not the "net" impacts. This point is considered further in **Chapter 6**.

This therefore suggests that without the incentive of grant funding, these companies may be less likely to engage with SE/public sector in the future;

- **business leadership**: Scotland's business leaders are contributing to the 'systemic underinvestment' in wider areas of commercial activity. Wider evidence[39] identifies that there are skills gaps in the management and commercial expertise needed to grow a business. Further, specific challenges were raised by stakeholders in terms of a widespread lack of understanding (at a leadership level) of the economic and commercial opportunities that can be exploited through adoption of technology (e.g. digital, Industry 4.0, etc.).

  The importance of developing the skills of business leaders is recognised and being addressed (to some extent) through support programmes such as the Leadership for Growth Programme;

- **access to finance**: there is a commonly held view by stakeholders (particularly operational staff) that the private sector funders (e.g. banks, Venture Capital funds, Angel Investors) are contributing to this "risk averse culture". The value of investment, and their patience for securing commercial returns on their investment means that they can be reluctant to lend to companies with limited track record or invest in "far from market" activities.

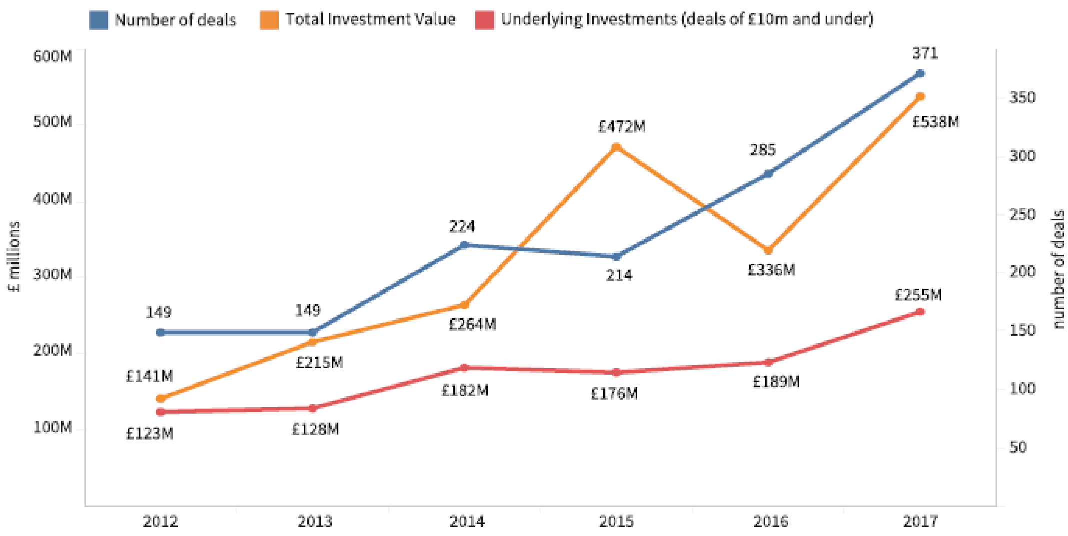
  In addition (as considered further in **Chapter 5**), there is often an expectation from private sector funders that the companies will secure grant funding from the public sector as a mechanism to reduce their level of investment and therefore their risk/exposure.

While stakeholders noted that limited access to private investment often acts as a constraint on company growth, and therefore justifies public sector intervention, this is not necessarily supported by the existing evidence base.

A review of the risk capital market in Scotland[40] identified that the Scottish market was performing strongly, and that both the number and value of investments continued to show year-on-year growth, +20% and +31% per annum respectively, **Figure 4.1**.

[39] Jobs and Skills in Scotland (2017), Skills Development Scotland, see here.
[40] See The Risk Capital Market in Scotland: Annual Report 2017

Figure 4.1: Scotland Risk Capital Investments (number and value) 2012 - 2017



Source: Scottish Enterprise

Further, the latest data shows Scotland secured the highest number of risk capital deals outside of London and the South East[41].

That being said, the data does not allow integration to the extent of crossover or whether the type of companies that are seeking grant support are also suitable, or an attractive/viable proposition for risk funding.

While we are unable to establish any correlation and/or causal relationship between the grant programmes and the risk capital investment market[42], there is anecdotal feedback and evidence to suggest that the grant programmes (in areas such as R&D) has driven investment activity, and suggests at least a potential influence (albeit a small influence) on increased risk capital investment within Scottish companies.

[41] See Investment Benchmarking Analysis: Annual Report 2017

[42] Feedback suggests that other public sector interventions and programmes such as the Scottish Co-Investment Fund which can provide up to 50% match funding to accredited investment partners are more likely to be supporting growth within the Scottish risk capital investment market.

4.1.2 Providing a Competitive Offer

The feedback from stakeholders was that the SE grant programmes play a crucial enabling role in ensuring Scotland has a “competitive offer” to support indigenous companies, attract mobile investment, and lever in new expenditure and (good quality) employment opportunities. These align strongly to key priorities outlined in the Government’s Economic Strategy.

Scotland has numerous strengths as an inward investment location (capital and FDI) including a world class research base, a relatively high skilled labour market, well connected transport infrastructure, and stable economic infrastructure. Taken together, these assets are regarded as key requirements for attracting foreign investment.

It was reported by stakeholders that large mobile investors, as the name suggests, are highly “mobile” by their very nature, and will often have different location options available to them. Scotland faces strong competition from other locations to secure such investment. This suggests a need to support the case for “why Scotland”, and there was consistent and strong feedback that the availability of non-repayable grants is a key part of Scotland’s offer.

An important parallel finding was raised by several case study companies (considered further in **Chapter 5**). The availability of grant funding often acts as a vital source of ‘match funding’, and plays an important role in securing investment in Scotland, including international investment. It is often expected (or required) that companies secure a level of ‘match funding’ from the public sector to help de-risk projects and demonstrate that they are commercially sustainable.

The public sector therefore can play an important role in bridging this gap to ensure the project has a sufficient gearing ratio[43] to secure external investment. In this sense, the grants are viewed as important drivers for leveraging private sector investment.

[43] Gearing ratios are a measure of financial leverage that demonstrates the degree to which a firm's operations are funded by capital versus debt financing.

The important role of grants as a mechanism to differentiate Scotland's offer/position is further supported by external research, including a 2017 evaluation of SDI[44] that involved case study interviews with 62 inward investors supported between 2011/12 and 2015/16. The evaluation concluded that:

- 83% of inward investors interviewed considered the finance (grants) to be the most important part of the wider support package;
- almost half of the inward investors interviewed stated that projects would not have happened at all without the support (indicating high levels of additionality); and
- the support had a positive impact on the speed and scale of inward investment:
    - c.30% stated investment happened faster
    - c.25% stated investment would have been on a smaller scale in the absence of the financial support.

4.1.3 Promoting Access to Finance

Often closely linked to risk, access to finance can still be a significant barrier to company growth. While **Section 4.1.1** (above) identifies that the risk capital market in Scotland is performing well, there are still companies that are not able to access external sources of private finance, or secure finance on appropriate terms and conditions. This is supported by wider research undertaken by the Scottish Government that shows, although subject to variance, the average annual lending gap for SMEs is £330m to £750m[45]

Stakeholders reported that this barrier is common amongst start-ups, companies with no/limited assets or trading history, and companies that require funding for feasibility studies and research related to a product/ process/ technology that is far from the market (projects that demonstrate both commercial and technical risk).

This often results in a 'funding gap' which can impact upon a company's growth or sustainability. Where companies are unable (or unwilling) to take on debt or equity finance there is sometimes a need and rationale for public sector intervention.

44 Strategic evaluation of SDI international activities, 2017, see here
45 The Market for SME Finance in Scotland, Scottish Government. See here

It should be noted that this "unwillingness" to invest will often be driven by the terms and conditions attached to the private sector financial support that is available. This includes repayments terms, interest rates, unequal distribution of equity, and personal guarantees, etc.

There is also a perceived distance from the investment market. Feedback (through the stakeholder and case study consultations) suggests that the majority of VC and Angel Investors are located in London and the South East. Therefore they are potentiality not as active or well informed of opportunities within the Scottish company base (reflecting potential market failure – information asymmetry). The grants are therefore used to address a gap in the market left by the private funders.

While this view does not always reflect the position on the ground (there are numerous business angels based in, and/or operating in Scotland[46]), the impacts are still the same – i.e. perception that investors are not accessible.

The evidence suggests that some of the challenges with regards to accessing finance relate to a knowledge gap (as opposed to any systematic failure in the market). It is worth noting that there are existing resources available to help address these issues, for example, SE's Financial Readiness team work with companies to source and secure business growth funding from a range of sources, including bank funding, equity funding, and grants.

4.1.4 Delivering Strategic Priorities

In a more pragmatic sense, SE's role as an enterprise agency with responsibility to deliver Scottish Government economic policy was also recognised by stakeholders as an important driver/rationale for providing grant support.

For example, as highlighted above in **Section 3.1.2** Scotland is losing pace with other OECD countries in terms of activity and expenditure on business R&D. Put simply, Scottish companies are not investing enough in R&D and innovation. There is a strategic drive from Scottish Government to grow Scotland's business expenditure on R&D (BERD) and deliver against the targets set out in the National Performance Framework.

[46] LINC Scotland, see here

The SMART and R&D awards are drivers of activity and investment in this area. It was reported by Account Managers and internal staff that they are actively working with and encouraging companies to develop feasibility and R&D projects i.e. projects are being developed to access specific funding awards.

This proactive approach from SE operational/delivery staff to encourage companies to apply for R&D related grant support reflects both changes within SE policy i.e. to deliver against targets to increase BERD, but also to support companies to recognise the value of investing in R&D.

4.2 Market Failure

As highlighted in good practice guidance for appraising and evaluating public sector projects and programmes[47] one of the key measures on which to justify the rationale for direct public sector intervention is the existence of market failures. Meaning, in the absence of public sector intervention, the market is unable to deliver an efficient outcome. It is therefore important that the grant programmes are assessed against this market failure rationale, and consider the extent to which they are addressing and alleviating these failures/constraints.

There are four types of market failure identified in the HM Treasury Green Book: public goods, market control/power, externalities (positive and negative), and imperfect information. Importantly, within an economic development context there is a need to differentiate between the “root cause” of the market failure and a “symptom” of the market failure. The underlying principle behind this is that in order to promote “market adjustment” the root cause of the failure needs to be targeted and addressed.

Market failure as a rationale for public sector intervention is a concept that is not universally well understood within SE and across the public sector in a more general sense, we revisit this in **Section 4.7**.

Nonetheless, in the main, consultees identified imperfect information or information asymmetry as the rationale for grant-based intervention. Put simply, this means that actors in the economy (which will include companies, lenders, investors, etc) do not have equal access to information on which to base their decision-making. In practice this can lead to risk averse behaviour and under investment.

[47] HM Treasury Green Book (2018), see here

4.3 Application, Appraisal and Payments Process

4.3.1 Application and Appraisal

Generally, the application and appraisal process was viewed by stakeholders as relatively robust and that an "appropriate" level of due diligence is undertaken to assess project eligibility and rationale. There were individual cases (as confirmed through the company case studies) where companies experienced challenges (e.g. in completing the application or providing relevant evidence). However, these were the exception to the rule.

At the application stage it was observed that SE executives play an important (often informal role) in supporting the development of project propositions, providing clarity on eligibility, and discussing the evidence requirements for the grants claims.

Of note, the operational and delivery staff highlighted that the appraisal process is a reliable mechanism to (relatively quickly) identify projects that are not eligible or appropriate for support – there are very few projects that don't get approved once they have gone through this initial 'screening' and completed the application.

The appraisal process also provides a record of due diligence and an "audit trail" to support investment decisions. This is seen as important for appraisal staff where they have to make judgement calls on higher risk projects.

It was also noted that the time elapsed to receive a decision (i.e. "time to yes or no") is often just as important as the time to receive an offer – again emphasising the importance of having an initial diagnostic tool/process that can (relatively quickly) provide a response to an applicant.

The feedback didn't identify what the internal mechanisms are for handling companies whose applications were unsuccessful (e.g. whether they are signposted to other support provision or providers, etc), however, if unsuccessful companies are within the Account Management system they are eligible for a range of other support.

While generally working well there are areas in which consultees reported that current systems and processes could be improved – some of these are more general points, whilst others consider specific points:

- the support provision and grant programmes should be responsive to ensure they keep pace with the needs of industry. Specifically, it was noted that in certain high-tech sectors market opportunities may be predicated on the company's ability to react quickly – this implies that the public sector support should be able to react to these timescales. Anecdotally it was remarked that some applications have taken up to 6 months to receive a decision (due to a combination of factors), which reflects poorly on SE as an organisation and presents a challenge for projects that are dependent on receiving a quick funding decision.

  Conversely, consultees also noted another example where a time critical project application was assessed and approved for a £1.5m R&D grant within five weeks.

- there is scope to improve the flow of project activity coming through the pipeline:
  - ensure that a pipeline of eligible and "good quality" projects across a broad geographic and sector portfolio are coming forward. For example, through adopting 'targeted' or 'weighted' appraisal criteria for sectors or geographic areas that are currently under represented (place based approaches)
  - presently, the project applications are assessed in isolation. One suggested approach to offering a consistent and integrated support offer is for the Account Team to develop and tailor a 'ladder of support' that is bespoke to company need and could include a mix of grant and other support;

- the marketing and promotion of the grant programmes was identified as contributing to constraints in the demand pipeline, specifically the:
  - online presence is limited and inadequate
  - perception among companies that the grants are targeted towards a fairly narrow scope of business sectors and projects e.g. there is a perception that R&D grants are only available to companies operating within the technology sectors

- variable levels of awareness amongst SE executives and intermediaries (e.g. Business Gateway) on the availability of grant funding and what type of activity can be supported. For example, since the change in RSA eligibility (2014/15) it was reported by operational/delivery staff that there is a common (mis)perception that RSA is no longer available to support the company base (monitoring data indicates that the number of RSA awards to SMEs has declined, but not substantially); and

- while consultees did not identify any specific cases, there was a general sense that SE's current approach to appraising applications is too "risk averse" and is perhaps more focused on protecting the public sector investment. For example, the high success and completion rate of projects (90%+ of projects are successful)[48] was highlighted as being indicative of this risk averse approach. When supporting commercially and technically higher risk projects (as was the stated rationale for many of SE's interventions) it should be anticipated/expected that a higher proportion of the projects will fail.

  As the review only looked at case studies where there was a successful intervention, EKOS are unable to comment on the extent to which 'risky' projects have been declined or not progressed.

  This is not to say that consultees felt SE should be supporting poor quality or less commercially sustainable projects, however, it was felt that there needs to be a more appropriate balance. Overall, the majority of consultees were broadly in support of SE working with higher risk projects as one approach to stimulating a greater supply of new activity, but noted the need for clear and transparent guidance at a strategic and senior management level on what "taking more risk" means and how such an approach is implemented.

[48] Please note that the definition of a "successful intervention" is bespoke to the individual award. For example, in some cases it will be aligned to achieving a technical milestone, in other cases it may relate to creating/protecting economic activity.

4.3.2 Payment Process

In the main, the claims and payment process was considered to be working effectively, with much of the evidence and reporting requirements guided by State Aid regulation. The level and detail of information and evidence required was also considered reasonable - most do not require extensive financial information and the claims process is flexible enough to accommodate variances within projects.

Despite the generally positive feedback, there was some anecdotal evidence that issues with the claims process (e.g. delayed payments) had a knock-on effect on the company's relationship with SE (tested further within the company case studies in **Chapter 5**).

The review found some specific areas that could drive improvements and efficiencies within the claims and payment process, including:

- the evidence requirements for the claims process could be set on a "sliding scale" that reflects the level of risk associated with a project and the level of funding being sought.[49] Consultees questioned whether SE needed to collect the same level of evidence for approving £20,000 and £2 million grants. For example, could the requirements for a project to be validated and audited by an external accountancy only be applied to grant awards above a certain value?;
- at the stage of setting the contract, feedback from consultees and case studies (**Chapter 5**) identified that the informal discussions with SE executives are useful in supporting the company to set realistic expectations and targets. It also helps ensure that companies understand, and have capacity to meet their obligations (e.g. RSA awards require job creation/protection to be maintained for up to three years in the majority of awards). This could become a formal requirement or component of the grant award process[50]; and

[49] To some extent this is already happening e.g. the evidence requirements for SMART feasibility awards (which can fund projects up to a maximum of £100,000) are fairly light touch.

[50] Of particular note, Training Plus awards require the development of a 'workforce training plan' which can be time consuming to develop and update (there is no standardised template) – linking up companies with SE executives familiar with developing training plans is seen as adding value to the process.

- the final progress reports (undertaken at project completion) are largely viewed as a "tick box exercise". It was highlighted by a number of stakeholders that this is a missed opportunity, both in terms of understanding the wider impact of the grant support (current metrics only measure forecast impacts) and also to assess and discuss further support needs and/or opportunities (stimulate demand and a pipeline of additional activity).

4.4 Fit with Other Funding and Support

Grant funding is viewed as an important mechanism/tool for SE to engage with, and support, companies. It has close alignment and synergy with other products and services available through Account Management and to the wider company base.

That said, consultees were less clear on whether companies were accessing 'wrap-around packages' of support from SE – i.e. grant and/or wider support (advice, marketing, business planning, etc.), or whether the grant awards were seen as, and being used as, a standalone product to deliver a specific project.

For example, an internal review undertaken by SE identified that companies approved for one or more R&D awards were more likely to access additional product support from SE and partners. However, what is not clear from the monitoring data is the extent to which grants influence the uptake of other support. This could simply reflect the nature of projects that are eligible for R&D grant support i.e. early stage research projects that require more intensive levels of engagement/support.

EKOS' view, based on both stakeholder and company feedback is that the uptake of support is very much down to the individual company and scope of project activity. Based on our qualitative research approach it is not possible to infer any casual linkages between the individual grant programmes and other support products.

Where multiple grant awards have been accessed (either from the same source or multiple sources) there were numerous company case study examples where this has been done in a systematic manner to support projects through different stages of the development lifecycle. Examples include the use of SMART awards to support early stage feasibility and proof of concept, which have then been followed by R&D grants to support scaling up in manufacturing and product development.

Training Plus has also been used in collaboration with other partners (e.g. SDS and SDI) as part of a wider package of financial support to secure large mobile inward investors.

Overall, it was reported that while grant funding is available through other public and quasi-public agencies, these are not seen as either complementing or duplicating the SE offer (although this may merely reflect the consultee's awareness and knowledge of other funding).

Some specific examples of synergy between support provision was noted, including Innovate UK and the R&D/SMART awards which have a shared agenda to drive expenditure in R&D and accelerate innovation, and Zero Waste Scotland and Environmental Aid contribute to reducing carbon emissions and the wider sustainability agenda.

Training Plus was noted as being a relatively distinct award within the SE (and wider public sector) portfolio as it focuses on skills support (mainly targeted at inward investors). There have been recent high profile examples of where Training Plus has been used in conjunction with other grant programmes and wider support provision to develop a 'package' of support to enable a large inward investor to increase its footprint in Scotland[51].

4.5 Grant Funding and Financial Transactions

There was varied recognition and awareness of the emerging policy framework in relation to Financial Transactions. This is not surprising, and reflects that the introduction of Financial Transactions in the context of economic development is still in its early stages.

The rationale for Financial Transactions is generally well understood, in spite of a perceived lack of clarity regarding the conditions and interest rates available. Overall, blended funded models are seen by the majority of stakeholders as a more commercially and strategically focused (and less transactional) approach to working with companies as the emphasis is on shared risk and reward. As quoted by one stakeholder, SE should seek to "*capitalise and commercialise the investment*".

[51] Development of Barclays Bank Buchanan Wharf Campus in Glasgow, see here for more information.

Nevertheless, there are varied levels of support for their implementation and roll-out. Some consultees reported that Financial Transactions represent a significant opportunity to drive innovation in how the public sector funds and delivers economic development through the recycling of loan and equity funding - enhancing the commercial sustainability of the support provision. Others were more cautious regarding the design and implementation.

Some specific examples of where consultees felt that the public sector would struggle to integrate the use of Financial Transactions to replace and/or complement existing grant provision were noted:

- specifically in relation to attracting (mobile) inward investment, as highlighted in **Section 4.1.2**, there are some concerns - most strongly noted by the operational and delivery staff that other countries have a more competitive financial offer. For example, they can offer higher intervention rates and tax incentives.

  As numerous consultees noted and identified within recent research undertaken by SDI[52], the availability of grant funding is almost regarded as a "pre-requisite for engagement" – part of the wider package of support that is expected by investors. Therefore, the introduction of Financial Transactions has the potential to "further dilute Scotland's offer";

- larger companies (indigenous and inward investors) - at a group level may have access to internal funding sources that have more competitive terms and conditions than those offered through Financial Transactions via SIB. This suggests a need for ongoing review to ensure financial products are positioned and targeted appropriately;

- companies at an early stage that can't take on any debt, or already have significant levels of debt or equity funding may be unable or unwilling to take on further debt/risk. Taking on further debt funding (in the form of a blended funding package) may not address or remove the risk sufficiently for the company to proceed with the project; and

[52] SQW Consulting, Strategic evaluation of SDI international activities, 2017

- higher-risk R&D and feasibility projects where the commercial opportunity is uncertain and/or has a long lead in time to market – again, traditional forms of debt funding would not be appropriate due to the risk simply being delayed (i.e. if the project is unsuccessful there is still a requirement to repay the loan).

  However, convertible loans were noted as being appropriate to support this group i.e. loans are repaid or equity released when the project reaches agreed commercial milestones.

The feedback was fairly definitive in that Financial Transactions (loans, equity, convertible loans, etc) should be used to complement the grant programmes, not replace them.

Importantly, it was felt that any new financial product would need to be designed to meet the demand and reflect the circumstances of the companies. This suggests a need for widespread engagement and consultation with companies and wider partners/stakeholders to ensure the product is tailored appropriately[53].

4.6 Impact and Benefits

4.6.1 Impact and Additionality

There was widespread and universal agreement among consultees that their perception/understanding is that the grant programmes are helping to drive significant levels of new business and economic development activity.

The main achievements of the grant programmes as reported by stakeholders were considered to be:

- creating good quality jobs;
- protecting existing jobs;
- increasing revenue;
- attracting and securing mobile investment to Scotland (FDI, capital, etc);

[53] It should be noted that proposals for a Scottish National Investment Bank were approved by MSPs in July 2019 and is anticipated to be fully operational in 2020, see here. It is not yet clear how the SNIB will operate in the context of the grants awards, however, we would note that there is potential for duplication or competition between the two services.

- leveraging and accelerating investment (in priority areas such as R&D);
- supporting higher value sectors; and
- sustaining and enhancing levels of productivity.

Importantly, at a programme level the sense amongst stakeholders is that many of the impacts and benefits generated demonstrate evidence of 'additionality' (i.e. the activity and impacts were unlikely to occur in the absence of the grant funding). In this context, stakeholders reported that the grants were supporting the "right type" of project activity.

Some anecdotal examples were provided of how and where grants are generating additional impacts:

- **full additionality** – the projects and impacts would not have occurred in the absence of grant funding. For example, start-up/pre revenue companies that cannot access the full amount of external funding required to deliver the project (e.g. lack of trading history) and therefore SE grants are the only source of funding available.

  The grant awards have also been important drivers in securing large mobile inward investors (the project activity may have happened anyway, however, it may not have taken place in Scotland[54]);
- **scale additionality** – the project and impacts that are supported are greater than would have been the case, for example, RSA grants that are used by start-up companies to support staff salaries and allow companies to scale-up at pace;
- **timescale additionality** – the projects and impacts occurred over a shorter timescale or happened sooner. For example, SMART and R&D awards were seen as particularly valuable in removing commercial/financial and technical risk. In this regard the grants were viewed as a significant factor in stimulating and accelerating R&D activity; and

[54] While securing mobile investment is presented as an example of where the impacts generated through the grant are wholly additional, consultees also recognised it is challenging to define this and the evidence can be subjective as there are a number of other (more) important drivers for inward investment including; workforce skills, business partners and infrastructure.

- **quality additionality** – the projects and impacts created are 'better quality', this generally referred to the type of jobs that were created (e.g. including higher value jobs). For example, Training Plus awards where projects deliver training/upskilling for the workforce (the impacts are usually reflected in the higher salaries employees are able to secure and efficiency savings).

The feedback from stakeholders suggests there are no consistent trends across the grant programmes - the nature and scale of additionality differs on an individual project basis. In some cases (usually larger grant awards) the application is supported by an Economic Impact Assessment to quantify the forecast level of additionality and net benefit of the grant funding. However, in the majority of cases the assessment is undertaken by the appraisal team.

The upfront diagnostic and appraisal therefore have a crucial role in ensuring that the projects coming forward and being approved are delivering against the policy priorities and that these impacts/benefits are additional.

That said, as with the majority of public sector support programmes, there is also an element of 'deadweight' associated with the grant awards. For example, the rationale for providing grant funding can be driven by wider 'political' objectives or establishing a new relationship, or supporting an existing, company relationship[55].

In broad terms there are two areas where stakeholders felt that SE is not (yet) achieving the optimal level of penetration and impact[56]:

- **geographic and sector coverage** - inclusive economic growth is a key priority and focus for the delivery of productive and efficient services. A key priority is to distribute economic success more evenly across Scotland's communities and regions. SE has already identified that there is a need to support a larger number of companies across a broader geographic base (contributing to inclusive growth and place development).

[55] While the occurrences were relatively rare, specific examples were provided during the consultations. To retain confidentiality the names of these companies have been omitted.
[56] These points reflect the key priorities within the emerging SE Operating Plan (2019 – 22) - adopting place based approaches to delivering inclusive economic growth and growing BERD.

Anecdotally, some stakeholders noted that the grant programmes have historically had a more limited reach into geographic areas that are underrepresented in terms of businesses operating within Scottish Government and SE growth sectors[57].

For example, a couple of stakeholders noted that businesses in Ayrshire[58] were less likely to access the grant programmes in comparison with other urban conurbations that have had strong representation in the growth sectors such as Edinburgh (financial services and life sciences), Aberdeen (oil and gas) and Glasgow (business services)[59]; and

- **stimulating new R&D activity and expenditure (BERD)** - driving research and innovation investment in businesses and sectors is a key objective and policy priority. While expenditure on business R&D has increased, Scotland is still behind the targets sets out in the National Performance Framework and is losing pace with other OECD countries. The grant programmes have a role to play in incentivising and encouraging more companies to invest in innovation and secure greater levels of business R&D investment.

In particular, stakeholders felt that within the areas noted above where the grant programmes have not performed as strongly, these issues reflect a lack of demand from the company base and the "quality" of projects being proposed. In this context, many considered the pipeline of project activity for the large grant programmes to be "demand constrained".

Some of the other drivers for these constraints were noted as:

- the perceived risk averse behaviour exhibited during the appraisal and application process, i.e. only selecting projects that had a higher chance of success (or a lower chance of failure);
- the grants are reactive rather than proactive and driven by demand from the company base (albeit Account Management has a role to play in ensuring clients are informed of potential opportunities to access support); and

57 Further detail on the growth sectors available here.

58 The feedback/perception from stakeholders may not always reflect the monitoring data which shows that in terms of grants awarded, the coverage across Ayrshire is reasonable.

59 In addition, a likely driver for the penetration rates is linked to geographic targeting of specific programmes. For example, companies based in the West of Scotland and Highland & Islands are more likely to have accessed RSA due to the region's being designated as Assisted Areas within the GBER.

- the grant support is not well promoted/marketed, and funding is perceived as supporting a fairly narrow base of activity, e.g. R&D only targeted at higher technology sectors.

4.6.2 Wider Points on Impact

Some wider points raised by consultees included:

- the main opportunity to drive a step-change in Scotland's economic performance will be through:
  - attracting greater levels of inward investment. While not the only factor, the grant programmes were identified as an important part of the overall package of support to investors
  - supporting more companies to access international markets (exporting). Grant support enables companies to develop and or improve products/services/technologies that are targeted at export markets and increase international trade. However, it is also worth noting that this also points to a need for a wider package of wrap-around support to ensure business leaders and companies have access to market information, trade missions, and have the skills, capacity and capabilities to take advantage of international opportunities
  - increasing and leveraging investment in business R&D as a driver of productivity and employment growth. Currently SE is "demand constrained" with regards to good quality R&D projects and the vast majority of BERD activity is delivered through a small handful of the global companies. Longer term this has the potential to limit additionality if SE continues to engage with a narrow company base and has implications for its ability to deliver against inclusive growth priorities; and
- the support framework needs to recognise that there are varying routes and timescales to market and impact. In particular the lead-in times for early stage and higher technology based projects supported through SMART, R&D and HGSP are usually 5+ years.

This suggests a potential need for continuity of engagement to support early stage/early TRL projects to completion, and for the measurement and monitoring framework to more accurately reflect these timescales.

4.6.3 Measuring Impact

Presently, the metrics used by SE to measure success are aligned and have synergy with SE policy and, in the main, capture the intended outputs of the grant programmes.

That said, some consultees raised doubts as to the appropriateness of using these metrics collectively across all supported projects. For example, operational and delivery staff noted that employment growth is not always an intended or expected output for projects that are quick to market and are focused on commercialising patents and licenses. This suggests that at the individual project level there is an opportunity to gather both programme and project specific data. The project specific metrics could be sourced from a wider indicator menu that forms part of the Account Plan that is designed in partnership with the Account Team.

SE gathers a consistent range of relevant data to assess performance and impact, nevertheless, the current process also only measures planned/forecast outputs. Other than the claim forms which are handled by grant management, there is little in the way of (formalised) follow-up to assess the extent to which these outputs have been achieved. While a small section of companies are subject to follow-up (c. 18 months after project completion), this is fairly light touch and stakeholders questioned the value added that this generates.

As discussed in more detail within the case studies, the timescales to impact are variable and often do not align with the SE reporting framework which gathers data during project delivery and at project completion (which is defined as when the final grant payment is drawn down or as otherwise agreed with grant management).

As noted by stakeholders, there can be a significant lead-in time for project activity to generate outcomes and impacts. For instance, operational and delivery staff highlighted that it was not uncommon for projects supported through the SMART and R&D awards to have a 5+ year time horizon before any commercial and economic development returns are seen.

In the absence of consistent and targeted performance monitoring, it is difficult for partners to assess and evaluate progress, but also (from the supported companies' perspective) it can be challenging to accurately attribute impacts and benefits to the grant, particularly when significant time has elapsed between project completion and impact being generated.

Some of the outputs/benefits that are not being captured in a meaningful way include productivity improvements and enhancing innovation capacity. This is a limitation of the current monitoring system, and a point we revisit in **Chapter 6** (Conclusions).

Another area to consider is that the projects supported also generate intangible benefits and impacts that the current metrics fail to capture. Consultees reported these wider impacts as including:

- the impact of training and skills development – increased productivity (turnover growth and efficiency savings), competitiveness, staff retention/satisfaction;
- supporting the development of clusters or economies of scale within sectors and supply chains, for example, aerospace, oil and gas, advanced manufacturing; and
- incentivising future activity and investment. For example, SMART or R&D funding that supports feasibility and proof of concept activity in the earlier TRL stages which subsequently assists projects to move along the development lifecycle to leverage further investment and reach a commercial end point. Currently only the forecast effects are being captured. Again, this points to a potential need and opportunity for continuity of support/ongoing engagement and follow-up.

There are inherent challenges in gathering evidence to inform more qualitative metrics, however, many consultees felt that the current approach does not capture or report the "true" value of the grant programmes. EKOS' view is that one potential route to addressing these gaps in the evidence base is through more effective utilisation of the post-completion review. However, we would highlight a note of caution here that the monitoring and evaluation of the grant programmes needs to be proportionate and manageable.

4.7 Key Points and Implications

Based on feedback of the stakeholder consultations presented above, this section presents EKOS' view (by thematic area) on the implications and issues to consider for future delivery of SE grant programmes.

Impact and Additionality

Overall, the grant programmes are an important component of SE's support infrastructure and based on the available evidence are driving additional economic activity and tangible impact and benefits for Scottish companies and for the economy.

Where SE's rationale for engagement was to remove or reduce risk there was strong anecdotal evidence to suggest that this was having an additional impact on the scale of project activity and accelerating time to impact.

In terms of the grant programmes' role in attracting large mobile inward investors, this is viewed as an important part of the wider offer that is often required and expected by large companies to securing their investment within Scotland, again demonstrating high levels of additionality (although the evidence base for this is more subjective).

The important role played by the grant programmes in attracting investment is supported by the company case studies which also identified a number of wider and more qualitative impacts. SE's support and engagement with these (particularly large inward investors) will give Scotland exposure on an international stage that would not have been feasible without these relationships.

Rationale, Application and Appraisal

Rationale

There are a number of areas that are recognised as providing the main rationale and drivers for public sector intervention through the provision of grants:

- addressing and alleviating risk;
- ensuring Scotland has a competitive offer to grow the indigenous base and attract inward investment;

- promoting access to finance; and
- delivering against strategic priorities.

Of relevance, and as discussed in **Section 5**, feedback from the company consultations identified the same broad set of issues as the main drivers for seeking public sector support. In this sense, SE have a good understanding of the issues and challenges they are trying to address through the grant programmes.

Some of these challenges are driven by 'cultural issues' such as SMEs risk aversion to taking on debt finance, while others are more structural in nature, for example challenges in accessing external finance.

A key consideration (which we discuss in the Conclusions) is to what extent are non-repayable grants the most effective and appropriate intervention to address these issues and challenges.

Application

The operational and delivery staff play a vital role in the effective delivery of the grant programmes - supporting good quality projects to come forward, testing and confirming a strong rationale for public sector support and assessing the additionality of project activity/impact. In this sense, the value added that they bring to the grant programmes and companies should not be overlooked.

With regards to some of the operational and process issues identified through the review, as with any public sector programme of this scale and complexity, there is a need for ongoing review and reflection to ensure that the processes and systems in place are efficient, effective and fit for purpose.

Based on discussions with stakeholders, EKOS have identified two areas that could improve/enhance the upfront screening and application process:

- single digital point of entry (which is already in development) - ensuring a consistent approach to engagement; and
- enhanced diagnostic that is focused on more than just a narrow set of activities outlined within the application and which looks at the outputs, outcomes and impacts that could be generated (i.e. the focus gives due attention to what the company will deliver for the public sector).

Appraisal

In a broader context, there is a need to review how SE assesses 'risk' at the appraisal stage.

While consultees did not identify any specific projects or companies that have not been supported due to the level of risk associated, EKOS shares stakeholders' views that (in the context of delivering the grant programmes) a culture has developed within SE (driven by changes in external and internal policy) that the organisation has become somewhat risk averse.

There are two implications that were noted. First, the attitude to risk is seen as influencing the application stage with regards to the level and detail of information required. The process is seen as becoming more of an audit and overly burdensome and bureaucratic which sometimes slows down the application process, and could potentially discourage enquiries and applications.

Secondly, and more significant is that this risk aversion could lead to a bias and tendency for SE to support lower risk projects that could have proceeded in the absence of the grant i.e. greater levels of deadweight and lower net additional activity.

Risk and deadweight are intrinsically linked and in general the projects that are considered higher risk are more likely to deliver additional activity and impact i.e. would not have happened in the absence of the grant. As part of the review, there were a few projects that received grant support, that, in EKOS view were low risk, and while there was a sound economic development rationale for providing support (e.g. supporting jobs), there may have been higher levels of deadweight.

This is not to say that effecting financial/commercial prudence and caution is a criticism of the agency, however, this needs to be balanced with an approach that delivers against the objectives and priorities of SE to drive economic growth.

This therefore implies the need for a strategically led top-down review of how SE assess and reacts to 'risk'. We therefore suggest that a revised framework for assessing risk at the application stage could be developed based on a 'sliding scale' that considers:

- intervention rates - the level of intervention offered;
- type and scale of project;

- whole life costs of the project;
- time to commercialisation and likely levels of impact; and
- evidence requirements for example, projects below a defined threshold (e.g. £100,000) - the evidence requirements at both the application and payment stages are proportionate.

Market Failure

Broadly speaking market failure is not well understood and it is also noteworthy that there is a tendency among staff to confuse the symptoms of market failure with the underlying cause which may, or may not, be a market failure.

Based on discussion and feedback, EKOS view is that this inconsistent level of understanding is driven by two issues. First, at the individual project level, identifying and evidencing the root cause of market failure is both costly and challenging. At the appraisal and application stage, the assessment of market failure is often just a statement of market conditions and of the observed problem - with little in the way of robust assessment.

For example, while risk aversion which leads to companies' under-investing (e.g. in training or R&D) is an appropriate rationale for intervention, it is important to understand what is driving the risk averse behaviour (risk aversion is the symptom of the market failure, not the root cause).

Secondly, the technical language can often be a barrier to engaging and accurately reflecting the issues/challenges/barriers faced by companies. For example, stakeholders noted that HM Treasury Green Book definitions of market failure do not accurately reflect the challenges of industry who tend to think in terms of risk and opportunity – it therefore lacks 'real world relevance'.

This raises two key points:

- first, if the appraisal process is only undertaking limited assessment of market failure, it is unclear whether the grant awards are addressing the underlying cause of the market failure or only treating the symptoms. The presence of market failure only indicates that there is a rationale for public sector intervention, however, the most effective and appropriate intervention does not necessarily have to be a grant; and

- secondly, given the costs and technical challenges with assessing project level market failure, it may be more appropriate that the application and appraisal of projects places greater emphasis on assessing additionality (considered further within the Conclusions and Recommendations).

Future Delivery

One of the more unexpected findings of the consultation programme was that (with a few exceptions) the rationale for grant support i.e. the issues and challenges faced by the companies) were not specific or unique to any one grant product.

Fundamentally, the grants are primarily viewed (and being used) as a means and mechanism to support and leverage the private sector to drive economic growth and activity - the type of award has minimal practical relevance to the company/project. This can be clearly seen in the monitoring data and feedback that shows other grant awards are being used to fill the gap for large company support left by changes to RSA criteria.

This has implications for how (and why) SE segments the grant programmes, and whether there should be one over-arching grant programme/product that is used to support business growth (this is revisited in the Conclusions).

In line with Scottish Government policy priorities there is a need to drive more activity in three key areas:

- support a larger number of companies across a broader geographic base (contributing to inclusive growth and place development);
- exporting/international trade and inward investment; and
- stimulating new R&D activity and expenditure (BERD).

Given these emerging priorities and the current restricted fiscal environment (i.e. public sector budgets and resources are expected to decline) there are potential implications for the delivery of the grant programmes. SE may have to deprioritise certain areas of activity (that do not align with policy priorities) for grant intervention and consider other mechanisms to provide support, for example, Financial Transactions.

Financial Transactions

Integrating Financial Transactions into the wider financial support offer provides a strategic opportunity for SE/SIB to deliver organisational innovation and sustainability through sharing both risk and reward with companies - commercialising the investment.

Of fundamental importance is to ensure that a new intervention/product is correctly positioned/targeted to support companies and deliver economic growth, as opposed to simply being a vehicle to deliver returns to the public purse. In addition, in a practical sense there are challenges to ensure that the introduction of Financial Transactions is not perceived as “diluting Scotland’s offer”.

Crucially, Financial Transactions should not replace non-repayable grants, but be offered as part of a new strategic approach with SE/SIB taking ‘appropriate risk’ with a longer term view to generating a commercial return for their investment. The specifics of the new approach require further reflection and refinement.

5. Company Case Studies

This chapter presents the synthesised findings from the company case study interviews.

5.1 Respondent Profile

In total we completed 38 case studies[60] with companies that accessed some form of SE grant support. Further detail on the profile of the case studies is provided below:

- we undertook interviews with 50 company contacts that had knowledge of, or were involved in, accessing the grant[61];
- company case study interviews were supplemented with 125 interviews with SE staff[62] who were involved in project development, appraisal and/or grant management;
- the case study companies accessed 86 grant awards with a total value of £61.6m;
  - number of companies that received one award -17
  - number of companies that received more than one award from the same grant product - 7
  - number of companies that received more than one award from multiple grant products - 14;
- almost all companies were Account Managed (35);
- in terms of the split between indigenous and international companies[63]:
  - Scottish indigenous - 22
  - Foreign Direct Investment - 15;
- two companies were based within the Highlands and Islands region, and Account Managed within HIE at the time of receiving grant support.

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[60] Please note that, despite indicating their willingness to participate in the evaluation, in two case studies we were unable to secure participation from an appropriate contact within the company.

[61] For companies accessing HGSP this included the Technology Transfer Officer within the University.

[62] This is the number of interviews that were completed as many of the SE staff were involved in multiple awards.

[63] There was no information available on the ownership status for 1 of the case studies.

Table 5.1: Case Study Respondent Profile

	No of awards	% of Sample	Value of Awards (£m)	% of Sample
RSA	23	27%	£24.3	39%
SMART	30	35%	£4.6	7%
R&D	17	20%	£24.9	40%
Training Plus	7	8%	£3.3	5%
Environmental Aid	5	6%	£3.0	5%
Proof of Concept	2	2%	£0.8	1%
HGSP	2	2%	£0.9	1%
Total	**86**	**100%**	**£61.6**	**100%**

Note: The figures represent the number of individual awards and not the number of individual companies supported – this reflects companies accessing more than one award

There are a number of caveats that we would draw attention to:

- as this is a qualitative review the case studies are not designed to be 'statistically representative' of the wider population of companies accessing SE grant support, however, they do provide a good overview and broad cross section of the companies supported through the grant programmes. Sampling of companies considered:
    - the composition of grant programmes (i.e. the type of award)
    - geographic coverage
    - a mix of companies receiving single grants, multiple grants of the same type, and multiple grants of different types
    - timeframe for grants, to include a number of grants which had sufficient elapsed time to comment on the impact of grants, as well as more recent grants where it was possible to test the rationale for seeking support;
- the study reviewed the period up until March 2018 and in a few instances the companies have applied for, or accessed, further grant support in the intervening period (post-March 2018). These awards have not been captured within the review; and

- the ability of the company and SE contacts to comment on the grant award(s) and project(s) was generally 'reasonable'. Nonetheless, there were instances where relevant individuals were no longer with the company or SE, and therefore nominated contacts had more limited knowledge of the projects that were delivered.

5.2 Rationale for Seeking Support

One of the fundamental objectives of the review is to understand the rationale for why companies needed and/or sought grant support. Within this there are three key areas to assess:

1. What is the company trying to achieve?

First we need to consider the rationale from the company perspective - what they were seeking to achieve e.g. address a problem or take advantage of an opportunity?

2. Why do they need public sector support?

What are the barriers/challenges the company is looking to overcome? And, why, in the absence of public sector support won't/can't the company deliver the project?

3. Why should the public sector intervene and invest in the company?

It is important to understand the SE/public sector rationale for providing grant support at the individual company/project level. This is less focused on the activities that the company will undertake, but on what the activities (or projects) will generate – the net outputs, outcomes and impacts.

Overall, the feedback was fairly consistent across the consultations and has been synthesised to bring out the common themes across the grant programmes. Where appropriate we have summarised case study examples to provide further depth and granular detail.

5.2.1 Internal Competition

As highlighted throughout the previous sections, having a competitive public sector financial support offer is important for leveraging and securing investment from the private sector. This is reflected in the feedback from companies and is particularly relevant for larger multi-national companies that have sites across Europe and further afield internationally.

This may seem somewhat counterintuitive, that large companies "need" grant support, however, this is predicated on the "need" to rationalise and justify investment decisions internally and demonstrate the commercial/financial viability of the project, rather than meeting an "absolute" funding gap. Grant funding is therefore often required or expected (in this context it could be considered more of a "want" or an "expectation" than a "need").

When companies are considering investing in a location to support expansion or to retain activity they will often have to "bid" into an internal centralised funding pot to access funds, with projects often having to be approved by a "remote" head office.

There is an inherent degree of competition with other locations (in many cases both existing and new potential locations) to access funding and therefore justify investment.

There is a need to evidence that (at a group level) the investment will generate a quantifiable "sufficient rate of return" – this is most commonly assessed on the basis of costs set against revenue, or an Internal Rate of Return (IRR). Often, projects are judged purely on the financial returns and as such any grant can help to increase the return to the company, albeit it should never seek to beat the threshold returns (i.e. the minimum level of return that is required).

There was no consistent view on the level of IRR that companies needed to achieve – this varies notably across the portfolio, however, as a 'minimum' companies generally need to demonstrate a positive return for the investment case to stack up and a payback within a few years following investment. This is the parameter on which they present the 'funding gap' as part of the grant application.

In these instances the company is effectively using the grant funding to "boost project returns" to support the commercial/financial viability of the project, with an over-arching view of securing Board or Group level approval and investment.

In some cases it was quoted as being a "requirement of the company Business Planning process to have reviewed the opportunity for obtaining public sector grants, and if appropriate explain why the company could not access grant support".

Other examples of where internal competition forms a key part of the rationale is when the locations/site is acting as a "cost centre" for the central group. In this situation the rationale for the location is based more towards the savings it can generate for the wider group.

Case study 1 – Competing against multiple locations for investment*. A global financial services business operating from multiple international locations was appraising locations to host its first global technology Headquarters, representing a significant FDI. Scotland was on a short list of 10 international locations being considered (two other UK sites were also shortlisted).*

The company's internal selection criteria included a broad mix of indicators on which locations were scored and appraised (balanced scorecard approach). This included a range of metrics to assess qualitative criteria (e.g. 'quality of life') and quantitative criteria (e.g. access to HE qualified labour market and availability of public sector funding).

The Scottish site was successful in securing the investment largely on the strength of the available regional labour force[64] however, it was reported that the grant funding was an important part of the overall Scottish proposition. In the absence of grant funding there would have been a high probability that the investment would have gone to another UK site that demonstrated a more comprehensive and competitive proposition (largely based on the availability of suitably skilled labour).

The total grant funding package helped secure over 300 high value jobs in Scotland through supported training and wage subsidy costs.

***SE's rationale for investment** as highlighted through discussions with the appraisal team was to create high value jobs and attract a significant level of new inward investment into a key sector where Scotland is recognised as having a "competitive advantage" in terms of companies and labour pool – building on existing clusters and regional strengths.*

64 W*ider research undertaken by Ernst & Young also identifies that the availability of a skilled workforce was the most significant investment criteria for inwards investors considering Scotland, Attractiveness Surveys (June 2018), see here.*

5.2.2 Financial and Technical Risk

As already noted in the stakeholder consultations, risk is a significant driver for companies seeking public sector support (financial and non-financial). Again, in the main this can be broken down as either financial/commercial and/or technical risk.

Technical risk is very much seen as part of, and contributing to, financial/commercial risk. For example, developing novel technologies which may have an uncertain commercial end-point or long lead in times for development and market penetration (due to technical reasons) will have a knock-on effect on the financial risk profile for that project. In this sense it is often challenging to decouple and target these issues separately.

Financial Risk

Companies reported that a funding gap is often driven by, and as a result of, actual or perceived risk, i.e. the expected scale of returns and the timescales to generate a financial/commercial return were uncertain.

In a few cases this funding gap was considered ‘absolute’, i.e. the company could not access investment funding from any other external sources[65], including situations in which companies had already taken on debt and/ or equity finance and were too heavily geared to present a strong case for further investment. However, in the majority of cases the risk related to taking on further debt or equity funding - this again points to the risk averse culture within Scottish companies that was raised by stakeholders. The implication of this finding is that companies could probably access private funding in the absence of the grant programmes, but for a number of reasons were choosing not to.

SE funding was therefore used to help de-risk the project and leverage additional investment from the company and/or investors.

65 Of note, this was largely reported by start-up or pre revenue companies that had accessed SMART grants.

Case Study 2 - Support for scaling up*. A new-start contact and support centre proposed to make a significant capital investment within its business in order to ensure the company had the required level of resources (premises, equipment and staff) that would allow them to bid for large scale and long term contracts with national retailers.*

This was part of a longer term strategic approach to aggressively pursue a market opportunity with a view to scaling its operations at pace (the company had very ambitious employment and revenue targets). The total project investment costs of £4.5m were undertaken "in advance of need" and the company identified a funding gap to meet the setup costs, capital (upgrade premises, purchase new equipment) and revenue (salary costs of new employees).

The 'need' was therefore based on the company having a significant capital outlay without having an income stream to support this. The availability of grant funding therefore helped to address the (short term) cash flow and liquidity challenges.

Due to its location in a Tier 2 Assisted Area the company was eligible for RSA support which was used as part of a wider package of investment that included shareholders loans, bank debt finance and equity.

Since the initial award, the company has subsequently accessed further RSA funding via SE to support expansion of another location. This expansion is part of the company's longer term strategy for growth and the SE support was viewed as significant in supporting the company to meet its business plan targets and scale its operations at pace – demonstrating very clear additionality with regards to both scale and timescales.

***SE's rationale for investment** was based on supporting a new start company to scale-up at pace and create significant new employment opportunities – helping to meet a key SE target. The company is now in the Account Management portfolio and continues to engage actively with SE.*

Case study 3 – unknown efficiency and costs savings*. A food manufacturing and processing company sought support to purchase new equipment and machinery to drive efficiencies in its production line, increase output and reduce energy costs - saving the company time and money.*

This project also included a training element to ensure staff had the knowledge and skills to operate the new equipment and machinery.

While the company and SE had undertaken market research and due diligence as to the efficacy of the new equipment, as it was bespoke to the company there were no benchmarks to easily assess performance. The anticipated level of, and timescales to generate, a positive quantifiable return from the project were uncertain (but estimated to be at least a few years), and so was considered to be a high level of risk. This also points to the presence of an "imperfect information" market failure and helps to justify the need requirement for direct intervention. Aligned to this, it was recognised that there would be a significant "bedding in period" to integrate the new machinery into the wider processing plant, and additional down time for staff training.

A mix of grant funding was secured from SE (Training Plus and Environmental Aid) to support the project and help to offset the productivity losses until the system was fully integrated and proven to be effective.

***SE's rationale for investment**. The grant funding helped protect the employment on-site (measured quantitatively) and, second, helped SE built a relationship with the company to help secure its longer term commitment within Scotland (qualitative).*

Technical Risk

Where companies identified the driver for engagement as technical risk, almost universally this related to challenges with the feasibility and development of a product, process or project. These challenges were often the result of internal drivers such as not having access to specialist equipment; or external factors such as securing regulatory approval, licencing, etc. In some cases, the technical risk was based on the genuinely innovative nature of the project and therefore its uncertain technical feasibility.

This had a knock-on effect in terms of the financial viability of the project, for example, projects developing novel technologies or operating within an emerging or rapidly changing sector were noted as often having long lead in times for development and market penetration. This therefore made the project more risky and unattractive to investors and lenders.

***Case study 4 - support scale up and mass manufacturing in Scotland**. The company operates within the aerospace sector and has accessed numerous awards from SE over a number of years as part of a strategic approach to grow a critical mass of activity within a key sector.*

The company was considered a market leader within aerospace R&D and identified a significant opportunity to accelerate the development of products to penetrate a new international market (where they and other Scottish suppliers had no previous track record).

The company accessed a range of financial and non-financial support from SE and partners to develop and test prototypes, expand its product range (moving from domestic markets to large-scale industrial opportunities) and develop a bespoke platform to undertake mass manufacturing within Scotland.

Historically the company had manufactured bespoke orders in smaller batches with significant manual input, however, changes in demand meant the company needed to adapt and be able to manufacture at scale – quicker, cheaper and more efficiently.

The project was considered technically risky as the manufacturing platform would be one of the first in the world and therefore the company had to develop a prototype and undertake testing.

While there was a very clear commercial endpoint and market opportunity (supported by SE market research), there was significant uncertainty around the timescales for development and implementation and the viability of the project – this therefore made the proposition unattractive to external lenders.

The R&D grant funding from SE allowed the company to progress with the project over a shorter timescale and minimise the level of debt funding. This helped to free up cash flow to continue with operations and to deliver on existing orders.

***SE's rationale for investment** was to support and help grow a critical mass of activity (companies, jobs, investment, etc) within a key sector where there is a growing global market opportunity. SE has adopted a strategic approach to working with a company that is considered a market leader and is helping to build Scotland's reputation and profile within the sector. Anecdotally this has (indirectly) helped attract investment from other companies and start-up activity within Scotland.*

5.2.3 Access to Funding

There were also a number of instances where the company could not have sourced the investment from any other sources. It is often impossible to obtain private funding where companies are recent or new starts with no track record and limited assets and require funding for feasibility studies and research where their product is still far from market. As noted above, some companies had already exhausted the private sector investment opportunities and as a result were highly geared.

This was more applicable to certain types of company and project activity, for example, new start and pre-revenue companies accessing SMART awards and university research spin-out activity accessing HGSP.

In these cases, without SE intervention and the provision of a non-repayable grant the project would not have happened - they could not have obtained the required funding (or with appropriate conditions) given the current company circumstances.

5.3 Funding and Financial Transactions

The feedback was mixed with regards to companies' attitudes towards Financial Transactions and was consistent with the views of stakeholders. Unsurprisingly, the overwhelming majority of companies reported that their "preference" would be to access a non-repayable grant, and as highlighted in **Section 5.5** and **5.6** this helped generate additional activity and impacts.

At the time of accessing the grant, the majority of companies reported that (debt funding or equity) funding that replaced the non-repayable grant would likely have had a detrimental impact on their ability to undertake the project. The reasons for this were varied, and summarised as:

- the "risks" for delivering the project in the absence of grant support were considered too high – linked to technical and financial uncertainties. For example, if the project was unsuccessful and could not reach a commercial end-point (and thus generate financial returns) the company would still be required to pay back the investment. This was a common response from start-up, early stage, and smaller companies accessing SMART, R&D grants and HGSP;

- in the absence of the grant the project would not have achieved the required/minimum gearing ratio (IRR) to justify investment and secure approval; and
- the company policy is not to take on external debt funding, particularly for activity that is not regarded as "core business", in particular training and 'speculative' R&D were highlighted.

Nevertheless, a significant minority reported that having access to blended funding from SE/SIB (subject to appropriate conditions/repayment criteria, etc.) would be of value/interest to them to support future project activity.

Specifically, it was noted that to support feasibility and R&D where projects have a greater level risk, financial products (loans and equity) where repayment is linked to the projects technical and commercial milestones helps to address and reduce risk. This offers advantages over traditional debt funding where there is a requirement to repay the loan (with interest), even if project was unsuccessful or delayed. In this case the risk is not addressed, but simply delayed.

Conversely, larger international inward investors are often structured in a manner that taking on equity funding is not attractive or possible (e.g. the company could be family owned, is listed or has no share issue). On the assumption that a repayable loan would enable the company to access a package of support (financial and non-financial support) a small number of consultees indicated that they would be able to "tolerate" a small level of loan funding as part of a blended funding package.

Funding of Last Resort

A notable number of the case studies reported that the grants are not utilised as a "funding source of last resort" (in the strictest sense), but as an important part of the wider funding package required to deliver project activity.

In many cases the public sector contributions were central for securing external investment: increasing the gearing ratio and reducing the financial risk (i.e. diversifying the risk profile) and providing external validation (sometimes seen as a "badge of honour" for the company).

There is a significant degree of interdependence here. SE do not fund projects at 100%, often requiring companies to leverage additional investment to meet the project costs, where they cannot meet the additional costs themselves.

Likewise, securing external investment is often predicated on the public sector providing financial support - reducing the financial commitment (risk/exposure) for the company.

The exception to this was generally within those projects at a very early stage, such as activity supported through HGSP, SMART and R&D awards. In these cases the grants were frequently the only viable and appropriate source of project funding due to the level of risk. For example, some noted that banks required Directors to take out personal guarantees to secure funding, which significantly increased their own personal risk and liability – many were unwilling to take on this risk.

5.4 Other Support and Role of SE (and HIE) Colleagues

Other Support Accessed

The grants available from SE are seen as complementary to other public sector support provision and companies felt that SE's grant support did not duplicate wider business support provision. Indeed, it was reported that many companies had limited awareness of (other) organisations that can provide funding and other non-financial support to support similar projects.

The majority of case studies are Account Managed companies and have accessed various non-financial support through SE's product portfolio. In some cases this support was part of a wider package of wrap-around support directly related to the project. As an example, when projects have migrated to the higher TRL levels (project development) and SE provided support to develop the market e.g. marketing advice, market intelligence, support with exporting and attending trade fairs, etc.

Other relevant examples included public sector partners working in collaboration to secure a large inward investor and providing a range of support, including; to source and secure premises, access to skilled labour and research expertise, recruitment support, networking support with the HE/FE sector, etc.

Although challenging to quantify, the SE grant support was identified as important in leveraging additional funding from other public sector sources – helping to de-risk activity and provide external validation for the project.

Other sources of public funding that were seen as complementary include:

- Horizon 2020 (synergy with SMART, R&D, HGSP);
- Innovate UK (synergy with SMART, R&D, HGSP); and
- Zero Waste Scotland (synergy with Environmental Aid)

Monitoring data shows that 15 case study companies had received additional funding of £43.1m broken down as follows[66]:

- EU funding (Horizon 2020 and its predecessor FP7) - £15.5m awarded across 8 companies;
- Innovate UK funding - £27.6m awarded across 12 companies; and
- EU and Innovate UK funding - 5 companies.

As highlighted, 21 of the companies have accessed funding through more than one SE grant programme (7 from the same programme and 14 from more than one programme). There is no consistent approach or clear trends to identify how companies are using grants - as part of a one-off standalone project or a longer term strategic set of activities.

One of the challenges to assessing why companies needed multiple awards from SE is that the grant applications (and therefore projects) were historically assessed on a case by case basis. At the operational level (i.e. appraising the individual projects) there was no/little cross referral or assessment of previous grant support provided[67].

This is now being addressed through the formalisation of the Account Team Approach, where a team of advisors will proactively work with a company to identity an Account Plan and ladder of support to achieve milestones and objectives (this could include multiple grants (from multiple sources)). This differs from the current approach which is more compartmentalised and reactive.

[66] The value of individual awards ranged from £50,000 to £17m in external funding. For some case study companies they've received larger funding awards externally, while for others the SE grants have been a greater value.

[67] Please note that, at a management level grant awards of over £500,000 now require a full economic impact assessment and senior level approval. The approval papers/case papers for these larger awards do consider previous funding and support, however, this does not feed into the assessment undertaken by the appraisal team which is project specific.

That being said, the review did find anecdotal evidence that suggests in some cases, approving multiple awards for companies is appropriate to supporting the company journey.

For example, there are companies that have accessed smaller value SMART awards during the initial feasibility stages and as the project progresses along the TRL scale, through research, to technology development and testing that have subsequently accessed larger R&D awards.

Similarly, there are companies that have used RSA awards to support early stage expansion (premises and staff) before moving on to SMART and R&D grants to support innovation activity.

Role of SE and HIE Executives

Overall, feedback was positive regarding SE and HIE executives and numerous consultees identified the constructive role they played in the success of their project.

As the direct company contact, Account Managers have an important role in identifying potential funding sources, providing guidance to develop the project proposition, acting as an “informal sounding board” and identifying wider complementary support.

The appraisal team and specialists also have an important role in providing advice and guidance to help shape projects. Most notably when working on large scale and complicated projects, or with companies that have limited or no experience in developing a project proposition to access grant funding.

Some individual examples of where the operational and delivery staff added value to the process included:

- The SE team spent additional time supporting a company with due diligence (application and claims stage) for an Environmental Aid grant (a new grant programme at the time). This ensured compliance with relevant legislation;
- the SE team (through their networks) were able to help source a commercial champion that had relevant (technical) sector and commercial experience to successfully support delivery of a university spin-out project that received HGSP funding;

- providing guidance on designing and implementing technical documents such as workforce training plans; and
- on completion of the project, supporting a company to apply for funding support through SIB. This is helping the company to realise their high growth potential with the impacts retained in Scotland (the counterfactual is that the company would have sought to generate more immediate returns through the sale of IP to an international company).

5.5 Impacts and Benefits

At an individual company level, consultees were very positive in terms of the impacts and benefits generated through the projects supported by SE grant programmes. There was clear and consistent evidence/feedback that the grants were supporting significant levels of additional economic activity.

In line with SE priorities (and the grant conditions/requirements), the grants have supported companies to secure a range of quantitative impacts. It should, however, be noted that there was significant overlap between the grant programmes and the reporting of impacts. In particular we would note that the impacts and benefits that companies attributed to the grants were not specific to any one grant programme[68].

The key impacts reported by companies were:

- creating and protecting jobs across a range of sectors and roles;
- increasing revenue - growing their share in existing markets and accessing new markets;
- project feasibility – testing and validating ideas/concepts and developing prototypes;
- supporting investment decisions to retain or secure new capital and FDI investment in Scotland (enhancing resilience, increasing capacity and capability, and increasing the competitiveness of the site/operations); and
- growing the Scottish supply chain, particularly in areas such as manufacturing.

[68] In addition, where companies have accessed support from more than one organisation and received multiple forms of intervention, it was often challenging to separate out and attribute the impacts specifically to any one individual grant award.

Below we provide further detail on some of the specific impacts and benefits that were noted by companies, which helps demonstrate the wider value of the individual SE grant programmes.

It should be noted that the bullet points below include all the relevant feedback received through the consultations, and as such, the points may only have been provided by one or two companies.

R&D Grants

- as noted by numerous companies, the grants were instrumental in securing and leveraging investment from indigenous and international partners. In particular, the role of the grant programmes was seen as being important for inward investors who are more “mobile” (i.e. they do not currently have presence in Scotland);
- the grant(s) supported the development of new products, allowing companies to respond quickly to changes in market and customer demand, and to expand its offer;
- this supported the longer term strategic goals of companies to access new markets (e.g. geography and products/services offered), and to grow and diversify company revenue;
- R&D is not always regarded as a core or priority activity for companies due to competing priorities that focus on activities that generate a short term commercial return. Nevertheless, the R&D grants helped companies to reduce the perceived risk of ‘over-investing’ in speculative R&D i.e. helped companies to achieve the required gearing ratio to secure internal approval and investment;
- successful projects helped to demonstrate and validate the value of R&D activity - potentially supporting companies to become more R&D active in the future and increasing their innovation capacity. For example, one of the case studies identified that the R&D grant has helped successfully embed low carbon technologies into one area of their business (automotive), and as a result of they are currently reviewing opportunities to utilise this technology/ innovation as a mechanism to support growth within their international markets;

- the R&D grants were often part of an early phase demonstrator project. Once the proof of concept and prototype was completed, this enabled companies to progress to the next stage, and access further funding and support from other sources e.g. the UKRI Industrial Challenge Fund (Artificial Intelligence);
- the grant(s) allowed companies to develop new products and grow their workforce - securing their competitive advantage as leaders and innovators. This included support for projects within sectors where significant growth is forecast, for example the aerospace sector (maintenance, repair, overhaul, component manufacturing, materials, etc). Individual company success and the role that SE and partners played in supporting the company journey has been well publicised. This promotion has helped to elevate Scotland's standing as location for investment and growth - attracting a wider cluster of companies and supply chain businesses within central Scotland. This activity is expected to help attract notable levels of international investment to Scotland over the next 10 to 15 years; and
- where companies were involved in disruptive and novel technology development, for example the bio-technology and medtech sectors, there is an ongoing need to be constantly innovating and evolving to attract investment and stay competitive.

  The grants have enabled companies to keep making advances in technological developments, and to keep pace with competitors (or a step ahead).

It should, however, be noted that a few companies also identified some unintended negative consequences arising from the projects they had undertaken:

- companies that were supported to grow to a scale typically required access to facilities and a supply chain that could support mass manufacturing of components. Capacity and capability issues in the Scottish manufacturing sector and supply chain, meant that the manufacturing activities of some companies were offshored e.g. China/South East Asia. This therefore results in a level of leaked activity from the Scottish economy; and

- some companies reported recruitment challenges, in particular, for niche and highly technical or specialist roles. A restricted supply of skilled labour in these sectors has resulted in displacement in the labour market, i.e. companies 'poaching' staff and the artificial inflation of salaries.

SMART Grants

- SMART has helped companies to develop new technologies and products that would not have been developed otherwise (e.g. due to a lack of finance). This has helped build market share and open up new market opportunities, leading to future growth;
- the SMART grant(s) have supported the testing and development of multiple generations of products in line with technological advances and changes in customer demand[69]. SMART grants have often been used alongside R&D awards and other SE support to enable companies to start mass manufacturing of units with a view to taking products to international markets; and
- the SMART awards have helped to demonstrate the commercial application and feasibility of the original concept – in some cases, companies have accessed additional funding and support from other sources (e.g. the Knowledge Transfer Partnership (KTP) Programme).

RSA Grants

- RSA funding has helped kick start early stage company expansion and growth through supporting salary costs. Companies would not have grown at the same level or within the same timescale without grant support;
- the purchase of capital equipment (alongside Training Plus to support upskilling of the workforce) has driven capacity and productivity within manufacturing which has led to increased revenues;
- the RSA grants have helped to scale up production facilities which has delivered efficiency savings in companies' operations, demonstrating the cost-effectiveness of the sites/plants.

[69] In some cases the development of next generation products and technology was noted as a rationale/driver for a company accessing multiple awards.

A specific example is that the RSA investment was important to secure the longer term future of a company's operation in Scotland as it faced external pressure from other sites in the north of England; and

- the RSA grant was used as part of a wider package of funding that was provided to develop closer/more strategic relationships and safeguard the operation of a significant national employer (plus notable supply chain impact).

A couple of wider points to note include that:

- RSA grant conditions (which are imposed by State Aid regulations) can often be challenging to meet. In particular, achieving and maintaining headcount targets when a company operates within an emerging technology area or sector that has a restricted supply of skilled labour; and
- while the RSA is designed to address equity and disadvantage (in line with EU guidance) this was not raised by the companies or SE staff involved with the project as a benefit or impact. This is not to say that the projects are not contributing to addressing these issues, just that it was not a recognised impact or benefit.

Environmental Aid

- the purchase and testing of bespoke equipment that used low value by-products as a source of waste driven fuel has resulted in cost savings for one company (through reduced energy bills) and reduced the volume of waste (tonnage) sent to landfill.

  This had additional benefits of supporting companies' Corporate Social Responsibility priorities and branding as a low carbon/zero emissions company; and
- reductions in CO2 and other pollutants such as Nitrogen Oxide.

Training Plus

- the Training Plus grant support was a crucial part of the public sector package of support that helped attract a significant level of capital investment to Scotland to develop a global technology HQ and training Centre of Excellence;

- adopting a new approach of self-assessment, the training programme was delivered and led by staff, and has driven considerable efficiency improvements and boosted staff morale (additional responsibilities and acquired in-house skills accreditation).

  Further, as the training project was a pilot programme, it is now seen as ‘good practice’ and has been implemented within other sites and parts of the company’s operations;

- the training grant has generated efficiency savings – staff trained to operate new equipment and allowed “lost productivity” and staff costs to be recovered. The grant is helping to recoup the investment in training over a shorter time frame and was a key part of the investment decision-making; and

- the grant has enabled the company to grow its workforce considerably, including one-third of which are considered as workers from disadvantaged groups or areas.

HGSP

- supported the successful spin-out of a new company that supports employment within an emerging high technology sector;

- supported the company to achieve the required ‘value inflection’ point[70] and is now at a stage where it can leverage significant levels of seed and Series A investment funding[71], which are matched by SIB;

- the research supported through the grants has led to the development of a number of patents and licence agreements; and

- access to an experienced commercial champion is part of the wider package of support offered through HGSP (in addition to the grant funding) and has ensured that the project has remained focused on a commercial application and helped to secure external investment.

[70] The value inflection point can be considered as a significant change in the progress/growth of a company where it becomes an attractive investment proposition for external investors. For example, in the context of the grant programmes this could be the successful commercial testing of a new product, or securing a significant order from a customer, etc.

[71] Series A investment funding relates to the first round of venture capital funding for a start-up.

5.5.1 Additionality

Overall, the grants have helped to manage financial risk for companies, justify investment decisions and encouraged more, bigger and better quality projects to happen in shorter timescales.

There were a couple of cases of full additionality, usually small SMART awards where no other funding was available and securing inward investment, but in the main there was strong evidence and feedback that the additional effects were mostly scale and timescales.

The size and value of projects is better/larger and the timescales to deliver activity and achieve impacts is shorter.

If we consider the other factors that inform additionality:

Displacement or competition – many of the companies operate in growing and international markets so any growth (revenue, market share, etc) supported by the grants is unlikely to have any noticeable displacement impacts at a Scottish level.

However, as noted, there were a few cases where the grants have supported significant scaling up, and in order to meet this growth there has been a level of displacement in the labour market (e.g. 'poaching' of employees), which has had an impact on the regional workforce.

In addition, there is a danger that if SE utilise grant funding as part of an approach to develop clusters of activity and economies of scale, this can lead to intensified labour and factor market competition. For example, in the aerospace sector where there is a well-publicised shortage of accredited engineers and metal workers.

EKOS' view is that, in certain sectors the effectiveness of grant funding (i.e. the net additional impacts) will be disproportionately influenced and limited if the wider infrastructure required to support growth is not in place. This includes access to skilled employees, premises, transport links, etc.

Leakage - this was not considered to be an issue as the project activity is undertaken in Scotland and therefore the majority of impacts are retained, the exception to this includes the example provided above where the manufacturing activity has been offshored and is undertaken outside of Scotland.

There is, however, lost economic output (Gross Value Added) where companies are registered outside of Scotland, for example dividends or payments to shareholders not based in Scotland. This is to be expected when operating in a global economy and leveraging inward investment from foreign owned companies into Scotland.

Supply chain effects - generally the supply chain impacts were positive as a number of companies had at least part of their supply chain based in Scotland, and company growth driven by increased demand often leads to additional spend in the supply chain. This is not to say that the scale of these supplier effects could not be enhanced. For example, the Scottish Government's Global Scotland: trade and investment strategy 2016-2021[72] identifies supply chain development as an opportunity to maximise the impact of FDI as part of a "responsible and inclusive approach to business."

However, as noted there were a few cases where the grants had a 'negative' knock-on impact within the Scottish supply chain (where companies scaled-up their manufacturing processes).

In these cases the supply chain either did not have the capacity and capability to meet the requirements, or could not compete in price with suppliers in South East Asia and China.

5.6 Application and Grant Management

5.6.1 Application

The application and evidence requirements are generally considered by companies as proportionate to the size of grant award (for example limited information is required for smaller SMART awards).

As highlighted above, the Account Managers, appraisal staff and specialists were said to play a crucial role at the application stage. This includes the provision of advice and guidance to companies.

[72] Global Scotland: trade and investment strategy 2016-2021, see here

That being said, one-third of the case studies identified either some specific issues or challenges, or in general felt that the information requirements were quite onerous.

Where companies experienced challenges with the application process, this included:

- the timescales to receive a decision on the application – in some cases this was felt to be long, with little ongoing contact or communication from SE (on whether the project would be successful). This mirrors the feedback received from stakeholders that identified the time to receive a decision is often just as important as the time elapsed to draw down the funding;
- the level of information and detail required. While consultees acknowledge the need for accountability and transparency, there was a pretty clear divide in the feedback. Smaller companies that had less resources to commit to the application process were generally more likely to report issues with the level of detailed information required, while larger companies (who usually had access to more resources to dedicate to the application) were less likely;
- although only noted by a couple of companies, where they have applied for grant funding to support early stage R&D and feasibility projects these may only be scoped out in broad detail and they do not have specific detail on costs or commercial/technical milestones i.e. the application is asking for detail that the company may not have;
- some projects were required to provide detailed financial forecasts on their markets, including the preparation of business plans and scenario modelling – this was challenging, particularly in areas of novel or disruptive technology where there was no market to speak of and the company was seeking to 'create' the market. While this might be reasonably expected of a private sector funder (to require this level of detail), consultees felt that the public sector could be more flexible and less risk averse;
- other funding sources have easier application processes and less "bureaucracy". While consultees did not provide any specific detail on why they felt these other sources were easier to access, they identified the following sources: Innovate UK, Invest NI and the Scottish Rural Development Programme - Food Processing, Marketing and Co-operation (FPMC).

5.6.2 Grant Draw Down

Similar to the appraisal and application process, there was mixed feedback. By and large, the grants payment process is considered as a necessary part of SE's financial due diligence.

Grant management officers will often offer support to companies at the outset[73] (following grant award) to discuss the project, provide clarity on what the grant can and can't support and manage expectations as to what is required from the company (evidence requirements, etc.).

While only a small number of case study companies engaged with grant management at the outset, those that did reported it useful and helped clarify the process.

There have, however, been a number of cases (both general and specific) with again around one-third of the case studies identifying issues around the grants claim process. This included:

- delays to processing grant payments which subsequently impacted on project progress/activity;
- lack of communication on the progress of claims;
- the costs involved with getting every single claim independently audited. It was also noted that SE policy require the accountants to accept 'unlimited liability' which some accountancy organisations were reportedly not willing to do;
- the flexibility of the process to deal with "variance", for example, one case study had challenges with drawing down funding as the make/model of capital equipment they purchased had changed from the initial application;
- challenges meeting employment/headcount targets – particularly for the recruitment of higher skilled positions. This resulted in delayed claims being submitted by the company or the grant was not drawn down in full or reclaimed;

[73] Note that this is not a formal requirement for grant management.

- lack of clarity or over-specificity regarding evidence requirements (e.g. for new jobs this required companies to submit; p45s, payroll details and pay slips for individuals);
- preparation of timesheets for individual staff working on separate project activity and the limited guidance on this;
- duplication of effort – where companies received a package of support (i.e. multiple awards) they were required to provide information/details for every individual award (much of which was duplicated);
- elapsed timescales for the company to provide evidence in the required format, again leading to delays in project progress/activity – this could be down to the company having less resources to process and complete the claims, or as above, issues with the evidence requirements;
- commercial or technical milestones not being achieved or activity not taken forward so the full grant was not claimed or paid out; and
- while only noted by one or two consultees, some criteria and conditions were considered "unreasonable", for example limiting how any profit the company makes is distributed.

Companies also noted that as grant management processes are subject to State Aid regulations, wider (often unforeseen) external factors can negatively impact the process. For example, under RSA the funding conditions usually require employment impacts to be maintained for a period of up to three years. Where jobs are not maintained the company is contractually bound to repay part or all of the grant.

An example provided by grant management staff included a company that was awarded RSA to support expansion plans/employment growth that subsequently lost a significant contract and therefore could not sustain the employment that was tied to the grant and was subject to this repayment clause. In the most extreme cases this (hypothetically) could lead to a situation where the company had to repay the grant and risk insolvent trading.

As reported by grant managers, while the incidence of this is relatively rare, this has significant reputational implications for SE and the company. One of the important roles that grant management staff play in the process is to engage at an early stage to make sure companies are aware of the regulations, evidence requirements and their responsibilities, and have the capacity and capabilities to meet and sustain their required milestones.

5.7 Key Points and Implications

Based on the company case studies presented above, this section presents EKOS' view on the implications and identifies issues for further consideration.

Rationale

The rationale/drivers for accessing grant support is less focused on what companies will achieve as a result of the funding, and more to do with the issues and challenges that the grant support will help companies to overcome.

The feedback from companies reflects that of stakeholders, and identified the three main drivers as; competition for funding, risk and access to finance. In particular, risk came across as a strong driver of company behaviour. However, while the stakeholder feedback identified a more general risk averse culture amongst the business base, companies see it as a pragmatic approach informed by past experience and the need to preserve the future sustainability (and growth) of the business. Retaining a level of working capital, positive cash flow and liquidity is vital for companies and investment decisions need to be considered in this context.

This last point is important and should inform the development of a future Financial Transactions model. Risk drives (or constrains) activity, and the model needs to target this issue.

It is also worth highlighting that (not surprisingly) market failure is not a concept that is used or understood by companies.

Impact and Additionality

Overall, the feedback was very clear and consistent - the grant awards are highly valued by companies and have helped support a diverse range of project activity which has (and is forecast) to deliver a range of economic impacts.

This ranges from new employment, leveraging additional investment and increasing the innovation capacity and capability of companies. There is strong demand for the continued availability of grant programmes to support companies.

In line with the stakeholder feedback, companies identified a number of wider (and to some extent more qualitative) impacts and benefits that are not being routinely measured or captured by SE. While these were not usually aligned to any one grant programme/award they included: leveraging future investment and funding (from other private and public sources), demonstrating the value of R&D (including specific technologies), efficiency improvements (costs savings), training as a tool to increase staff skills and motivation, supply chain effects and enhancing Scotland's reputation within an international market.

Importantly, the project activity supported and impacts generated demonstrate clear evidence of additionality, particularly in relation to scale and timescale – allowing companies to deliver bigger/better impacts and accelerating project activity and the time to achieve impacts.

As identified by consultees there were, however, cases where the additionality rationale was felt to be less clear and the driver for SE intervention was based on 'softer' measures., For example, where SE was looking to support a cluster of activity within an emerging technology or sector opportunity, 'political' drivers, and sometimes simply as a mechanism to maintain a positive relationship with a significant employer – a symbolic gesture that they are valued as a local/regional/national employer with a view to encouraging a good relationship with the company and (potentially) future investment.

In these situations there is greater potential for deadweight i.e. the company would have undertaken the project and delivered the same level of impact in the absence of the grant.

The rationale for SE providing grant support is sometimes subjective and based on individual circumstances (there is no one size fits all approach to appraising and assessing awards). This is not to say that the rationale for providing support is not valid, rather it demonstrates the need for the programmes to remain flexible and responsive to individual cases and need. The focus should be on the outputs and outcomes to be generated.

That being said, while retaining an element of flexibility is important, EKOS would note that it is also important that the criteria and framework for awarding grants is driven by clear and transparent policies.

Role of SE

The feedback from companies was mainly positive regarding the contribution SE and HIE executives made to the projects (application, appraisal and delivery). This emphasises the importance of building and maintaining relationships with companies.

This intensive level of company engagement, however, has wider implications for how SE manages and deploys it resources in the future. The new Operating Plan (2019 – 2022) identifies inclusive growth as a key priority, and in an operational sense this includes supporting a larger and more diverse company base.

Timescales to Impact

It is worth noting that particularly for R&D, SMART and HGSP supported projects, the timescales for delivering activity and achieving impact (commercial returns) were often over-optimistic at the project development and application stage. This challenge is well recognised by SE executives, who will often try and advise and manage the expectations of companies.

In a number of the case studies that could be considered 'exemplar projects', the projects have progressed along the TRL scale, achieved the various technical milestones and successfully attracted investment etc.

However, the lead-in times for launching product/processes/services/technologies and generating returns are significant, usually 5 to 10 years. Even 'quick to market' products are likely to require 3+ years.

It is important that this is reflected in SE processes, both in terms of collecting and reporting impact (usually done at year 3 post-completion date), but also in providing ongoing engagement and continuity of support.

Funding

While there are individual cases where the companies could not have accessed other funding (or accessed funding with appropriate terms and conditions), the SE grants are, by in large, not regarded as a funding source of last resort in the strictest sense.

Grants are accessed/used strategically by companies, and are seen as an important part of a wider funding package – helping to leverage additional investment and providing external validation.

This again reflects SE policy and processes that are 'input driven' i.e. eligibility is dependent on the company demonstrating a funding gap. While this may be a 'requirement', the emphasis should also be on the outputs and outcomes that would be generated – e.g. what additional investment and impact can SE help to secure and leverage from the private sector through the provision of grants. The process needs to recognise that it is a symbiotic relationship – the SE investment helps to leverage additional monies and deliver economic benefit.

Financial Transactions

There was some notional support for a blended funding model approach particularly where the public sector absorbs and shoulders the majority of the 'projects' financial risk at the earlier stages, with a longer term view to sharing the commercial returns. In this sense, patient capital and convertible grants could potentially be attractive to companies.

It is worth noting that there is a degree of political and reputational risk should SE/SIB develop an offer that does not reflect the needs of the company base. For example, there are some large regional employers that noted that loan and equity funding would not be a viable or attractive option for the company.

The following questions have to be asked; first, would the public sector stop supporting these companies with grants and move to blended models? and secondly, what impact might this have?

For example, SE executives reported that the grant programmes are crucial to securing large mobile inward investors (often acting as a differentiator between locations). However, the wider evidence suggests that the availability of grants is not the main driver of activity (albeit an important one).

The picture is therefore unclear as to the impact that the introduction of Financial Transactions would have on Scotland's ability to secure inward investment.

What is clear is that a) there remains demand and a case for non-repayable grants and b) there is no one size fits all approach that could be rolled out universally. As already highlighted during the stakeholder consultations, grant funding has long been a critical part of the public sector infrastructure and any changes need to carefully managed, targeted and promoted.

Application and Grant Draw Down

As to be expected, the feedback was fairly mixed with regards the administration side of the grant programmes. There were those case studies where the process had worked effectively and the companies recognise the need for due diligence.

Nonetheless, there was a significant minority that reported dissatisfaction and challenges with the process that, in some cases, had a negative knock-on effect on project activity. This often related to timescales for decisions and what is viewed as overly-bureaucratic public sector processes relating to information and evidence (although there was some acceptance of why this was required).

The impact of these could be quantitative (e.g. delayed the project) or more qualitative (e.g. damaging SE's reputation or relationships with companies).

It is important that the processes are both fit for purpose and add value to the grant programmes i.e. not overly-bureaucratic for the sake of "ticking boxes".

Some of the challenges described by the companies (in particular the application and grant draw down evidence requirements that are not driven by State Aid requirements) are likely to reflect SE's attitude to minimising risk and liability.

There a number of process improvements that are considered further in **Chapter 7**.

6. Conclusions

This chapter presents the findings and conclusions from the qualitative review based on the feedback received from stakeholders, operational/delivery staff, company case studies, and EKOS analysis.

The over-arching objective of the review was to understand why companies needed grant funding from SE (and in some cases why they accessed multiple awards), and to what extent the grant programmes have had a positive impact on company performance and supported business growth.

The conclusions have been mapped against the study objectives as detailed in **Section 2.1**.

In addition, some of the main findings have been synthesised into 'issues and actions for further consideration' presented in **Chapter 7**.

6.1 Application, Appraisal and Rationale

Application and Appraisal

The application and appraisal process was viewed by stakeholders as relatively robust and that an "appropriate" level of due diligence is undertaken to assess project eligibility and rationale. The feedback from the company case studies was more mixed and in particular, a significant minority of companies felt that the level of detail required at the outset (financial forecasts, market assessments, etc) was quite onerous and the timescales to receive a decision were too long.

Based on discussion with operational/delivery staff and analysis of the company case studies, the grant programmes are supporting "the right type of companies" that demonstrate a clear need and rationale for public sector support. In part this can be attributed to the rigorous upfront diagnostic and appraisal process.

That being said, it should be noted that the review only engaged with companies that were successfully approved for grant funding. We are therefore unable to provide commentary on the projects that did not receive funding, i.e. if any 'good quality' projects were being rejected.

As noted in the feedback, one of the key challenges for the programme is an under supply of good quality project proposals coming forward. The pipeline is constrained.

As highlighted in **Chapter 7**, it is important to understand what is driving this lack of supply and whether the upfront diagnostic and appraisal process can support this. For example, SE could look to develop systems that can capture this information (i.e. why projects are being rejected before they reach the application/appraisal stage).

Gathering this intelligence would help enable the agency to better understand the issues/challenges/blockages and design appropriate interventions to support and develop a future pipeline of activity. This could include non-financial support (e.g. support to develop a business plan) and signposting to other partners and intermediaries.

Some key points of action to note include:

- the appraisal and decision-making process needs to be agile and flexible to keep up with the needs of industry. There is an opportunity for SE to review this process and ensure it is proportionate and fit for purpose (the time to "yes" is often just as important as the time elapsed to receive the funding);
- as discussed below, the marketing and promotion of the grant programmes could be improved to help support project activity coming through the pipeline. This includes having systems in place so that internal staff, intermediaries and companies have access to relevant information on the programmes, etc.; and
- there is a sense that within the grant programmes there is an imbalance between protecting public sector investment and supporting higher risk projects. Over the years this has manifested into what could be characterised as risk averse behaviour. This can be seen in the lower intervention rates offered by SE (in comparison with what is allowed under the regulations and with other OECD countries) and the high success rates of project activity (90%+ of projects are regarded as successful)[74].

[74] It should be noted that the 'success' of projects is defined differently across the programmes. For example, SMART and R&D are often linked to technical milestones, and while these milestones might be achieved, the there is an evidence gap around the extent to which the projects then result in commercial applications, or are implemented, and the timescales associated with commercial impacts.

This suggests there is an opportunity for SE to re-evaluate how it assesses risk as an approach to stimulating a greater throughput of project activity. For example, risk could be assessed on a sliding scale based on the scope of the project or the size of investment.

Promotion and Marketing

The promotion and marketing of the grant programmes needs further review and development to ensure that it is fit for purpose and contributes to SE's Digital Transformation Strategy. Specifically, we would highlight that:

- the online presence is limited; and
- there is a lack of clarity within the company base, intermediaries and even within SE on what grant funding is available, what type of activity can be supported, and which companies are eligible for support.

It is EKOS' view that some of the challenges in relation to the promotion and marketing of the grant programmes are having a negative impact on the pipeline of project activity coming forward. There are currently six live individual grant programmes[75] all with varying eligibility criteria, intervention rates and targets. The information and marketing can be confusing and feedback suggests it may contributing to the constraints within the demand pipeline.

As considered in **Chapter 7**, one of the potential routes to address the issues with the marketing and promotion is to rationalise the offer, i.e. reduce the number of programmes.

Eligibility and Grant Management

The grant programmes are underpinned by robust processes that are informed by SE and State Aid policy. The number of grant programmes (six) and shifting rules regarding eligibility means it is sometimes challenging for those advising companies (such as Account Mangers and other intermediaries like Business Gateway) to keep up to date.

[75] While the review looked at eight programmes over the period 2009/10 – 2017/18, two of these are legacy programmes and no longer offered (YIE and PoC). PoC was replaced by HGSP in 2015/16.

The feedback identified a number of cases (around one-third) where the evidence and information requirements were considered to be ‘excessive’, lacked clarity and the process caused delays to the projects. Some of the issues reported reflect the individual circumstances of the company/project, while others seem more systematic across the grant programmes (e.g. the requirement for individual claims to be externally audited).

To some extent this was tempered with a recognition that there has to be a level of due diligence associated with public sector finance (particularly in the case of large funding awards).

As discussed further in **Chapter 7**, EKOS view is that there is an opportunity to a) rationalise the number of grant programmes, which would help to ensure that across the programmes there is a ‘standard eligibility criteria’ and b) consider evidence requirements on a ‘sliding scale’, particularly where these have been imposed by SE (not a legal requirement of State Aid).

Rationale

The rationale for providing grant support including why the company requires public sector support and why is grant funding appropriate is currently assessed on a case-by-case basis at the application stage. While it can be a somewhat fluid process in nature (requires the appraiser to use professional judgement), it is working well and we would note that the operational and delivery staff have a key role in ensuring that good quality projects are coming forward for support and delivering additional economic benefit.

Feedback was consistent across stakeholders and the company case studies indicating there are four main areas that provide a strong rationale for SE to provide grant funding support:

- addressing and alleviating risk;
- ensuring Scotland has a competitive offer to grow the indigenous base and attract inward investment;
- promoting access to finance; and
- delivering against strategic priorities.

Of interest, these four broad areas are not aligned to any one specific grant programme and the issues and challenges faced by the company case studies seem to be somewhat universal.

However, what is less clear from the feedback is why companies "needed" multiple grant awards. In part, this is a consequence of how the grant programmes are delivered. They operate independently and applications are assessed and appraised on an individual basis.

This lack of crossover and referral means that it is hard to assess whether providing multiple grant awards to the same company is driving any additional benefits such as strategic added value or economies of scale within the supported companies.

Within our case study research there was variation across companies that had accessed multiple awards and the rationale for providing support was driven by the specific circumstances. There were three broad groups within this:

- companies that had accessed multiple awards over a longer period of time that were interdependent to different phases of the same project, e.g. a SMART grant that supports early stage feasibility and subsequently leads to project development activity that requires R&D investment;
- companies that had accessed multiple awards to support project activity that had no direct connection/linkages with other activity that SE had supported; and
- companies that received a 'package of support' that included grant funding from different programmes.

SE monitoring data shows that one in five approved grants are awarded to a company that had previously accessed grant funding. In part this could also be a knock-on impact from the demand constraints that stakeholders and operational staff noted in the pipeline of project proposals.

For example, companies that have previously been approved for a grant will have a better understanding of the application/approval process and what activity can be supported. Particularly where projects were successful, these companies are more likely to seek (and be approved for) further grant funding.

Overall, there is a fairly mixed picture as to why companies apply for and 'need' multiple grant awards. This suggests that there is a requirement for SE to gather further information and intelligence from companies on the added value (if any) that is generated through the provision of multiple grants, and whether it is appropriate to provide companies with multiple awards.

Market Failure

While it currently forms a key part of the application and appraisal process, there are well-known challenges with assessing market failure at the individual project level. As a result, we cannot draw any firm conclusions as to the extent to which the justification for grant funding (at a project level) is based on a valid market failure rationale.

Specifically, it is unclear whether the grant funding is targeting the root cause of the market failure (and therefore promoting adjustment in the market), or simply treating the symptoms.

Based on feedback, EKOS' view is that in some cases the grant funding has been an appropriate intervention to help address and target the root cause of the market failure (for example, grant awards that have been used to test and validate products/ processes/ technologies – directly targeting information asymmetry).

In other cases the market failure rationale is less clearly articulated, but the additionality of project activity and impact is evidenced, and this provides sufficient rationale for investment for individual projects.

It is important to note that, while market failure is difficult to assess at the individual project level, at the macro-economic and overall programme level, the rationale and justification is well understood and the grant programmes represent an effective approach to address the root cause of the barriers/constraints.

As discussed further in **Chapter 7**, given the challenges with evidencing market failure at the individual project level, SE should consider the continued relevance and added value it brings in the context of the grant programmes.

Other Sources of Funding

The grant programmes are positioned as a funding source of minimum or last resort and at the application stage, companies are asked to provide evidence for this 'funding gap' and the other funding sources they approached/considered.

However, in the majority of cases the grants were not regarded or treated as a "funder of last resort" in the strictest sense. Stakeholders, operational/delivery staff and the companies view the grant programmes as comprising an important part of the wider funding package required to deliver project activity. While many companies could have accessed other financial support, the grants helped to reduce financial/commercial risk and leverage additional private sector investment (through the company providing match funding).

What is important to note here is that, while companies identified that they could (likely) have accessed other funding, the availability of the grant support allowed them to deliver project activity (and outputs) over an accelerated period or on a bigger scale – demonstrating clear additionality. In this sense the grants can be viewed as a key tool to leverage private sector investment and activity.

6.2 Delivery of Grant Support

How Grants are Being Used

One of the more interesting findings of the review has been understanding the difference between how the grant programmes were initially designed, based on a segmented approach, and how, in practice, they have been used to support companies.

There are six individual grant programmes that have been segmented to address specific constraints and challenges within the business base (for example, the rationale behind the R&D programme is to drive business R&D and support innovation, while Environmental Aid to address externalities (market failure) and contribute to the low carbon agenda).

The review found that regardless of what grant programme(s) the companies had received support through, the issues, challenges and rationale for providing grant support were broadly similar.

In this sense, the grants were viewed (and have been used) interchangeably as a means and mechanism to support and leverage the private sector to drive activity that supports economic growth. The segmentation of the programmes has little strategic relevance in terms of supporting project activity.

Specifically, we would point to some management data and feedback which suggests that other grant programmes are being used to address the “gap” left by the changes to RSA eligibility (in particular, the R&D grant). This is a clear example of the grant programmes and SE’s approach being flexible and adaptable to support the company base.

This suggests that the priority should be focused on what the activities (or “projects”) will generate – the net outputs and outcomes, and less on what grant programmes are used to support the companies.

EKOS’ view is that this is an entirely appropriate and relevant approach from SE to offer both continuity of service to large companies and help drive activity within a key policy priority area - R&D.

Linkages to other Support

There was limited feedback with regards to the linkages that the grant programmes have with other SE products and those delivered by partners.

In some cases the company had accessed multiple grants and other SE products (for example support to source manufacturing suppliers) as part of a strategic, longer term project to develop an idea along the TRL scale from feasibility to commercialisation. In other cases the funding was used to deliver a short term one-off project. There is some evidence from SE monitoring data that suggests companies that access R&D grants are more likely to access other support, however, it is unclear the extent to which this implies a direct relationship.

In terms of linkages with other support provision, at a high level the grants are seen as being relatively unique in that they can support and fund a broad range of activity and demonstrate synergy with other funding streams such as Innovate UK and Zero Waste Scotland.

The Role of Account Management and Operational/Delivery Staff

Overall the feedback was positive with regards to the formal and informal role played by SE staff in providing advice and guidance to help shape projects and acting as an "informal sounding board". An example of where SE staff add value to the grant programmes includes grant management's role in providing guidance and advice at the outset on the reporting and evidence requirements for processing claims. As discussed in **Chapter 7**, this is an element that could be formalised;

Specifically, we would highlight that the Account Managers (through referring companies into the pipeline) and appraisal staff (through appraising applications) have an important role in ensuring a supply of 'good quality' projects that contribute to policy priorities and objectives and, importantly, deliver net additional activity and impacts for the Scottish economy.

6.3 Impact of Grant Support

Impact and Benefits

Feedback from stakeholders and companies has been consistency positive in the role that the grant awards have had in facilitating economic growth – delivering a significant observed impact. At a macro-economic level this included;

- increasing employment (in many cases creating higher value jobs);
- growing market share which led to an increase in turnover;
- utilising innovation and training as a means to drive productivity;
- leveraging additional investment from the private sector (much of this leveraged investment was to support R&D related activity); and
- enhancing Scotland's reputation within an international market.

In addition to the quantifiable benefits and impacts, importantly, the company case studies identified a wide range of more intangible benefits that the grants have generated at the individual company level. Of note, this included; supporting companies to overcome challenges, testing and validating ideas/concepts, demonstrating the value of R&D (including specific technologies), growing capability and capacity within the supply chain and upskilling the labour force.

In terms of impact, we also need to consider the implications from the (reported) constraints within the pipeline of new companies and (good quality) projects coming forward. Currently the grant programmes are only being accessed by a small proportion of the business base and, as highlighted above, one in five (19%) have accessed more than one award.[76]

Over the review period, 1,300 companies have been awarded a grant and the average number of awards is c. 200 per annum. Looking at historical data on the number of enterprises operating in Scotland this represents an annual penetration rate of <0.1%.

While there will be both supply side and demand side issues driving the engagement and penetration rates, the relatively small (absolute and proportionate) levels of Scottish businesses accessing a large grant, and that one in five have accessed more than one award is noteworthy and helps to illustrate the feedback from stakeholders regarding potential constraints within the pipeline.

We are, however, unable to comment on the extent to which (if any) this relatively low rate of penetration/engagement has affected the impact generated through the grant programmes. For example, would working with a broader company base (and achieving a greater penetration rate) deliver 'bigger' or 'better' impact and returns?

Measuring Impact

The main tangible (quantitative) impacts that are being captured and reported through the grant programmes monitoring have close alignment with, and make a strong contribution towards, SE's policy priorities of; **creating and protecting employment**, **enhancing business resilience** and **leveraging investment** (R&D and inward investment).

[76] This refers to the number of companies accessing the grant programmes, not the value of the grants that have been awarded. Anecdotally, the value of the grants awarded to companies that have received multiple awards is proportionately higher.

At a high level, the monitoring data being gathered is appropriate and relevant and feeds into SEs agency wide system. Nonetheless, we would note that there are two limitations in the current monitoring system:

1. the monitoring systems gather data on the forecast impact and benefits, and there is little in the way of formal follow-up to assess whether these impacts had been achieved.
2. the timescales for gathering and reporting impact often do not align with project activity.

Based on feedback, the progress towards achieving the forecast impacts was mixed, but generally positive[77]. Most of the company case studies had already, or were on track to, deliver the forecast impacts and benefits.

However, there were others that had over-delivered (one example included a +400% increase, 6 jobs forecast and 32.5 created, mostly R&D related employment). While others that faced challenges during the delivery of their project and impacts were not on track to deliver. There were numerous drivers cited for these delays, including; issues with feasibility/project testing, access to skilled labour, challenges with securing external investment, etc.

The majority of these issues were unforeseen and therefore out with the control or remit for SE intervention (i.e. it is unlikely that other forms of non-financial support could have supported the project.

Anecdotally, in projects where there has been slippage or delays in meeting milestones (technical and commercial) and achieving impacts, these tended to be within projects accessing R&D support and that were more speculative in nature (for example, within early TRL levels) and already quite far from market. This further emphasises the point above regarding elapsed timescale to impact for R&D project activity.

Even across projects that are progressing well against their technical milestones, companies' often reported delays in securing their targeted commercial milestones, such as securing external investment or launching their product.

[77] Note that this may reflect the relatively small sample and that case studies were self-selected.

This reflects feedback from stakeholders and operational/delivery staff that companies are often overly optimistic in their forecasts and that the lead-in times for progressing (R&D projects in particular) along the TRL scale are often 5+ years.

Within this, it is unclear whether the overestimations of performance are influenced by a requirement to align project activity with the SE monitoring and reporting targets and timescales.

For example, one company that had accessed support through the HGSP noted that the guidance sets a target of £5m in revenue or £10m in external investment, five years post-spinning out. Feedback suggests that this is an overly ambitious target but forms part of the eligibility criteria and therefore is partly driving their forecasts.

In addition, SE also (informally) use value for money metrics such as Return on Investment (the net additional GVA returns set against the project costs), and cost per job (the project costs set against number of jobs) to value the relative contribution of projects against one another. While these value metrics might not be the deciding factor in approving applications, they do potentially influence behaviour.[78]

As discussed in **Chapter 7**, SE should consider opportunities to:

- develop a process to more accurately capture and report the actual benefits/impacts achieved by the companies (as opposed to just the forecast benefit). One potential route for this is through better utilisation of the post-completion review; and
- realign the timescales for collecting monitoring data to better reflect and align with the supported project activity.

Additionality

The level of additionality attributable to the grants is generally high and is mainly in relation to scale and timescales (supporting larger projects and accelerating activity).

[78] For example, companies over-inflating or over-estimating performance. To some extent the appraisal due diligence process and application of Optimism Bias within the project EIA will help to minimise the impact of this.

The focus of this review has not been to quantify the impacts achieved by companies. Nevertheless, an important finding is that, in the majority of cases the project activity and impacts[79] achieved are directly attributable to the grants and display strong levels of additionality, i.e. in the absence of the public sector intervention all/or some of the impacts would not have occurred.

There were a few cases where the impacts were 100% additional and attributable. Nonetheless the company and stakeholder feedback reported that the grant awards had a notable effect on project scale and timescales – increasing the scale/value of impact and accelerating the time to generate impacts.

This is not to say that there is no "deadweight" associated with the programme. For example, attracting foreign investment (capital and FDI) to Scotland is a key priority for the Scottish Government. It is an area where the grants are considered (by stakeholders) to play a key role in Scotland's ongoing success – outside of London, Scotland remains the second most attractive region in terms of securing inward investment.

The rationale for providing grant support to secure inward investors is that, while the activity is likely to take place anyway, it would not necessarily take place in Scotland. Therefore, the grant funding is required to secure this investment – acting as a 'differentiator'.

The role of the grant programmes in securing inward investment is very challenging to quantify (i.e. would a company have located and invested in Scotland in the absence of a grant?). EKOS view is that there is no 'definitive' answer to this question.

Above we have provided anecdotal evidence gathered through consultation with both stakeholders and companies that grants were vital in securing their investment. Nonetheless, we would note that the feedback from companies was varied and financial grant support was not the only, or even the most important factor in some cases. This is supported by wider research shows that other criteria such as access to a skilled workforce is the key criteria for supporting investment decisions.

[79] It should be noted that activity additionality and impact additionality are not the same and need to be measured and considered differently.

While evidence can be gathered to help support the assessment of additionality, in most cases this is an informed judgement call by SE executives. This highlights SE executives need for a clear understanding of additionality[80] and how to assess/test/validate project propositions.

Overall, it is EKOS' view, based on our analysis of 38 case studies that the current approaches are relatively robust (particularly when supported by Economic Impact Assessments) and that, in the main, the SE appraisal staff have the required knowledge and understanding to assess the additionality of the supported projects.

Financial Transactions

There is clear evidence of ongoing demand (and rationale) for grant support, nevertheless, the external policy environment is evolving and the grant programmes have to be considered in the wider context. In particular, there is a strong policy focus on innovation, efficiency and productivity improvements through public service delivery.

The Scottish Government recently announced a significantly increased budget with respect to Financial Transactions to support its Enterprise, Trade and Investment activities (£253.5m for 2019/20). This represents a nearly seven-fold increase in the 2016/17 budget. This funding commitment is seen as indicative of a systemic change in how the public sector is funded and delivers support.

The implementation and integration of Financial Transactions offers a number of potential opportunities for the public sector to:

- develop enhanced strategic relationships with companies that share risk and reward, derive mutual gain and are less transactional in nature;
- address inequalities in the investment pipeline – ensure a broader range of companies (across industry sectors and geographies) have access to a wider range of funding opportunities that better reflects the needs/demand of the private sector; and
- generate returns on their investment (capitalise and commercialise the investment) and enhance the sustainability of public services.

[80] While the example provided has focused on deadweight, there is also a need to understand the implications with regards to displacement (factor and labour market competition), leakage (the extent to which impacts occur outside of Scotland) and supply chain effects.

We would, however, reflect the feedback from stakeholders and the companies and advise caution here. Support for Financial Transactions was not universal across stakeholders or companies with some noting concerns that a significant change in the funding landscape could further weaken Scotland's offer in what is already a very competitive landscape (for example, other countries offer higher intervention rates, tax incentives for inward investors, etc.).

The Financial Transactions offer would therefore need to be aligned with, and add value to, the existing public sector support framework, including grant provision. As discussed in **Chapter 7** this could include the development of a 'blended model' that provides access to grant and other forms of debt funding (e.g. loans and equity).

In particular, this new model would need to take cognisance of the underlying rationale and reason why companies need access to funding and how Financial Transactions can complement this. This therefore suggests that a standard package, or one size fits all approach would not be appropriate.

The funding model would also need to be designed and developed first and foremost as a strategic tool to support company growth and leverage additional investment and economic activity. It should not be developed solely as a vehicle to deliver returns to the public purse.

This is important for two reasons. First, it will ensure that the offer does not duplicate or compete with commercial lenders (a potential risk in a cluttered landscape e.g. SE, SNIB, SIB, private sector). Secondly, the offer should be targeted at addressing the needs/demands of companies and delivering against policy priorities/objectives.

An outline of the key principles of a new Financial Transactions funding model include:

- a funding model that is tolerant of risk and failure - this relates to the type of companies, activities and projects and that are supported;
- a funding model that is flexible and responsive to change (both at a macro and micro economic level); and
- a funding model that prioritises long-term commercial and financial sustainability for both the company and public sector over and above immediate impact and returns. Specifically this relates to the terms and conditions for repayment to ensure these are aligned to project timescales.

For example, as noted, given the longer lead-in times for some R&D activity it may be more appropriate to establish a longer repayment profile – up to 10 years with no capital repayment until year 5.

The private sector will continue to be the main driver of economic growth in Scotland, and the public sector role is to enable, incentivise and support this to happen.

The Grant Programmes Contribution to Key Policy Areas

There are three key areas identified in policy and through discussion with stakeholders and companies that present an opportunity for a 'step-change' in Scotland's economic prosperity and growth:

- attracting greater levels of inward investment – bringing new revenue and wealth into the economy;
- supporting more companies to access international markets (exporting); and
- increasing and leveraging investment in business R&D as a vehicle to drive up levels of innovation and productivity.

The grant programmes have played an important, but varying role in contributing to these three areas. Below we have provided further details from the case studies.

Attracting Greater Levels of Inward Investment – Bringing New Revenue and Wealth into the Economy

First, it is important to note that the role, and contribution of the grant programmes here is somewhat of a mixed picture. The consultations with both stakeholders and companies identified that the grant programmes are a significant driver of inward investment activity and have helped Scotland secure some notable investment (albeit the counterfactual is often hard to assess).

The case studies below outline where the grant funding has been important, either in securing new inward investment, or retaining investment within Scotland.

Case Studies 5 and 6:

There are two case studies that demonstrate similar characteristics and show how the grant programmes have been used to attract significant investment. Both the supported companies are foreign owned and operate within the business services sector.

SE provided grant support through RSA (the awards approved were c. £2m and £1m respectively) and were used by the companies to pay salaries and overhead costs (set up) in advance of trading in Scotland.

The grant funding enabled the companies to start trading immediately and scale up at pace – effectively "hit the ground running". This was a significant incentive for the companies as this upfront investment allowed them to win contracts and generate income over a shorter timescale – this reduced the amount of elapsed time for the sites to become commercially sustainable.

Both case studies attributed timescales additionality benefits/impacts to the grant funding, which accelerated the projects, 12 months and 18 months, respectively.

Both projects have supported the creation of a significant number of new jobs (400+) and leveraged significant capital investment of c. £5m. It should be noted that while the jobs are not considered high value, the lower entry requirements make the employment opportunities more accessible to residents in the local/regional area.

Case Study 7

The company is based in the US and operates within the data analytics and informatics sub sector, and was searching for a European base for a manufacturing and testing facility.

It was noted that Scotland had a number of positive attributes as an inward investment location, including, access to skilled workforce, high quality universities, and an emerging cluster of businesses operating within a number of synergetic sectors and disciplines (one of the company's main research partners was located in Scotland).

However, the company were considering a number of sites within mainland Europe, many of which offered comparatively 'better' financial inducements (e.g. reduced levies and taxes).

The company was awarded two separate grant awards with a value of c. £2m through SMART and RSA to support the project. The initial RSA grant was to support the capital costs of locating in Scotland, while the SMART award was used to support the first feasibility project undertaken at the new facility.

The company has developed a new manufacturing facility which has created up to 60 higher value jobs (around half are within R&D) and is now part of a growing cluster of Scottish based companies that is gaining international recognition.

The grant awards were identified as a significant driver for securing Scotland as its new manufacturing hub. While the company felt Scotland had a competitive offer in terms of the skills base and links to academia, the provision of the grants made sure that the overall package was attractive (i.e. the grant acted as a key differentiator).

Supporting More Companies to Access International Markets

The case study evidence has shown that support has enabled a small number of the company case studies to increase their presences within, and access new international markets.

Case Study 8

One of the company case studies has had a long standing relationship with SE since its inception and over the course of this engagement has accessed three grant awards over a four year period (2 SMART and 1*R&D).*

The initial two SMART grant awards were to support the company build and test the feasibility of the technology (software and hardware). On the successful completion of the initial feasibility and proof of concept stage, the company was awarded a further R&D grant to develop and refine two generations of prototypes.

The 3rd generation technology has now been launched and the company has recently been investigating strategic supply chain partnerships for the mass manufacturing of 100,000 units. It was noted that the manufacturing is likely to be offshored to East Asia as their current suppliers (Scotland and UK based) do not have capacity and cannot offer the same economies of scale savings.

The product has been developed with a view to specifically targeting the European and US markets. Alongside the grant funding, the company has also accessed wider support from SE to attend trade missions and source distributors and retailers.

From start-up in 2014, the company now employs 25 and is targeting sales of c. £9m in 2020. Without the ongoing support of SE (grants and wider support) the company reported it is very unlikely they would have been able to secure external investment and move the project forward – the additionality is therefore high.

We would, however, note that this case study is the exception rather than the rule and based on the feedback from all 38 case studies, exporting or entering new markets was not often cited as an intended benefit/impact of the grant support.

Increasing and Leveraging Investment in Business R&D as a Vehicle to Drive up Levels of Innovation and Productivity

The feedback shows that, undoubtedly, the grant programmes have had a positive impact on de-risking investment and leveraging additional R&D spend from the private sector. In particular, there has also been a number of success stories with regards to commercialising activity coming out of the academic research base.

Case Study 9

The company operates in the wider automotive market and has a sizable workforce (2,500+ employees) based in Scotland and internationally. In response to wider changes in the market (customer demand) and legislative requirements regarding emissions, the company has undertaken a number of R&D projects to meet this demand. Over a three year period they have accessed three significant R&D awards to support its transition towards low and zero carbon vehicles.

This support has enabled the company to develop and manufacture a range of new low carbon technologies which has helped enable them to keep pace with global competitors and meet the changes in demand. This will also help to 'future proof' the business as they are a relatively early adopter of these technologies.

At a time when many in the sector were divesting their manufacturing to other countries, the case study has been investing within its Scottish and UK assets. The grant funding has leveraged an additional c. £24m in match funded R&D spend, representing a ratio of 1 : £2.4 i.e. for every £1 of R&D funding drawn down from SE, the company invested an additional £2.40.

Case study 10

Another notable example of where the grant programme have helped stimulate R&D activity includes a Scottish company operating within the medtech (devices) sub sector of life sciences. The company was looking at opportunities to exploit AI technologies through systems integration with medical diagnosis machines – regarded (at the time) as both innovative and high risky activity.

The company has received one R&D grant (c. £2m) which has helped to develop and test the initial prototype. The grant funding has leveraged an additional £4.7m through its parent company to support further R&D activity. As a direct result of this activity the company has created/protected 26 R&D jobs.

In addition, on the back of this research, the company is now engaged in a larger UK-wide collaborative R&D project that has received funding of c. £10m from Innovate UK through Industrial Strategy Challenge Fund.

Case study 11

The company's primary service areas is manufacturing audio components and silicon microchips for a range of electronic products – the company was already regarded as a market leader and was looking to further penetrate the lucrative smartphone market.

The company was one of the first in the market to test, validate and incorporate this 3rd generation technology and new approach to manufacturing microchips.

The research side of the company is based in Scotland (manufacturing is undertaken overseas) and a significant proportion of the company's sales activity takes place in Asia and the US. The funding was vital to allow the company to develop the capability within research and development side of their business. In addition to supporting the companies R&D activity, the grant also helped to expand its presence within international markets.

The company was awarded c. £1.5m R&D funding to support the prototyping and development of smaller and more cost effective components (silicon microchips). The SE grant funding raised an additional £5.5m from the company (although this likely underestimates the total value of the research project.

While the technical elements of the project have been successful and all milestones achieved, to date the impact has been modest. While the company has delivered significantly more new jobs than forecast (30 new R&D jobs against a target of 6), it should be noted that six years post-completion, the new products have not been fully integrated within the hardware (testing estimated to be completed by 2020/2021). This is further evidence as to the longer lead in times with R&D and technology based projects.

The new technologies supported through the funding have potential to generate multi-million pound returns, and discussions with customers are ongoing.

However, it was noted that the company operates within an innovation driven and commercially challenging environment – given the fast paced nature of the electronic components and semi-conductors sub-sector, it is likely that within three years the technology will start to become obsolete and the company will need to start investing in the next generation technologies.

Case study 12

The company is a spin-out from Heriot-Watt University that operates within the wider food and drink sector. The supported project activity was to undertake industrial level testing of a novel process that converts waste from distillation and fermentation into a valuable feedstock – reducing waste output and providing a cost effective supply for other key sectors e.g. aquaculture.

The company initially sought funding support (£0.5m) from the SFC Horizon 2020 programme to develop the concept before approaching SE. The company has accessed grant funding through HGSP of c £700,000 through a mix of grant and convertible loans from SE.

The support has helped the company prove the commercial viability and capacity of their process (achieving volumes of scale), which has been fundamental in the company successfully spinning out.

Since the completion of the initial project, the company has successfully leveraged in around £4m of private investment and a further £4m debt funding to support the capital development of a purpose built processing facility. The new facility is estimated to be completed in 2020 with up to 15 new R&D jobs created.

Based on the case study evidence, at the individual project level it is clear that the grant programmes are having a positive impact on bringing forward new investment in R&D. That being said, to what extent the grant programmes are contributing to BERD across Scotland as a whole is harder to measure and attribute - only around 7% of all BERD funding comes from Government[81].

6.4 Summary of Key Findings

Below we have provided a brief summary of the main findings:

- there is a shared view across public sector stakeholders and the company base that the grant programmes continue to be an effective and valued mechanism to support economic growth and development in Scotland. They are an important part of the support eco-system and should continue to be utilised as a mechanism to support economic growth and development;
- anecdotally there is strong evidence to suggest that the grant programmes have delivered net additional economic impacts for the Scottish economy, most notably - jobs, GVA and leveraging investment from the private sector;
- the grants are also contributing to a number of less tangible and more 'qualitative' impacts such as enhancing Scotland's reputation/attractiveness, cluster development, and fostering a commitment to Scotland through the development of strategic company relationships. While more challenging to measure, these are seen as equally important in justifying the need/rationale for grant funding;
- while the introduction of Financial Transactions represents an opportunity for the public sector to enhance the commercial sustainability of its service offering, the grant programmes would be best positioned within some form of blended financial support for some types of companies and projects. Financial Transactions should complement, not replace the grant programmes;
- there are some challenges related to the design, promotion and administration side of the grant programmes (appraisal and grant management) that may be constraining activity; and

81 Business Enterprise Research and Development Data for Scotland, see Table 7 here.

- given recent policy changes and the Scottish Government's strong strategic focus on delivering inclusive economic growth, this is an opportune time to review the grant programmes to ensure the support is targeted and positioned appropriately.

7. Issues for Further Consideration

This Chapter presents a set of emerging considerations and recommendations which will support the future delivery of the SE grant programmes. This includes a mix of strategic and operational issues.

7.1 Gathering Further Intelligence and Data

Recommendation 1: Develop (or adapt existing) systems to gather bespoke data and intelligence to better understand what is constraining uptake of grants, from both a supply-side and demand-side perspective.

One of the key challenges that stakeholders reported is that the programmes are "demand constrained" and there is a lack of good quality project activity coming forward for support.

This suggests that there is a need to better understand what are the supply and demand side drivers for these constraints, and in what areas it is appropriate for SE to intervene.

The review has not looked at what data SE gather from companies across the grant programmes (or whether this data is already available), however, what is important is how the data/intelligence could be used to inform the grant programmes. In particular it would be valuable to gather data and evidence from unsuccessful project applications or those that have never engaged with SE.

Supply Side

Some of the supply side issues where further data and intelligence could inform the programmes include:

- what projects are getting rejected and are there any trends or linkages, this could include an assessment of: sector, geography, type of project activity, by individual grant programme, Account Managed v non-Account Managed, TRL level;

- level of funding available – to what extent have the intervention levels (which have traditionally been lower than what is allowable) impacted upon the quality of projects and the throughput of activity;
- the impact of the eligibility criteria that is not legally required e.g. that is imposed by SE policy;
- promotion and marketing – do partners, intermediaries and companies have access to robust and up-to-date information regarding the grant programmes - what is available and how to access this support;
- raising awareness of the grant programmes as a mechanism to enhance strategic linkages with other organisations responsible for economic development, notably, local authorities, Business Gateway and the emerging Regional Economic Partnerships; and
- the impact of contract and grant payment conditions (are these clear, appropriate and not overly burdensome);

Demand Side

Some of the demand side issues that could be further explored include:

- business leadership within the companies acting as a constraint on growth ambitions;
- "cultural issues" with regards to taking on additional risk and debt;
- lack of awareness on available sources of support; and
- lack of alignment between company priorities (which may be more focused on the day-to-day operational running of the business) and SE's strategic priorities (which tend to be more aspirational in nature), for example supporting companies in areas of activity such as R&D, training and exporting.

7.2 Design and Rationalisation of the Grant Programmes

Recommendation 2: Consider opportunities to redesign and rationalise/simplify the grant programmes in line with the emerging Digital Transformation policy and inclusive growth framework.

Broadly speaking, there are elements of consistency across the grant programmes. This includes:

- the rationale for why companies need support is consistent (risk, competition and access to funding);
- while the intended outcome may be different, the type of activities that can be supported through the individual grant programmes are broadly similar (for example, supporting salary costs, capital spend, etc.); and
- they may contribute to many of the same performance indicators (e.g. safeguarding or creating jobs, increasing sales) and may do this through similar mechanisms e.g. innovation in new products, service or processes.

Aligned to this, the review findings point to the grants being used as an interchangeable tool/mechanism to stimulate and drive activity and growth in the company base. The type of award (i.e. programme) that the companies' access is strategically less important than the outputs, outcomes, and ultimately the impacts that the grants help generate.

In addition, the landscape is somewhat cluttered with SE promoting six large grant programmes and there is varying levels of knowledge and understanding amongst partners and intermediaries (and even within SE) as to the type of projects and activity the grants can support.

There is a case for simplifying and rationalising the grant products into one or two larger programmes that target and support 'business/economic growth'. The type of activities that could be supported, however, would need to be well-defined and aligned to policy. This could include projects that:

- deliver fair work opportunities;
- support training and skills development;

- create and protect jobs;
- help secure investment for Scotland;
- increase/leverage investment (R&D, inward investment, capital);
- enhance productivity/innovation;
- contribute to carbon reduction; and
- support companies access new/international markets.

It is EKOS' view that re-designing and rationalising the programmes at the 'front end' could have a number of benefits, including that it could:

- improve the marketing/promotion and awareness of the grant programmes by making it simpler for internal staff, partners, intermediaries and companies to better understand the type of activities that can be supported;
- increase awareness amongst companies and make it easier for them to navigate and access support;
- contribute to inclusive economic growth principles through promoting access of opportunity to the broader company base, potentially helping to drive up demand (particularly amongst companies that are not Account Managed);
- help ensure that all project applications are assessed on a transparent and consistent basis. For example, appraisal staff could be more 'generalists', and have skills and capability to assess and appraise all types of project activity and applications;
- help ensure that projects are not assessed in a siloed manner but with a broader understanding of the opportunities and challenges faced by the company base; and
- ensure that approved/funded projects are focused on delivering outputs, outcomes and impacts that are consistent with, and contribute towards, Scottish Government and the enterprise agencies' priorities, such as inclusive economic growth.

7.3 Application and Appraisal

Recommendation 3: The application and appraisal process should be reviewed, and where feasible, streamlined and simplified (where feasible) to ensure a standard and consistent approach with the emphasis on the contribution to policy priorities and the net additional outputs, outcomes and impacts of supported project activity.

A re-design and rationalisation of the grant programmes suggests the need to revise and standardise the approach to assessing and appraising project applications.

In a general sense, the emphasis of appraisal should be on the outputs, outcomes and impacts i.e. what does the Scottish economy get in return for providing grant support. It is EKOS' view that, to some extent, the current system is too focused on assessing/appraising the inputs (e.g. market failure, trying to evidence that the public sector is a funder of last resort, etc).

In addition to the development of a single digital entry point (SEP), which is currently being developed with a view to being rolled out across all public sector partners, we have provided some further thoughts on what this application/appraisal gateway might look like.

1. eligibility – does the company and project meet SE and State Aid regulations (*testing the company rationale for seeking support and ensuring that the Programme continues to have robust oversight and due diligence measures in place*);
   The eligibility criteria should (where feasible) be simplified to separate out what information and evidence is critical (or legally required) and what is "nice to have". The premise is to ensure, as far as possible, that public sector policies are not constraining activity.

2. SE objectives and priorities - does the project deliver against the following priorities (*what is the public sector rationale for providing support and how will the project contribute to strategic objectives*):
   - attract, create and protect quality jobs and talent that will support wellbeing, fair work and inclusive growth across Scotland

- drive research and innovation investment in businesses and sectors
- stimulate capital investment in local, regional and national economies
- grow export value and the number of exporters
- contribute to decarbonisation; and

3. what quantitative and qualitative impacts will be generated and to what extent are these impacts additional to the Scottish economy (*what do we get for our investment*).

The main proposed shift from the current approach to appraising applications is on the evidence requirements (where feasible) and the reduced focus on the project level market failure rationale. It is EKOS' view that, while it remains important that SE understands and can evidence the market failure rationale for grant funding as an approach and mechanism to support economic growth, there is less relevance and application at the individual project level (where the focus should be on measuring/qualifying additionality).

As highlighted, this is informed by the cost/challenges with evidencing market failure and also the non-technical background of the majority of the operational/delivery staff. There are varying degrees to which staff, partners, intermediaries and companies understand the concept and technical language of market failure.

7.4 Assessing Project Risk

Recommendation 4: At a strategic and operational level there is a need to review how SE assesses 'risk' in relation to; intervention rates, evidence requirements, appraising additionality and investment decisions.

As highlighted, there is a sense that over the years SE has gradually become more averse to taking risk through the type of activity and companies it supports through the grant programmes. As a result this has evolved into an approach where the emphasis has been on taking less risk with public sector expenditure, sometimes at the expense of economic growth.

Please note that, in this context supporting riskier projects is not the same as supporting projects that will fail or "picking losers" but refers to a systematic tendency for the grant programmes to underinvest in activity where the likelihood of success is less clear-cut or more marginal.

From the feedback, it is not clear the extent to which this approach to assessing risk is constraining activity. As noted, the review has only focused on projects that were successfully approved for funding. We therefore have no counterfactual with which to assess this, i.e. what (if any) projects are being rejected that could add value.

While this is challenging to evidence, anecdotally the feedback suggests that there is appetite for greater (but appropriate) risk as a means to try and stimulate greater demand and throughout within the pipeline. It is worth noting that assessing risk requires further definition and refinement and should be led by strategic and senior leaders within the enterprise agencies to ensure a consistent, robust and transparent approach.

That being said, some areas for consideration are highlighted:

- reviewing intervention rates to ensure they are competitive, appropriate and are attractive to companies – this could include introducing minimum and maximum rates for certain type of project activity. For example, in priority policy areas such as R&D where we know companies often face additional financial barriers related to risk;
- adopting a more 'proportionate' approach to assessing and evidencing the eligibility for lower value projects - these could be assessed on a sliding scale based on the total value of the grant (e.g. projects below a defined threshold £100,000). This will help ensure that the programmes are only gathering the evidence and data that is required, not "nice to have".
- adopting a more 'proportionate' approach to evidence requirements for drawing down payments (recognising the requirements to comply with State Aid regulations). For example, individual grant claims below a certain threshold don't need to be audited by an extra accountancy (only upon project completion);

- accepting “appropriate levels of risk” when supporting companies/projects that operate within emerging or priority technology/sector/thematic areas where the commercial end point is uncertain; and
- supporting companies at the lower TRL levels, the so called “valley of death”.

7.5 Financial Transactions

Recommendation 5: As Financial Transactions become integrated into the support ecosystem, SE should undertake further assessment as to how these can be aligned to the grant programmes and address the needs of the business base.

The suggested approach is to develop a suite of blended models that address the challenges and constraints faced by the company base and retains a focus on supporting economic development and growth, over commercial gain.

Specific ‘products’ that would complement the existing provision, and there is at least notional interest/support from companies, include:

- debt funding – with flexible and responsive terms and conditions that reflect commercial reality e.g. longer payback periods that are aligned to the project development cycle and reflect the longer lead in times for certain activities, initial interest free periods, etc.;
- blended model that offers a mix of grant, loan and equity that are linked to the project development lifecycle (or TRL scale), for example funding that is a part of an overall funding package that as well as a grant also includes debt or equity funding from SE/SIB;
- patient capital or convertible grants (payback of the grant can be released in the form of equity) where the lender (SE/SIB) adopts a longer term view on returns and the release of equity, or repayment is linked to the commercial success (technical or commercial milestones) of the supported project/activity; and

- locked box' scheme where part of the loan repayments (and/or the interest payment) could be 'ring fenced' and diverted to a separate pot of grant funding ('locked box') which provides a dedicated source of funding that the company could access in the future - each company has its own 'locked box' fund [82].

  This ring fenced funding could be utilised to support the company undertake certain prioritised activity in the future, for e.g. undertaking R&D, internationalisation or training and appropriate conditions would be attached including, potentially, a time limit for accessing funds beyond which they are returned to a general fund. Effectively, the company can access a share of revenues generated (in the form of a grant) from the projects that they are involved with to support future activity.

  This approach would help to generate a return for the public sector, ensure revenues are invested directly back into supporting economic development priorities, and allow the company to benefit from its success.

We would, however, caution that with the emergence of the Scottish National Investment Bank (set to be launched in 2020) there is a risk of duplicating provision and further complicating the landscape.

7.6 Marketing and Promotion

Recommendation 6: As part of its Digital Transformation Strategy, SE should consider updating and refreshing how it markets and promotes the grant programmes via digital channels.

Suggested improvements and recommendations around the marketing and promotion of SE grant programmes include:

- refreshing and updating SE and HIE (and partner) websites to include: up-to-date and relevant information on the grant programmes and how to apply, project case studies, external links to other complementary funding sources, etc.; and

[82] This approach is broadly similar to Screen Scotland's Broadcast Content Fund which utilises a "locked box scheme" where companies have access to a dedicated fund. See Appendix B for further details, here.

- utilising other channels and networks to promote the availability of support e.g. live events, webinars, blogging/social media, etc.

7.7 Post-Completion Monitoring

Recommendation 7: Adapt and better utilise the post-completion reviews as an approach to deliver added value and ensure continuity of support.

While the digital single point of entry will make it easier for companies to engage with SE in the future, specific to the grant programmes, the current post-completion review is perhaps an underutilised opportunity and SE should consider opportunities to generate greater value (both for SE and the company).

For example, the post-completion review could be adapted and be used to:

- gather data and feedback on the performance of the project/company in comparison with the initial forecasts and the drivers for this;
- proactively engage with the company to review their future support needs, growth ambitions, etc.; and
- support closer monitoring of companies as they move along the TRL journey.

7.8 Regional Targeting

Recommendation 8: In line with Scottish Government policy to deliver inclusive growth, SE could pilot new approaches to help enhance the coverage (geographic, sectoral, thematic) of the grant programmes to promote access of opportunity.

As noted, inclusive economic growth and fair work are two key policy drivers for Scottish Government and SE should consider opportunities to continue to support and deliver against these.

There is first a need to understand where SE is under represented (within geographies and sectors – which are often linked) and examine the potential drivers for this. There are two potential targeted approaches that SE could consider:

- pilot a regional or sectoral call for project activity and encourage applications/enquiries, i.e. specifically targeting (or ring fence funding) to support sector/geography/thematic areas where there has been limited demand and activity in the past; and
- adjust the appraisal and eligibility criteria so that it enhances the (perceived or actual) accessibility of the grant programmes. This could include a "weighting" applied to the appraisal and application process that supports companies with specific characteristics. For example, a greater weighting could be applied to assessing applications from companies based within, or seeking to, create new employment opportunities within a rural area.

7.9 Monitoring and Performance Metrics

Recommendation 9: Develop supplementary performance metrics to gather additional intelligence and monitoring data on the wider value of the grant programmes.

While we recognise the need for a consistent approach, and by in large the current measures are appropriate, there is merit in considering additional measures that capture some of the wider value (that can sometime be intangible) but act as a strong driver for public sector intervention. This is particularly important for projects where quantitative impacts are likely to take a number of years to be achieved.

This could include a 'tiered' approach that utilises core (based on SEs existing approach) and supplementary measures/metrics that are sourced from a wider indicator menu that is agreed when developing the Account Plan.

Please note we are not advocating collecting additional data where there is no clear added value to SE and/or the companies – this needs to be balanced with the available resources. EKOS' view of possible additional indicators include:

- private investment leveraged;
- progress along the TRL journey (this in particular will require clear and consistent definition);

- productivity improvements e.g. costs savings, increased outputs, etc.;
- contribution to inclusive economic growth (e.g. companies paying the living wage, geographic penetration, employment opportunities for groups with protected characteristics, etc.).

In addition to developing supplementary performance metrics, SE should review their approach in terms of the scope of data, and timescales for gathering performance data. Specifically this includes:

- more systematic follow-up to capture and benchmark performance data on the forecast impacts (at the project outset) and the actual impacts achieved (at agreed milestone dates); and
- the performance framework should be reviewed to more accurately reflect the elapsed time between project delivery and impact – this is particularly important for innovation and R&D activity.