



Digital Development Loan

Investment Impact Appraisal

Final Report to
Inspirent
(formerly Lanarkshire Enterprise Services)

November 2022



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KEY FINDINGS

BACKGROUND, OBJECTIVES AND METHODOLOGY

Inspirent (formerly Lanarkshire Enterprise Services Ltd) has been delivering the Digital Development Loan for the Scottish Government. The loan seeks to achieve stated priorities in relation to digital skills, processes and capabilities amongst Scottish SMEs, helping to increase the productivity of these businesses.

Loan amounts ranged from £5,220 to £100,000 with a median advance of £50,000. A total of c. £10.4m was advanced to the 203 businesses that formed the basis of this impact appraisal.

The impact appraisal is based largely on a survey of these 203 firms, to which 124 responded. A parallel survey of firms that expressed interest but did not proceed was also conducted in order to gather any lessons from their experiences.

LOAN BENEFICIARIES

Loan recipients were almost always businesses / organisations seeking to make a profit with there also being a small representation from the charitable and voluntary sector. 45% of these firms considered themselves to be “digital businesses”.

Awareness of the Digital Development Loan came primarily through Business Gateway and enterprise agencies. Ratings for various aspects of the application process were very positive. However, a minority of respondents expressed negative views about the perceived length and complexity of the application process (particularly with regard to “Stage 2”).

Loans funded a very wide range of digital activities which did not vary significantly according to whether the beneficiary was a “digital business”. Approximately 65% of external expenditure supported by loans was made directly with Scottish-based suppliers.

Respondents were very likely to indicate that the work supported by the Digital Development loan had contributed to a number of positive outcomes at the business level:

- 96% cited at least one “operational outcome”, most commonly relating to improved efficiency of operational processes.
- 95% cited at least one “business development outcome”, most commonly increased quality of product / service.

LOAN BENEFICIARIES (CONTINUED)

- 90% cited at least one “commercial outcome”, with 63% indicating that the work supported by the loan had increased revenues.

The Digital Development Loan programme has also had a modest impact on reducing some businesses’ vehicle fuel and overall energy consumption.

69% of firms are considering additional digital projects; this figure is considerably higher amongst “digital businesses”, at 89%.

NON-PROCEEDING BUSINESSES

Non-proceeding businesses were also almost always businesses / organisations seeking to make a profit with there also being a small representation from the charitable and voluntary sector. 44% of these firms considered themselves to be “digital businesses”. These businesses were, however, considerably smaller on average than loan beneficiaries, with average turnover of £797,410 compared to £2,533,771 for loan beneficiaries.

Awareness of the Digital Development Loan amongst this group came primarily through Business Gateway. There were mixed views as to the clarity of information about the loan, and about the advice and support provided, with a number of respondents expressing negative views about the perceived length and complexity of the application process (particularly with regard to “Stage 2”).

There was a diverse range of reasons cited for these businesses not proceeding. A number were put off by the perceived depth of the application process and others by aspects of the terms offered. Some indicate that they wished to move forward but were refused on the grounds of eligibility or on the basis of a lending evaluation.

Only 34% of these businesses indicated that they had proceeded with the original digital development project for which they had enquired about funding. Those that did proceed indicated that their business had achieved a range of operational, business development and commercial outcomes from the delivery of the project, but the extent of this was lower than amongst loan beneficiaries.

NON-PROCEEDING BUSINESSES (CONTINUED)

71% of these firms are considering additional digital development projects, this rising to 84% amongst “digital businesses” in this category. Whilst some of these potential projects would be highly innovative, many would be on a smaller scale and with a lower degree of innovation than projects being considered by existing loan beneficiaries.

ECONOMIC IMPACT ASSESSMENT

Economic Impact Analysis, based on beneficiary firms’ forecasts with and without having had a Digital Development Loan suggest a mid-point forecast impact of turnover of £147.9m, Gross Value Added of £62.7m, and employment of 1,289 Full-time Equivalents. Cost per job year is forecast at £8,038.

1.0 BACKGROUND, OBJECTIVES AND METHODOLOGY

BACKGROUND

- 1.1 Inspirent (formerly Lanarkshire Enterprise Services Ltd) has been delivering the Digital Development Loan on behalf of the Scottish Government, having completed a successful pilot before this time, at which point an internal Market Appraisal was undertaken.
- 1.2 The delivery of the Digital Development Loan has involved extensive engagement with businesses. In the database information provided to IBP to inform the evaluation, 203 loan beneficiaries were identified. A database of non-proceeding businesses (who had made at least some contact but did not proceed for whatever reason) was also made available, this having 2,016 entries.

OBJECTIVES

- 1.3 LESL has a requirement under its current contract with the Scottish Government to identify the impact of the loan against its stated priorities, these being:
 - Increase the digital skills of Scotland’s workforce.
 - Improve the digital processes of Scotland’s SME base.
 - Improve the digital capabilities of Scottish SMEs and their workforce.
 - Increase the productivity of SMEs in Scotland.

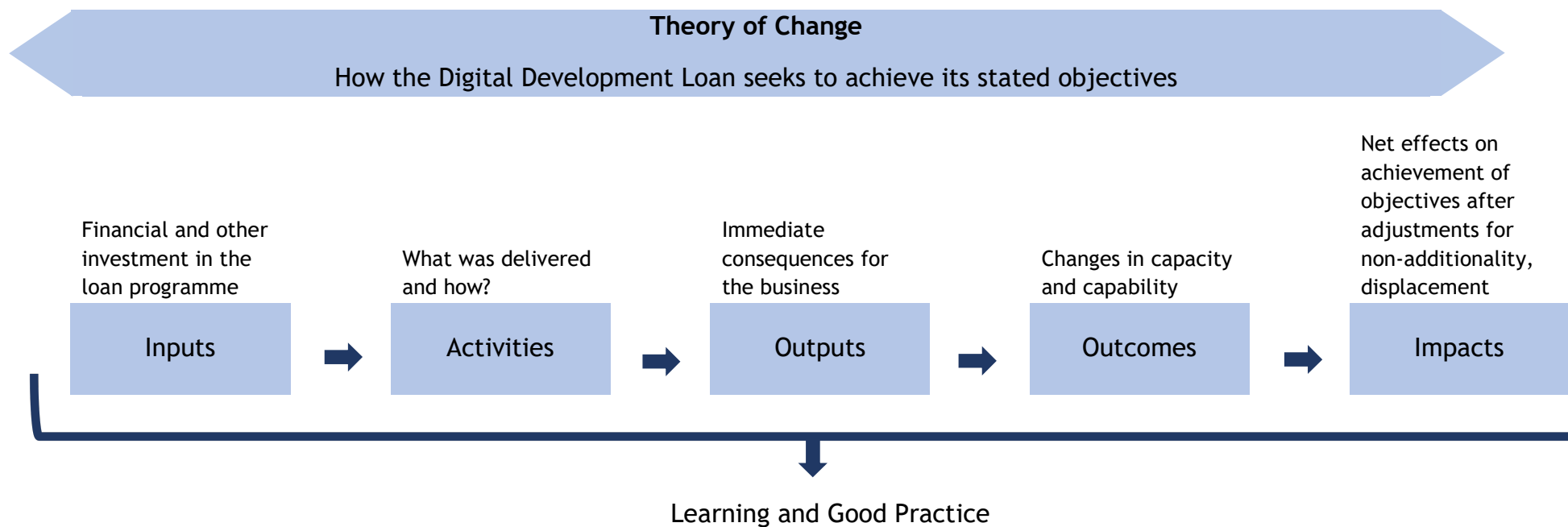
The latter point in particular, requires an assessment of the economic impact of the loan and, specifically, its impact on recipient firms’ Gross Value Added. As well as these “outcome areas”, it has also been important to consider aspects of the loan “process”, specifically in relation to firms’ experience of enquiring about, applying for, and receiving the loan.

- 1.4 Inspirent therefore commissioned IBP, working alongside Bellerby Economics, to conduct an Impact Appraisal to address the above issues. The results of this will have an influence on the Scottish Government’s future policy and practice in relation to digital development support and, in particular, to future procurement of programme delivery.

METHODOLOGY

- 1.5 The overall framework for the Impact Appraisal has been based around the summary “Logic Model” set out in Figure 1.1 over the page.

Figure 1.1: Digital Development Grant - Summary Logic Model



- 1.6 The “inputs” relate to the human and financial costs of delivering the loan. These are principally the loan advances which, for the 203 beneficiaries identified as part of the appraisal, were £10,361,053.¹ Additional administrative costs will have been incurred as part of Inspirent’s contract with the Scottish Government but these have not been included in these input costs.

Loan amounts ranged from £5,220 to the maximum figure of £100,000. The median advance was £50,000 and the average advance £51,040.

- 1.7 The Logic Model reflects the importance of “how” the grant programme was administered, capturing the need for effective communications, customer care and operational delivery of the loan process.
- 1.8 “Outputs” relate to the actual goods and services that were funded via the loans, essentially supporting different elements of work within beneficiary firms.
- 1.9 The model for the Digital Development Loan is that such support would engender a range of outcomes within individual participating businesses. In a project of this nature, these outcomes are varied and would apply in different ways, and to a different extent, across businesses. Some “intermediate” outcomes also contribute to the achievement of other outcomes within the individual business.

For these outcomes, we have used a model of these business-level outcomes that was initially developed for an Impact Appraisal of the DigitalBoost Development Grant, which included the following:

- **Operational outcomes:** these relate generally to the internal operating processes of businesses.
- **Business development outcomes:** these have an external focus and relate to the changes brought about for the business in terms of its products and markets served.
- **Commercial outcomes:** the specific commercial outcomes (relating to revenues, costs and profit margins) can be seen as a measurable result of these underlying operational and business development outcomes.
- **Environmental impacts:** The Logic Model recognises the potential to drive changes in the business that could impact reduced fuel and energy consumption.

¹ It should be noted that this is an amount for gross advances and does not take account of any loan repayments, which reduces the overall level of input investment made, with the loans being accounted for as assets.

The prevalence with which these outcomes were perceived by beneficiary businesses was explored in the main survey of beneficiaries.

- 1.10 These outcomes ultimately feed into economic and environmental impacts at the level of Scotland as a whole. The focus of this report has been on the economic impacts, with the reported outcomes at an individual level being adjusted to take account of deadweight, displacement, multiplier effects and related factors, thus allowing us to comment on the net realised and projected economic impact of the investment in the grant.
- 1.11 It has been beyond our remit to carry out a formal assessment of the Grant's impact in terms of carbon production, but the underlying data is made available to support such an analysis.
- 1.12 Overall, the fundamental purpose of the Impact Assessment is to draw out relevant lessons for the future, including aspects of good practice, in order to inform future policy and practice.
- 1.13 The key elements of fieldwork have been surveys of each of Beneficiaries, and Non-Proceeding businesses, each of which had online and telephone follow-up elements.
- 1.14 For Beneficiaries, a total of 124 responses were secured, this including 94 online responses and 34 follow-up interviews. This represents an overall response rate of 61%. These respondents accounted for loan advances of £6,447,907, which is approximately 62% of total advances (the latter figure being £10,361,053). The average advance amongst respondents was therefore broadly in line with the average advance for all loan recipients.
- 1.15 For the survey of Non-Proceeding Businesses, 144 responses were achieved, including 113 online responses and 31 follow-up telephone interviews. This represents a response rate of 7%, with this lower response rate being reflective of these firms having less engagement with the Digital Development Loan process than beneficiaries. This number of responses does, however, provide a useful overview of perceptions and behaviour amongst those firms that did not proceed further with a Digital Development Loan application.

KEY POINTS

Inspirent (formerly Lanarkshire Enterprise Services Ltd) has been delivering the Digital Development Loan for the Scottish Government. The loan seeks to achieve stated priorities in relation to digital skills, processes and capabilities amongst Scottish SMEs, helping to increase the productivity of these businesses.

Loan amounts ranged from £5,220 to £100,000 with a median advance of £50,000. A total of c. £10.4m was advanced to the 203 businesses that formed the basis of this impact appraisal.

The impact appraisal is based largely on a survey of these 203 firms, to which 124 responded. A parallel survey of firms that expressed interest but did not proceed was also conducted in order to gather any lessons from their experiences.

2.0 LOAN BENEFICIARIES

BENEFICIARY PROFILE

- 2.1 A total of 203 beneficiaries were identified on the database provided to IBP, these forming the “population” of firms for the evaluation. As noted in the previous section, responses were received from 124 firms (a 61% response rate).^{2 3}
- 2.2 Of these, 95% were businesses / organisations mainly seeking to make a profit and 5% were charitable or voluntary sector organisations or social enterprises (base: 120).
- 2.3 Firms were asked whether they were involved in the development of digital technologies, the application of digital technologies or both. Comparatively few firms considered themselves to only be involved in the development of digital technologies (6%) whereas 53% considered themselves to only be involved in the application of digital technologies. However, 41% considered themselves to be involved in both the development and application of digital technologies.
- 2.4 Respondents were also asked to place themselves in one of three categories relating to the importance of digital capability, capacity and skills to their business. The results are shown in Table 2.1 below.

Table 2.1: Importance of Digital Capability, Capacity and Skills to Business

Category	%
FUNDAMENTAL - we consider ourselves a “digital business” and our competitive advantage is based on the development and / or application of digital technologies.	45%
IMPORTANT - we don’t consider ourselves to be a “digital business” but the application of digital technologies is still a very important part of our competitive advantage.	37%
NECESSARY - we don’t consider ourselves to be a “digital business” but we still need to keep up with digital technologies to be able to operate in our area of activity.	18%
Base	122

² Not all respondents provided answers to each question and so the base number of respondents for each question is set out in the body of the text or, where noted, in the appendices.

³ It should be noted that, throughout this report, numbers may not sum to 100% due to rounding.

The population of beneficiary businesses is fairly evenly divided between firms that would define themselves as “digital businesses” and those for whom either the application of digital technologies is either an important part of their competitive advantage or something that they need to “keep up with”.

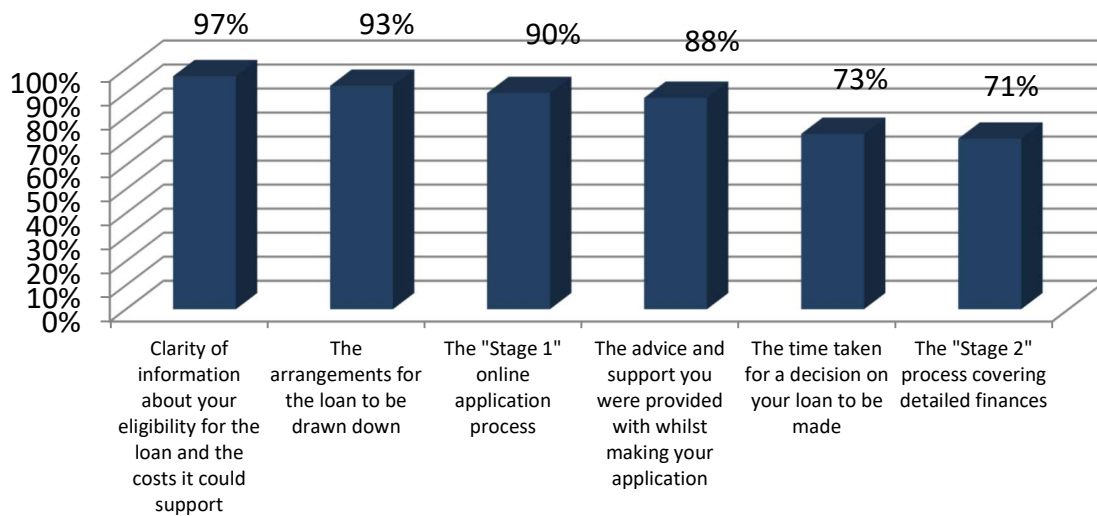
- 2.5 Firms were asked what proportion of full-time equivalent jobs in their business / organisation have an annual full-time salary of £25,000 or above. 94 respondents gave a response to this question. 71% of firms indicated that 50% or more of the full-time jobs in their organisation were in this category. The median figure was that 65% of jobs were in this category with the average being 63%.

EXPERIENCE OF MAKING APPLICATION

- 2.6 The most common source of awareness of the Digital Development Loan were an enterprise agency (SE / HIE / SOSE) (37%) or Business Gateway (36%). Relatively small numbers of survey respondents had heard about the grant from sources such as intermediaries (4%), IT suppliers (2%) or other publicly-funded support bodies (2%). 11% of respondents indicated that they had heard about the grant from another business or colleague. A small number of “other” responses are noted in the appendices and 11% of respondents indicated that they did not remember how they found out about the loan.
- 2.7 Survey respondents were asked to provide a rating of their experience of the grant application process in relation to a number of dimensions. Figure 2.1 summarises the proportion of respondents giving a positive (“Good” or “Very Good”) rating on a 5-point scale.⁴

⁴ A full breakdown of results for all questions of this nature is included in the detailed data tables in Appendix 2.

Figure 2.1: Rating of Application Process^{5 6}



Very high levels of satisfaction were apparent in relation to almost all of these service elements, particularly in relation to clarity of information about eligibility (97% positive rating), arrangements for loan draw down (93%), the “Stage 1” online application process (90%) and the advice and support provided whilst making an application (88%).

Somewhat poorer ratings were apparent in relation to the time taken for a decision on the loan to be made (73% positive rating) and the “Stage 2” process covering detailed finances (71%). The proportion giving an outright negative rating to each of these elements was 13% and 15% respectively (with others giving either a “neither / nor” or “don’t know” response).

2.8 Those that expressed dissatisfaction with the time taken for a decision on their loan to be made sometimes highlighted a specific duration, which they thought was excessive:

“The website indicated 6-8 weeks for the full process. Submission for Stage 1 was 29/12/21 and Stage 2 was approved 22/03/22. This significantly compressed my plans.”

“In total it must have taken more than six months”

“It took seven months from application to getting the loan.”

⁵ Throughout the report, some question responses have been summarised or abbreviated for reasons of space; these are detailed in full in the appendices.

⁶ Bases for individual responses vary and are detailed in full in the appendices.

“I made my initial Stage 1 application in July 2021 and only received Stage 2 approval in December 2022.”

Others commented more generally on what they perceived to be the apparent slowness of the process.

It is unclear from most comments whether the need to provide certain information as part of the Stage 2 process had a bearing in relation to this, but some comments do suggest that this was the case:

“Problems with Stage 2 held the whole process up.”

- 2.9 The stated reasons for dissatisfaction with the “Stage 2” process most commonly related to the degree of depth and complexity of information sought. Typical comments included:

“Very slow and laborious and lots of info required to grant a loan”

“A bit ponderous; it seemed overly complex.”

“Overcomplicated for such a small loan.”

“It was inappropriate and unfair. Too much detailed info needed. I don’t know what they do with it. It puts me off wanting to do things with them again.”

“Extremely complex. It took a lot of man hours to get the information required. Very time consuming. A lot of it wasn’t relevant and shouldn’t have been required.”

- 2.10 A full listing of the reasons for dissatisfaction in relation to the above are set out in Appendix 3, along with small number of comments identifying other reasons for dissatisfaction.

- 2.11 Appendix 3 also sets out in detail the further comments made by respondents. Whilst some of these comments reflected the criticisms noted above, many were of a positive nature:

“The process was quick and communication was excellent”

“It was very good. No problems.”

“The initial process and discussion with Lanarkshire Enterprise Services were excellent, efficient and helpful.”

“A very positive experience with a great result”

DETAILS OF DIGITAL DEVELOPMENT LOAN

2.12 Survey respondents were asked to comment on the elements of expenditure that were directly supported by their Digital Development Loan. The results of this are set out in Table 2.2 below.

Table 2.2: Elements of Expenditure Supported by Loan

Element of Expenditure	% answering “Yes”
Buying software	48%
Buying IT or digital communications hardware	46%
Digital skills training and development	39%
Digital consulting costs	36%
Building or maintaining a website as an online brochure / for information provision	24%
Ongoing charges for platforms, hosting or online content management	21%
Building an ecommerce website	19%
Developing an app	20%
Building an online booking / ticketing system	13%
Internal staffing costs	13%
Software or hardware rental	7%
Overheads and other running costs	6%
Something else	10%
Base	121

The most notable point here is the diversity of areas of expenditure. Whilst many beneficiaries invested the loan advance on hardware and / or software, it was apparent that a significant proportion invested at least part of the loan advance on enhancing their digital capabilities in areas such as digital skills training and development, digital consulting costs, along with various elements of website and app capability.

On average, loan beneficiaries invested the loan advance on 2.8 of these elements.

- 2.13 The general profile of these items of expenditure did not vary greatly according to the characterisations of the importance of digital to the business as either fundamental (“a digital business”), important and necessary. A full breakdown is set out in Appendix 2.
- 2.14 Approximately 65% of the external project expenditure supported by the Digital Development Loan was incurred with suppliers in Scotland, 29% with suppliers in the rest of the UK and 5% with suppliers from outside the UK. ⁷

IMPACTS ON BUSINESS

- 2.15 Respondents were asked to describe the benefits, if any, that they felt the Digital Development Loan had for their business / organisation. The full listing of these comments is included as part of Appendix 3. We have set out a range of key themes and illustrative comments below, which highlights examples of the different types and level of outcomes within businesses.

Theme	Illustrative Comments
Operational outcomes	<p><i>“Improves remote working and remote client interaction”</i></p> <p><i>“Removed manual tasks and order processes”</i></p> <p><i>“It allowed us to restructure the business during the pandemic”</i></p> <p><i>“Significantly reduced manual administration (67% time saving.”</i></p> <p><i>“We now have a system that manages our orders, our warehouse, our appointments, with automated emails that has resulted in more staff time being spent doing more important tasks.”</i></p> <p><i>“It has allowed us to progress and develop our workforce”</i></p> <p><i>“It allowed us to invest in developing cyber security within our business.”</i></p>

⁷ Figures do not sum to 100% due to rounding. These figures relate to direct suppliers and do not take account of any potential “imports” to Scotland from elsewhere in the supply chain that may have been incurred by suppliers.

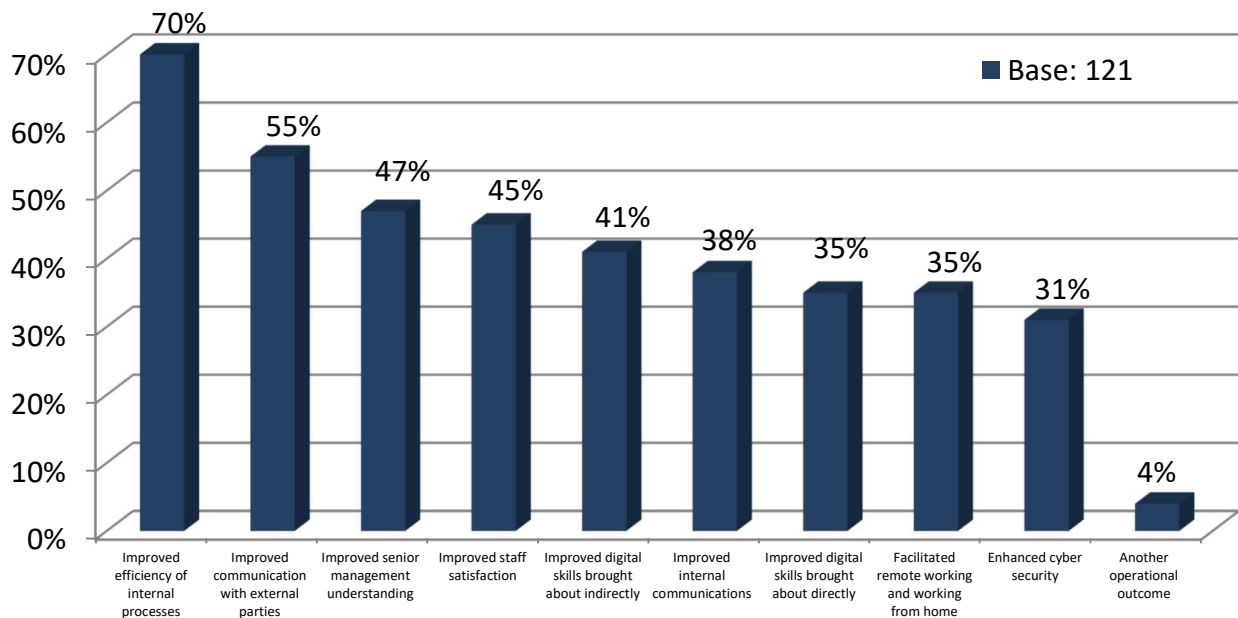
Theme	Illustrative Comments
Business development outcomes	<p><i>“It helped us to develop our international reach”</i></p> <p><i>“Enabled us to build a unique training platform”</i></p> <p><i>“Allowed us to continue to trade as our existing e-commerce store was obsolete”</i></p> <p><i>“Transformational for our customer experience. We now have one of the most advanced systems on the market.”</i></p> <p><i>“Will future proof our business with a consumer-friendly website”</i></p> <p><i>“It has allowed us to improve our customer experience and to develop our relationships with a new audience”</i></p> <p><i>“Enabled us to develop a product suitable for the UK and wider global marketplace”</i></p>
Commercial outcomes	<p><i>“Productivity has increased”</i></p> <p><i>“New revenue streams for business”</i></p> <p><i>“To help expand and grow and ease cashflow”</i></p> <p><i>“Allowed us to tender and win work”</i></p> <p><i>“Turnover increased by 20%”</i></p> <p><i>“Due to development of the website we saw a rapid increase in customer attainment”</i></p>

A full listing of responses to this question is set out in Appendix 3.

- 2.16 To gather a quantitative understanding of the impact that the loan had at a business level, a series of questions were posed in relation to each of operational outcomes, business development outcomes, specific commercial outcomes, and environmental impacts. In each case, a set of prompted responses was prepared and respondents were asked which of these applied to them. The results of these questions are explored in the remainder of this section.

2.17 Figure 2.2 below sets out the prevalence with which businesses indicated that a series of operational outcomes arose as a result of the loan.

Figure 2.2: Operational Outcomes (% recording outcome)



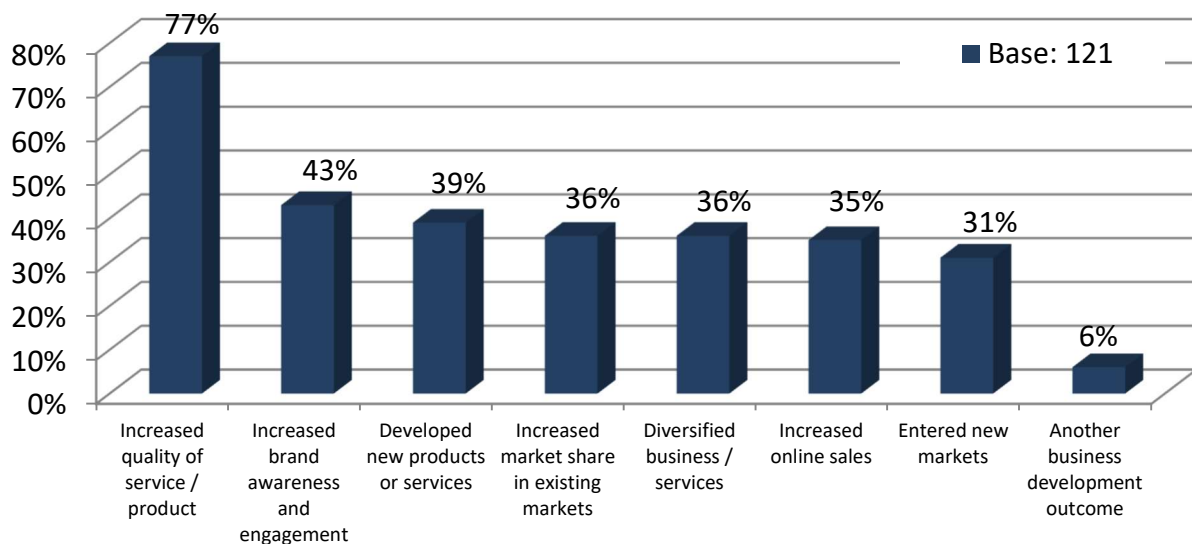
The breadth of positive **operational outcomes** identified by respondents as a result of the loan (relating to different aspects of digital capability, capacity and skills) is particularly noteworthy with 96% of grant recipients identifying at least one operational outcome within their business / organisation as a result of the project supported by the loan. On average, respondents selected 4.18 of these operational outcomes.

The most common outcome cited amongst respondents was improved efficiency of internal processes (identified by 70% of respondents). Other common operational outcomes included improved communication with external parties (55%), improved senior management understanding as to how digital activities could enhance the business (47%), improved staff satisfaction (45%), improved digital skills brought about indirectly through the digital project that the loan funded (41%), improved internal communications (38%), improved digital skills brought about directly through training or development related to the loan (35%), facilitation of remote working and working from home (35%) and enhanced cyber security.

Details of the small number of “other operational outcomes” are provided in Appendix 3.

- 2.18 There was little difference in the profile of achievement of these outcomes between those we have categorised as “digital businesses” and others. Digital businesses were very marginally less likely to cite the majority of these operational outcomes, perhaps reflecting a pre-existing level of capability amongst some of these businesses. Enhanced cyber security was an exception, with 41% of the digital businesses citing this as an outcome compared to 31% of respondents as a whole.
- 2.19 The prevalence with which beneficiaries reported a series of **business development outcomes** is illustrated in Figure 2.3 below.

Figure 2.3: Business Development Outcomes (% recording outcome)



Loan beneficiaries identified a wide range of **business development outcomes** as a result of the loan with 95% identifying at least one business development outcome within their business / organisation as a result of the loan. On average, respondents selected 3.03 of these business development outcomes.

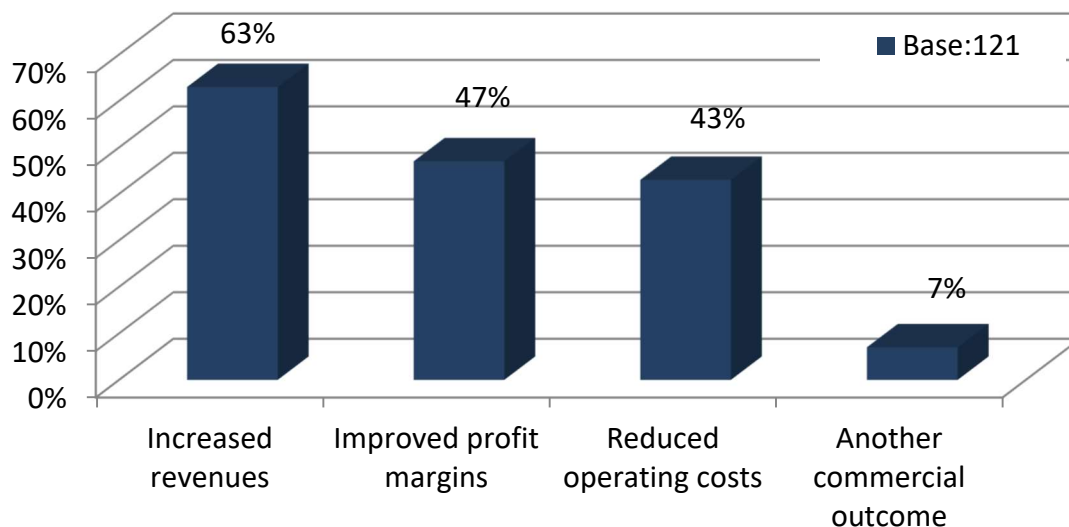
The most common outcome cited (by some distance) was increased quality of service / product (identified by 77% of respondents). A wide range of other outcomes were also identified including increased brand awareness (43%), development of new products and services (39%), increased market share in existing markets (36%), diversification of business / services (36%) and increased online sales (31%).

The small number of “other business development outcome” responses are set out in Appendix 3.

2.20 Those that we have classified as “digital businesses” were somewhat more likely than average to cite achievement of these business development outcomes. For example, 43% indicated that the loan had helped them to diversify their business / services compared to 36% of respondents as a whole, 39% said the loan had helped them enter new markets compared to 30% of respondents as a whole, and 43% said the loan had helped them to increase market share in existing markets compared to 36% of respondents as a whole.

2.21 The frequency with which respondents reported a selection of **specific commercial outcomes** is illustrated in Figure 2.4.

Figure 2.4: Specific Commercial Outcomes (% recording outcome)



In relation to **specific commercial outcomes** that loan beneficiaries indicated they had already achieved:

- 63% said they had increased revenues
- 47% said they had improved profit margins
- 43% said they had reduced operating costs.

90% of Loan beneficiaries indicated that their business had secured at least one of these outcomes with, on average, firms citing 1.53 of these outcomes.

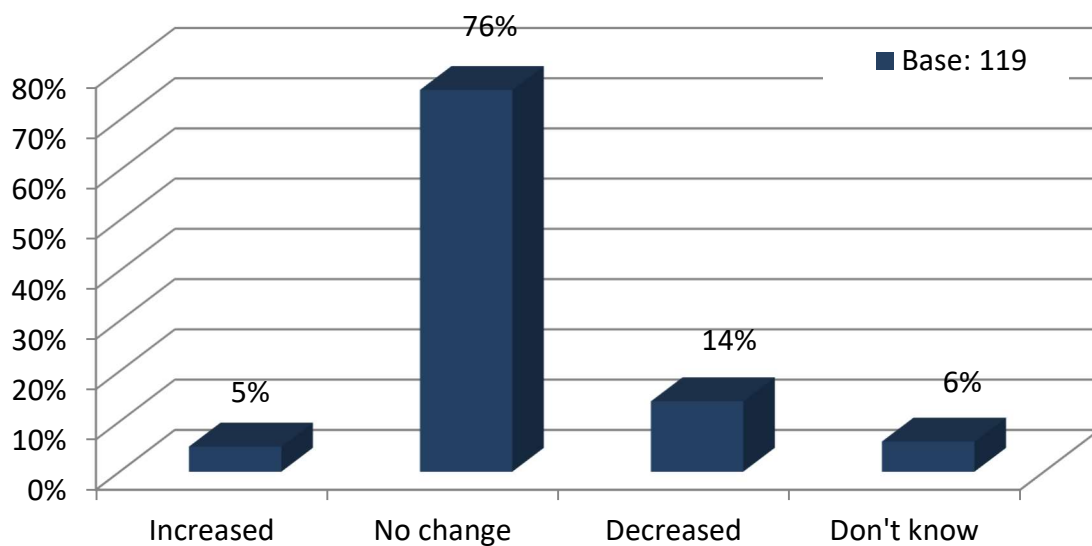
Details of the “other commercial outcomes” are listed in full in Appendix 3.

2.22 Those categorised as “digital companies” were most likely to have seen increased revenues (72% compared to 63% of respondents as a whole).

2.23 Respondents were asked about the impact that their loan had on vehicle fuel consumption and on business energy consumption.

A profile of the overall results in relation to vehicle fuel consumption is set out in Figure 2.5.

Figure 2.5: Impact on Business / Organisation’s Vehicle Fuel Consumption

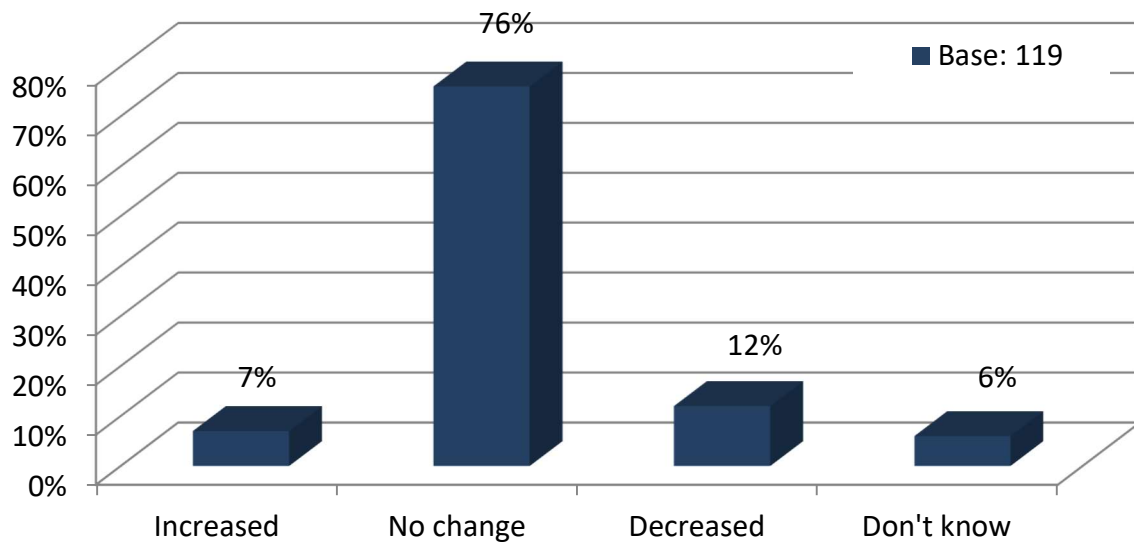


14% of respondents reported a decrease in their vehicle fuel consumption as a result of the loan compared to 5% that reported an increase.

The extent of these decreases in vehicle fuel consumption is small in most cases - 77% indicate that the decrease in fuel consumption is 30% or less (and it is noted that this is based on only 17 respondents that indicated any such decrease).

2.24 A profile of the overall results in relation to business energy consumption is shown in Figure 2.6.

Figure 2.6: Impact on Business / Organisation’s Energy Consumption



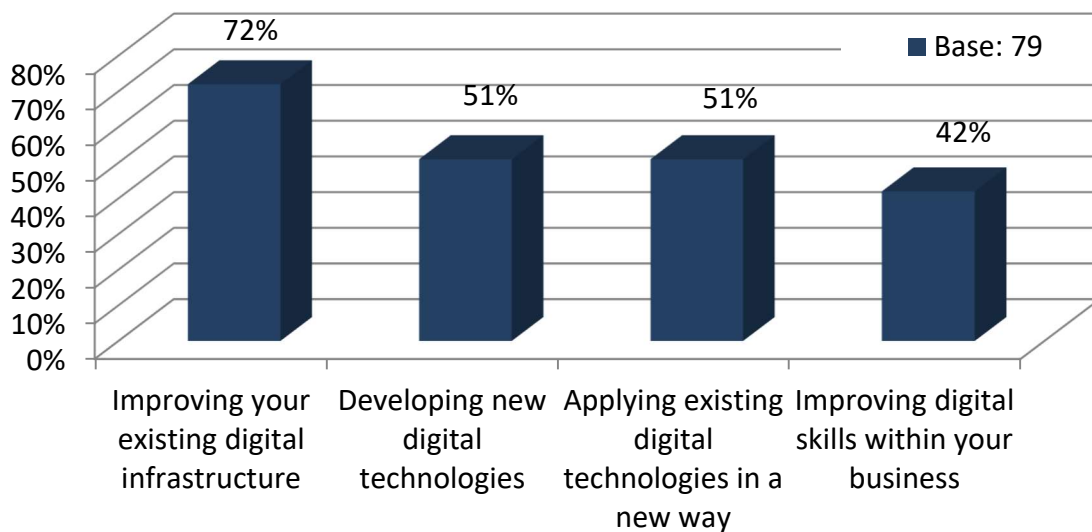
In this case, 12% of respondents indicated that their business’s energy consumption had decreased as a result of the loan with 7% indicating an increase. Again, the levels of reduction were relatively small, with 61% indicating a reduction of 30% or less (and this based on only 13 respondents).

FUTURE DIGITAL SUPPORT NEEDS

2.25 A very significant proportion of loan beneficiaries (69% of 114 respondents that answered this question) indicate that they are considering additional digital development projects over the next two years or so. This figure was particularly high amongst the “digital businesses” where digital activity was considered to be fundamental (89% indicated they were considering additional digital projects) and slightly lower (though still substantial) amongst those for whom digital activity was categorised as important or necessary (54% and 48% respectively).

2.26 The nature of these projects is profiled in Figure 2.7:

Figure 2.7: Nature of Anticipated Digital Development Projects



Clearly, a broad range of project types are being considered by those forms that indicate they are considering additional digital projects. “Digital businesses” were much more likely to indicate that they were considering projects aimed at developing new technologies (65% compared to 51% of the sample as a whole).

2.27 Respondents’ descriptions of these projects are listed in full in the appendices. Illustrative examples highlight the breadth of types of projects being considered:

“We have automated the recruitment process end-to-end and now wish to automate the invoicing and accounts side of the business”

“Developing a tracking system to use within our e-commerce platform that gives real time information from manufacturer / supplier to the customer”

“The application and use of photography in the archive side of the business”

“Development of online training programme for the aviation sector”

“We are looking at developing and using virtual reality equipment. Trying to create a database of 3D buildings”

“Making better use of social media platforms; more video, and specific content geared around what is driving the market.”

“Over the next couple of years we are planning to develop a voice-initiated version of our current service.”

“Further development of Remote Production workflows and use of 5G networks in outside broadcast production”

“Automate parts of our brewing process to improve quality, consistency, and efficiency.”

“As we continue to grow our virtual event platform, we are looking at expanding into the University Alumni market, which has huge potential for growth.”

2.28 Respondents were invited to make any final comments that they wished. A number of these comments related to the perceived benefits of the loan and to positive aspects of the application process. A number of the comments referenced the importance of loan and / or grant funding for digital projects to continue to be available. Others restated the criticisms noted above regarding the length and complexity of the process.

These comments are listed in full in Appendix 3.

KEY POINTS

Loan recipients were almost always businesses / organisations seeking to make a profit with there also being a small representation from the charitable and voluntary sector. 45% of these firms considered themselves to be “digital businesses”.

Awareness of the Digital Development Loan came primarily through Business Gateway and enterprise agencies. Ratings for various aspects of the application process were very positive. However, a minority of respondents expressed negative views about the perceived length and complexity of the application process (particularly with regard to “Stage 2”).

Loans funded a very wide range of digital activities which did not vary significantly according to whether the beneficiary was a “digital business”. Approximately 65% of external expenditure supported by loans was made directly with Scottish-based suppliers.

Respondents were very likely to indicate that the work supported by the Digital Development loan had contributed to a number of positive outcomes at the business level:

- 96% cited at least one “operational outcome”, most commonly relating to improved efficiency of operational processes.

KEY POINTS (CONTINUED)

- 95% cited at least one “business development outcome”, most commonly increased quality of product / service.
- 90% cited at least one “commercial outcome”, with 63% indicating that the work supported by the loan had increased revenues.

The Digital Development Loan programme has also had a modest impact on reducing some businesses’ vehicle fuel and overall energy consumption.

69% of firms are considering additional digital projects; this figure is considerably higher amongst “digital businesses”, at 89%.

3.0 NON-PROCEEDING BUSINESSES

PROFILE OF NON-PROCEEDING BUSINESSES

- 3.1 A total of 2,016 businesses / organisations were identified on the database provided to IBP who had expressed an interest in the Digital Development Loan but not taken this further, and these formed the “population” of firms for the assessment of issues relating to non-proceeding businesses as set out herein. As noted in the previous section, responses were received from 144 firms (a response rate of approximately 7%).
- 3.2 Of these (based on 143 responses to the specific question), 96% were businesses / organisations mainly seeking to make a profit and 2% were charitable or voluntary sector organisations or social enterprises, with 2% giving an “other” response (details of which are listed in Appendix 3).
- 3.3 Firms were asked whether they were involved in the development of digital technologies, the application of digital technologies or both. Comparatively few firms considered themselves to only be involved in the development of digital technologies (11%) although this was somewhat higher than the 6% of loan beneficiaries that placed themselves in this category. 50% of this group considered themselves to only be involved in the application of digital technologies and 39% considered themselves to be involved in both the development and application of digital technologies (base: 126 respondents).
- 3.4 Respondents were also asked to place themselves in one of three categories relating to the importance of digital capability, capacity and skills to their business. The results are shown in Table 3.1 below.

Table 3.1: Importance of Digital Capability, Capacity and Skills to Business (Non-Proceeding Businesses)

Category	%
FUNDAMENTAL - we consider ourselves a “digital business” and our competitive advantage is based on the development and / or application of digital technologies.	44%
IMPORTANT - we don’t consider ourselves to be a “digital business” but the application of digital technologies is still a very important part of our competitive advantage.	30%
NECESSARY - we don’t consider ourselves to be a “digital business” but we still need to keep up with digital technologies to be able to operate in our area of activity.	26%
Base	133

As was the case with loan beneficiaries, the population of beneficiary businesses is fairly evenly divided between firms that would define themselves as “digital businesses” and those for whom either the application of digital technologies is either an important part of their competitive advantage or something that they need to “keep up with”.

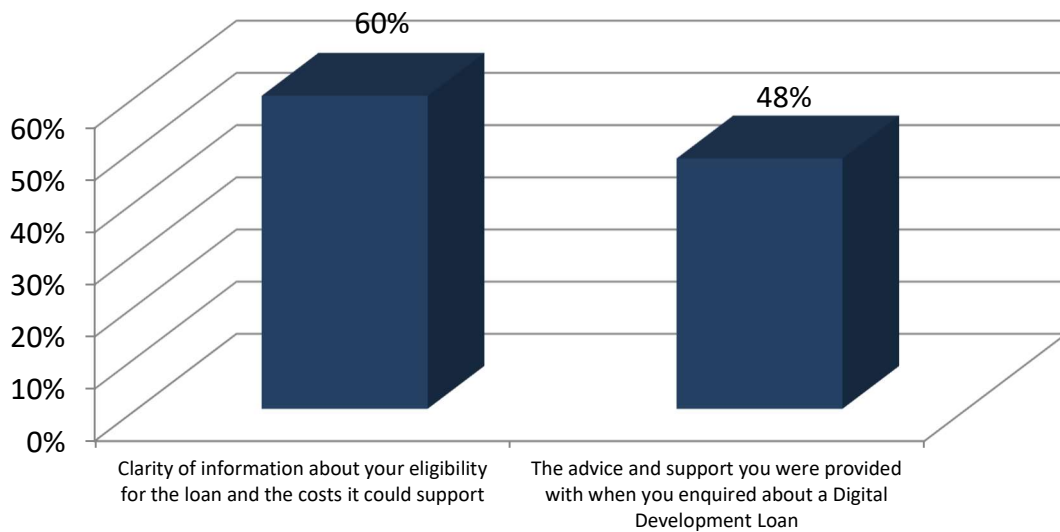
EXPERIENCE OF ENQUIRING ABOUT LOAN

- 3.5 The most common source of awareness of the Digital Development Loan amongst non-proceeding businesses was, by some distance, Business Gateway (this being mentioned by 58% of respondents). This may indicate that firms that did not proceed tended to be smaller than loan beneficiaries. This is borne out by the turnover figures gathered in the survey, with the average turnover of loan beneficiaries for 2021/22 being £2,533,771 compared to £797,410 for non-proceeding businesses.

Other sources of information about the Digital Development Loan cited by non-proceeding businesses most commonly included enterprise agencies (15%) and other businesses or colleagues (9%). Fewer cited sources such as IT suppliers (4%), intermediaries (2%) and other publicly-funded business support bodies (1%). A small number of “other” responses are noted in the appendices and 12% of respondents indicated that they did not remember how they found out about the loan.

- 3.6 These non-proceeding businesses were asked to provide a rating of enquiring about the Digital Development Loan across two specific elements (clarity of information and advice and support provided). Figure 3.1 over the page summarises the proportion of respondents giving a positive (“Good” or “Very Good”) rating on a 5-point scale, in relation to these elements.

Figure 3.1: Rating of Experience of Enquiring about the Digital Development Loan



These ratings are noticeably poorer than was the case amongst loan beneficiaries, although this is in large part due to “neither / nor” and “don’t know” responses. The outright negative responses to the two elements above (i.e. those giving a “poor” or “very poor” rating were 14% and 13% respectively.

3.7 The comments from those that gave a poor or very poor rating for clarity of information about eligibility for the loan and the costs it could support highlight a lack of recollection and / or understanding of the nature of the loan and its purpose:

“It took a long while to understand we were too digitally oriented to be eligible”

“Scope was too narrow”

“I didn’t speak to anyone about it but what I applied for wasn’t covered”

“I got the impression this was about new projects rather than existing businesses”

“Not geared to all”.

Some of these comments suggest that at least some respondents had only a vague recollection of expressing interest in the Digital Development Loan and that some were conflating their experience with application for the DigitalBoost Development Grant.

3.8 Comments from those that gave a negative rating for advice and support provided referenced some apparent service let-downs:

“Nobody ever got back to me”

“No advice or support was given and I wasn’t sure where to ask for this”

In some occasions, this related to other parts of the business support infrastructure:

“Business Gateway didn’t have a clue about it. HIE didn’t respond to emails.”

Some issues around clarity of communications were also noted:

“Not suitable and vague on the types of loans and assistance thus making it useless for our sector.”

It is important to note that any such comments came from a relatively small minority of businesses that had expressed interest (and that interest may well not have been a well-developed one in some instances).

3.9 Survey respondents were asked to comment on the elements of expenditure that were directly supported by their Digital Development Loan. The results of this are set out in Table 3.2 below.

Table 3.2: Reasons for Not Proceeding

Reason	% answering “Yes”
Decided it would be too complex or time consuming to pursue a Digital Development Loan application	26%
Thought that a Digital Development Loan application would be unlikely to be successful	15%
Decided not to proceed with the project for which external funding was being considered	10%
Thought that the Digital Development Loan was not relevant to the project / activity for which you were seeking funding	9%
Sourced the required funding from elsewhere	6%
Realised that additional funding was not required	5%
Another reason	44%
Base	143

In relation to the prompted options given, no single issue is predominant but with respondents most commonly commenting on the perceived complexity and time consuming nature of making an application (26%), on the likelihood of success (15%) and on whether the planned project was to proceed (10%) or its relevance to the Digital Development Loan (9%). However, “other” reasons were most common, being cited by 44% of respondents and it is necessary to consider the reasons for this.

- 3.10 Respondents gave a number of such reasons including: the minimum grant threshold being too high; ineligibility of firm or project; being turned down during the application process; choosing not to proceed due to a requirement to provide Personal Guarantees. A small number of respondents indicated that they had been funded although, again, this may reflect some conflation of the Digital Development Loan and the DigitalBoost Development Grant.
- 3.11 Respondents were given an opportunity to make further comments about their experience of enquiring about the Digital Development Loan. Themes to emerge from these comments were:
- General positive comments about the worth of the Digital Development Loan.
 - Questions about the appropriateness of the process for smaller and / or less well-developed businesses.
 - The perceived complexity of the application process generally and issues of timescale.
 - A declared preference for grants rather than loans.
 - Criticisms of decisions, including eligibility criteria and learning lending decisions made.

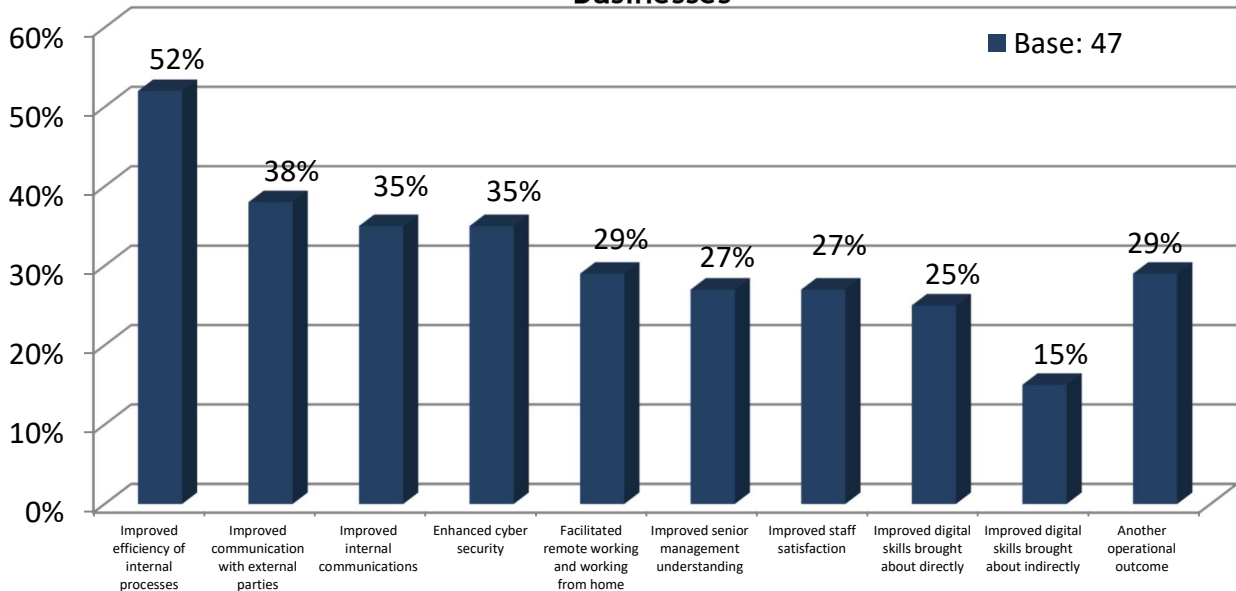
A full listing of comments is set out in Appendix 3.

IMPACTS ON BUSINESS

- 3.12 Only 34% of businesses indicated that they proceeded with the digital development project for which they were considering the Digital Development Loan as a source of funding.
- 3.13 For those firms that indicated that they had proceeded with their digital development project, despite not proceeding with a Digital Development Loan, a similar series of questions was posed as to the achievement of various outcomes at a business level, as also asked of loan beneficiaries. These results are summarised below although it should be noted that only 48 non-beneficiary respondents fell into this category, of whom 47 answered the subsequent questions.

3.14 Figure 3.2 below sets out the prevalence with which non-proceeding businesses indicated that a series of operational outcomes arose as a result of the loan.

Figure 3.2: Operational Outcomes (% recording outcome) - Non-Proceeding Businesses



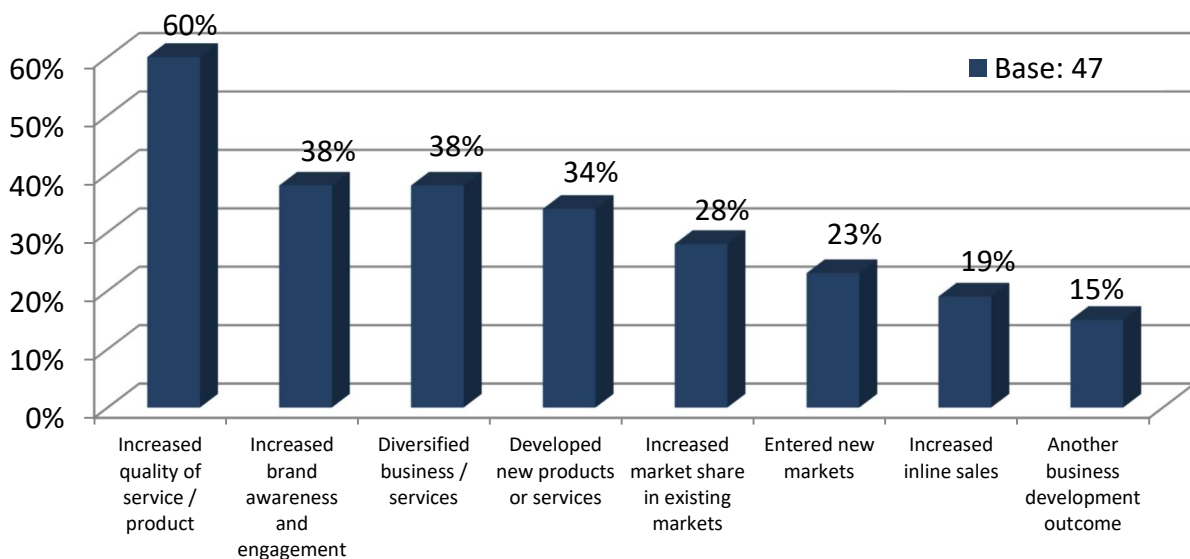
As with loan beneficiaries, the most common operational outcome cited related to improved efficiency of internal processes (cited by 52% of respondents) with fewer respondents citing each of the other outcomes. A notable feature is that, across all of these outcomes, significantly fewer of the non-proceeding businesses cited the particular outcome compared to those that had proceeded to secure a Digital Development Loan, suggesting that the loan funding has had a positive impact on the "quality" of digital projects.

Overall, 90% of these respondents cited at least one of these operational outcomes.

Details of the small number of "other operational outcomes" are provided in Appendix 3.

3.15 The prevalence with which beneficiaries reported a series of business **development outcomes** is illustrated in Figure 3.3 below.

Figure 3.3: Business Development Outcomes (% recording outcome) - Non-Proceeding Businesses



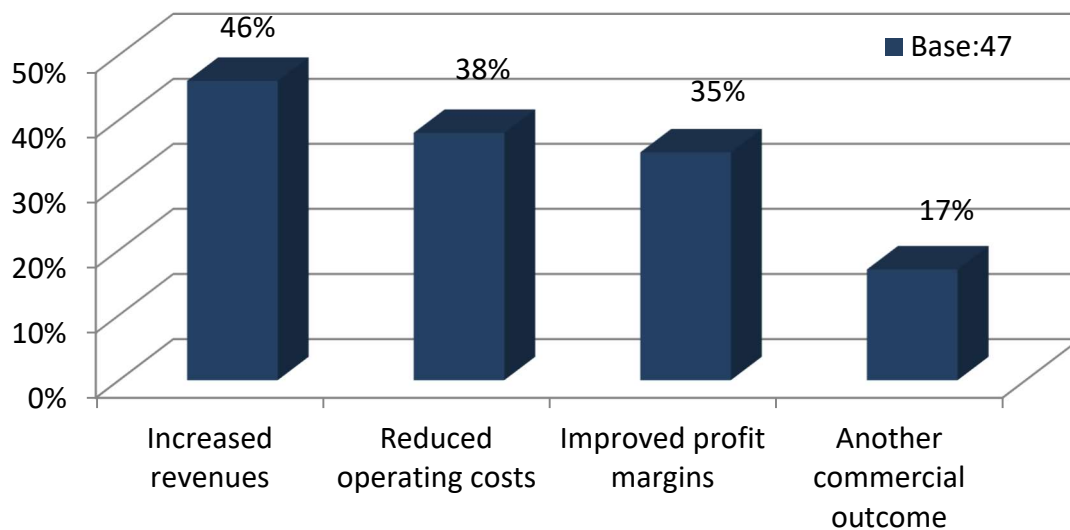
Again, a broadly similar pattern is evident as with loan beneficiaries in so far as the most common commercial outcome cited is increased quality of service / product, with a range of spread of other commercial outcomes also being noted. Again, the extent to which these outcomes were identified was lower amongst non-proceeding businesses than amongst loan beneficiaries.

Overall, 85% of respondents cited at least one of these operational outcomes.

The small number of “other business development outcome” responses are set out in Appendix 3.

3.16 The frequency with which respondents reported a selection of **specific commercial outcomes** is illustrated in Figure 3.4.

Figure 3.4: Specific Commercial Outcomes (% recording outcome) - Non-Proceeding Businesses



In relation to **specific commercial outcomes** that non-proceeding businesses indicated they had already achieved:

- 46% said they had increased revenues (this compared to 63% of loan beneficiaries).
- 38% said they had reduced operating costs (compared to 43% of loan beneficiaries).
- 35% said they had improved profit margins (compared to 47% of loan beneficiaries).

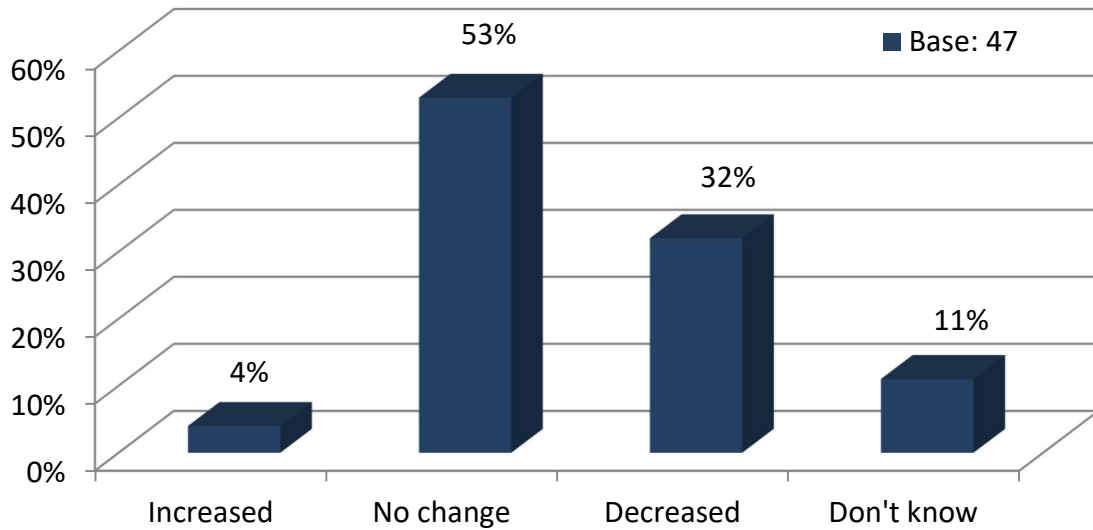
81% of these firms indicated that their business had secured at least one of these outcomes.

Details of the “other commercial outcomes” are listed in full in Appendix 3.

3.17 Non-proceeding businesses were also asked about the impact that their loan had on vehicle fuel consumption and on business energy consumption.

A profile of the overall results in relation to vehicle fuel consumption is set out in Figure 3.5.

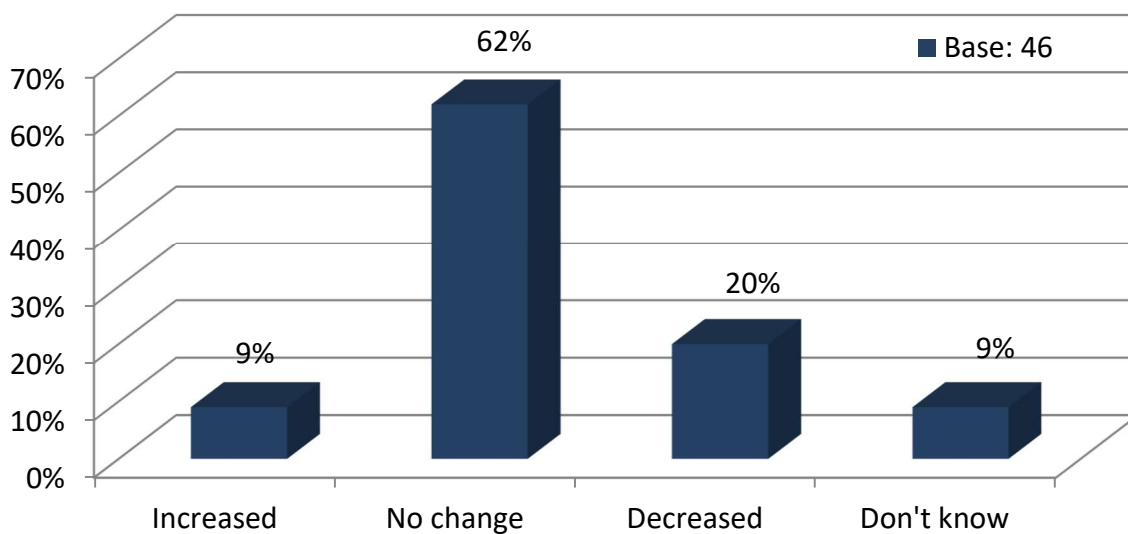
Figure 3.5: Impact on Business / Organisation’s Vehicle Fuel Consumption



A significant proportion of these businesses (32%) indicated that their project had led to a reduction in their vehicle fuel consumption.⁸

3.18 A profile of the overall results in relation to business energy consumption is shown in Figure 3.6.

Figure 3.6: Impact on Business / Organisation’s Energy Consumption



⁸ Due to the small base number of responses we have not included further detail of these questions; details are set out in full in the appendices.

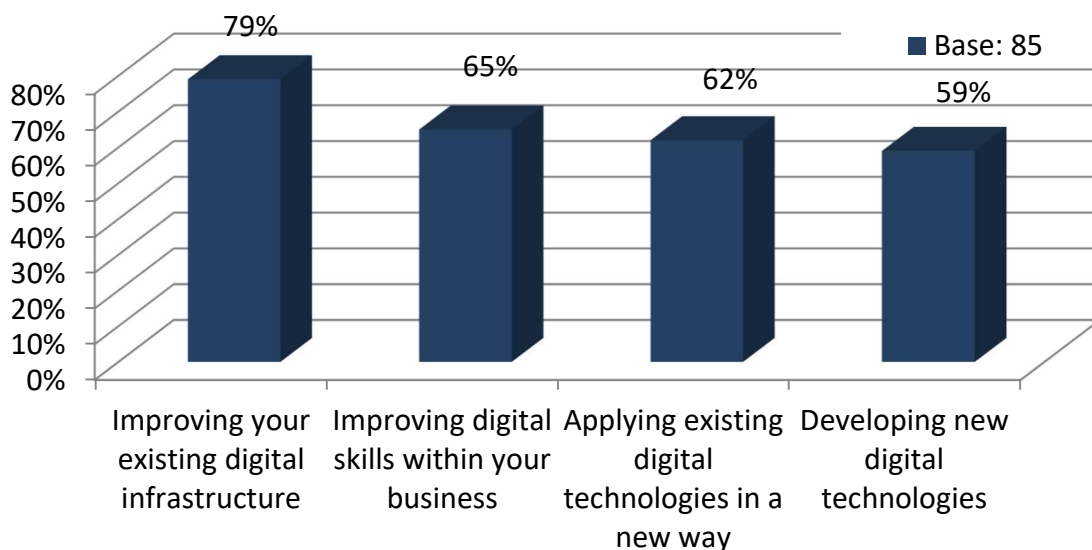
A smaller proportion (20%) indicate that there has been a decrease in their business’s energy consumption.

FUTURE DIGITAL SUPPORT NEEDS

3.19 71% of these “non-proceeding” firms indicated that they are considering additional digital development projects over the next two years or so (this being broadly similar to the 69% of beneficiary firms that indicated they were considering such projects). Those non-proceeding firms that were categorised as “digital businesses” were more likely than average to be considering such projects (84% compared to 71% of non-proceeding businesses as a whole).

3.20 The nature of these projects is profiled in Figure 3.7 below:

Figure 3.7: Nature of Anticipated Digital Development Projects



The notable point here is that non-proceeding businesses were even more likely than existing loan beneficiaries to be considering additional digital development projects, across these categories.

3.21 A full listing of the digital development projects being considered is set out in Appendix 3. Illustrative examples include:

“We are planning to create a new website”

“Extend and develop our social media presence”

“Automation of online business processes”

“Looking to put in a digital management system”

“I need an improved stock management system and online selling platform”

“As a manufacturer, we will be looking to utilise digital technology to enhance / improve the company’s manufacturing capability.”

“Set up a production management and traceability system to track products we manufacture”

“Developing a people tracking algorithm that can be used with the wireless camera system we have developed”

“Application of AI to online learning”

“Building a cloud platform for Building Control compliance for construction works in Scotland”

Notwithstanding the classifications of projects set out in the previous section, it would be fair to note that many of the projects described by these businesses would be of a smaller scale, with a lower degree of innovation and of enhanced digital capacity and capability, as compared to the future projects being put forward by existing loan beneficiaries (though with some exceptions to this).

- 3.22 Non-proceeding businesses were given a further opportunity to make any additional comments that they wished. These reflected the themes already discussed including the perceived importance of support but also the perceived complexity of the application process that they would have had to go through. A number of these comments again suggest some conflation in respondents’ minds of the Digital Development Loan and the DigitalBoost Development Grant.

A full listing of the comments is set out in Appendix 3.

KEY POINTS

Non-proceeding businesses were also almost always businesses / organisations seeking to make a profit with there also being a small representation from the charitable and voluntary sector. 44% of these firms considered themselves to be “digital businesses”. These businesses were, however, considerably smaller on average than loan beneficiaries, with average turnover of £797,410 compared to £2,533,771 for loan beneficiaries.

KEY POINTS (CONTINUED)

Awareness of the Digital Development Loan amongst this group came primarily through Business Gateway. There were mixed views as to the clarity of information about the loan, and about the advice and support provided, with a number of respondents expressing negative views about the perceived length and complexity of the application process (particularly with regard to “Stage 2”).

There was a diverse range of reasons cited for these businesses not proceeding. A number were put off by the perceived depth of the application process and others by aspects of the terms offered. Some indicate that they wished to move forward but were refused on the grounds of eligibility or on the basis of a lending evaluation.

Only 34% of these businesses indicated that they had proceeded with the original digital development project for which they had enquired about funding. Those that did proceed indicated that their business had achieved a range of operational, business development and commercial outcomes from the delivery of the project, but the extent of this was lower than amongst loan beneficiaries.

71% of these firms are considering additional digital development projects, this rising to 84% amongst “digital businesses” in this category. Whilst some of these potential projects would be highly innovative, many would be on a smaller scale and with a lower degree of innovation than projects being considered by existing loan beneficiaries.

4.0 ECONOMIC PERFORMANCE

INTRODUCTION

- 4.1 This Chapter reports on the recent economic performance of supported companies, together with an economic impact assessment of forecast turnover, GVA and employment impacts associated with the Digital Development Loan. It is derived from information and data obtained from the company surveys. 203 beneficiary firms were invited to take part and 124 responded - a response rate of 61%.

ECONOMIC PERFORMANCE TO DATE

- 4.2 Respondents were asked to provide the approximate turnover and employment within the business/organisation for individual years over the periods 2018/19 to 2021/22. Turnover would include all sales revenue and grants in the period concerned. For employment they were asked to enter the number of Full Time Equivalent (FTE) employees for each period, where a full-time employee is 1 and a part-time employee is 0.5. If they were unsure of the exact figures, they were asked to estimate as best they could.

Of the 124 businesses that responded to the survey, 86 (69%) provided data across each of the four time periods with respect to turnover, and 92 (74%) with respect to employment.

Turnover and GVA

- 4.3 Details of the turnover and estimates of GVA in supported businesses are reported in Table 4.1⁹.

Table 4.1: Turnover and Estimates of GVA

Year	Total		Average	
	Turnover	GVA	Turnover	GVA
2018/19	£188.6m	£85.5m	£2.2m	£1.0m
2019/20	£194.7m	£88.1m	£2.3m	£1.0m
2020/21	£171.8m	£74.1m	£2.0m	£0.9m
2021/22	£224.0m	£99.6m	£2.6m	£1.2m

⁹ Gross GVA has been estimated using a turnover:GVA ratio from the latest (2019 - updated June 2021) Scottish Annual Business Statistics - available at <https://www.gov.scot/publications/scottish-annual-business-statistics-2019/>. The ratios were calculated for individual sectors of the companies that responded to the survey - where there was no direct comparator sector, we allocated the GVA ratio of the nearest equivalent sector.

The data shows that turnover dipped in 2020/21, reflecting the impact of covid-19 restrictions. However, the reduction was more modest than we might have expected given the scale and nature of the imposed business restrictions, reflecting the significant business support provided to affected companies by the UK and Scottish Governments.

Employment

4.4 Details of the employment levels in supported businesses are reported in Table 4.2.

Table 4.2: Employment

Year	Total	Average
2018/19	1,616 FTEs	18 FTEs
2019/20	1,627 FTEs	18 FTEs
2020/21	1,620 FTEs	18 FTEs
2021/22	1,895 FTEs	20 FTEs

As with turnover, employment declined in 2020/21 as a result of covid-19 restrictions. The decline was modest, likely reflecting the impact of the Coronavirus Job Retention Scheme, also known as the furlough scheme, where employees received 80% of their salary for hours not worked.

ECONOMIC IMPACT ASSESSMENT - FORECAST OUTCOMES

Method

4.5 The method adopted in estimating the economic impact - or additionality - from the Digital Development Loan is consistent with guidance issued by Scottish Enterprise¹⁰. The guidance recognises that most economic development interventions will have both positive and negative effects. In appraising or evaluating the effects of an intervention it is important that all of these are taken into account in order to assess the additional benefit or additionality of the intervention - in other words, the net changes that are brought about over and above what would take place anyway.

¹⁰ <http://www.evaluationsonline.org.uk/evaluations/help/guidance.htm>. This guidance note is consistent with the high-level discussion of principles and best practice in project appraisal and evaluation as presented in HM Treasury - The Green Book, Appraisal and Evaluation in Central Government.

The additional benefit of an intervention is the difference between the reference case position (what would happen anyway) and the position if / when the intervention (intervention option) is implemented. An initial assessment of the reference case to deduct deadweight¹¹ from the intervention option leads to the identification of the **gross direct effects**. Following identification of the gross direct benefits, account is then taken of factors such as:

- Displacement:
 - displacement is the proportion of intervention benefits accounted for by reduced benefits elsewhere in the target area. Displacement arises where the intervention takes market share (called product market displacement) or labour, land or capital (referred to as factor market displacement) from other existing local firms or organisations;
- Substitution:
 - substitution arises where a firm substitutes one activity for a similar one to take advantage of public sector assistance;
- Leakage:
 - leakage is the proportion of outputs that benefits those outside the programme or target area;
- Optimism bias:
 - optimism bias is the tendency for those involved in projects, as funders, managers or beneficiaries, to be too optimistic in terms of forecasting project costs, scale, timing and benefits. Optimism bias adjustment often reduces the forecast benefits over the expected duration of the project; and
- Multipliers:
 - economic benefits of an intervention are multiplied because of knock-on effects within the economy.

When these factors have been applied to the gross direct effects we are left with **net additional** economic impact.

¹¹ Deadweight refers to the proportion of total outputs/outcomes that would have been secured anyway (sometimes referred to as non-additionality) without support from the Digital Development Loan.

Economic Impact Measures

4.6 This section details the impacts in terms of:

- Gross turnover and GVA since receiving the Loan;
- Gross employment since receiving the Loan;
- Deadweight;
- Leakage;
- Displacement;
- Substitution;
- Multiplier effects;
- Net additional turnover;
- Net additional GVA; and
- Net additional jobs.

Gross Turnover and GVA

4.7 Of the 124 who responded to the online survey, 86 provided forecasts of their turnover for each year 2022/23, 2023/24 and 2024/25 as follows:

- Forecast turnover having received the Digital Development Loan and
- Forecast turnover had they not received the Digital Development Loan.

The difference between the two values is an estimate of the difference that the Digital Development Loan made to a business’s turnover.

Table 4.3 details the total forecast turnover and our estimates of GVA levels¹² in each year.

Table 4.3: Forecast Turnover and GVA

Year	Increased Turnover Due to DDL	Increased GVA Due to DDL
2022/2023	£24.6m	£10.1m
2023/2024	£36.5m	£14.6m
2024/2025	£45.7m	£17.8m

¹² Gross GVA has been estimated using a turnover:GVA ratio from the latest (2019 - updated June 2021) Scottish Annual Business Statistics - available at <https://www.gov.scot/publications/scottish-annual-business-statistics-2019/> . The ratios were calculated for individual sectors of the companies that responded to the survey - where there was no direct comparator sector, we allocated the GVA ratio of the nearest equivalent sector.

4.8 In evaluations of this type, the flow of monetary benefits over time associated with an intervention needs to be discounted¹³ and then expressed as net present values (NPV). The monetary benefits associated with the Digital Development Loan relate to turnover levels forecasted and estimated GVA impacts. Table 4.4 presents the NPV details.

Table 4.4: Net Present Values of Increases in Forecast Turnover and GVA Due to DDL Over 3-Year Period

Source	Value
Turnover	£99.0m
GVA	£39.4m

Employment

4.9 Of the 124 who responded to the online survey, 92 were able/willing to provide forecasts of employment levels for each of 2022/23, 2023/24 and 2024/25 as follows:

- forecast employment having received the Digital Development Loan and
- forecast employment had they not received the Digital Development Loan.

The difference between the two values is an estimate of the impact of the Digital Development Loan on employment levels.

Table 4.5 below details the difference in employment levels over this 3-year period due to the Digital Development Loan.

Table 4.5: Difference in Employment Levels Due to Digital Development Loan

Year	Increase in Employment Levels Due to DDL
2022/2023	206 FTEs
2023/2024	208 FTEs
2024/2025	282 FTEs

¹³ We have applied HM Treasury’s recommended 3.5% discount rate - see <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020> page 119

The Net Present Value benefits associated with the Digital Development Loan relating to these employment levels forecasts are summarised in Table 4.6.¹⁴

Table 4.6: Net Present Values of Forecast Increases in Employment Due to DDL

Source	Employment Years
Employment	597 FTEs

Deadweight

4.10 We apply the following deadweight factors:

- Turnover and GVA:
 - **zero** - for the 86 businesses that had:
 - recorded a change in turnover levels attributed to support from the Digital Development Loan and
 - provided data on the scale of that impact
 - **100%** - to all the other companies; any change in turnover levels that they have achieved was not attributed to support from the Digital Development Loan and
- Employment:
 - **zero** - for the 92 businesses that had recorded a change in employment levels attributed to support the Digital Development Loan
 - **100%** - to all the other companies; any change in employment levels that they have achieved was not attributed to support from the Digital Development Loan

For brevity, the businesses that did not attribute turnover or employment impacts to the support provided by the Digital Development Loan have been excluded from subsequent analysis.

Leakage

4.11 Leakage is the proportion of outputs that benefits those outside the programme or target area. The survey questionnaire asked whether any of the jobs that the businesses anticipated creating in the future as a result of their Digital

¹⁴ As this process involves discounting of comparative figures that are already stipulated on a cumulative rather than incremental basis, the NPV calculation effectively shows “employment years” over the three year period. As at least some of these jobs will persist beyond this 3-year horizon, this will be an underestimate of total “employment years” created by the intervention.

Development Loan, would be taken by employees who would live Scotland¹⁵. No company reported that the new jobs created would be taken by individuals who were reported to live outside Scotland. Leakage is therefore assessed at 0%.

Displacement

- 4.12 Our investigation of displacement considered those factors that would dilute the gross impact of any increases in business activity as a result of accessing support from the Digital Development Loan. It included collecting information on the geographic location of major competitors. Table 4.7 presents the displacement factors for the companies that have reported either an attributable turnover or employment impact and were able to estimate the geographic location of their competitors¹⁶.

Table 4.7: Displacement Factors

Percentage of Companies	Displacement Factor
25%	Up to 20%
15%	Between 21% and 40%
9%	Between 41% and 60%
9%	Between 61% and 80%
16%	Between 81% and 100%
25%	Zero - no direct competitors

Substitution

- 4.13 Substitution arises where a firm substitutes one activity for a similar one to take advantage of public sector assistance. There was no likelihood of a substitution effect as a result of accessing support from the Digital Development Loan and therefore for all businesses substitution has been assessed as **zero** %.

Multipliers

- 4.14 The increase in economic activity as a result of a company accessing support from the Digital Development Loan will have two types of wider impact on the economy:

¹⁵ Leakage can also occur when the operating profit created by the beneficiary goes to shareholders or others who live outside Scotland. Given the difficulties in assessing this type of leakage we have made no attempt to calculate it.

¹⁶ The displacement factors are based on guidance issued by Scottish Enterprise - <http://www.evaluationsonline.org.uk/evaluations/help/guidance.htm;jsessionid=456774221303600E9CD204B682DD0038>

- **Supplier effect:** an increase in sales in a business will require it to purchase more supplies than it would have otherwise. A proportion of this ‘knock-on’ effect will benefit suppliers in the Scottish economy; and
- **Income effect:** an increase in sales in a business will usually lead to either an increase in employment or an increase in incomes for those already employed. A proportion of these increased incomes will be re-spent in the in the Scottish economy.

We have applied Type II multipliers that are relevant to the main business activity of the supported companies - employment multipliers for changes in employment levels, and GVA multipliers for changes in levels of turnover/GVA¹⁷. Table 4.8 and Table 4.9 presents the details.

Table 4.8: Employment Type II Multiplier Values (latest year - 2018)

Sector	Multipliers	Sector	Multipliers
Agric Forestry & Fishing	1.6	Human Health & Social Care	1.4
Construction	1.8	Industrial Manufacturing	1.6
Creative Industries	1.4	Info & Comm Services	1.3
Domestic Services	1.4	Leisure and Sport	1.8
Education, Training & HR	1.2	Retail & Wholesale	1.5
Energy & Environment	1.9	Technology & Engineering	1.8
Financial & Bus Services	2.1	Tourism	1.3
Food & Drink	1.2	Transport & Storage	1.7

Table 4.9: GVA Type II Multiplier Values (latest year - 2018)

Sector	Multipliers	Sector	Multipliers
Agric Forestry & Fishing	1.6	Human Health & Social Care	1.4
Construction	1.8	Industrial Manufacturing	1.6
Creative Industries	1.4	Info & Comm Services	1.3
Domestic Services	1.4	Leisure & Sport	1.3
Education, Training & HR	1.2	Retail & Wholesale	1.5
Energy & Environment	1.9	Technology & Engineering	1.8
Financial & Bus Services	2.1	Tourism	1.3
Food & Drink	1.2	Transport & Storage	1.7

¹⁷ <https://www.gov.scot/publications/input-output-latest/>

Net Additionality - Turnover

- 4.15 Applying deadweight, leakage, displacement, substitution and multiplier effects detailed above to the reported changes in gross turnover levels, the Net Present Value estimates of net direct, indirect and induced changes in forecast turnover levels obtained is as follows:

Area of Impact	Value
Turnover	£91.6m

Net Additionality - GVA

- 4.16 Applying deadweight, leakage, displacement, substitution and multiplier effects detailed above to the estimated changes in gross GVA levels, the Net Present Value estimates of net direct, indirect and induced changes in forecast GVA levels obtained is as follows:

Area of Impact	Value
GVA	£38.9m

Employment

- 4.17 Applying deadweight, leakage, displacement, substitution and multiplier effects detailed above to the reported changes in gross employment forecasts, the Net Present Value estimates of net direct, indirect and induced forecast employment levels obtained is as follows:

Area of Impact	Value
Employment Years	603

Optimism Bias

- 4.18 Optimism bias is the tendency for those involved in projects, as funders, managers or beneficiaries, to be too optimistic in terms of forecasting project costs, scale, timing and benefits.

Turnover & GVA

- 4.19 To identify whether there is evidence of optimism bias in relation turnover and GVA we examine the forecast turnover after 3 years in relation to actual turnover - in this case we compare forecast turnover in 2024/25 with actual turnover in 2021/22.

These calculations show an average increase in excess of 100% between actual turnover in 2021/2022 and forecast turnover in 2023/24.

The calculations suggest significant optimism bias. SE guidance on optimism bias¹⁸ suggest applying optimism bias assumptions of between 20% and 40%, to net impacts. Applying the mid-point (30%) gives the following net impacts for the Digital Development Loan intervention.

Table 4.10: Net Impacts after allowing for optimism bias

Area of Impact	Value
Turnover	£64.12m
GVA	£27.2m

We would introduce a caveat here, that might suggest that optimism bias is less of an issue than the data suggest.

Turnover in 2021/22, the base year from which we have measured the scale of forecast turnover growth, is unlikely to have been a normal year due to the lock down of the economy and likely negative impacts on turnover. The Scottish Government’s report on the impact of covid¹⁹ on Scotland, highlights that the Scottish economy contracted by 19.4% in the second quarter of 2020 and despite growth in output in the months May to September, Scotland’s Gross Domestic Product remained 7.6% below its pre-COVID level.

It is therefore likely that forecasts of turnover growth (which feeds into GVA and employment growth forecasts) reflect a return to the “norm” for these businesses, and therefore the forecasts are less out of kilter than we report, and therefore some caution should be exercised when interpreting the impact of optimism bias relating to the impact of the Digital Development Loan intervention.

Employment

- 4.20 Forecast changes in employment levels over the period to 2024/25 averages around 3 FTEs per supported business - we therefore conclude that there is no evidence of optimum bias in these forecasts.

¹⁸ See <https://www.evaluationsonline.org.uk/evaluations/help/guidance.htm%3bjsessionid=456774221303600E9CD204B682DD0038>

¹⁹ Scotland’s Wellbeing: The Impact of COVID-19 - available at <https://nationalperformance.gov.scot/scotlands-wellbeing-impact-covid-19>

Grossing Up of Forecasts

4.21 To estimate the full impact of the Digital Development Loan we need gross up the results to the population of assisted businesses as a whole. Of the 203 businesses invited to participate in the research 124 businesses responded - a highly credible response rate of 61%. However, as with most if not all surveys, not every responder answered every question. To gross up we need to calculate a standard error for each economic impact metrics - these are as follows:

- Forecast in turnover and GVA levels standard error - +/-7.9%; and
- Forecast employment levels standard error - +/-7.5%.

Table 4.11 presents the details when we gross up the forecast net additional impacts.

Table 4.11: Grossed Up Forecast Impact

Area of Impact	Mid-Point	Range
Turnover	£147.9m	£136.2m - £149.6
GVA	£62.7m	£60.9m - £64.3m
Employment Years	1,289 FTEs	1,192 FTEs - 1,385 FTEs

Return on Investment

4.22 Return on Investment (ROI) is a performance measure used to evaluate the efficiency of an investment or compare the efficiency of a number of different investments. ROI tries to directly measure the amount of return on a particular investment - in business development evaluations such as this study this is typically the changes in the employment levels relative to the business development funding, usually termed cost per job.

To calculate the cost per job relevant to the Digital Development Loan we simply divide the cost of the funding package - £10.4m - by the number of (mid-point) net present value job years resulting from that investment. This gives a costs per forecast job year over that period of £8,038.²⁰

²⁰ As this figure for job years is based only on projections for the 3-year period specified, it overstates the cost per job year as a number of jobs will persist beyond this 3-year period.

KEY POINTS

Economic Impact Analysis, based on beneficiary firms' forecasts with and without having had a Digital Development Loan suggest a mid-point forecast impact of turnover of £147.9m, Gross Value Added of £62.7m, and employment of 1,289 Full-time Equivalents. Cost per job year is forecast at £8,038.