Private Document Pack

Newark Town Funds Executive Board

Thursday, 13 January 2022
at 3.00 pm

MS Teams

If you have any queries please contact Catharine Saxton on catharine.saxton@newark-sherwooddc.gov.uk.

AGENDA

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Agenda Item 4

NEWARK EXECUTIVE TOWNS BOARD
13 JANUARY 2022

Approvals of Summary Documents prior to Submission to DLUHC: IASTI and Cycle Town

1.0 Purpose of Report

1.1 To seek approval to submit to DLUHC the summary documents for the Cycle Town project and the International Air and Space Training Institute (IASTI) project, having been assured by Quod consultants and signed off by the Co-chairs of the Newark Town Board and the S151 officer of Newark and Sherwood District Council, as the accountable body.

2.0 Background and Updates

2.1 The business cases for the Cycle Town and the IASTI projects have been developed by Hatch consultants. An independent consultancy, Quod, have been commissioned to assure the Business cases of all Towns Fund projects and to recommend approval when the Benefit Cost Ratio (BCR) is showing as greater than 1.

2.2 On the 23rd December 2021, Quod assured the Cycle Town business case, which shows a BCR of 3.0 representing 'very high value for money'. In their evaluation report, Quod state: "we are confident on the basis of the business case provided that the scheme offers value for money, and is deliverable".

2.3 The IASTI business case shows an acceptable BCR of 1.75, representing value for money. The draft business case for the IASTI project accompanies this report, as it is anticipated that Quod will assure the OBC prior to 13th January 2022, in which case the completed summary document will be shared in the meeting. The summary document will be based on the OBC so the Board is asked to delegate approval to the Co-Chairs of Newark Town Board and NSDC's S151 officer to approve the summary document, once assured and complete.

2.4 For spend in the financial year 2021/2022, central government have requested that summary documents, having been approved by Town Boards and the accountable body's S151 officer, are submitted by 14th January 2022.

2.5 The assurance framework for Newark Town Board states in section 4 that the purpose of the Executive Board is to "drive operational and delivery decisions". It is considered appropriate therefore, given the short timescale of the deadline for submission to government of these two projects with spend in the financial year 2021/2022, that the Executive Board be called in this instance to approve the summary documents on behalf of the main Newark Town Board.

3.0 RECOMMENDATIONS that:

- **The Board approves the summary document for the Cycle Town project;**
- **The Board delegates authority to the Co-Chair and NSDC's S151 officer to approve the Summary Document for the IASTI project, subject to assurance by QUOD; and,**
- **The Board gives approval for these documents to be submitted to DLUHC to release the grant fund for the year 2021/2022**

Next Steps:

- Following approval by the Town Board to follow the recommendations as outlined in 3.0, the accountable body will submit the summary documents to central government and await their response. NSDC will inform the Town Board of the outcome.

Background Papers

Item 4a Cycle Town Summary Document
Item 4b DRAFT IASTI OBC

For further information, please contact Frances Davies (frances.davies@newark-sherwooddc.gov.uk)

Frances Davies
Town Investment Plan Programme Manager, Economic Growth

Towns Fund Summary Document

Part 1: Project Summary Document

Summary Document table
1. Project name: Newark Cycle Town
2. Heads of Terms project conditions – Actions taken to address any conditions attached to the project in the Heads of Terms, where applicable. – Where the condition was to provide a delivery plan please input in the section below (no.9) and/or attach to this document.
No conditions were attached to this project within the Heads of Terms.
3. Business case appraisal Provide details of how the business case has been appraised including: – business case type – any internal or external assurances
The project business case has been developed in accordance with the 5 Case Model, as recommended by HM Treasury. Assurance of the business case has been undertaken in line with the agreed Local Assurance Framework and in accordance with the HM Treasury Green Book. Independent appraisers (Quod) were procured to complete the Green Book compliant appraisal of the business case. Detailed appraisal reports have been produced and provided for review by both the Town Deal Board and Newark and Sherwood District Council (the accountable body). The results of the assurance process were agreed by the Town Deal Board on 13 January 2022. The appraisal has concluded that the business case is proportionate to the scale of the project (£200,000), the project is deliverable, and represents good value for money.
4. MHCLG capital (CDEL) 5% payment
The full capital cost (£200,000) is to be drawn down in 2021/22. Main activities include: • Equipment costs (£181,000) • Bike dock installation (£11,628) • Initial maintenance (£6,000)

5. Quantified benefit-cost ratio/value for money (e.g. Benefit Cost Ratio or Net Present Social Value)

A quantified benefit-cost ratio should be provided. If it has not been generated, a summary of evidence used by the S151 Officer to demonstrate value for money should be stated.

The value for money of the Newark Cycle Town project is considered 'very high' with a Benefit Cost ratio (BCR) of 3.0.

		Preferred option (net of reference case)
A	Net Present Social Value (£m)	£734,495
B	Public sector cost (£m, discounted with optimism bias)	£248,000
C	Private sector cost (£m, discounted with optimism bias)	£0
D	Appropriate Benefits Cost Ratio (A – C) / B	3.0

Optimism Bias of 24% was applied to the capital cost of delivering the project (£200,000).

The economic benefit of the Preferred Option is assessed using the HACT Social Value bank for physical activity and improved health outcomes. Department for Transport statistics provided in the Strategic Case indicate that 6.5% of adults in Newark and Sherwood District cycle at least once a week for travel and that 11% of adults cycle for leisure in 2018/19. The new bike docking stations will enable a higher proportion of the population to engage with cycling for both travel and leisure.

Based on a 1% increase (equivalent to 177 people) in the proportion of the population who cycle once a week for leisure and travel (year 2 onwards) and the HACT social value metric for 'frequent mild exercise' (£3,537 per individual per annum) – the Present Value of Benefits is £734,495 (after adjusting for additionality). This returns a benefit cost ratio of 3.0.

Other significant non-monetised benefits include:

- Town Centre accessibility and associated local economic benefits
- Environmental benefits from lower car use e.g. reduced air pollution and GHG emissions
- Public spending reductions – improved health outcomes are expected for residents that take up regular cycling, reducing the burden on public health services

6. Deliverability

Will this project still be delivered within the Towns Fund timeframe? (Y/N)

The project will be completed and launched by Summer 2022, within the Towns Fund timeframe.

7. Delivery plan

Including details of:

- timescales and key milestones
- partnerships
- interdependencies
- risks and mitigation measures (if not provided above).

The project will be delivered via a contract management partnership between Brompton Bike Hire and Newark and Sherwood District Council. Brompton Bikes will be responsible for the installation and ongoing maintenance of the docks and bikes and will be contract managed by the Town Investment Plan Programme Manager at Newark and Sherwood District Council.

The contract partnership will include the monitoring and evaluation of the key deliverables. Installation of docks according to the project timeline as set out below;

- An agreed response timeframe for responsive repairs to the docks and bikes.
- An agreed routine maintenance schedule, as set out in the M&E framework; and,
- Brompton will share with NSDC key data relating to numbers of users and frequency of users hiring bikes. This data will be used to inform targeted promotion of corporate and social packages and memberships and identify the success of the scheme from inception to the end of March 2026.

The offer from Brompton Bike Hire (BBH) goes beyond the installation and maintenance of the docks and bikes, BBH seek to play an active role in the promotion and celebration of cycling as an active and sustainable alternative mode of transport.

Given that a specific bike hire initiative is a new venture for NSDC, the Council has been engaging with neighbouring local authorities to seek advice and lessons learned from their experience of similar schemes, in particular contact has been made with Nottingham City Council regarding their Scooter Hire scheme.

Brompton Bike Hire was founded in 2011 and since then has established itself as a unique proposition due to its ability to integrate with other modes of transport as well as operate in locations where neither Bike Share nor traditional Bike Hire is viable. Brompton Bike Hire has 55 bike hire locations across the UK.

The main dependencies in the programme relate to:

- **Securing the location of the cycle docking stations** – agreement needs to be reached with landowners over the location of cycle hire docks
- **Planning permission** - Planning permission may be needed for some dock sites, e.g Newark Northgate Station

The key milestones for the Cycle Town project are:

Milestone Description	Target End Date
Procurement Process Complete	December 2021
Contract signed with supplier	14 January 2022
Confirmation of sites for bike docks	4th February 2022
Installation of Bike docks	31st March 2022
Docks and bikes operational	19th April 2022
Opening event	Summer 2022

A number of the **key** risks and mitigations associated with the Newark Cycle Town project, extracted from a more comprehensive project risk register, have been identified in the table below:

Risk	Mitigation
Failure to secure landowner agreement for delivering cycle hubs in preferred/optimum locations	Of the two main landowners concerned, NCC is supportive of the scheme and has committed to accommodate a dock at the bus station site. LNER is receptive and discussions are ongoing. Alternatively, NSDC will identify a substitute location e.g. on NSDC-owned land near Northgate Station.
Failure to secure political support for interventions highways measures (district/county conflict)	Establish a District Council Cycling Champion; Maintain dialogue with NSDC and NCC officers/ members. Engage widely with district and county members to identify support.
Rising costs leading to overspend/budget shortfall.	With prices agreed in principle and the proposed 2022 launch this risk can be contained. Failure to stick to the current agreement would require NSDC to either seek additional funding or adjust delivery trajectory accordingly (i.e. number of installations).
Failure to secure planning permission on sites where it is required.	Early engagement with relevant planning department suggests there is unlikely to be difficulties securing consent for the bike docks in preferred locations.

The bikes delivered through the initiative will be owned by Newark and Sherwood District Council and have the council branding and/or branding of corporate partners (subject to match-funding arrangements) on the bikes and docks. Brompton Bike Hire commit to meeting all ongoing operational costs for the duration of the contract. This will include a routine maintenance schedules and repairs to the docks and bikes.

8. Town Deal Board Chair name & signature
Name of the Town Deal Board: Chair's name and signature: Date:
9. By signing, I agree that: 1. The business case, in a proportionate manner, is Green Book compliant. 2. The 5% early capital (CDEL) has been included in the Town Fund project costs across the programme. 3. This project and expenditure represent value for money, including the 5% early capital (CDEL) provided. 4. Project-level Equality Impact Assessments such as Public Sector Equalities Duty and/or Environmental Impact Assessments have been undertaken. 5. For final submission - programme-level Public Sector Equality Duty assessment has been undertaken by the accountable body. **Name of the lead Local Authority and signature of the Chief Executive Officer or S151 Officer**
Name of the lead Local Authority: Job title: Name and signature: Date:

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NEWARK AND SHERWOOD DISTRICT COUNCIL

Newark International Air and Space Training Institute (IASTI): DRAFT OBC

HATCH

CONTENTS

Executive Summary

This business case seeks approval for £10.6 million from the Newark Town Deal to support the delivery of an International Air and Space Training Institute facility in Newark.

Towns Fund investment will enable the development of IASTI-Newark[1], which blends education with practical experience in partnership with the civil and military aviation industry. The project responds to skills shortages in the aviation and space sectors, who have struggled to attract, educate and retain qualified individuals needed to meet projected growth in these sectors. The project is led by Lincoln College Group (LCG), supported by the RAF, defence and civilian industry, and builds on their success in delivering an Air and Defence College across three colleges in the East Midlands.

The project is strategically located in the Newark Gateway and has been designed to support the long-term growth of the aviation and space sectors, provide improved education opportunities for Newark's residents, attract new businesses and students to the town as well as enhancing the town's vitality.

Visual of the Proposed IASTI building

Source: LCG (2021)

The IASTI programme will achieve several industry-changing outcomes, including:

- 312 Level 2 qualifications in engineering and computing.
- 1,689 Level 3 qualifications and T-Levels across a range of aviation and space related programmes including pilot, engineer, ground operations, cyber, robotics and logistics.

[1] International Air and Space Training Institute (IASTI-Newark) is a working title subject to confirmation on allocation of Towns funding.

- 204 Level 3 Apprenticeship Standards in aviation engineering.
- 888 Higher Level Technical Qualifications (Level 4-6) across pilot, airfield operations, aviation, aerospace and software engineering.

The project is closely aligned to the wider Town Investment Plan objectives and challenges noted in relation to skills and education, including the predominance of lower skilled industries, low wages compared to the national average, the outflows of students' education in streamed and grammar schools, the absence of higher education in Newark and the lack of non-vocational pathways. Against this backdrop, the project responds to market failures of imperfect information, externalities, free-rider problems and coordination failures.

The new courses and learning outcomes delivered constitute new and wholly additional provision for the area. However, the success of IASTI is closely linked with the continued provision of college-based learning throughout the area. Scheme promoters have told Hatch that if the IASTI proposals do not come forward, questions of viability will be raised for existing courses provided in the town. This suggests that a continuation of 'business as usual' could have a detrimental impact on Newark and existing learners. The 'Do Nothing' is defined as the continued provision of current FE learning, but no new activity. This is a conservative approach that fits in with the guidance outlined in the Green Book.

The theory of change is presented in the logic model below.

IASTI Theory of Change

CONTEXT	INPUT	OUTPUT	OUTCOME	IMPACT
Rationale for Investment: • **Earnings and aspiration**: Qualification levels in Newark and Sherwood are lower than the England average. 33% of residents are qualified to degree-level compared to 40% in England which is directly translates into earning potential. Resident earnings in Newark are 12% lower than the England average for men and 11% lower for women. • **Low land values**: commercial values in Newark are below the regional and national averages. By diversifying reasons for visiting Newark and increasing footfall, the IASTI project can contribute to addressing market failures and viability challenges. • **Impact of COVID-19** and sector job shortages : Newark lost 13% of economic output, or £339m, during 2020. It is also reasonable to expect that the 'labour shakeout' due to Covid-19 will result in a potentially significant percentage of former employees leaving the industry rather than representing a pool of labour that could be drawn on when the industry recovers. This is likely to exacerbate the sector's labour shortages which were particularly acute before the pandemic.	£10.6m Towns Fund investment £5.0m industry match of aviation equipment from Aviation industry £1.9m match funding from Lincoln College Group	Centralized education facilities under one roof within Newark town centre Enhanced education to employment routes Repurposing an underutilised brownfield site which will attract students, hotels, aviation industry and business incubation to the town	Redevelop a key brownfield site in the town centre Level 2 qualifications to at least 300 people (over a 15-year period) Level 3 qualifications to 1,600 people (over a 15-year period) 204 apprentices across IASTI and local industry (over a 15-year period) Degrees to 888 people (over a 15-year period) Create 38 new jobs	Wider commercial land value uplift Direct land value uplift through new commercial and office space capacity Labour supply impacts: wage premium uplift, Social value

Strategic alignment to the Newark Town Investment Plan:

- Town Centre Regeneration and Culture: IASTI will contribute to creating a vibrant town centre through a centrally located skills facility which will enhance Newark's vitality by diversifying the reasons for visiting.
- Skills, Education and Business: The project will contribute to delivering better learning and employment opportunities for all by establishing post-16 education pathways to aviation/space industries, allowing entry to different sectors, and providing a high-quality new learning facility based within Newark town centre

Project value for money has been assessed from both a supply side and place-based perspective. This establishes the positive contribution that the project is expected to make at a national and local level. The Case focuses on the impact of the £10.6m Towns Fund contribution but we have explored the impact of private sector contributions through the wider benefit ratios. The analysis shows that both approaches deliver an Initial Benefit Cost Ratio over 1.5. The BCR for the **supply side value for money assessment is 1.8** and the **place-based value for money assessment is 2.5**. These results have been tested and switching values calculated.

The Financial Case demonstrates that the total capital project cost is £17.5 million, comprising equipment and tools and build costs. The project will receive funding from the Towns Fund, contributions from industry and from Lincoln College.]

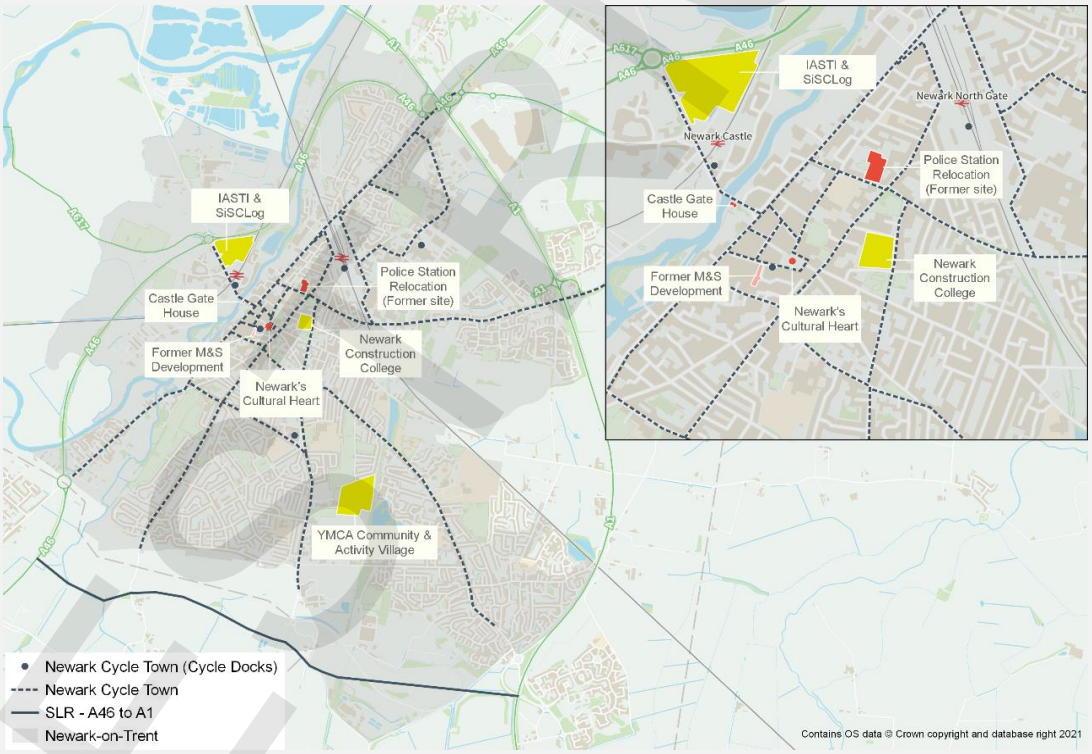
Due to the upfront capital and operating costs including staff wages, there is a funding shortfall in the early years of the project. This is not capable of being met by other funding sources such as Lincoln College Group, a bank loan or other private sector funding. Due to the lagged nature of FE funding from the Education and Skills Funding Agency (ESFA), (funding is received retrospectively), it is not possible to borrow enough for a significant capital outlay, hence the need for alternative financing (Towns Fund). However, the working capital will be put in place to manage the outstanding revenue shortfall following Towns Fund support in the early years of the scheme's delivery. Full discussion on this is set out on page 77. The Towns Fund contribution effectively meets the cashflow requirements for the project in early years before the breakeven point is reached and enables financial viability and sustainability of the course provision. Details surrounding the project's deliverability and management are explored in the Commercial and Management Cases.

01 Introduction

In September 2019, the government invited 100 places to develop proposals for a Town Deal, as part of the £3.6 billion Towns Fund. The Towns Fund is part of the government's plan for levelling up the UK economy and the overarching aims of the Towns Fund are to drive the sustainable economic regeneration of towns and to deliver long term economic and productivity growth through:

- **Urban regeneration, planning and land use**: ensuring towns are thriving places for people to live and work. This includes increasing density in town centres; strengthening local economic assets including local cultural assets; site acquisition, remediation, preparation, regeneration; and making full use of planning tools to bring strategic direction and change.
- **Skills and enterprise infrastructure**: driving private sector investment and ensuring towns have the space to support skills and small business development.
- **Connectivity**: developing local transport schemes that complement regional and national networks, as well as supporting the delivery of improved digital connectivity

Map of Newark Town Fund projects



Source: Newark TIP

In total, Newark received £25m across ten towns fund projects which are positioned to drive transformational change across the town. The ten projects combine to deliver across the following four investment themes:

1. **Skills, Education & Business:** *Better learning and employment opportunities for all.*
2. **Connectivity:** *Enhance the experience and ease for residents, visitors and employees.*
3. **Town Centre, Regeneration and Culture:** *A vibrant Town Centre where people visit, experience, shop, work and live.*
4. **Town Centre Residential:** *To promote significant residential repurposing and redevelopment within and close to the town centre.*

A place that people and businesses:

- *Choose as their destination of choice for learning and investment in the 21st Century.*
- *Live and locate in green sustainable communities.*
- *Connect to sustainable transport within the town (within 20-mins) to fulfil their daily ambition.*
- *Enjoy our heritage and open spaces and engage with the vibrancy of our town centre culture (shrinkage of retail and replacement with vibrant and viable alternatives).*

Newark Town Investment Plan place vision

This Outline Business Case (OBC) is one of the eight TIP projects being supported by Hatch. Hatch have worked closely with project leads throughout the business case process to ensure robustness and that it is reflective of local ambition.

The Newark IASTI is the largest project within the TIP - delivering game changing benefits to the town across multiple investment themes. It positions Newark as a hub for high-quality Further Education provision and will deliver better learning and employment opportunities for the town's residents.

Locating the IASTI on a strategic brownfield site will help to unlock the potential of the Newark Gateway – helping to diversify town centre footfall to enhance vibrancy, vitality, and place prosperity.

Project background

The TIP identifies the following local challenges for skills and education across Newark:

- Dominance of lower skilled industries.
- Low wages compared to national average.
- The 'Lincolnshire Drift' of students educating in streamed and grammar school system.
- Absence of Higher Education in Newark.
- Lack of non-vocational pathways.

To tackle this, the TIP identifies potential opportunities as expanding vocational and non-vocational pathways; expanding HE on education-to-business basis; and securing a Higher Education presence in the town.

Simultaneously, critical, and well-identified skill gaps have been identified within the aerospace sector. The sector has grown significantly over the last decade and has the potential to provide a significant number of high-value employment opportunities for Newark's residents. Apprenticeships are appropriate for the aerospace sector as many of the roles are factory-based and 'on the job' delivery can be facilitated. However, these are yet to materialise in aviation, other than in some technical ground-based roles. A new institute provides an opportunity to change this and provide a new approach to education and training.

Project intent

To develop an International Air and Space Training facility which blends education with practical experience relevant to, and in partnership with, the civil and military aviation industry.

Newark TIP vision for skills, education and business

By 2050 Newark's world class education and learning provision will provide academic and vocational pathways at all levels of teaching where: residents can fulfil their learning and earning potential and enhance their social mobility; national and international students will see Newark as a destination of choice for learning in our key sectors; and a high level of graduate retention and return means that local employers can access a highly qualified and a work ready workforce.

Newark is well connected and strategically located given its proximity to military and civil aviation bases. The town will become a leading centre for skills and serve its residents and future generations by providing high-aspiration outcomes with the associated societal and economic impacts.

Primarily, students will benefit through access to the pathways that connect to jobs but also by participating in the full School / College / University experience that is available in other sectors but not necessarily in aviation. Leading to the development of world leading capability for air and space.

The project will:

- Deliver a new Further and Higher Education facility on a key brownfield site in the heart of the Newark Gateway for the Lincoln College Group.
- Establish post-16 education pathways to aviation and space industries, allowing entry to different sectors and at different career points.

The funding ask of **£10.6m from the Towns Fund** is for capital investment in the construction of the Newark IASTI.

Purpose of this report

This report establishes the case for investment for £10.6 million funding from the Towns Fund through an Outline Business Case (OBC) which complies with HM Treasury guidance by setting out the case for investment using the framework established by HM Treasury's Five Case Model.

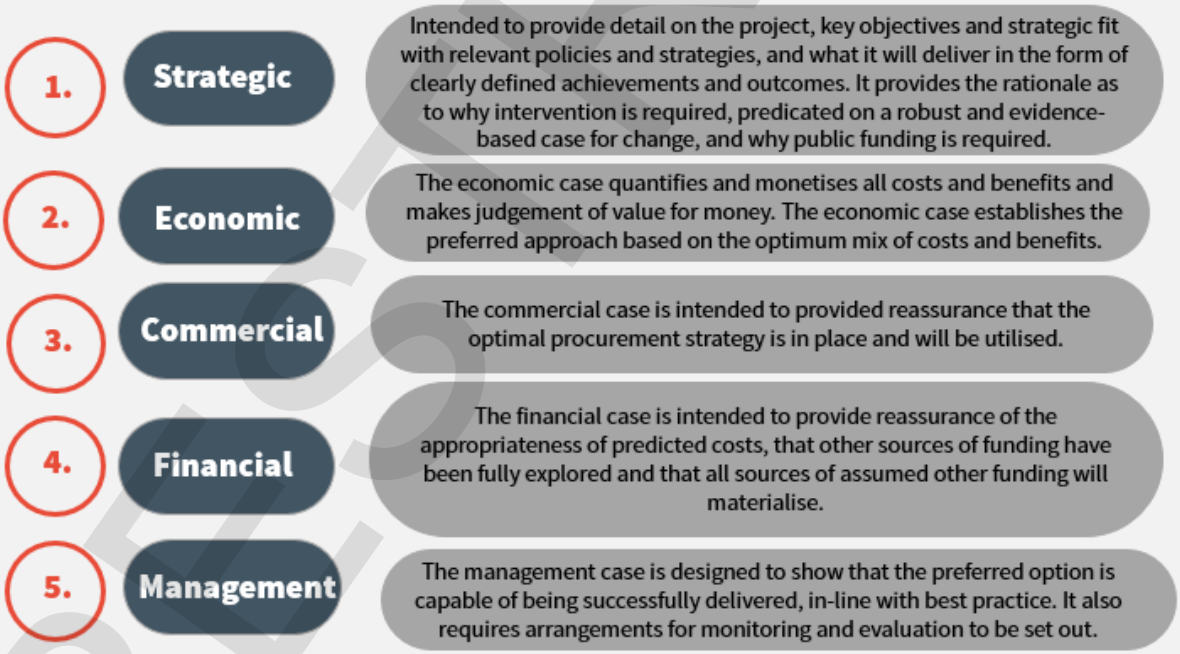
The Business Case document has been designed to provide the Newark Town Board with the assurance that each individual Towns Fund investment is good value for money, affordable and deliverable.

The Newark Towns Fund Executive Board and the Accountable Body will carry out an assessment of the Outline Business Case in line with the MHCLG guidance and report back to the Project Lead with confirmation on whether the project can progress to Full Business Case or whether there are any further requirements. Once the Outline Business Case is approved by the Newark Towns Fund Executive Board and the Accountable Body then the Executive Board will inform the Main Board of the approval and allow the Project Lead to progress the Full Business Case.

Outline business case checklist

- ✓ Land required to deliver the project is secured or in the process of being secured.
- ✓ Other sources of funding identified.
- ✓ Project remains in-line with Towns Fund agreement.
- ✓ Outputs/outcomes/timings have been identified.
- ✓ Detailed risk register complete.
- ✓ Confirmation for the project is Subsidy Control compliant.

Introduction to the five-case model



Source: HM Treasury

It is also proposed that the approval of the OBC will also be used to release £10.6m of Towns Funding due to be spent between 2021/22 – 2023/24 financial years as specified in the Newark Town Deal Grant letter (see financial case).

Logic Model

The logic model provides an introductory overview of the focus of the business case.

IASTI logic model

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The remainder of the document is structured as follows:

- **The Strategic Case:** the rationale for the investment, its objectives and fit with wider policy.
- **The Economic Case:** the value for money provided by the project.
- **The Commercial Case:** the contractual and procurement approach to be taken.
- **The Financial Case:** the costs and funding profile for the project.
- **The Management Case:** the approach to managing the project.

02 Strategic Case

02 The Strategic Case

The Strategic Case is designed to address the following questions:

- What is IASTI?
- What strategic context is IASTI responding to?
- What is the case for change?

This chapter outlines the nature of the proposal and examines the wider development context of the Newark IASTI. This includes a summary of the wider vision and development objectives.

The chapter explores the national, regional and Towns Fund policy context, and assesses the wider strategic fit of the project. Turning to the IASTI, we look at the rationale for change and the case for investment.

What is Newark IASTI?

Towns Fund investment will enable the development of an International Air and Space Training Institute facility in Newark (IASTI-Newark), blending education with practical experience in partnership with the civil and military aviation industry. The project is strategically located in the Newark Gateway and has been designed to support the long-term growth of the aviation and space sectors, provide improved education opportunities for Newark's residents, attract new businesses and students to the town as well as enhancing the town's vitality.

The IASTI will respond to skills shortages in the aviation and space sectors. The sectors have struggled to attract, educate, and retain sufficiently qualified people to meet the projected growth in demand. The Lincoln College Group (LCG), supported by Industry, has quickly mobilised to respond to this challenge – recognising the opportunity to build on the Lincoln College Group's pioneering Air & Defence Career College, which has successfully partnered with Defence industry and the Royal Air Force across three colleges in the East Midlands.

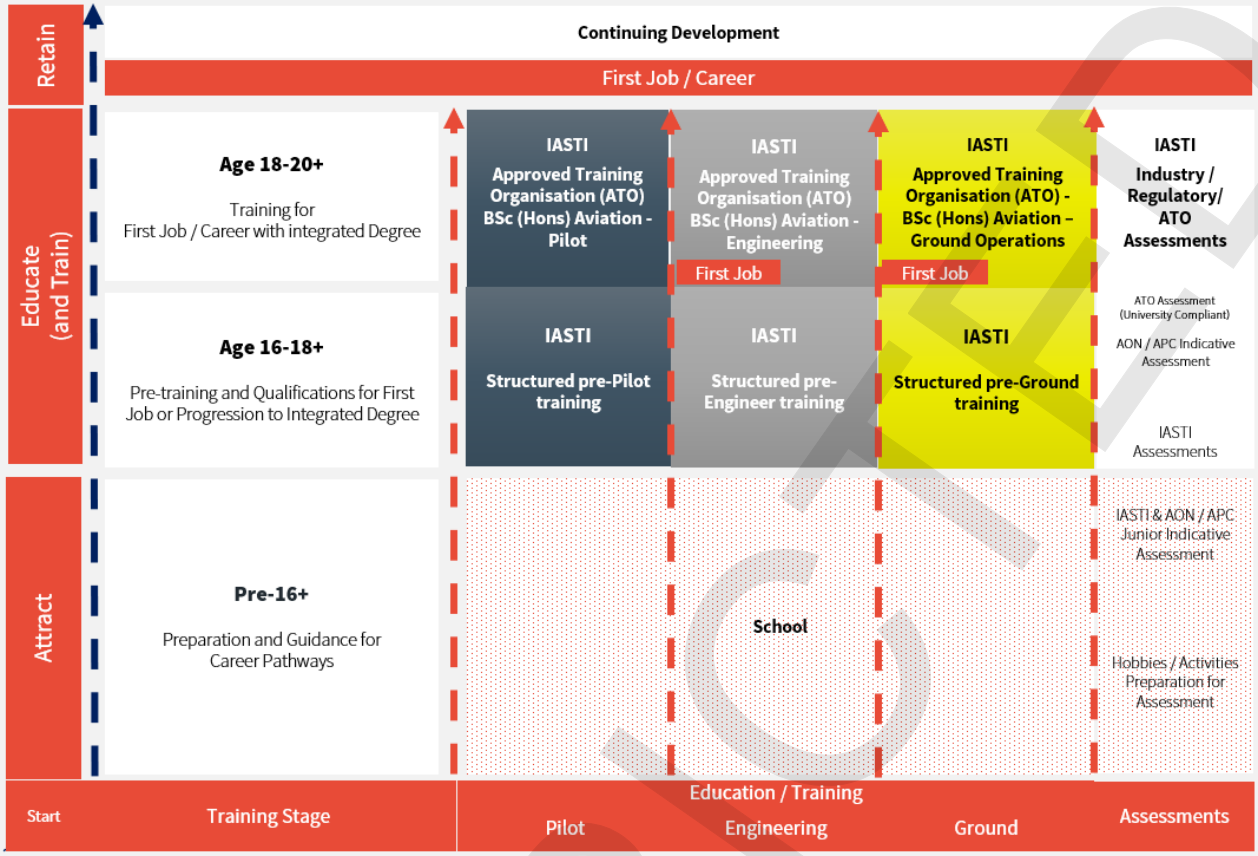
The project encompasses all types of training at all skills levels with multiple provider types - both educational and industry. This will bring together a transformative partnership that links employer and industry training with all aspects and formats of the education system at all levels and capabilities.

In early 2020, a project was initiated to deliver International Air and Space Training in Newark. This has initially focused on Level 3 aviation engineering, pilot training and aviation ground roles, in interim facilities within the existing Newark College Campus. These pathways will grow to incorporate education up to Level 6, in conjunction with a higher education institution, the full spectrum of aviation and space roles including logistics, space engineering and cyber as well as a range of apprenticeships and higher technical qualifications.

Sources: LCG (2021)

This project will allow young people of Newark the opportunity to move into a well-paid sector with excellent career progression and with multiple avenues to progress in both civilian and military spheres. This new and innovative institution will attract students and business interests from the wider East Midlands, bringing inward investment and footfall into Newark. The IASTI Newark will provide regenerative benefits for the town whilst providing solid foundations for long-term economic growth and recovery within the air and space sectors - both nationally and internationally.

Proposed Study Programme Learner Pathways



Source: LCG (2021) [2]

The IASTI programme will achieve several industry-changing outcomes, including:

The IASTI programme will achieve several industry-changing outcomes over the next 15 years, including:

- **Level 2 Qualifications -** 312 Students upskilling in basic engineering and computing skills whilst achieving maths and English qualifications to allow them to progress onto Level 3 or apprenticeship courses to prepare them for entry into employment from the age of 18.
- **Level 3 Qualifications** – 1,689 Students across a range of aviation and space pathways initially focused on Engineering, Pilot and Ground operations before expanding into cyber, logistics, space engineering, systems engineering and robotics, with T-Levels introduced over time. Students will then be able to enter the workforce directly or proceed to higher technical qualifications within the Institute or elsewhere in the higher education sector.
- **Apprenticeships** - Working with employers 204 engineering apprentices will be trained whilst working with aviation businesses. As the IASTI reaches full operating capability the range of

[2] In addition apprenticeships, continued professional development, full cost and T-Level programmes will also be developed.

apprenticeship standard offers will grow in line with the demands of the sector and specific industry requirements like cyber, logistics and avionics.

- **Higher Technical Qualifications (Level 4-6).** Over 850 students will qualify in pilot, airfield operations and engineering higher level qualifications via partnerships with higher education institutes. There will also be the opportunity to complete higher apprenticeships with local businesses as the demand for these qualifications grows over the next 5-10 years.

Apprenticeship routes are planned across all three initial learning pathways – increasing opportunity for residents across Newark, Nottinghamshire, and the wider East Midlands. Further pathways will be developed with aviation industry partners to deliver logistic, cyber and space pathways which will be linked to the development of T-Levels as they roll out across education as well as wider higher technical qualifications. Wider indirect benefits for Newark as a town include:

- Recruitment and retention of people locally filling military and civil aviation jobs in the area.
- Attracting investment from training organisations and equipment suppliers.
- Attracting investment through relocation of businesses to the region due to the supply of new people.
- New start-ups to develop regional benefits associated with Air & Space.
- Cross-regional working in the Sector *e.g.*, National Space Centre.
- Wider regional opportunities linking to, for example, the East Midlands Freeport.

Capitalising on Newark's strategic location

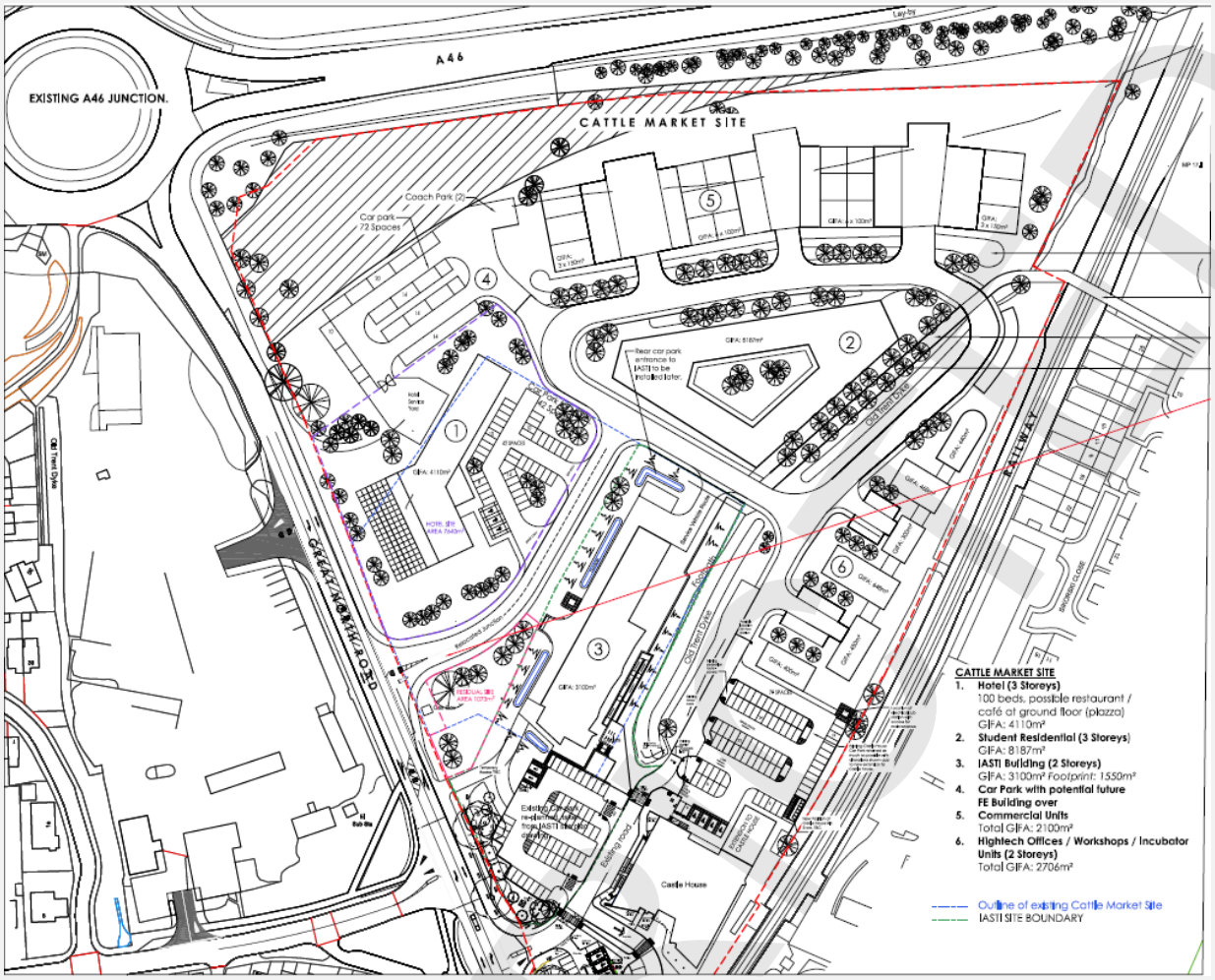
In addition to education-focused outcomes, IASTI will have strong place-based impacts by locating a facility normally found at an airport or airfield in the middle of a town. As a result, the project provides a unique opportunity to simultaneously address deeply embedded challenges whilst realising the town's unprecedented opportunity for growth and renewal.

Newark is well connected and strategically located given its proximity to military and civil aviation bases. Using the IASTI as a catalyst, the town can become a leading centre for skills and serve its residents and future generations by providing high-aspiration outcomes with the associated societal and economic impacts.

This will contribute to addressing several of the primary challenges facing Newark, most notably:

- **Diversifying town centre** footfall through education, office and student accommodation provision which can help to enhance town centre vitality.
- **Addressing local challenges** of low skills levels, aspiration, and workplace/resident earnings.

Developing a key site within the Newark Gateway: Proposed location of Newark IASTI



Source: NSDC

The IASTI site will deliver training that would normally be at an airport in a town centre location by pioneering innovative training modules and using the latest technology. The proposed site is on the A46 Link Road in the Station Gateway area and will interface closely with the SiSC Log project. The cumulative impact of these projects will help to drive footfall and growth around Newark Castle Station – further unlocking the town's economic potential.

Under the leadership of Lincoln College Group, the IASTI expands the town's offer for apprenticeships, Further and Higher Education including T-Levels and higher technical qualifications. In addition to the indicated outputs and outcomes, the overall vision of the project is intended to contribute to the educational and employment sector of Newark, as well as to raise its regional importance in relation to space and aviation.

The project has synergies with wider interventions and offers in the town and has attracted significant industry support from the Royal Air Force, Boeing, Jet 2, Tui, Inzpire, East Midlands Airport, and a university partner from the University of Central Lancashire.

Project objectives

The IASTI project has been designed to achieve the following objectives:

- **To broaden the skills offer within Newark and the surrounding district** by increasing opportunities for young people and aspiration to move into a well-paid sector of the economy.
- **To create a sustainable regional approach** for developing training aligned to the needs of local, national and international employers, education, government and regulators, available to a broad and diverse background.
- **To create air & space pathways that meet industry standards and fully integrate the education and training systems at all levels – initially for engineering, pilot and ground.** The project directly addresses the sustainability and carbon emissions factors by building educational pathways to address the sector's needs and encourage operational design & planning to meet ever more stringent environmental targets.
- **To create facilities that integrate the required industry, education & training** along with the regulatory requirements to deliver the suitably skilled and qualified people as 'job-ready'.

What strategic context is the IASTI responding to?

IASTI strategic alignment

Town Deal objectives

The 'Newark Strategy' identifies four strategic themes for regeneration and economic growth to be delivered through the Town Investment Plan. The IASTI programme will advance two of the TIP's four strategic themes:

1. **Education, Skills and Business:** air and space training are not currently integrated into the education system. It generally operates in a private training provider mode or is delivered by the industry itself, post education. Newark IASTI starts with the premise that all training is to be delivered (to the maximum extent possible) by the education sector in all modes and at all levels. It meets the Newark Strategy theme by locating the facility in the middle of the town, maximising the opportunity of the local and regional people to be attracted to, be trained in, and achieve employment in sectors normally way beyond their reach – both in terms of physical accessibility and educational attainment. This can contribute to addressing the town's skills, earnings, and aspiration challenges.

2. **Town Centre, Regeneration and Culture:** by its nature, air and space training has often been seen as remote, distant and 'non-deliverable' in urban locations as the perception is that access to live aircraft and infrastructure is required. However, with access to advanced technology and training aids, urban locations are both possible and desirable. Newark IASTI's guiding premise is that all training can be delivered in urban locations, except a small proportion 'finishing school' elements that need specific locations and equipment. Integrating a dynamic and fast-moving sector into a town means that students at all skill levels and pathway types can integrate. This will help to diversify town centre footfall – creating a critical mass and catalytic activity in the town's key growth Gateway.

Regional policy objectives

In addition to the regenerative benefits this will bring to Newark, IASTI will benefit learners from across the East Midlands. The IASTI will advance the following regional strategic objectives:

D2N2 Vision 2030[3]**:** The D2N2 Strategic Economic plan provides a credible, measurable, and widely supported plan for the economy and establishes key priorities to unlock the area's potential. This is underpinned by eight key actions. IASTI will advance the following two actions:

"Our vision is that, by 2030, D2N2 will have a transformed high-value economy; which is prosperous, healthy and inclusive, and one of the most productive in Europe."

D2N2 LEP: Vision 2030

- **Inclusion and progression in the labour market:** IASTI will provide pathways into key growth sectors that would have otherwise been inaccessible to most people. By challenging previous delivery models and hosting the IASTI in a town centre location, the project can help tackle the inaccessibility of the sector – enhancing both economic inclusion and opportunity.

[3] D2N2 Vision 2030 : https://d2n2lep.org/wp-content/uploads/2020/07/Vision-2030-publication_compressed.pdf

- **Skills and leadership for productivity growth:** IASTI will provide the industry with the skills it needs to continue its recent growth trajectory. Between 2011 and 2017, the economic output of the UK aerospace sector increased by 39%.[4] Capturing this within Newark and the wider east midlands can ensure that D2N2 benefits from the sector's future growth and productivity uplift.

D2N2 Recovery and Growth Strategy[5]: More recently, D2N2 has been leading the region's economic response to Covid-19 and the D2N2 Recovery and Growth strategy establishes the LEP's priorities to support the region to build back better. IASTI will support D2N2's second guiding principle which focuses on enhancing the region's productivity by *"bringing together the education and skills, innovation and business support systems to support our people and businesses to thrive."* Specifically, this will align with and support the following LEP actions:

- ***"Support our partners in national and local government and the education sector to mitigate the worst impacts of Covid-19 by ensuring all of our residents who are affected have access to support to retrain and upskill."*** IASTI will provide significant investment into education infrastructure at a critical time – widening education participation to support Covid recovery by offering both training and retraining opportunities.
- ***"Make D2N2 the most attractive region for businesses to start up, invest and grow by ensuring we have the highest quality support for businesses underpinned by an innovation network focused on converting our academic excellence to business adoption of technologies for growth."*** The presence of the IASTI in Newark can represent an integral magnet for relevant sectors and their supply chains to form. Capturing these agglomeration benefits in Newark can drive COVID recovery, economic growth, and enhanced employment opportunities for residents.

National policy context

The impact of IASTI will stretch beyond Newark, Nottinghamshire, and D2N2. It will help to address sector skills gaps at a national level by bringing education and industry closer together.

In its initial phases, the Project / Programme is expected to deliver people into new jobs regionally and nationally, including:

- Civil airline engineers to the equivalent of EASA B Licence.
- Civil airline mechanics to the equivalent of EASA A Licence.
- Civil airline pilots and flight instructors.
- Civil Airport and Military Air Base flight dispatchers.

Additionally, IASTI will contribute towards delivering the ambitions outlined in the following UK Government strategies:

[4] UK Aerospace Outlook (2017) https://www.adsgroup.org.uk/wp-content/uploads/sites/21/2017/06/Aerospace-Outlook-2017.pdf

[5] D2N2 Recovery and Growth Strategy (2021) https://d2n2lep.org/recovery-and-growth-strategy/

Build Back Better: Our Plan for Growth[6] – The UK's Industrial Strategy[7] aimed to boost productivity by backing businesses to create good jobs and increase the earning power of people throughout the UK with investment in skills, industries, and infrastructure. This has been replaced by the 'Build Back Better – Our Plan for Growth'[2] which focuses on helping to drive growth in existing, new and emerging industries. The Growth Plan centres around 3 core pillars – infrastructure, skills and innovation. The UK Government aims to:

- Support productivity growth through high-quality skills and training: transforming Further Education through additional investment and reforming technical education to align the post16 technical education system with employer demand.
- Introduce the Lifetime Skills Guarantee to enable lifelong learning through free fully funded Level 3 courses, rolling out employer-led skills bootcamps, and introducing the Lifelong Loan Entitlement.
- Continue to focus on the quality of apprenticeships and take steps to improve the apprenticeship system for employers, through enabling the transfer of unspent levy funds and allowing employers to front load apprenticeship training. The IASTI project will advance several priorities within the government's COVID-19 recovery plan; most notably the government's plan for skills. Industry-led FE provision can support Newark, the East Midlands and UK's productivity growth, whilst taking bold steps to introduce high-quality apprenticeships to help tackle aerospace sector shortages.

The UK 10-point plan for a green industrial revolution[8]**:** The ten-point plan sets out the UK government's approach to building back better from COVID-19, support green jobs, and accelerate the country's path to net zero. The UK was the first major economy to embrace a legal commitment to achieve net zero carbon emissions by 2050. There will be no impact on carbon emissions as a result of the IASTI project. The project will contribute to the UK's net zero roadmap through:

- **The Institute will aid understanding of the Carbon emissions of modern aircraft** and specific elements will be built into each pathway to contribute to the design, development, and commissioning of environmental operation of aircraft.
- **The Project will contribute positively to the natural and built environment**. The redevelopment of a brown-field site will create new habitats for wildlife, replace derelict buildings and positively impact the approach to Newark Town from the A46 – as well as for passing traffic
- **Low Energy and Sustainable Design**. With the aim to deliver an environmentally responsible development, an exemplar construction approach will be adopted utilising low energy design principles. The aim is to minimise energy demand of the building through a fabric first approach and proficient use of services. It is intended to increase the new building element's energy

[6] Build Back Better: Our Plan for Growth (2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/968403/PfG_Final_Web_Accessible_Version.pdf

[7] UK Industrial Strategy (2017) https://www.gov.uk/government/topical-events/the-uks-industrial-strategy

[8] UK 10-point plan (2020) https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution

efficiency by influencing the materials of construction and by delivering passive engineering solutions.

- **The utilisation of passive measures** to deliver energy efficient solutions invariably proves to be the most economical and socially acceptable inclusions on any scheme. As a consequence, the focus of the design at this early stage is to achieve compliance with the conservation of fuel and power requirements of Building Regulations Approved Document (Part L) by means of good passive design combined with a lean engineering approach. The following areas have been targeted to this proposed design philosophy:
- Fabric First Approach - Improved Building Envelope 'U' Values and Air Permeability
- Incorporation of Mechanical Ventilation with Heat Recovery
- Provision of good levels of Natural Daylighting
- Smart Building Management System incorporating Zoning and Metering
- Air Source Heat Pump technology to deliver the heating and domestic hot water generation
- Grid Decarbonisation. Year-on-year, the generation of grid electricity takes greater contribution to its production from renewable sources, rather than relying so heavily on the burning of fossil fuels – the predicted CO_2 emissions factors for 2023 are approximately ¼ of what they were in 2013. In order to maximise the environmental benefits of this grid decarbonisation, it is proposed to deliver the building's entire heating and domestic hot water demand via air source heat pump technology. Combining this strategy of heat generation with the Fabric First Approach and heat recovery ventilation will deliver a very energy (and carbon) efficient solution that will not only satisfy but significantly better the Conservation of Fuel and Power (Part L) requirements of Building Regulations.
- Potential for On Site Generation and Storage. As described above, all legislative energy requirements will be significantly bettered via sustainable building design, utilisation of grid decarbonisation and incorporation of heat recovery. Notwithstanding this, the Applicant is eager to explore and incorporate, where commercially and technically viable, further low carbon measures within the proposed building design. The installation of photovoltaic cells on the roof and an element of battery storage would perfectly complement the all-electric solution proposed for the building and could be incorporated from Day 1 or added at a later date should initial budgetary constraints prohibit.

Aviation 2050: The Future of UK Aviation[9]: The government is developing a long-term Aviation Strategy to 2050 and beyond, the aim of which is to achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain. This highlights the importance of a strong workforce and investment in home-grown talent as being intrinsically linked to the UK's global presence and competitiveness in the sector. The strategy states that: "the government wants to encourage the aviation industry to increase the number of apprenticeships and ensure training opportunities within the industry are widely available. This is particularly important in relation to commercial piloting as the industry has highlighted the high cost of training as a barrier to entry."

IASTI will directly address this challenge by providing Apprenticeships that will be a key route to combatting the sector's skills shortage. Apprenticeships are ideally suited to the aerospace sector as

[9] Aviation 2050 (2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769695/aviation-2050-web.pdf

many of the roles are factory-based and 'on the job' delivery can be facilitated. However, this is yet to happened in aviation, other than in some technical ground-based roles. The IASTI provides an opportunity to change this for good and provide a new approach to education and training for aviation.

National Space Strategy: The strategy brings together the UK's strengths in science and technology, defence, regulation, and diplomacy to pursue a bold national vision. The strategy identifies five goals and the activities that government, academia and industry will need to take to achieve them. They are the following:

- Grow and level up the space economy.
- Promote values of Global Britain.
- Lead pioneering scientific discovery and inspire the nation.
- Protect and defend our national interests in and through space.
- Use space to deliver for UK citizens and the world.

IASTI will help the UK government reach Goal 1 and Goal 3 by, firstly, supporting the long-term growth of the space sector and, secondly, engaging young people and inspiring them to become the next generation of space scientists, engineers and entrepreneurs.

What is the case for change?

The IASTI project responds to the following three primary drivers for change:

1) Addressing Newark's local challenges of low aspiration, educational attainment, and earnings.

2) Recovering from the economic impacts of the COVID-19 pandemic and driving place vitality.

3) Enabling the growth and future vitality of the aerospace sector.

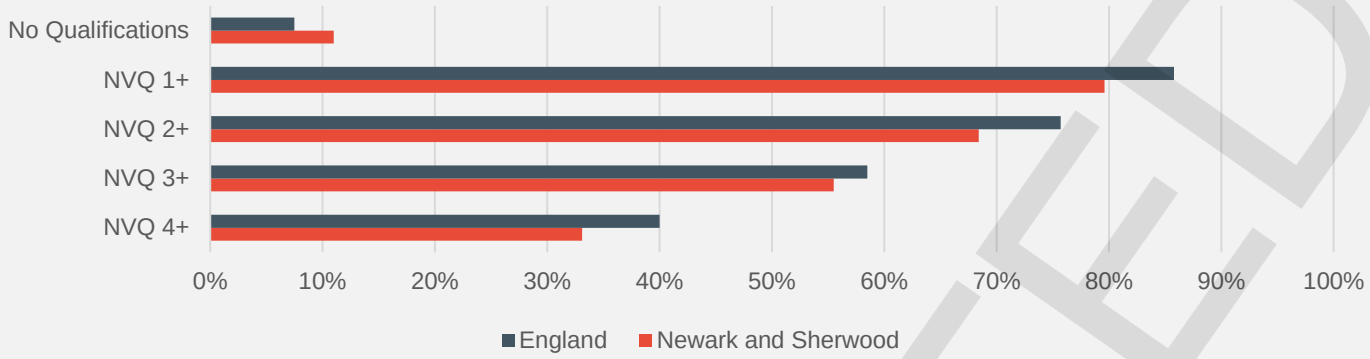
This section explores each case in turn and how they culminate to create a compelling case for change and a clear strategic rationale for locating an Air and Space Training facility in Newark.

Addressing Newark's challenges

The Newark on Trent Town Investment Plan articulates a clear case for intervention to address some of the town's long-standing challenges. For the town's education scene, the TIP notes:

- Predominance of lower skilled industries.
- Low wages compared to the national average.
- The 'Lincolnshire Drift' of students educated in streamed and grammar School system.
- Absence of higher education in Newark.
- Lack of non-vocational pathways.

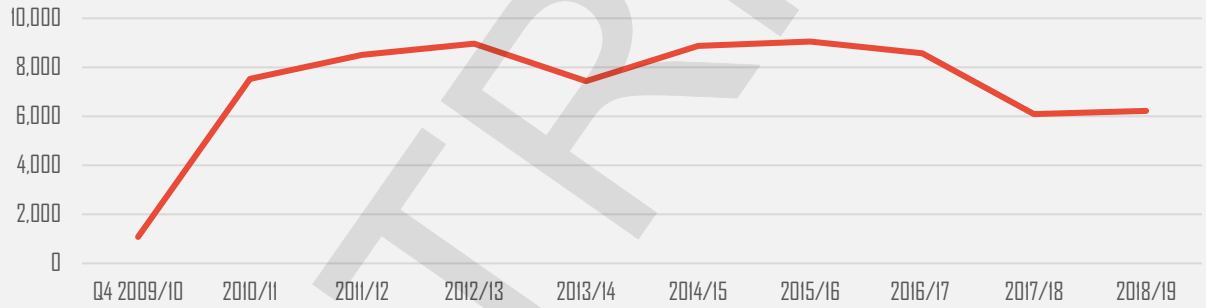
Qualification profile: Newark and Sherwood vs England average, 2019



Source: ONS Annual Population Survey

Local education challenges are reinforced by the district's skills profile. Only 1 in 3 residents across Newark and Sherwood (33%) are educated to degree level compared to 40% in England. Conversely, 11% of the district's residents have no qualifications compared to 8% nationally.

Nottinghamshire apprenticeship starts, 2009/10-2018/19



Source: Department for Education

Since 2015, apprenticeship starts have fallen significantly across Nottinghamshire. In the 2018/19 academic year, there was 38% fewer apprenticeship starts across the county compared to 2016/17. This is exacerbated by the fact that vocational pathways are currently limited, and for the size of the town, Newark is a Higher and Further Education cold spot.

IASTI will help to address this by providing a modern, and high-quality training facility in the heart of the town – helping to raise aspiration and the visibility of post-16 pathways and opportunities.

Apprenticeship starts by level, 2018/19

	Newark & Sherwood		England	
	No.	%	No.	%
Intermediate	320	38%	143,590	37%
Advanced	380	45%	174,730	44%
Higher	140	16%	75,060	19%
Total	850	100%	393,380	100%

Source: Department for Education

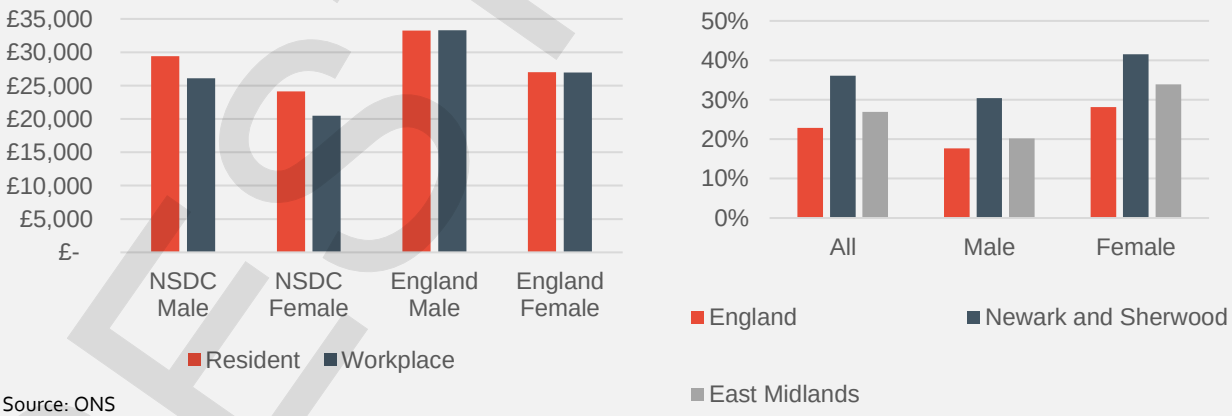
Of the provision that is available, Newark and Sherwood has a lower proportion of higher-level apprenticeship qualifications compared to the England average. There are four different levels of apprenticeship[10]:

- Intermediate: equivalent to five good GCSE passes.
- Advanced - equivalent to two A-level passes.
- Higher - equivalent to the first stages of higher education, such as a foundation degree.
- Degree - comparable to a Bachelors or Masters degree

Only 16% of Newark and Sherwood's 2018/19 starts were in higher level apprenticeships compared to 19% nationally. IASTI will help to tackle this by providing a range of levels from NVQ Level 2 qualifications all the way through to degree apprenticeships. Without higher level vocational training through the IASTI, local challenges of low skill levels will persist across the district.

Low skills levels translate directly to resident earnings, which is affecting the economic resilience of the town's residents. Over one in three residents (36%) earn less than the Living Wage compared to 22% in England. Providing enhanced education facilities is a key lever for tackling Newark's low-wage, low-skill economy. IASTI will interface closely with community focused Towns Fund interventions such as YMCA Community and Activity Village to raise aspiration and increase opportunity across Newark.

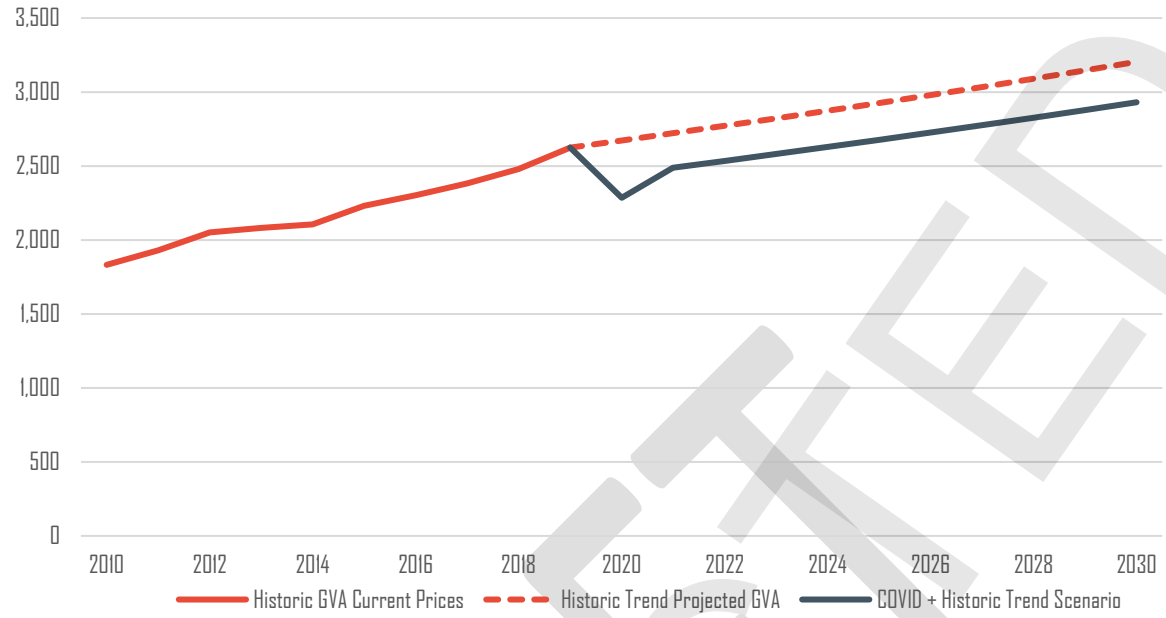
Low earnings: workplace and resident earnings, 2019 (left); % of residents earning less than the Real Living Wage (right)



Source: ONS

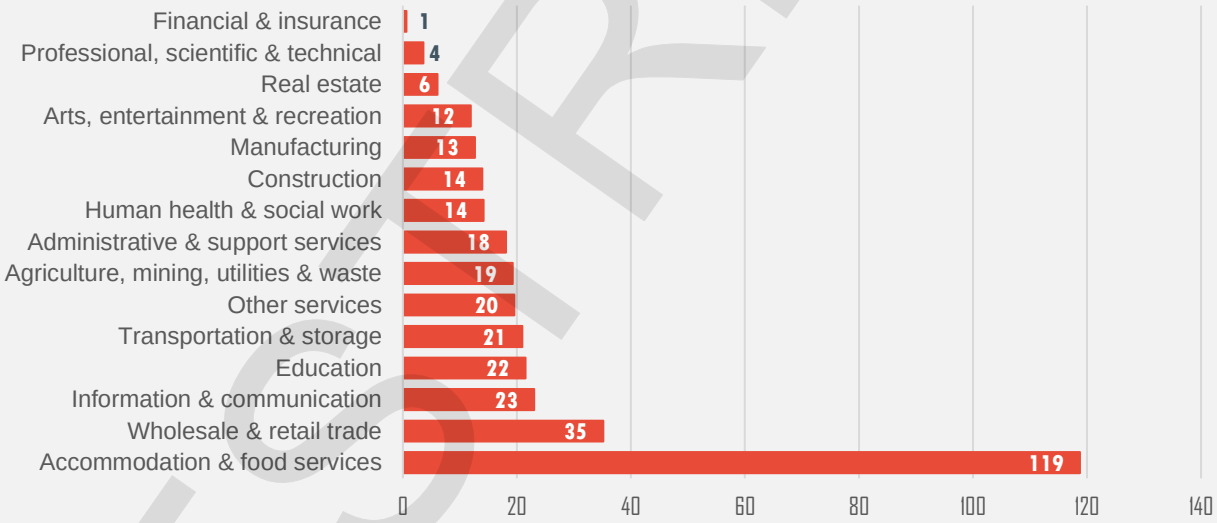
[10] https://www.prospects.ac.uk/jobs-and-work-experience/apprenticeships/what-is-an-apprenticeship

Newark and Sherwood modelled GVA impact of COVID (£m)



Source: Hatch analysis of Coronavirus Central Scenario, OBR Economic and Fiscal Outlook, March 2021. Note: Figures for 2019 onwards are in 2020 prices.

Newark and Sherwood modelled GVA impact of COVID by sector (£m in 2020 prices)



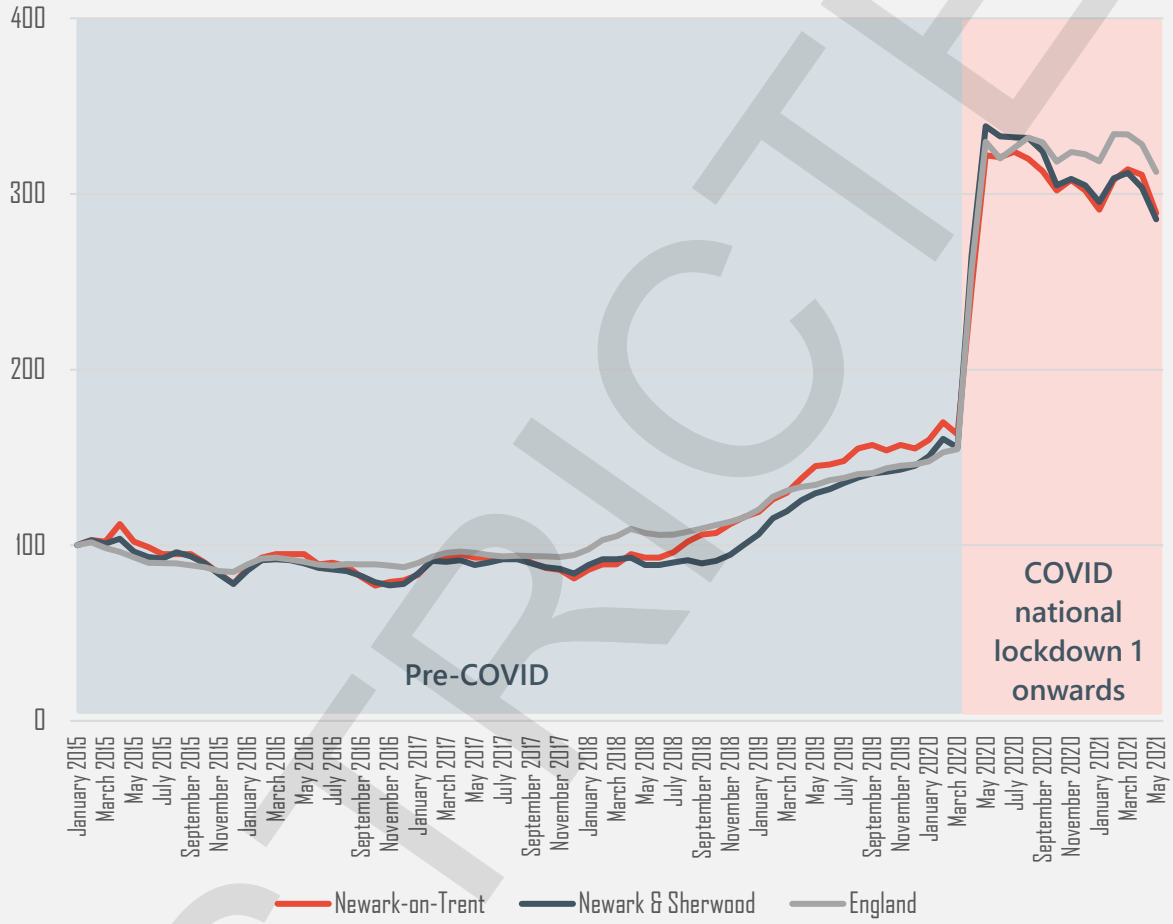
Source: Hatch analysis of Coronavirus Central Scenario, OBR Economic and Fiscal Outlook, March 2021. Note: Figures for 2019 onwards are in 2020 prices.

Accommodation & food services accounts for over a third (35%, or £119m) of GVA losses, with an additional 10% (or £35m) accounted for by the wholesale and retail sector. Education is the district's fourth worst affected sector, losing an estimated £22m in 2020. The impact on education was forecast to be felt greatest in Higher and Further Education – with lockdown restrictions severely impacting revenue

streams. IASTI will provide a significant boost to the sector, providing unprecedented FE investment at a time when the education sector needs it most.

Overall macro-economic impacts have had tangible effects on Newark's labour market. Between March 2020 and April 2020, claimants jumped by 51% in Newark-on-Trent (415 additional claimants) and 70% in Newark & Sherwood (1,220 additional claimants), compared to 66% across England.

Index of change in claimant counts, Jan 2015 to May 2021 (Jan 2015 = 100)



Source: ONS Claimant Counts

Between May 2020 and May 2021, claimants decreased by 10% (-165 claimants) in Newark-on-Trent and 16% (-590 claimants) in Newark & Sherwood, compared to only 5% across England. However, relative to their levels in May 2019, claimants are still 99% (+720 claimants) higher in Newark-on-Trent, 120% (+1,740) higher in Newark & Sherwood and 133% higher in England.

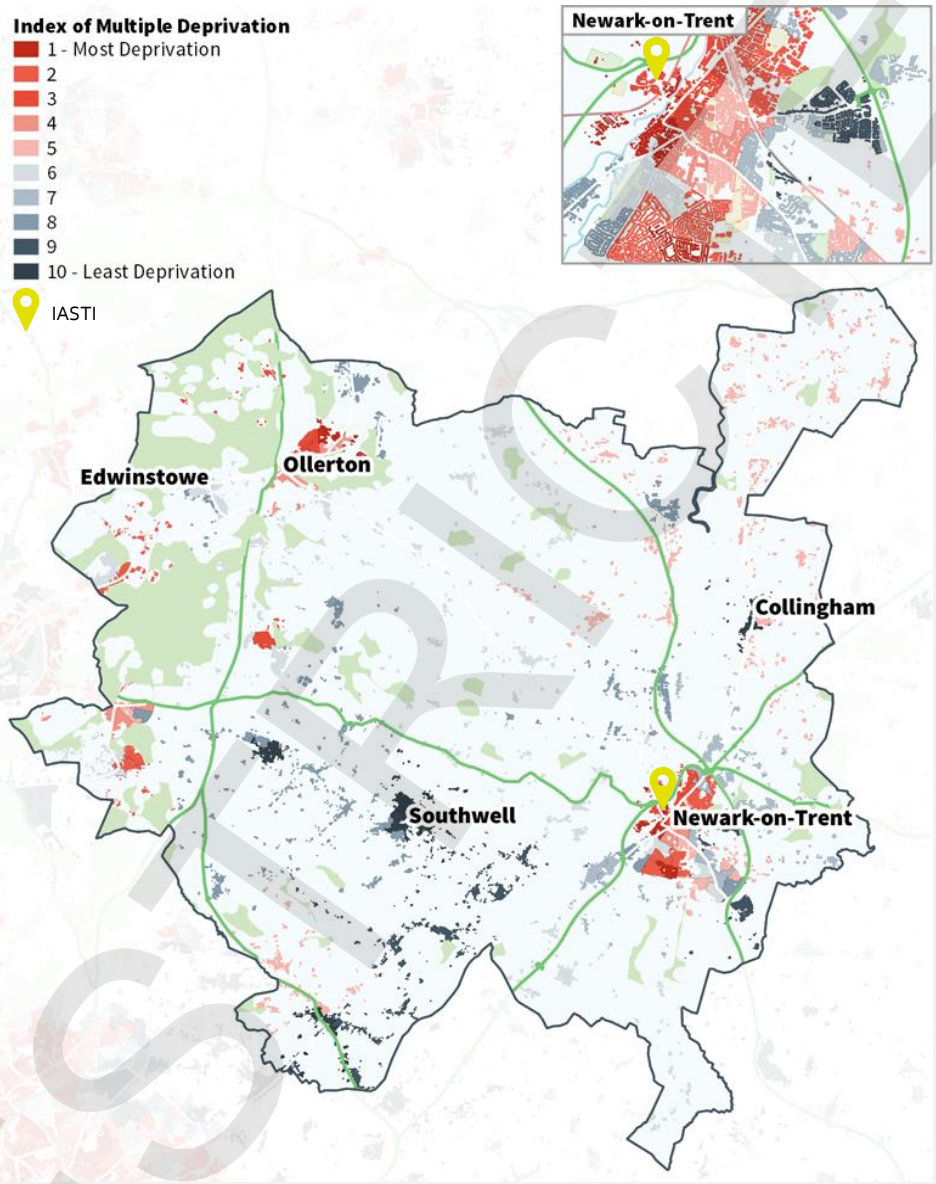
Young people have been hard hit by these impacts. In Newark and Sherwood, those aged 18-24 account for almost 1 in 5 claimants (19.4%) compared to 18.4% in England as a whole[11]. The IASTI will provide

[11] As of June 2021 (ONS Claimant Counts)

more opportunities for young people to boost their employability and take advantage of local employment opportunities created through the district's ongoing economic recovery from the pandemic.

The IMD provides a holistic view of economic and social determinants of deprivation. This brings together several domains including: income, employment, education, health, crime, barriers to housing and services and living environment – all of which are likely to be impacted by the public health and economic crises. IASTI will be based in one of the town's most deprived neighbourhoods – providing the opportunity to combine economic recovery and educational attainment with physical place regeneration.

Index of multiple deprivation, 2019



Source: IMD (2019)

Addressing sector skills shortages

In addition to tackling local challenges, national and international skills shortages threaten the long-term success of the aerospace sector. Recent forecasts by Boeing[12] and Airbus, the world's two largest aircraft manufacturers, on the likely additional demands for pilots and techcians covering the period 2020-2039 suggested a need for:

- 763,000 pilots globally: of which, 147,000 are forecast to be in Europe or almost 7,800 a year
- 739,000 technicians: of which, 140,000 in Europe or almost 7,500 a year
- 903,000 cabin crew

In order to meet labour demand, the challenge will be to priovide the necessary training in an increasingly competitive market for skills, as well as inspiring the next generation of learners. Newark IASTI will provide a visible town centre presence to the facility – tackling perceptions of a sector that is remote and inaccessible.

In the near term, the requirement is rather more prosaic and that is to be able to give sufficient confidence that the industry will recover to its previous levels of activity and then grow – showing that the impact of Covid has been, in effect, to pause its development and that the demands and challenges of providing sufficiently qualified personnel will re-emerge.

Whilst it is still not possible to predict with complete certainty when activity will be back to the levels of 2019, it is reasonable to expect that by the mid part of the current decade growth, rather than recovery, will be evident across the industry. It is also reasonable to expect that the 'labour shakeout' due to Covid-19 will result in a potentially significant percentage of former employees leaving the industry rather than representing a pool of labour that could be drawn on when the industry recovers.

Since the UK has a strong record of providing a reliable source of engineers and pilots nationally and internationally, despite what are difficult near and medium term conditions we believe that there is an opportunity for those wishing to provide the necessary education and training to deliver appropriately qualified personnel for when the market recovers as it has following each previous 'event related disturbance'; the difference this time is the breadth, depth and duration of this particular event.

In parallel, LCG has been seeking ways to grow its breadth of offer and student numbers into adjacent sectors, based on the success of its innovative Air & Defence College and Construction College as well as its world-leading provision in Saudi Arabia. It therefore saw an opportunity to play a leading role in helping to solve this issue and developed a concept of delivery with industry partners who have a track record in this field.

With this new partnership, the timing and opportunity have therefore aligned to create a sustainable solution to the skills needs of the sector and to create efficiencies in scale and delivery between the highest-skilled areas in aviation: Engineering, Pilot, Ground and, later, Air Traffic. Further, the availability

[12] See https://www.boeing.com/commercial/market/pilot-technician-outlook/

of large local employers and training providers could be seen as positively awaiting an opportunity to launch a programme such as this.

This becomes interesting as a business proposition for Newark as it can fulfil its ambition to become a leading centre for skills and serve its people by providing high-aspiration outcomes with the associated societal and economic impacts. Above all, the students will benefit by being able to access the Pathways that connect to the jobs but also by participating in the full School / College / University experience that is available in other sectors but not in many cases in aviation - leading to the development of world leading capability for air and space.

To separate this type of integrated provision, the term 'Institute' has been adopted to signify progression through the education and training pathways. It is important to ensure curriculum structures, processes and milestones are in place to support outcomes and achievement. There is also an opportunity to extend research activities into aviation which has the potential to deliver additional value as well as a broader and deeper presence in the sector. IASTI is designed to create a centre of excellence which becomes self-sustaining.

Market failures

The role of public sector investment in skills development is long-established. Newark is an HE cold spot, with HE participation levels considerably lower than national averages. A much lower proportion of the population have higher level qualifications and only a small proportion of residents are educated to degree level. The core market failures underpinning the rationale for public investment in the IASTI development are the problems of imperfect information, externalities, free-rider problems and coordination failures.

- **Coordination failures:** Coordination failure occurs when desirable activities do not take place as a result of multiple actors being unable to coordinate plans. Consultation undertaken through the Government's Aviation Strategy 2050 noted significant skills shortages within the aerospace sector. Inadequate local skills profiles also creates a coordination failure for aerospace businesses who would benefit from a greater supply of higher skilled graduates but do not invest at the higher levels needed to increase this supply.

  In the past, the national system of integrated military and civil training provided a source of trained personnel. However, the combination of significant growth rates in commercial aviation combined with a continued shrinkage in the size of the RAF has highlighted the need for a co-ordinated and integrated approach to produce not only the pilots and engineers for airlines but also to deliver the specific skills that are necessary across the wider aviation sector.

  In the Newark context, IASTI has been developed to overcome coordination failures in multiple organisations. By aggregating demand, IASTI is able to deliver a viable product to market and support the purchase of specalist capital equipment such as a Boeing 737 in order to train students. Without this coordinating role, skills delivery will continue to be piecemeal and inedequate to meet industry requirements.

- **Imperfect Information**: Employers or individuals lack reliable information on quality and content of learning opportunities available to them, and the benefits that may accrue from investment in

particular types and levels of training. For employers, the payback on investment in skill may mean improved product or service quality, increased productivity, or a range of 'bottom line' financial performance measures. For individuals, the benefits may be monetary – higher wages, improved promotion, career prospects – or wider, embracing health or job satisfaction.

- **Positive externlities**: The benefits of training and skills development are therefore not wholly captured by employers, leading to positive externalities for the wider regional and national economy. This means skills interventions and training is generally undervalued, and that there is under provision in the market place as a result.
- **Free-rider problems**: The concept of 'poaching' also suggests it will not benefit firms to provide workers with general skills that can be transferred from job to job. Firms are more likely to wait for other firms to spend money on training, and then poach workers with higher salaries, which they can afford because they have spent less on training. This is an example of the free-rider problem with training providing an external benefit to others, which they do not pay for.

IASTI will respond to these market failures by:

- **Providing opportunities to upskill Newark's residents.** Developing a range of NVQ Level 2, 3, and 4 Qualifications can help to unlock the positive externality benefits for the town associated with a more educated population.
- **Bringing together education and industry.** IASTI will address co-ordination failures by providing a groundbreaking partnership that links employer and industry training with all aspects and formats of the education system at all levels and capabilities – representing a first for air and space.
- **Increasing the visibility of aerospace and Further Education opportunities.** IASTI will address information asymmetries by locating the facility in a prominent town centre destination. This will help to raise awareness of aviation and space opportunities and contribute towards raising the aspiration of Newark's residents.

Why Towns Fund Investment?

Previous training initiatives of this type have been funded through LGF and direct investment from DfE. There are no examples of a higher education intervention of this type that has not been able to proceed without public sector support of some form. Important examples include the following: NMITE (LGF and DfE funded), MKU (LGF), the recently announced round of Institutes of Technology (applications now closed) and proposals for new technical Higher Education provision in South Essex (Local Authority funded). The towns fund represents the only feasible funding option at present.

Key stakeholders and engagement

Lincoln College Group already sits on a range of boards, committees, panels and has stakeholders across education, skills, Local Enterprise Partnership, Newark Business Club and local business organisations. These existing stakeholder relationships have been built up over many years. Additionally, the Air and Defence College in Lincoln have supported engagement on the International Air and Space Training Institute Newark Project.

Stakeholder engagement

Stakeholder engagement has been undertaken from the outset and will continue with community members, statutory partners, and other agencies in and around Newark and Sherwood. The Midlands Engine, Nottinghamshire and Lincolnshire County Council representatives have all been consulted during the devlopment phase of the project. Lincoln College representatives have actively engaged both the D2N2 and Greater Lincolnshire Local Enterprise partnerships, East Midlands Chamber of Commerce and Institute of Directors. With the launch of the Interim IASTI Newark in 2021 a number of industry partners have been in to visit the facilities and Boeing have delivered their introduction to aviation as part of the first term's programme. We will continue to engage and develop relationships with stakeholders as the project develops.

These Include:

- The Department for Transport
- The Department for Trade
- The Department for International Trade
- The Royal Air Force
- The Midlands Engine
- Nottinghamshire County Council
- Lincolnshire County Council
- Greater Lincolnshire Local Enterprise Partnership
- D2N2 Local Enterprise Partnership
- East Midlands Chamber of Commerce
- The National Space Centre
- Jeppesen Boeing
- East Midlands Airport
- Aviation 360
- Jet 2
- Tui
- Inzpire
- Ascent Flying Training
- Nottinghamshire and Lincolnshire Air Ambulance
- 2Excel
- Redline Assured Security
- Tayside Aviation
- University of Central Lancashire
- Leicester De Montfort University
- Leonardo
- AAR Corporation
- Northrop Grumman
- Gama Aviation
- Aerosparx
- University of Lincoln
- University of Leicester

In addition, all schools in the area have been contacted to engage with the project to align any pre-16 aviation project work to the pathways. We will continue to develop this outreach now that the interim facility is open and we can host school groups.

Each stakeholder has been engaged by a member of the executive team and we will continue to develop these relationships as the project matures. The industry partners will continue to collaborate on curriculum and skills to ensure that the training meets their demand and the design of new courses is

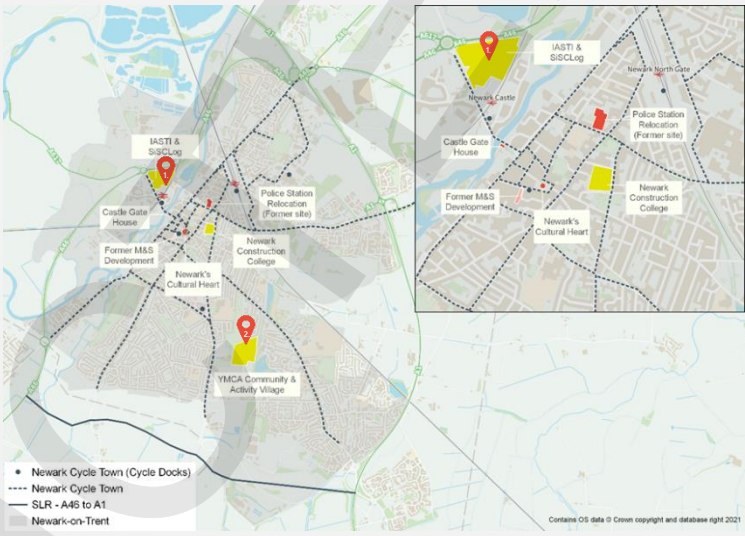
consistent with the their requirements. The local authority and business organisations will continue to support the project ensuring that the student access to education is supported and the Newark and Sherwood district attracts inward business investment.

Dependencies and links to other projects and activity

Newark IASTI is linked spatially and thematically to other Towns Fund projects. As a key site in the Newark Gateway, it links spatially with the SiSC Log project and as a skills-focused intervention its outputs align with the YMCA Community and Activity Village proposals.

These links and interdependencies have been considered in the economic case to avoid double-counting of benefits.

Newark Town Fund projects



1. Maximising the Newark Gateway

It is expected that the IASTI Newark will be phase 1 of the Newark Gateway development.

Phases of work will include the relocation of the lorry park and redevelopment of the area will continue to be subject to feasibility, including negotiations with Highways England given the scope and timings of works associated with the A46 Newark Northern Bypass. A decision of the redevelopment of the lorry park does not need to be made in order to accommodate the IASTI Newark development with the Lincoln College Group understanding that the IASTI will be operational alongside the lorry park, albeit in the knowledge that the Council retains its desire to ultimately relocate and redevelop the lorry park, subject to conclusion of necessary feasibility work and business cases.

The SiSCLog represents a critical project in the Newark Gateway area. SiSCLog will drive economic recovery in a post-COVID-19 and post-Brexit world. Digital capability, supply chain and logistics capacity of both nations and companies will need to be re-engineered to deal with the challenges and opportunities brought by new trade deals, hyper-globalised supply chains, new consumer habits (such as e-commerce, use of digital platforms), and remote work through extreme virtual connectivity. This development will be of regional, national and international significance.

Supply chain and logistics has the potential to unlock unprecedented levels of excellence and cost reduction, which is likely to benefit first-mover companies through gaining competitive advantage. Digitally-enabled and innovative supply chain and logistics will thrive if governments and companies invest in two enablers: the right set digital and supply chain capabilities, and an innovative environment. This hub will bring together the main companies in the region, potential new firms, scientists, and practitioners to develop the skills and knowledge for the future of the region.

As the curriculum at the IASTI develops, the project will consider how it can meet the ongoing needs of the aerospace sector. Early engagement has suggested that logistics could form a significant part of this offer going forwards – maximising synergies with other Towns Fund projects.

2. Other skills focused interventions

The impact of the IASTI project will be accentuated through the learning space provided through the **YMCA Activity Village proposals.** This will redevelop a major derelict space in the heart of Newark to deliver a visionary, 21st century solution to deep-seated issues and the mitigation of future learning, employment and leisure needs.

The Village will offer opportunity for people from early years through to old age, any gender or sexuality, from all backgrounds and cultures, able-bodied and disabled. The Village will provide a place for the whole family. This offer is unique – leading the way with a diverse and community-inspired mix of provision that includes : user-led Youth and Community services; regionally significant sports and leisure facilities and programmes; Technology embedded Active learning hub, PC labs, music and arts space; wellbeing and health delivery service suite; community health provision and suites, flexible working space; nursery, pre and post childcare and high quality conferencing and function facilities based in 8.89 H of landscaped land, easily accessible by bike, public transport or foot.

The village will provide technology infused educational opportunities to facilitate home-grown talent and businesses delivering the following key outputs:

- **Grade A Business Support** (Flexible remote working, creche / nursery, offices for collaborative 3rd sector, mental health support, return to work).
- Dedicated **high specification digital learning environment** catering for high end and entry level vocational and non-vocational learning pathways 7 days per week.
- **70% of space for learning space** already committed to education and skills partners including high profile Professional Football club, the Football Association and Lincoln College Group.
- **Dedicated 2000+ sqm of commercial flexible workspace** providing high speed digital connectivity and supporting business services – able to support over 250 individuals at any one time.
- Over **50% of commercial space already let** to commercially and not for profit business partners.
- Committed **NHS Foundation Trust to deliver** community health services from the site.
- On site **nursery provision for 92 children**, pre and post school childcare, holiday clubs and creche.

Space at the Activity Village will help LCG to build a critical mass of skills capacity across Newark – providing the FE learning infrastructure required to address Newark's challenges of low earnings, high value employment, and underdeveloped HE/FE presence in the town.

It should also be noted that the IASTI proposals will do much to anchor the existing FE and HE provision in the area. Given the currnt state of FE funding in England and Wales, many institutes are cutting back course provision because grant funding has been reduced. IASTI offers the opportunity

to open up new revenue routes and to aggregate demand to make new and existing courses more economic.

03 Economic Case

03 The Economic Case

The Economic Case identifies and appraises the scheme costs and benefits to determine its overall Value for Money. It takes into consideration the costs associated with developing and building the scheme and the benefits attributed to this. Benefits consist of those which can be monetised as well as those which cannot be monetised. The Economic Case overall shows that the investment from the Towns Fund unlocks the scheme's benefits which are greater than the associated costs.

This chapter covers:

- Economic Appraisal Summary
- Options appraised
- Scheme Costs
- Monetised Scheme Benefits
- Benefit-Cost Ratio
- Sensitivity Testing
- Switching Values

Appraisal Summary

The economic benefits of the Preferred Option are assessed on the following two bases:

- Economic value of learning
- New jobs generation

The use of two impact categories enables both a **place-based** and a **supply-side** UK based assessment to be undertaken. The approach to calculating place-based impact is in line with the refreshed Green Book guidance and captures new jobs which are focused on the Newark and Sherwood District Council area. Meanwhile, the supply side impact is assessed by looking at the impact of learning and skills attainment on individuals' earning potential.

Appraisal summary table for the Preferred Option relative to the 'Do Nothing'

		Supply Side Assessment	Place Based Assessment
A	Present Value of Direct Benefits (£m)	£19,658,013	£28,122,096
B	Present Value of Towns Fund cost (£m)	£11,196,845	£11,196,845
C	Projected Public Sector Cost (£m)	£11,196,845	£11,196,845
	Towns Fund Benefits Cost Ratio = (A/B)	**1.8**	**2.5**
D	Private Sector Costs	£36,026,449	£36,026,449
E	Private Sector Returns	£31,106,655	£31,106,655
	Wider BCR (A+E)/(C+D)	**1.1**	**1.3**

Source: Hatch, 2020; All figures rounded to £0.1m

The analysis shows that both approaches deliver an Initial Benefit Cost Ratio over 1.5. The BCR for the supply side value for money assessment is 1.8 and the place-based value for money assessment is 2.5. The Wider Cost Benefit Ratios are both around 1. These results have been tested and switching values calculated. This analysis shows that the results are robust.

Options Assessment

Critical Success Factors

Critical Success Factors (CSFs) are a chosen set of criteria that define a successful project against the 5 dimensions of the business case. The choice of critical success factors takes into consideration the strategic objectives for the investment as well as criteria that define whether a project is likely to perform financially and commercially, in a way which can be managed effectively and economically.

An agreed set of critical success factors enabled the preferred way forward to be identified from a number of possible project options for the IASTI project through an assessment process against the chosen criteria.

Critical Success Factors	Description
1	To transform the delivery of technical vocational aviation and space skills to allow students to find meaningful employment and complete higher technical qualifications.
2	To raise aspiration and opportunities for young people within Newark and Sherwood District, Nottinghamshire and Lincolnshire to get into higher paid roles within the air and space sector.

3	To act as a catalyst for regeneration of the Cattle Market and lorry park site as part of the Newark masterplan.
4	Deliver extraordinary Higher Education opportunities within Newark and Sherwood District improving outcomes locally whilst attracting national and international students into the district.
5	Attract inward investment into Newark and Sherwood District from the national and international aviation and space business sectors.
6	Create a sustainable commercial model that delivers further future investment into aviation and space skills.

Longlisting of options

Initial options assessed as part of the longlisting exercise were as follows:

Project Long List

	Option	Summary
1	Reference Case	No new investment. Wider learner provision declines over short to medium term as course becomes uneconomic.
2	Dispersed Delivery Model	Enhanced delivery across several campuses.
3	Hub and Spoke Model	Classroom based learning supported by training delivery at employer sites.
4	Do Minimum – 30% fewer student numbers	Maintain planned course provision with lower learner numbers.
5	Do Maximum – 30% more student numbers	Maintain planned course provision with higher learner numbers.
6	Preferred Option	Training facility delivered in Newark Gateway, enhancing delivery.

Source: Hatch 2021

Longlist Scoring Matrix

Scoring Matrix

	Option 1	Option2	Option 3	Option 4	Option 5	Option 6
CSF1	X	✓	✓	✓	✓	✓
CSF2	X	X	X	✓	✓	✓
CSF3	X	X	X	✓	✓	✓
CSF4	X	X	X	✓	✓	✓
CSF5	X	X	X	✓	✓	✓
CSF6	X	X	X	X	X	✓

Source: Hatch (2021)

Option 1 – The 'Do Nothing' or 'Reference Case' is problematic for this appraisal. The new courses and learning outcomes delivered constitute new and wholly additional provision for the area and nation. However, the success of IASTI is intimately linked with the continued provision of college-based learning throughout the area. Scheme promoters have told Hatch that if the IASTI proposals do not come forward questions of viability will be raised for existing courses provided in the town. We have not been able to substantiate these claims, but this suggests that a 'business as usual' could have a detrimental impact on Newark and existing learners.

We have not decided to define Option 1 in this way. Instead 'Business as usual is defined as the continued provision of current FE learning, but no new activity. This is a conservative approach that fits in with the guidance outlined in the Green Book. Viewed in this way, Option 1 scores poorly against the project's critical success factors. Analysis of the current situation demonstrates that none of the critical success factors will be fulfilled.

Option 2 – 'Dispersed Delivery Model' will improve the technical vocational aviation and space training available in Newark by enhancing course options across several campuses. However, given the approach, there is likely to be limited funding available to purchase the specialist equipment required to complement the training courses, as this approach will not successfully aggregate demand, thus falling short of preparing students for the most technical roles. Offering courses in several locations will not deliver the place-based objectives to attract inward investment into Newark and Sherwood and to catalyse the regeneration of the cattle market.

Option 3 – 'Hub and Spoke Model' seeks to provide training at employer sites without integration into the education system. This can be very costly as employers would need to provide both training and

capital equipment. The capital investment required in facilities and equipment means that this is an unattractive option for private providers who also struggle to retain qualified staff to be able to deliver the practical skills required to meet the skills shortage in the industry. Additionally, this option would not deliver the place-based ambitions and wider objectives of the Town Deal.

Option 4 – The 'Do Minimum' would deliver planned courses as part of the IASTI proposal in a single institute, but with 30% fewer students. This option performs well in terms of raising aspiration in Newark and Sherwood and providing new higher education opportunities that will attract students and investment and fulfil wider place objectives in the town. The smaller cohorts would produce fewer learners and require fewer staff but would not be large enough to support a sustainable commercial model.

Option 5 – The 'Do Maximum' would deliver planned courses through the IASTI proposal in a single institute but with 30% more students. Similar to the 'Do Minimum' and the 'Preferred Option', this will perform well in terms of raising aspirations in Newark and Sherwood through the provision of new higher education opportunities that will attract students and investment and fulfil wider place objectives in the town. The larger cohorts will produce more learners and require more staff, however the expectation is that demand for places will not be fulfilled, thus not supporting a commercial model.

Option 6 - Preferred option – This option integrates all elements of education into a single Institute and launches core initial programmes including: aviation engineer training, pilot and airport/air base ground training. The integration of apprenticeships, higher education and outreach to schools will be incorporated into the project as will the delivery of industry training. Located in a key location within the Newark Gateway, this option will use a brownfield site and work with industry to build a new facility to ensure the aviation and space sector skills need can be delivered through apprenticeships, vocational training, including T-Levels, and higher technical qualifications up to degree level. Such integration within the education system should also provide an environment for improved diversity and inclusivity as well as greater participation across ethnic groups. Out of all the proposed options for the scheme, this performs the highest.

Shortlisting: Options to be appraised

Longlisting culminated in a refined list of options. The options to be appraised through the economic assessment are:

Do Nothing: Under the 'Do Nothing' option, the approach to training for the air and space sector will remain fragmented and there is a risk that existing facilities will decline. No new additional facilities and courses will be provided, and new costs will be incurred.

- **Costs**: £0
- **Outputs**: No new jobs or additional learners

Preferred Option: The Preferred Option involves the delivery of the IASTI in the Newark Gateway area, transforming a former brownfield site, providing integrated training pathways into the air and space sector in a single institute. The institute will launch core initial programmes in aviation engineer training, pilot and airport training. Apprenticeships, higher education and outreach will be incorporated.

- **Costs:** £10,600,000 Towns Deal funding

- **Outputs:** 38 jobs generated (27 academic staff and 11 other staff), 3,093 learners (312 Level 2, 1,689 Level 3, 204 Level 3 Apprenticeship, 888 Degree Apprenticeships)

Option 4 (Do minimum): The 'Do Minimum' Option would deliver planned courses through the IASTI proposal in a single institute but with 30% fewer students and a commensurate decrease in academic staff.

- **Costs:** £10,600,000 Towns Deal funding
- **Outputs:** 30 jobs generated (19 academic staff and 11 other staff), 2,165 learners (218 Level 2, 1,182 Level 3, 143 Level 3 Apprenticeship, 622 Degree Apprenticeships)

Option 5 (Do maximum): The 'Do Maximum' Option would deliver planned courses through the IASTI proposal in a single institute but with 30% more students and a commensurate rise in academic staff.

- **Costs:** £10,600,000 Towns Deal funding
- **Outputs:** 46 jobs generated (35 academic staff and 11 other staff), 4,021 learners (406 Level 2, 2,196 Level 3, 265 Level 3 Apprenticeship, 1,154 Degree Apprenticeships).

Scheme Costs

Introduction

The costs of the proposed scheme have been estimated in 2021 prices as set out in the financial case. This covers all capital costs including, construction, design, professional fees, risk/contingency and an adjustment for inflation. In line with HM Treasury Guidance, the scheme costs use the following methodology:

- Estimation of the base cost.
- Adjustment to real prices.
- Adjustment for Optimism Bias.
- Discounting costs to 2021 values.

Scheme Cost (Towns Fund)

The project is requesting funding of £10.6 million to be incurred between 2021/22 and 2023/24, as reported in the Financial Case and shown in the table below.

Scheme Costs Incurred for Towns Fund

Scheme Costs	2021/22	2022/23	2023/24	2024/25	Total
Towns Fund	£500,000	£8,100,000	£2,000,000		**£10,600,000**

Present value of costs

The Present Value of Costs (in 2021 real prices, after OB and present value) is **£11,216,095**.

Scheme Cost (Private Sector and Wider BCR Calculation)

In order to calculate the wider BCR, we also need to include the wider private sector cost contributions and the wider private sector returns. In the former case, these represent payroll and other operational costs associated with operating IASTI over the appraisal period. The undiscounted value of these costs is represented here and in the Financial Case.

Options	Total	2021	2022	2023	2024	2025	
		Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-15
Construction	**12,475,051**	575,229	7,791,684	4,108,138	-	-	-
Equipment	**5,000,000**	5,000,000	-	-	-	-	-
Operational Expenditure	**34,710,323**	215,065	461,897	1,436,115	2,155,257	2,501,660	£27,940,329
Total Costs	**52,185,374**	**5,790,294**	**8,253,581**	**5,544,253**	**2,155,257**	**2,501,660**	**£27,940,329**
Towns Deal Funding	**10,600,000**	500,000	8,100,000	2,000,000	-	-	-
Total Private Sector Cost	**41,585,374**	5,290,294	153,581	3,544,253	2,155,257	2,501,660	£27,940,329

The Present Value of Costs (in 2021 real prices, after OB and present value) is **£36,026,449**.

In the latter case, the private sector returns represent tuition fees and other payments made to IASTI for the delivery of skills training over the appraisal period. The undiscounted value of these costs is represented here and in the Financial Case.

	Total	21/22	22/23	23/24	24/25	25/26	Years 26/27 - 37/38

Operational Revenues	**£42,140,822**	£2,500	£101,067	£840,867	£2,013,733	£3,219,950	£35,962,705

The undiscounted values in the table above have been adjusted by applying OB of 10% and by discounting to Present Value using HMT mandated guidance. The Present Value of private sector revenues (in 2021 real prices, after OB and present value) is **£31,106,655**.

Supply Side Analysis – Learner Outcomes

Appraisal Assumptions and Evidence

The general assumptions we have made as part of our economic appraisal are as follows:

- **Geography** – We have undertaken a supply side-based analysis which focuses on additionality at the national level. This reflects the strategic importance of the intervention as outlined in Section 2.
- **Appraisal period** - The appraisal period has been selected based on guidance provided by MHCLG. An appraisal period of 15 years has been selected (2021/22 – 2035/36 inclusive). This period covers the entire development process and allows for the IASTI to establish and mature.
- **Deadweight**: This provides an estimate of what level of target outputs/outcomes would be produced if the intervention did not go ahead. A deadweight allowance of 28%[13] has been applied which is in-line with BEIS sponsored research undertaken by London Economics in relation to assessing deadweight associated with further education investment.
- **Monetised costs and benefits are provided in real terms** – i.e., after stripping out inflation. Monetised costs and benefits have been discounted to provide net present values.
- **Discount Rate** – Costs and benefits are expressed in current day prices (2021) and as present values, with future costs and benefits discounted at 3.5% a year, in line with HM Treasury Green Book guidance. Discounting accounts for time value of money, reflecting a general preference for value now rather than later.
- **Benefits Persistence –** The approach ascribes an economic value per year per learner based on qualification level. This is applied for every year from the year of graduation to the end of the 15-year appraisal period.
- **Optimism Bias** - Optimism bias of 10% has been applied to the capital costs, following the method outlined in the Supplementary Green Book Guidance. An upper bound capital expenditure optimism bias value for a standard building project is 24%. Standard buildings are defined as 'those which involve the construction of buildings not requiring special design

[13] Department for Business Innovation & Skills (2012) 'Assessing the Deadweight Loss Associated with Public Investment in Further Education and Skills', BIS RESEARCH PAPER NUMBER 71, p22.

considerations i.e., most accommodation projects e.g., offices, living accommodation, general hospitals, prisons, and airport terminal buildings.

Optimism Bias Adjustments

Category		Standard Buildings Contribution	Adjusted Score
Procurement	Late Contactor Involvement. Poor contractor capabilities Dispute and claims occurred	2 9 29	Nil Nil Nil
Project Specific	Design complexity Degree of Innovation	1 4	Nil 4
Client Specific	Inadequate Business Case PM Team Poor Project Intel. Public Relations Site Characteristics	34 1 2 2 2	20 Nil Nil 2 2
Environment	Economic Legislation / Economic	11 3	11 3
Total		100	40
Optimism Bias adjustment		**40% x 24 = 10%**	

Source: Derived from HMT (2003) Supplementary Green Book Guidance: Optimism Bias, Table 2, P.10.

- However, after mitigating factors were applied, the optimism bias was reduced to 10%. These mitigating factors include the procurement of strong contractor partners with capabilities of successfully delivering similar projects, using standard designs and engaging a qualified project delivery team who have experience of successfully managing these types of projects. The largest unmitigated element relates to the Business Case, which has yet to undergo formal assessment.
- In the guidance 34% of the 24 percentage adjustment for OB is related to the adequacy of the business case. Because IASTI is subject to a business case process with formal external review and sign off by the S151 Officer and the Town Board, we feel it is appropriate to lower the OB adjustment. We have lowered the OB adjustment from 34% to 20% only. In other words, of the 40% adjustment for OB that we are recommending, over half still reflects an adjustment for the adequacy of the business case.
-

Valuing Learner Benefits

A learner profile has been provided by Lincoln College which supports the following learners over 15 years:

- 312 Level 2 qualifications
- 1,689 Level 3 qualifications
- 204 Level 3 Apprenticeships
- 888 Higher Level Qualifications (Level 4 -6)

To monetise the economic value of qualifications, the approach ascribes an economic value per year per learner based on qualification level. This is applied for every year from the year of graduation to the end of the 15-year appraisal period.

Monetising Level 2 and 3 courses and apprenticeships

The New Economy Unit Cost Database adjusts estimates from the Returns to Intermediate and Low-Level Vocational Qualification (BIS, 2011). These economic values represent the additional annual earnings gain per employee as a result of achieving the qualification over their lifetime; it is the lower estimate and reflects an assumption that 50% of the employment benefit is attributed to the qualification, following the approach of McIntosh (2007). An annual benefit has been calculated by dividing the economic value for an average working lifetime (40 years) by 40.

The economic value per learner per year has been uprated using the latest HMT GDP deflator to:

- Level 2 qualifications: Using returns to NVQ Level 2, equates to £553 per learner per year based on 2020 prices
- Level 3 Apprenticeships: This equates to £2,404 per learner per year based on 2020 prices
- All other Level 3 qualifications: Using returns to NVQ Level 3, equates to £1,150 per learner per year based on 2020 prices

Monetising degree-level qualifications

The economic value represents the total returns to undergraduate degrees, covering the sum of net individual returns and returns to the Exchequer. The estimates account for the costs of providing higher education. The median lifetime returns from Engineering graduate degrees for men has been used and an annual estimate calculated by applying an average working lifetime of 40 years). The economic value per learner is based on the following source research:

- Degree qualifications: DfE (2020) The Impact of Undergraduate Degrees on Lifetime Earnings. This equates to £5,891 in current prices.

Present Value of Benefits

The net direct impact is £19,658,013 (2021 prices and present value, after additionality adjustment).

Basis of Learner Numbers

The development of learner numbers for the IASTI project has been based on a University of Lincoln led analysis of wider area labour market intelligence using the EMSI tool. The analysis considered the size of available cohorts for recruitment and has been benchmarked against the recent experience of launching new Career Colleges in areas like Policing, Air and Defence, Care, Construction and Engineering across our campuses in Lincoln, Gainsborough and Newark.

The assessment has also been informed by data collected from the first set of students to enrol in the Interim IASTI courses. This has enabled planners to understand the size of the potential target audience in the local districts. Data collection has been augmented by evidence collated through a series of virtual open days held through 2020/2021.The virtual Open Days attracted young people from a wide range of backgrounds and geographies - including those not traditionally targeted by Newark College.

The analysis has also benefited from the scheme promoter's experience of running and launching higher education programmes elsewhere. The forecasts have also been validated though discussions with the University of Central Lancashire (UClan).

There has also been a detailed programme of employer engagement to verify industry demand. This has included working through the Air and Defence College to map apprenticeship targets. Air Defence College partners include the Royal Air Force, Raytheon, Thales, AAR, Northrop Grumman, Leonardo and MASS.

The initial operating capability is expected in 2023 and work will continue with Newark and Sherwood District Council, local schools and industry partners to maximise the opportunities for young people to get into the aviation and space sectors. IASTI will also benefit from a targeted marketing plan for the next 3-5 years to ensure that the project attracts the required learner numbers for the full suite of courses, including short courses and full cost professional training bespoke to the aviation sector for both adult retraining and upskilling.

Economic appraisal summary

The Appraisal Summary Table (AST) provides a clear and transparent reflection to decision makers on the cost and benefits associated with the scheme on a consistent basis. This enables the decision maker to understand the value for money. The AST shows that the scheme should be considered Very High Value for Money.

Appraisal Summary Table

Total Net Additional Benefits	Total NPV (2021-22 prices)		
Economic Benefits	**Preferred Option**	**Do Minimum**	**Do Maximum**
Monetised Learner Outcomes	19,658,013	13,760,609	25,555,417

Total Benefits for BCR	19,658,013	13,760,609	25,555,417
Economic Costs			
Cost/Funding (Towns Fund Only)	11,196,845	11,196,845	11,196,845
BCR	**1.8**	**1.2**	**2.3**
Private Sector Costs	36,026,449	27,442,996	44,609,902
Private Sector Returns	31,106,655	21,774,658	40,438,651
Wider BCR	**1.1**	**0.9**	**1.2**

Source: Hatch, 2021

The estimated value for money of the Preferred Option is Acceptable (1≤ BCR <2). The BCR of 1.75 indicates that there is there is £1.80 worth of benefits per £1 of net public expenditure. The benefits of this policy are Monetised Learner Outcomes (equal to £19.7m). The cost of the policy is the grant of £10.6m (£11.2 PVC with OB). There are no significant non-monetised impacts estimated for this policy. When taking into account the private sector costs and returns, the BCR drops to below 1:1. This reflects the significant private sector investment leveraged as part of the scheme's delivery.

The Do Minimum option delivers the lowest value for money and the Do Maximum offers the highest value for money. However, as discussed in the options analysis at the start of the Economic Case, the Do Maximum will have deliverability challenges as industry demand will not be sufficient to fill places on the scheme.

Sensitivity Tests

Fewer Learners

Returns to Intermediate and Low-Level qualifications represent the annual earning gains per employee as a result of achieving qualifications from the IASTI over their lifetime. This economic value per learner per year varies depending on the qualification achieved. The economic values are outlined on page 38. The central case of the economic case models the learner numbers based on a University of Lincoln led analysis of wider area labour market intelligence, employer engagement and experience of launching higher education programmes. This sensitivity test considers the impact of different cohort structures on the value for money outcome, with a 50% decrease at each qualification level tested.

Test Scenario	No. of Learners (over 15-year period)	PV Benefits	BCR

Core scenario	• 312 Level 2 qualifications • 1,689 Level 3 qualifications • 204 Level 3 Apprenticeships • 888 Degree Apprenticeships (NVQ Level 4)	£19,658,013	1.76
Fewer Level 2 learners	• 156 Level 2 qualifications • All other learner numbers remain constant	£19,388,461	1.73
Fewer Level 3 learners	• 845 Level 3 Learners • All other learner numbers remain constant	£16,747,500	1.49
Fewer Level 3 Apprenticeships	• 102 level 3 apprenticeships • All other learner numbers remain constant	£19,123,389	1.70
Fewer Degree Apprenticeships	• 444 Degree Apprenticeships • All other learner numbers remain constant	£13,543,696	1.21

The table indicates that the value for money result stays in the 'Acceptable' range.

Higher Optimism Bias

Optimism bias of 10% has been included in the Economic Case. This reflects mitigating factors such as the procurement of strong contractor partners with capabilities of successfully delivering similar projects, using standard designs and engaging a qualified project delivery team who have experience of successfully managing these types of projects.

Reverting to the upper bound capital expenditure optimism bias value for a standard building project of 24% set out in the Green Book. The impact of this adjustment has a minimal impact on the BCR and the value for money category remains above 1.5.

Test Scenario	Optimism Bias	PV Costs	BCR
Core scenario	10%	11,196,845	1.75
Higher Optimism Bias	24%	12,621,898	1.56

Switching Values

To aid decision makers, a switching value, can be presented to demonstrate how much a level of input must change from the central assumption before for the value for money to switch from good to bad. These values are helpful in demonstrating the plausibility of the project achieving a good outcome by identifying a baseline that must be exceeded for the project to achieve good value for money.

Switching values have been calculated to determine how a change in costs or benefits would affect the initial BCR and the associated Value for Money category. The tables below show the requirement needed to either scheme costs or benefits for the Value for Money for the Towns Fund **BCR** changes from **1.75:1** to a BCR of 1.5:1 and 1.0:1 respectively.

Factor	Altering BCR to 1.5:1
Benefits	Benefits would need to decrease by £2.9 million or 15%
Costs	Costs would need to increase by £13.1 million or 17%

If the costs remained the same, the benefits would need to decrease by **14%** to lower the VfM to Medium. This means that there needs to be 14% lower impact from learners, leading to an £2.8 million decrease in benefits. Alternatively, if the benefits remained the same, the costs would need to increase **by 17%** to obtain a 1.5:1 BCR.

Factor	Altering BCR to 1.0:1
Benefits	Benefits would need to decrease £8.5 million or 43%
Costs	Costs would need to increase by £8.5 million or 75%

If the costs remained the same, the benefits would need to decrease by **43% (£8.5m)** to alter the VfM to obtain a 1.0:1 BCR. Alternatively, if the benefits stayed the same, the costs would need to increase by **75%** to obtain a 1.0:1 BCR.

Place Based Analysis - New jobs generation

Appraisal Assumptions and Evidence

The general assumptions we have made as part of our economic appraisal are as follows:

- **Geography** – We have undertaken a place-based analysis. The appropriate geography for the place-based analysis is the Newark and Sherwood District Council area.
- **Appraisal period** - The appraisal period has been selected based on guidance provided by MHCLG. An appraisal period of 15 years has been selected (2021/22 – 2035/36 inclusive). This period covers the entire development process and allows for the IASTI to establish and mature.
- **Deadweight**: This provides an estimate on what level of target outputs/outcomes would be produced in the intervention did not go ahead. This is represented in the analysis through the 'do nothing' scenario. All the courses are new and additional to current provision.
- **Monetised costs and benefits are provided in real terms** – i.e., after stripping out inflation. Monetised costs and benefits have been discounted to provide net present values.
- **Discount Rate** – Costs and benefits are expressed in current day prices (2021) and as present values, with future costs and benefits discounted at 3.5% a year, in line with HM Treasury Green Book guidance. Discounting accounts for time value of money, reflecting a general preference for value now rather than later.
- **Displacement** – HCA additionality guidance states that a medium level of displacement (25%) should be used if some displacement effects are expected, although only to a limited extent.
- **Leakage** – HCA additionality guidance states that for a people and skills intervention, regional leakage of 14.2% should be applied.
- **Place-based employment multipliers** – As per the latest Green Book guidance, an employment multiplier can be applied following the adjustment for leakage, displacement and substitution. We have applied the central case for the tradable sector, which is 0.9. Although, the activity at IASTI is not typically viewed as tradable, given the technical content of the training, it is expected that this project will stimulate wider economic activity in tradable sectors.
- **GVA** – GVA per worker job for Newark and Sherwood District of £77,667 has been drawn from ONS Quarterly Productivity Statistical Release for Quarter 2 in the Education sector.
- **Benefits Persistence –** New jobs created are assumed to persist for 10 years. This reflects the long-term commitment made my IASTI partners to provision and skills outputs.
- **Optimism Bias** - Optimism bias of 10% has been applied to the capital costs, following the method outlined in the Supplementary Green Book Guidance. Please see the discussion in the supply side analysis.

The £10.6m intervention will secure 38 additional jobs. Roles created will be in the higher education space and will include the following:

- IASTI Director
- Further Education Lead
- Further Education Pilot
- Further Education Engineer
- Further Education for Cyber
- Further Education for Logistics
- Further Education for Space
- Lecturers
- Technicians
- Instructors
- Support roles such as IT, student services, learning support and facilities

The majority of these roles will be created in the first four years and all roles will be created by year six (2026-27). Additional staff will be employed by contract including cleaning, catering and security staff. These have not been captured in the economic analysis.

Net Additional Jobs Arising from Scheme

	Preferred Option	Reference Case	Additionality
Gross Direct Jobs	38		
Estimated leakage (14.2%)	5		
Gross local direct effects	33		
Displacement (25%)	8		
Net local direct effects	24		
Multiplier (0.9)	46		
Total net local effects	71		
Total net additional local effects		0	**71**

Source: Hatch and Lincoln College Group (2021)

Present Value of Benefits

The net direct GVA from the Preferred Option is £28,122,096 (2021 prices and present value, after additionality adjustments.

Economic appraisal summary

The Appraisal Summary Table (AST) provides a clear and transparent reflection to decision makers on the cost and benefits associated with the scheme on a consistent basis. This enables the decision maker to understand the value for money. The AST shows that the scheme should be considered Very High Value for Money.

Total Net Additional Benefits	Total NPV (2021-22 prices)		
Economic Benefits	**Preferred Option**	**Do Minimum**	**Do Maximum**
Monetised Employment Benefits (GVA)	28,122,096	22,127,649	43,436,345
Total Benefits for BCR	28,122,096	22,127,649	43,436,345
Economic Costs			
Cost/Funding (Towns Fund Only)	11,196,845	11,196,845	11,196,845
Initial BCR	**2.5**	**2.0**	**3.9**
Private Sector Costs	35,421,639	29,370,956	46,175,047
Private Sector Returns	28,559,329	19,991,531	37,127,128
Wider BCR	**1.3**	**1.1**	**1.5**

Source: Hatch, 2021

The estimated value for money of the Preferred Option is High (BCR <2). The BCR of 2.51 indicates that there is £2.51 worth of benefits per £1 of net public expenditure. The benefits of this policy are employment benefits (equal to £28,1m). The cost of the policy is the grant of £10.6m (£11.2 PVC with OB). There are no significant non-monetised impacts estimated for this policy. When taking into account the private sector costs and returns, the BCR drops to between 1:1 to 1:1.5 across all options assessed. This reflects the significant private sector investment leveraged as part of the scheme's delivery.

The Do Minimum option delivers the lowest value for money and the Do Maximum offers the highest value for money. However, as discussed in the options analysis at the start of the Economic Case, the Do Maximum will have deliverability challenges as industry demand will not be sufficient to fill places on the scheme.

Sensitivity Analysis

Sensitivity testing is undertaken to appraise how changes in parameters impact the Benefit-Cost Ratio and by implication, the Value for Money of the scheme. These are detailed below.

Removing the Place-Based Multiplier

A place-based multiplier has been applied in the main section of the Economic Case. The multiplier applied captures the additional jobs that will be generated in the area via both supply and demand linkages, as per the refreshed Green Book guidance. The central multiplier in a 'high tech' sector has been

selected. The impact of the multiplier is modest; however, we have modelled the impact of removing it in order to highlight the impact on the BCR.

Test Scenario	Place based multiplier	PV Benefits	BCR
Core scenario	0.9	£28,122,096	2.51
No multiplier	-	£14,801,103	1.32

Higher deadweight

Our core assumptions are predicated on a 'Do Nothing' scenario involves a continuation of business as usual. This is a conservative approach, considering that there have been indications to suggest that LGC would reduce existing course provision in response to low levels of demand. This scenario tests the impact of a higher level of deadweight, applied at 28%, in line with the factor used in the supply side analysis.

The result of altering the key assumptions is set out in the table below. Even with a much higher deadweight factor, the benefit cost ratio remains above 1.5.

Test Scenario	Deadweight	PV Benefits	BCR
Core scenario	0%	£28,122,096	2.51
Higher deadweight	28%	£20,247,909	1.81

Higher Optimism Bias

Optimism bias of 10% has been included in the Economic Case. This reflects mitigating factors such as the procurement of strong contractor partners with capabilities of successfully delivering similar projects, using standard designs and engaging a qualified project delivery team who have experience of successfully managing these types of projects.

Reverting to the upper bound capital expenditure optimism bias value for a standard building project of 24% set out in the Green Book. The impact of this adjustment has a minimal impact on the BCR and the value for money category remains 'high'.

Test Scenario	Optimism Bias	PV Costs	BCR
Core scenario	10%	£11,196,845	2.51
Higher Optimism Bias	24%	£12,621,898	2.23

Switching Values

To aid decision makers, a switching value, can be presented to demonstrate how much an assumed level of input or outcome must change before an option switch between good and bad value for money. These values are helpful in demonstrating how plausible it is that a project will achieve a good outcome by identifying a baseline that must be exceeded in order to achieve value for money.

Switching values have been calculated to determine how a change in costs or benefits would affect the initial BCR and the associated Value for Money category. The tables below show the requirement needed to either scheme costs or benefits for the Value for Money for the Towns Fund **BCR** changes from **2.5:1** to a BCR of 1.5:1 and 1.0:1 respectively.

Factor	Altering BCR to 1.5:1
Benefits	Benefits would need to decrease by £11.3 million or 40%
Costs	Costs would need to increase by £7.6 million or 67%

If the costs remained the same, the benefits would need to decrease by **40%** to lower the VfM to Medium. This means that there needs to be 40% lower employment impact, leading to an £11.3 million decrease in benefits. Alternatively, if the benefits remained the same, the costs would need to increase **by 67%** to obtain a 1.5:1 BCR.

Factor	Altering BCR to 1.0:1
Benefits	Benefits would need to decrease £16.9 million or 60%
Costs	Costs would need to increase by £16.9 million or 151%

If the costs remained the same, the benefits would need to decrease by **40% (£16.9m)** to alter the VfM to obtain a 1.0:1 BCR. Alternatively, if the benefits stayed the same, the costs would need to increase by **151%** to obtain a 1.0:1 BCR.

Conclusions

The analysis shows that both appraisal approaches deliver an Initial Benefit Cost Ratio over 1.5. The BCR for the supply side value for money assessment is 1.8 and the place-based value for money assessment is 2.5 respectively. The Wider Cost Benefit Ratios are both over 1.5. Under Government recognised categories, this would represent High or Very High Value for Money. These results have been tested and switching values calculated. This analysis shows that the results are robust.

There are significant doubts around whether both the place based and skills-based methodologies capture the full benefits of the proposed scheme. This is because in both cases, the underpinning neo-classical assumptions of fully clearing intermediate markets are unlikely to be satisfied. The section below describes some of these issues.

Unquantified Benefits

Benefits to employer

In addition to lifetime benefits for the learner, research suggests that there are also significant economic benefits for employers deriving from vocational qualifications.[14] In the CITB report into the construction and the built environment (2017)[15], vocational qualifications are considered by most construction and built environment employers to be effective in preparing individuals to work in the sector with higher levels providing more effective preparation than lower levels.

Employer benefits of a more qualified workforce through vocational qualifications include:

- Enhanced productivity
- Increased efficiency and flexibility of workers
- Ability to win more work
- Increased employee retention.

The report states that employers will have a monetary benefit of between £8,000 and £17,000 in the five years after the qualification is completed, and between £18,000 and £34,000 in the ten years after the qualification is completed. The benefit to employers over ten years is: £34,000 at Level 4 and above; £19,000 at Level 3; £18,000 at Level 2; and £18,000 for an Apprenticeship. As a result, in addition to the

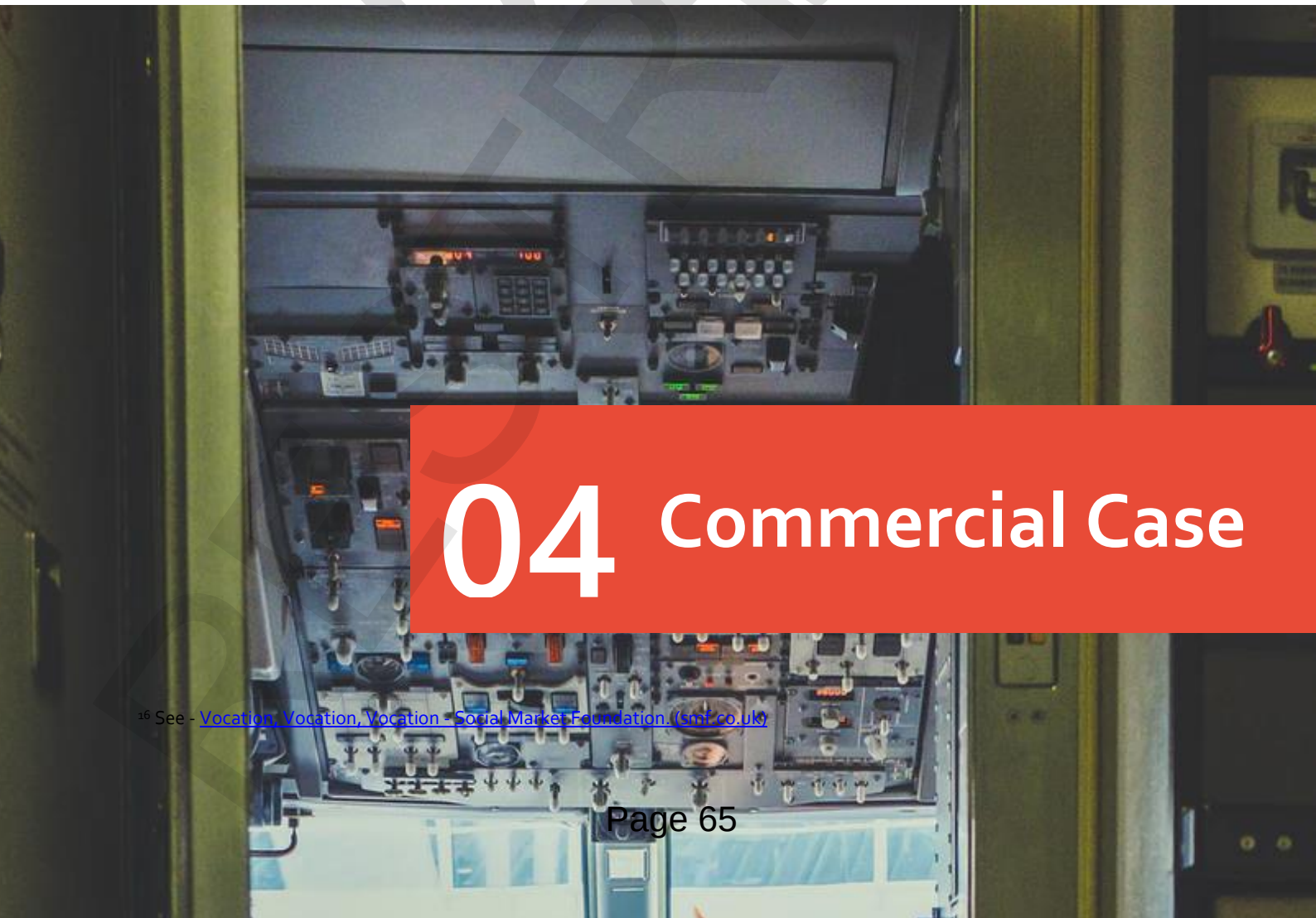
[14] See- JCQV-Report-FINAL-DRAFT.pdf

[15] Construction Industry Training Board. (2017). Value of vocational qualifications in the Construction and Built Environment Sector: https://www.citb.co.uk/documents/value%20of%20vq%20report%20citb%20template%20(2).pdf

economic value per learner monetised within the economic case, there are likely to be significant private benefits for employers within the aviation sector.

Widening educational participation

There is research to suggest that vocational qualifications are important for widening education participation – especially in disadvantaged areas such as Newark. The 2018 'Vocation, vocation, vocation' report[16] noted that vocational qualifications were an important educational pathway to achieve higher level technical skills and the Department for Education has spoken about the importance of technical education as part of its strategy for improving social mobility.



04 Commercial Case

[16] See - Vocation, Vocation, Vocation - Social Market Foundation (smf.co.uk)

04 The Commercial Case

The Commercial Case sets out how IASTI will be delivered. As the Towns Fund investment is part of the overall investment package, the Commercial Case focuses on the delivery of the whole scheme.

The Commercial Case addresses the following:

- Evaluates the attractiveness to the market
- Evaluates project viability with partners and funding sources
- Sets out the route to market

The procurement and management of the project will be the responsibility of Lincoln College's Strategic Growth Director Tom Marsden supported by Head of Estates Nick Petitt.

Evidence of Demand

Like many other sectors, aviation and space have been impacted significantly by COVID-19. Income for the aviation sector is driven by public demand, use of aircraft and airport throughput, all of which have suffered significantly in the last 18 months, exacerbating the structural imbalance in the sector created by an ageing workforce.

Engagement has taken place with East Midlands Airport, Boeing and other industry partners to confirm this shortfall in personnel and to ensure that the programmes are designed to meet the current and expected future shortfall. The feedback has been unequivocal and highlights the need to deliver trained and competent industry ready pilots and engineers over the next 5-10 years to meet demand. East Midlands Airport finds it challenging to recruit suitable airfield operations staff with the necessary skills to hold duty manager and similar responsible positions across the airfield. The ground pathway seeks to meet this demand by equipping students with the skills and knowledge top complete the role allowing them to build experience quickly.

The space sector is now starting to grow significantly with emerging national space strategy and programmes combined with the creation of Space Command within Defence. The RAF are restructuring their workforce under Project ASTRA. Close engagement with them and the National Space Academy demonstrates that the need to develop a space engineering programme to provid the foundation and higher skills to support emerging requirements in engineering, cyber and space for a military and civilian sector. The sector is very dynamic, thus close co-ordination will be required across the range of skills levels to match the curriculum development to the needs of the industry. Inzpire, Krypto Kloud and Northrup Grummen are keen to engage with the curriculum planning as they can both see increasing demand for cyber and space skills to meet this growing market.

The Department of International Trade are also supportive of the project. They are confident that the IASTI presents an excellent opportunity to scale the project overseas, particularly in the Middle East where the UK aviation and space sectors have a very strong reputation.

There is widespread support for the project from local authorities, other education providers and the private sector. Letters of support are included at Appendix B and as IASTI develops, these are envisaged to turn into MoU's and contracts where appropriate.

Public Sector

- Royal Air Force
- Department for International Trade
- Midlands Engine
- Nottinghamshire County Council
- Lincolnshire County Council
- Greater Lincolnshire Local Enterprise Partnership
- D2N2 Local Enterprise Partnership
- De Montfort University
- University of Central Lancashire
- University of Lincoln
- Stamford College
- Peterborough College

Private Sector

- East Midlands Airport
- National Space Academy
- Northrup Grumman
- Inzpire
- Redline Aviation Security
- Krypto Kloud
- Eagle Eye Innovations
- Tui
- Nottinghamshire and Lincolnshire Air Ambulance
- Aerosparx
- Ratheon
- Leonardo
- AAR Corporation

Procurement Strategy

The scope of procurement activities to complete the project are:

- Land deal
- Site utilities infrastructure
- Construction and fit-out
- ICT and workshop equipping
- Specialist aviation sections and components.

The final procurement strategy and procurement timescales will be developed for the Full Business Case. Consideration of potential procurement arrangements are outlined below.

Land Deal

The proposed site, shown below, forms part of the proposed Newark Gateway masterplan being developed by Newark and Sherwood District Council (NSDC).

IASTI provisional site layout

Source: Lincoln College Group

It is proposed that the land will be subject to a lease arrangement, with Lincoln College Group leasing the required land from NSDC. The lease will be agreed directly between the two parties' legal teams before sign-off by NSDC Policy and Finance Committee and Lincoln College Group Board.

Site utilities infrastructure

Although existing utility services are available within the site boundaries the capacities of the majority of these are insufficient for the building's requirements. There is currently no plan for site wide infrastructure upgrade to facilitate the wider Newark Gateway masterplan development, therefore Lincoln College Group are currently liaising, via developer enquiries, with statutory undertakers.

It is currently proposed that the required infrastructure upgrades are procured directly by Lincoln College Group in co-ordination with the Principal Contractor appointed for the construction works.

Construction and fit-out

This is the largest piece of procurement in terms of value. In order to meet the Client's overall project objectives, the following are key criteria for consideration as to the most appropriate procurement route.

Cost

- Provision of Value for Money
- Ability to provide a high level of cost certainty
- Ability to deliver within capital and revenue affordability limits
- A procurement strategy which can best produce solutions that provide value for money throughout the design, construction and operational life of the building.

Programme

- Ability to provide a high level of programme certainty including start and completion dates, any enabling works etc.

Client control

- The Client needs to remain involved with the qualitative, functional and operational aspects of the design.

Quality

- A procurement approach that can deliver the highest possible quality during construction
- Suitably experienced contractors
- Achieving a snag free building(s) upon completion.

Risk management

- Risks need to be allocated to the parties who are best able to manage/mitigate them
- Ability to deliver effective site safety, logistics and security
- A resource requirement from the client that can be realistically met and with the skills required for the required tasks and responsibilities.

Flexibility

- Ability to vary the scope of work during pre and post construction without incurring unnecessary costs and/or programme delays
- Ability to vary the scope of work following occupation without incurring unnecessary abortive time and cost implications.

Contractor ability

- Ability of Contractor to successfully manage and deliver the requirements of a project.

Early market testing

- Securing early contractor input to assist in buildability, programming and commercial reviews prior to commitment
- Securing early logistics/programming advice especially in relation to complex building proposals, interfacing with existing structures etc.
- Maximising collaborative working and minimising contractual disputes.

Procurement Resourcing

Public contract regulations

The planned works will exceed the current UK works procurement threshold of £4,733,2521 (excluding VAT) set by the World Trade Organisations (WTO) Government Procurement Agreement (GPA), and therefore should either be procured through a WTO GPA compliant bespoke procurement process or procured through a compliant framework. The table below sets out the three main high-level procurement approaches available to the College.

Procurement option	Detail
Competitive dialogue	Competitive dialogue is an EU compliant tendering process whereby clients can allow for bidders to develop creative solutions in response to outline requirements. The trust would need to have a set specification of what it wanted to achieve with specific outputs, but it can then negotiate with the bidders around flexible aspects of the tender. It is suitable for contracts where some aspects are fixed and some aspects are up for discussion. Risks - if the tender is too open to negotiation the process becomes never-ending as the options are not comparable with each other and cannot be evaluated against each other. The process is time consuming and complicated which means that if the tendering was started and then faltered or failed, the client would risk frustrating the market and losing the interest of potential suppliers.
Open tender	An open tender is a standard OJEU compliant tendering process whereby the open EU market is approached for a fixed set of deliverables (the contract). This differs from a competitive dialogue as the contract deliverables are set from the tender date and are not changed or discussed through the process. As this is a more straight-forward process it is usually a much quicker and more simple process to follow than competitive dialogue.

	Open OJEU tenders can be completed within three to four months. It is suitable for contracts where the client has specific set deliverables that will not change. The risks of this approach are that because deliverables cannot change once the contract is tendered, these need to be 100% fit for purpose before the tendering process starts or the client risks the contract not meeting requirements. If deliverables change, the client must start the tendering process afresh.
Framework	The use of a framework is an even quicker procurement approach because they consist of pre-selected suppliers who have been appointed to the framework through an earlier selection process. In effect the use of a framework short cuts the pre-qualification element of an open tender. Contracts are awarded after either a mini competition amongst framework suppliers or via a direct award to one supplier. The contract is also for a fixed set of deliverables.

Based on initial assessment of the above options, the College intends to utilise an existing specialist construction framework to appoint a principal building contractor through competitive tender of re-selected contractors.

This approach should provide greatest value for money, particularly against a competitive dialogue approach, due to the pre-selection and vetting of potential contractors by the framework to ensure and monitor quality and contractor ability.

The use of a framework can also provide invaluable opportunity to obtain early contractor input into programme, buildability and potentially design either formally or informally.

Framework options being considered include:

- Crown Commercial Services Framework
- Procure Partnership Framework
- Pagabo Framework.

These frameworks provide compliance with EU/UK procurement procedures.

Procurement route

The procurement routes considered are:

- Single stage Traditional
- Single stage Design & Build
- Two stage Traditional
- Two stage Design & Build

- Construction Management.

Single stage tendering

The most common type of tendering strategy is the single-stage competitive tender for obtaining a price for the whole of the construction works. Invitation to tender documents are issued to a number of competing contractors who are all given the chance to bid for the project based on identical tender documentation This is usually done at RIBA Stage 4 so that the tendering contractors receive the most detailed information to base their bid on. The bidding contractors are given a predetermined amount of time to submit their tenders. These are then analysed, in terms of cost and quality, before a single contractor is declared the preferred contractor. They then ultimately enter into a building contract with the client to deliver the tendered works.

Two stage tendering

The process involves first-stage tender enquiry documentation being issued to bidding contractors at RIBA Stage 2 or 3. Rather than requesting a bid for constructing the entire project (which is still in the process of being designed), the preferred contractor is chosen on the basis of the quality of their bid, the quality of their team and their preliminaries price and overhead and profits allowances.

The preferred contractor then joins the design team on a consultancy basis using a pre-construction services agreement (PCSA) – the second stage. The preferred contractor then works with the professional team to complete the design, usually to RIBA Stage 4, before presenting a bid for the works at this stage.

Two-stage tendering is often used where time is constrained or where the design process would benefit from the technical input of a contractor in the later design stages.

During the second stage, the contractor may liaise with the design team to input into the design, but design responsibility and liability will remain with the client and the client's team.

Traditional procurement

The client appoints consultants to design the project in detail and then prepare tender documentation, including drawings, work schedules and bills of quantities. A main contractor is then procured where the contractor is not responsible for the design (other than temporary works and possibly some specific parts of the works). The client retains the consultant design team and design responsibility and liability post - contract.

Design & build

Design and build is a term describing a procurement route in which the main contractor is appointed to design and construct the works, as opposed to a traditional contract, where the client appoints consultants to design the development and then a contractor is appointed to construct the works.

The contractor is responsible for the design, planning, organisation, control and construction of the works to the employer's requirements. Design and build can be seen as giving a single point of responsibility for

delivering the entire project. Design and build projects pass a larger proportion of the risk onto the contractor.

Construction management

Construction management is a procurement route in which the works are constructed by a number of different trade contractors. These trade contractors are contracted to the client but managed by a construction manager (CM). The client places a direct contract with each of the trade contractors and utilises the expertise of a construction managers who acts as a consultant to coordinate the contracts. The trade contractors carry out the work and the construction managers supervise the construction process and coordinates the design team.

The CM has no contractual links with the trade contractors or members of the design team. Their role includes preparation of the programme, determining requirements for site facilities, breaking down the project into suitable works packages, obtaining and evaluating tenders, co-ordinating and supervising the works.

Construction managers are effectively acting as a consultant to the client, the client takes the risk for the trade contractors' performance. As the client is required to place and administer the trade contracts (of which there may be a large number) and perhaps to accept price uncertainty, construction management is only appropriate for experienced clients.

Assessment and conclusion

A range of companies will be invited to bid for the contract, either via a framework or open competition. On completion of the tendering process, the College, in conjunction with WT Partnership and the design team will assess the options looking at value for money, relevant experience, quality of tender and confidence in the deliverability of the project. An assessment will be undertaken and the contract awarded. The delivery will then be managed by WT Partnership with Banks & Long acting as cost consultants. Both will report to the client on a regular basis to ensure the project remains on track, contingency funding is allocated in accordance with the risks and that the quality of work is at the required standard.

ICT and workshop equipping

The Lincoln College ICT and engineering teams have been engaged by the design team throughout the project to ensure that they are able to equip the computer suites, delivery classrooms and workshops to the necessary standards to deliver the highest educational standards. The building specifications have classroom flexibility built in to ensure that they can be broadly utilised for both educational and commercial delivery if required.

Specialist aviation equipping

We continue to work with industry partners like Inzpire, the RAF, the National Space Centre and Northrop Grumman to make sure that the correct specialist equipment is available to be used in the building. We are engaged with industry to look at the virtual and augmented reality opportunities to develop the latest

industry quality training and have recently acquired a high-quality simulator. Our experience in delivery of engineering programmes across the College Group and overseas has allowed us to build up a strong professional engineering network to ensure that we get the right specifications to allow students to progress directly into the world of work. The timing of availability of this equipment will be synchronised with course requirements and is captured in the risks outlined in the Management Case.

Contractual Relationships

Key partnerships

WT Partnership will provide the project management function managing the delivery of the infrastructure in conjunction with the design team and then the main contractor on completion of the tendering process.

The College will also enter into partnership with Higher Education Institutes for the validation and delivery of higher education programmes. Similarly, local employers will be engaged to sponsor apprentices through the various programmes. In addition, the commitment to provide in-kind contributions through the purchase of capital equipment and tools, identified as specialist aviation equipment ahead, will be formalised in the full business case through the provision of contractual arrangements.

Stakeholder Engagement

Arrangements for ongoing stakeholder engagement will be outlined in the Full Business Case prepared for the Towns Fund.

Risk Allocation

Planning permission for the development has been applied for with Newark and Sherwood District Council. Risks associated with the management of the project are presented in the Management Case.

Asset Ownership and Management

Ownership

Lincoln College will own the IASTI as part of their wider estate and it will be incorporated into the property strategy for the wider college.

Management

The asset will be managed in line with the other Lincoln College UK Campuses and incorporated into the property strategy. It will be managed by the Head of Facilities and the team responsible to the Group Director for Finance and Commercial. They will be responsible for ongoing maintenance and running of

the IASTI. The curriculum lead will sit with the Director of the IASTI working to the Managing Director of Education and Training.

Subsidy Control

The project lead considers that the project aligns with state aid/subsidy control legislation applicable to the UK. Using relevant government guidance (Guidance on the UK's international subsidy control commitments, last updated 24 June 2021).

05 Financial Case

05 Financial Case

The Financial Case is designed to address the following questions:

- How much will the project cost?
- Is the project affordable?
- What is the scope of the major financial risks?

The Financial Case sets out the financial implications of the Preferred Option, as identified in the Economic Case. The Financial Case considers the proposed costs of the development, including all the capital costs needed to deliver the scheme. The Financial Case and associated budget have been provided to Hatch by Lincoln College Group.

The analysis provides:

- The assumptions underpinning the financial analysis.
- The current cost position.
- Cashflow analysis of the preferred option.

Project Costs

Capital Cost profile

Component	Description	Total cost	21/22 Year 1	22/23 Year 2	23/24 Year 3	24/25 Year 4	25/26 Year 5
Fit Out Building & Enabling Works	Stage 0	[redacted]	[redacted]				
	Stage 1	[redacted]		[redacted]			
	Stage 2	[redacted]		[redacted]			
	Stage 3	[redacted]			[redacted]		
Building Insurance		[redacted]		[redacted]			
Total Build Costs		[redacted]	[redacted]	[redacted]	[redacted]		
Equipment and Tools		[redacted]					
Total Capital Costs		[redacted]	[redacted]	[redacted]	[redacted]		

Project costs have been provided by Lincoln College Group. Costs are comprised of the following:

- **Build Costs** – [redacted] which are comprised of design and project consultancy fees, fit out and enabling works and building insurance. These costs are based on rates and estimates from previous projects following measures of the design being undertaken by a quantity surveyor. These have been benchmarked to the overall building to improve accuracy.
- **Capital equipment and tools** - [redacted] in-kind contributions from the private sector in the form of capital equipment and tools. This does not feature in the cashflow because it does not meet the definition of 'cash', recognised in accounting principles.

  Lincoln College Group have already secured equipment for the interim facilities at Newark College which will be relocated to the IASTI facility. This includes a basic flight simulator and aviation specific equipment to deliver the current programmes. LCG are currently working with a wide range of industry stakeholders including; East Midlands Airport, BAE Systems, Northrop Grumman, the RAF, Inzpire, the UK Space Agency, National Space Centre, Hull University and University of Lincoln to design further programmes for the institute and identify the equipment requirements.

  Some of this may be in kind contributions such as work experience for students, some AR/VR equipment and some will be actual aircraft/space infrastructure for practice-based working. The timing of availability of this equipment will be synchronised with course requirements and is captured in the risks outlined in the management case.

  Alongside the ongoing work LCG will endeavour to build a contingency fund to purchase, loan or borrow any equipment required that cannot be provided by a partner industry.

Some of the fees etc. are confirmed agreed figures and some are estimates from previous experience.

Revenue Cost Profile

The revenue costs of IASTI are based on current staff overhead costs including on costs of pension, National Insurance payments, operational costs based on student numbers and delivery across the current college sites.

	Total	21/22	22/23	23/24	24/25	25/26	Years 26/27 - 37/38
Operational Costs	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

This gives a total project cost of £[redacted]

Project Receipts

The project receipts represent tuition fees payable to IASTI for the delivery of training.

	Total	21/22	22/23	23/24	24/25	25/26	Years 26/27 - 37/38
Operational Revenues	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Project Funding

Capital Funding Requirements

Project Funding

Type	Source	Total Amount
Public sector	Towns Fund	[redacted]
Private Sector	Industry partners	[redacted]
Private Sector	Lincoln College	[redacted]
	TOTAL	[redacted]

The gross capital funding committed for the project is [redacted]. This is comprised of:

- £10.6m from the Towns Fund
- Private sector contributions from industry third parties of [redacted] (in kind contribution in the form of capital equipment and tools)
- Funding provided by Lincoln College Group of [redacted]

Town Deal Funding will be drawn down in years 1, 2 and 3.

Town Deal Spend Profile – Newark IASTI

Total Spend	21/22 Year 1	22/23 Year 2	23/24 Year 3	24/25 Year 4	25/26 Year 5
[redacted]	[redacted]	[redacted]	[redacted]		

Cashflow

The financial model has been assessed on basis of 15-year cashflow and is summarised overleaf. The first 10 years are set out in the table and the full 15 years are analysed in the next graph.

Cashflow

Affordability

The project cashflow highlights the position between project cost and revenue throughout the 15-year period. Due to the upfront capital costs and operating costs including staff wages, there is a funding shortfall in the early years of the project. The Towns Fund contribution effectively meets the cashflow requirements for the project in early years before the breakeven point is reached. This is a typical cashflow support profile for a project of this type.

Without Towns Fund, the project cashflow over the 15 years is negative [redacted] Town's Fund investment of £10.6m spread over the initial few years of the cashflow period helps to address the cash shortfall.

Potential funding sources to address this cashflow issue include:

Lincoln College Group - Lincoln College group have committed [redacted] to the project. This is in addition to the [redacted] committed to the opening of the interim facilities within Newark College to provide a cohort of students for when the new facility opens in 2023. They are unable to commit more than this due to other projects that they are delivering across in Lincoln to support T-Level development, replace aging IT infrastructure and new construction facilities on the back of a challenging financial position due to chronic underinvestment in the sector for the last 10 years and no increase in student funding. It is also important to note that Lincoln College Group have committed to meeting any cashflow shortfall in the scheme delivery by accessing by accessing their restricted reserve facilities. This restricted reserve is insufficient to fund the IASTI project. Due to the lagged nature of FE funding from the Education and Skills Funding Agency (ESFA), (funding is received retrospectively), it is not possible to borrow enough for a significant capital outlay, hence the need for alternative financing (Towns Fund). However, the working capital will be put in place to manage the outstanding revenue shortfall following Towns Fund support in the early years of the scheme's delivery.

Private sector lending such as banks or other financial institutions – The financial environment for colleges has become more challenging in the last few years and whilst it is possible for colleges to borrow from banks, loan covenants can present a difficulty in terms of meeting lending criteria. Bank funding for this project is not appropriate because the college has already used facilities to deliver working capital due to peaks and troughs in payment from overseas colleges and ESFA funding.

Private sector - It is worth reiterating that the project has an additional cost element around the purchase of specialist equipment and tech such as a Boeing 737 which need to be in place to deliver courses. This is [redacted]. Commitments from the private sector via in-kind contributions have been sought to address this cost element[17].

Aside from the private sector contribution and as demonstrated above, the other potential funding sources will not adequately address the cashflow issue in a way which delivers a scheme in line with the initiative's critical success factors.

As set out on Page 30, there are a number of reasons why the market does not recognise the wider value of the outputs unlocked by the initiative. These market failures include coordination failure, imperfect information, positive externalities and free-rider problems.

It is important that the Towns Fund investment enables the project to reach a financially viable position, to ensure financial sustainability to support the delivery of existing and future provision. Therefore, Towns Fund investment is the only appropriate source of funding available to bridge the cashflow shortfall and unlock the wider benefits of the initiative.

Given the cashflow position outlined above, if Towns Fund was not forthcoming, the initiative would not proceed.

[17] As these are in-kind contributions, they are not displayed in the cashflow.

Financial Risks and Sensitivities

For the financial risk assessment, Expected Monetary Value (EMV) analysis can be used to quantify and compare risks. EMV is a quantitative risk analysis technique that relies on specific numbers and quantities to perform the calculations, rather than high-level approximations like high, medium and low.

EMV relies on two numbers - P – the probability that the risk will occur; I – the impact to project if the risk occurs. The appropriate risk contingency is calculated by multiplying the probability by the impact.

The top two risks associated with the Preferred Option have been assessed:

Financial Risk Assessment

Risks	Probability	Cost Impact	Estimated Monetary Value
Capital Cost Inflation	Medium-High (30%)	[redacted]	[redacted]
Operating Cost Inflation	Medium-Low (20%)	[redacted]	[redacted]
Total EMV			[redacted]

Source: Lincoln College Group and Hatch

Assumptions

- **Capital cost inflation** – Calculated as an additional 2.5% per annum over existing capital cost assumptions
- **Operational cost inflation** – Calculated as an additional 2.5% per annum over existing operational cost assumptions.

The total EMV across all these risks is [redacted] A 10% contingency has been built into the bid price, which is greater than the EMV.

It is also important to note that Lincoln College Group have committed to meeting any unexpected cashflow shortfall in the scheme delivery by accessing by accessing their restricted reserve facilities. This restricted reserve is insufficient to fund the IASTI project, requires Board approval and remains an emergency contingency for across the who College Group which it is inappropriate to commit elements to a single planned project. This effectively underwrites the risk associated with the construction of IASTI[18].

Lincoln College Group have already secured equipment for the interim facilities at Newark College which will be relocated to the IASTI facility. This includes a basic flight simulator and aviation specific equipment

[18] This undertaking does not cover any potential shortfall in the in-kind contribution from employers, which is not displayed in the cashflow. LCG expects full contractual commitment by employers to the in-kind contributions to be made prior to the submission of the Full Business Case.

to deliver the current programmes. LCG are currently working with a wide range of industry stakeholders including; East Midlands Airport, BAE Systems, Northrop Grumman, the RAF, Inzpire, the UK Space Agency, National Space Centre, Hull University and University of Lincoln to design further programmes for the institute and identify the equipment requirements.

Some of this may be in kind contributions such as work experience for students, some AR/VR equipment and some will be actual aircraft/space infrastructure for practice-based working. The timing of availability of this equipment will be synchronised with course requirements and is captured in the risks outlined in the management case.

Alongside the ongoing work LCG will endeavour to build a contingency fund to purchase, loan or borrow any equipment required that cannot be provided by a partner industry.

06 Management Case

06 The Management Case

Management, Governance and Coordination

The project is being managed by a project board chaired by LCG Group Director of Strategic Growth. To provide the necessary expertise to manage the construction of the main IASTI WT Partnership have been employed as project managers reporting to the LCG IASTI Director and the LCG Head of Estates.

The Project Board has LCG and N&S DC membership and reports to both CEO LCG and the CE of N&S DC. The CEO of LCG is a Towns Board member and reports directly to the Board.

A Project Board was established to govern the project - the Terms of Reference of the Board as follows:

IASTI board terms of reference

The proposed International Air & Space Training Institute (IASTI) project for Newark is reaching the stage where the Outline Business Case is being submitted and therefore formal Governance is required for the College to ensure that its responsibilities and liabilities are being effectively managed.

Therefore, a Project Board is being created with effect from 1st July 2020. The Project Board is the decision-making body for the project and must consist of three roles:

- Project Executive – the principal decision-maker with ultimate accountability for the success of the project
- Senior Users – looking after the interests of those who will use the outputs of the project
- Senior Suppliers – looking after the interests of those involved in developing, implementing and maintaining the outputs of the project.

Board members must be both prepared and empowered to make decisions and commit resources on behalf of those they represent.

Whilst they retain accountability, the Board members delegate the day-to-day management of the project to the Project Manager. The Project Manager is acting on their behalf in a role which exists for the life of the project only; as such, the authority (and likely success) of the Project Manager is greatly enhanced if he/she receives visible and active support from all members of the Project Board. Whichever area of the College or external organisation the project manager is drawn from, he/she acts on behalf of the Board as a whole.

The Project Board will be supported by sub-groups for each key pathway.

The Project Board is responsible for ensuring that the project is capable of delivering the benefits specified in the Business Case, for defining acceptance criteria for the project deliverables and ensuring that the project gives value for money. It is responsible for assurance of the project and may delegate assurance activities to others. The Board must review the Business Case regularly throughout the project to ensure that the project is still viable.

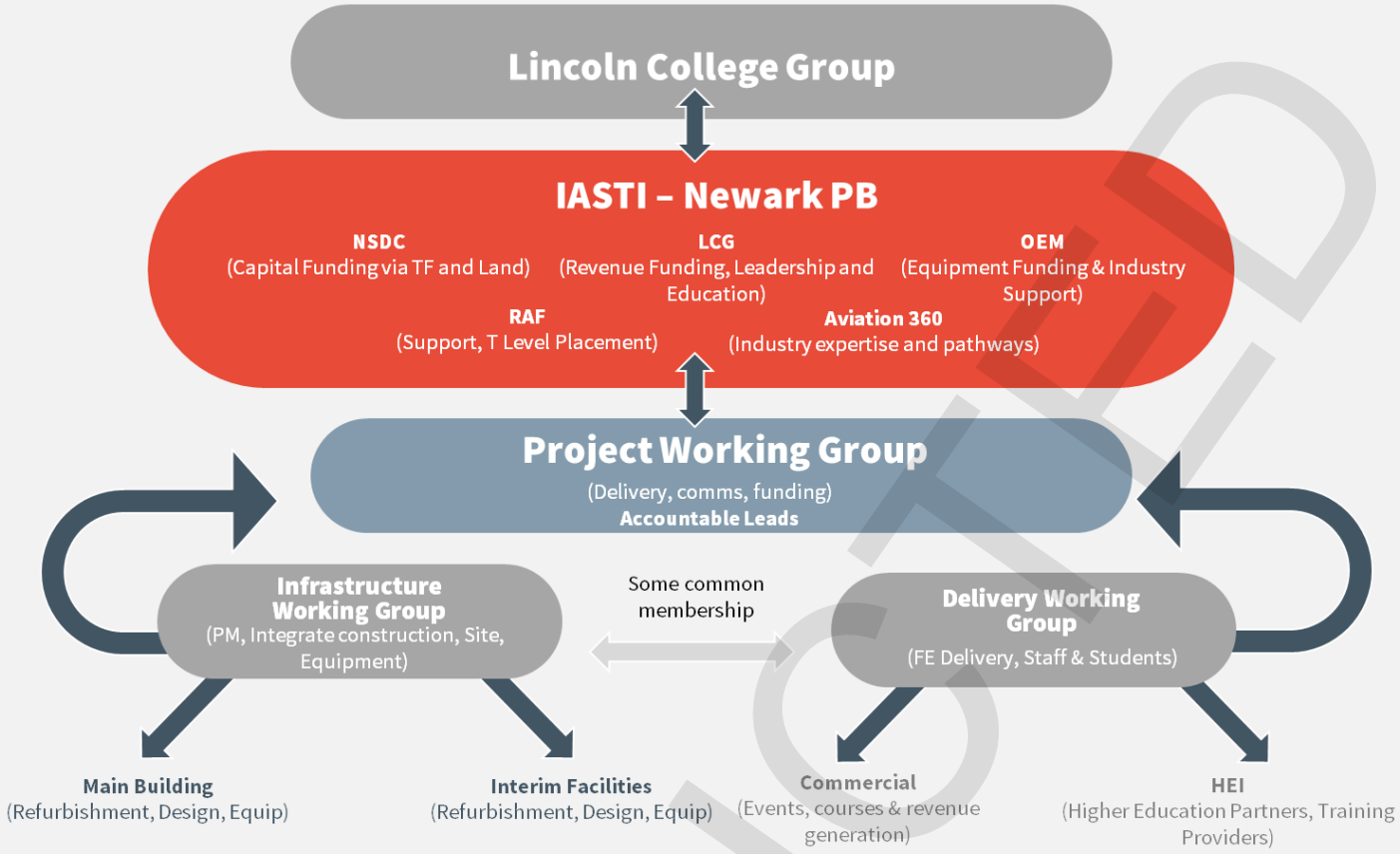
The following lists the key Terms of Reference for the Board:

a) *To make recommendations to the Group CEO for onward approval by the Board of Corporation, as required.*
b) *To take ultimate responsibility for all aspects of quality. The Project Board must establish the governance framework for the programme, the quality techniques and standards to be applied, and responsibilities for ensuring quality. They must also ensure that the project is aligned to strategies and policies throughout its lifecycle.*
c) *To commit resources. Collectively the Project Board must have the authority to provide all of the resources required for the success of the project. By approving the project plan and any subsequent change plans, they are undertaking to make the required resources available.*
d) *To secure funding for the project and ensure that this is spent appropriately. To authorise change requests where required and to approve or withhold use of contingency funds. To provide direction to the Project Manager. The Project Manager will need to escalate some issues or risks to the Board, may seek advice and will need decisions beyond his/her own remit to be taken. Although members of the Board may be drawn from diverse areas both internally and externally, it is essential that on all points they reach agreement and provide cohesive direction to the project manager, rather than working to conflicting agendas.*
e) *To control the level of risk exposure and to own the resolution of risks and issues. The Project Board must agree an acceptable risk profile and ensure that an appropriate approach to identifying, categorising and escalating risks is defined and followed.*
f) *To support cross-boundary integration. A project is a temporary organisation with its own management structure established to achieve a specific outcome. It exists outside of the normal organisational hierarchy and may also cross functional boundaries. It is important that the Project Board work to ensure that the project structure is recognised as a single unified entity and that project roles are respected.*
g) *To communicate with stakeholders external to the project. The Project Board ensures that there is timely and effective communication for each stakeholder group, that expectations are managed and that key messages are consistent and accurate throughout.*
h) *To authorise closure of the project. The Project Board is responsible for taking the decision to close the project, whether this is at the planned end after successful achievement of all objectives or prematurely where it becomes clear that the benefits can no longer outweigh the costs.*
i) *To assist with the post-project evaluation of benefits realisation.*

Delivery structure

The Project Board provides oversight of the project and feedback to Lincoln College Group with working groups focused on delivery of the programmes and infrastructure. The college has employed WT Partnership to project manage the infrastructure delivery of the Main IASTI building.

IASTI delivery structure



Delivery Experience

Lincoln College Group (LCG) has, for the past five years, worked to create a model of co-investment whereby the College matches the cost of delivery of high quality and highly relevant education locally. The LCG achieves this through a different business model. It has a UK Division comprising Newark, Gainsborough and Lincoln Colleges whose focus is to deliver the highest possible quality and relevance of FE and HE locally. LCG also has an International and UK Commercial Division whose task is to generate additional funding (£5m annually) to deliver high quality education and training.

The clear and compelling mission for the LCG is to be: '*Employer-led; producing a highly skilled and productive local workforce.*' This is a transformative mission and has driven major change not only to the quality of provision across the LCG but also, very importantly, to the relevance of the programmes to local and regional businesses, aligned with the Strategic Economic Plans and emerging Local Industrial Strategy. Strong examples of the improvements to LCG provision include:

- Britain's first Air & Defence Career College in Lincoln in 2015 in partnership with the RAF, Thales, Raytheon, Cobham Aviation and a range of other defence companies. Now known as the Air & Defence College (A&DC), this movement in education expanded in 2018 to Kings Lynn in Norfolk and Stamford.
- The college established a Policing College in 2020 partnering with Lincolnshire Police in offering Further and Higher Education programmes at Level 2, 3 and a full BA (Hons) in Professional Policing in partnership with the University of Derby. In 2020/21 82 students

graduated their first year of their respective programmes and 2021/22 has seen 73% growth in student numbers on Policing programmes in Year 2 of operation (142 students).

- In 2018, LCG created 'Made in Gainsborough', a unique collaboration between multiple stakeholders including the Greater Lincolnshire LEP, West Lindsey District Council and local engineering firms including AMP Rose and Eminox. This group worked collaboratively on curriculum design and funded a new welding workshop equipped to replicate a modern workplace. We are looking at replicating this model across the construction sector, built in Gainsborough in line with expansion of construction college in Lincoln. This expansion due to open in 2020 has seen work alongside the Gusto Group and a range of other construction companies to modernise and broaden the construction college capacity. The intention is to expand this collaborative employer led construction model to Newark.

Risk Management

Project risks have been identified through regular risk review workshops including Lincoln College Groups representatives, Newark and Sherwood District Council, project team and specialist advisors. Identified risks are logged within the project risk register and assessed using a probability and impact matrix scoring system. Mitigation plans and actions are agreed for each risk where appropriate. The project risk is reported to the working group, project board and where appropriate into the Towns Fund Board.

For construction specific risks, once a contractor is appointed for the detailed design and construction of the building, with the risk allocation clearly defined, regular risk review workshops will continue an 'Early Warning System' will be defined to allow early risk and issues identification and risk reduction process.

The Construction risks to the project have been continually assessed throughout the development of the project. The key risks rated as "Red" before mitigation are:

Delay in facility 'Go-Live' (002) - The careful management of the programme combined with the retention of interim facilities provides mitigation for this risk.

Funding of specialist fit-out of the facility (003) – Support required from private sector partners to fund the equipping of the new facility with the required specialist equipment. Mitigation included finding additional funding sources as well as engaging with a wider variety of stakeholders and source alternative equipment provision.

Flood Strategy (005) – The IASTI flood strategy is reliant on the strategy for the wider Newark Gateway master plan strategy. There has been continued co-ordination between the IASTI and Gateway design teams and current design is based on key assumptions from the wider master plan strategy. This is subject to consultation with the Environment Agency prior to confirmation. This will be obtained prior to submission of the IASTI planning application.

Ground Conditions (006) – A desktop 'Phase 1' investigation has been undertaken, however more detailed investigation is not possible until demolition is completed. Costs of investigation have been included within the current cost estimates and design is currently based on 'worst case scenario' of a piled foundation solution being required. Further investigation is required to establish the full detail. This will be established prior to submission of construction contract award.

Contamination (007) and Archaeology (021) - Until further surveys and investigations can be undertaken once the existing Cattle Market buildings are demolished there is potential for

contamination and archaeological remains. Costs of investigation have been established and included within current cost estimates, however costs and time of potential remediation has not been accounted for. Investigations are currently programmed for early 2022 and any remediation costs identified prior to construction contract award.

Materials Costs / Inflation (025) and Availability of Materials (026) – Both of these elements are currently volatile due to Brexit and Covid-19. Current cost estimates include contingency figures. These risks will be reduced through the proposed design and build procurement strategy to obtain early supply chain intelligence in the detailed design **and construction programming prior to contract award.**

The full risk assessment and mitigation plan is outlined overleaf.

Risk	Risk Mitigation Strategy	Impact score 1-5 (5=highest impact)	Likelihood Score 1-5 (5=highest Likelihood)	Risk Owner	Mitigation Action	Progress
Planning permission not secured.	Early engagement with planners over design.	5	3	LCG	Ongoing engagement with planners over design.	Detailed engagement will commence during the next stage of business case development and no issues are currently anticipated.
£10.6m Towns funding not secured.	Close engagement with N&S DC and HATCH to ensure Business Case is well developed.	5	2	LCG	Ongoing work to refine details from SOBC with updated information as planning develops.	Good progress with aspiration to submit OBC in Oct 21 and FBC by Jan 22.
Site is not ready in time to allow for investigation and construction.	WT Partnership appointed as Project Manager to work closely with N&S DC master planners to manage programme. Contingency in budget for additional survey work as required.	3	3	N&S DC	Contingency planning for a delay to start to refine other areas of programme and maintain IASTI in interim location.	Work on Cattlemarket has begun and although slightly behind schedule it is assessed that the programme can flex to accommodate.
Industry contribution is delayed or incomplete.	Continue to engage with broad range of industry stakeholders and acquire equipment as efficiently as possible.	4	3	LCG	Contractual arrangements between LCG and private sector partners will be sought for the full business case. LCG will endeavour to build a contingency fund to purchase, loan or borrow any equipment required that cannot be provided by	A simulator has already been acquired and equipment purchase for interim IASTI ongoing.

					a partner industry. Working with N&S DC to widen stakeholder engagement via Midlands Engine, NSC and EMA.	
Construction costs escalate significantly.	Contingency built into construction costs and 2 stage design and build procurement strategy should provide mitigation and early warning.	3	3	LCG	PM and Cost Consultants employed as part of design team to manage and value engineer as required.	Good progress to date with a costed design that is within budget and taught constraints in place to mitigate against cost growth.
Student Numbers are less than/ greater than	The development of Interim IASTI from Sep 21 will allow momentum to build towards Sep 23 opening of main facility. The flexibility of the space will allow for alternative commercial or educational use if numbers are much lower/higher than anticipated.	3	3	LCG	Engagement with schools and marketing plan will be developed to deliver numbers. Use of interim IASTI students as student voice into the community and greater analysis of target areas to generate students.	Marketing plan for 22-23 on track and planning for longer term offer on track.
IASTI-Newark does not act as catalyst for wider site development.	The masterplan for cattlemarket site is well developed and active engagement with N&S Dc and wider stakeholder is ongoing.	2	3	N&SDC	Continue to work with N&S DC to attract other stakeholders and realise site potential.	No indication of risk materialising at this point.
Aviation Sector downturn continues for longer than anticipated leading to reduced demand.	The steady growth of IASTI-Newark student numbers should allow for flexibility to remain in training or education if industrial capacity is low.	2	2	LCG	Plan for growth and maintain close links with industry to ensure demand can be managed.	No indication of risk materialising.

Project Management

Recognising the size of this construction project LCG have employed WT Partnership to project manage the infrastructure project delivery. Working with LCG they have drawn together a design team and will run the project whilst co-ordinating with the N&S DC Masterplan.

WT Partnership is an international practice with over 1,400 staff worldwide providing project and cost management, health & safety and facilities management consultancy services and has been in existence for over 70 years. We provide a customer-focussed and tailored service to our clients to achieve their organisational objectives and add real value. WT is entirely independent, being owned by its internal shareholders and with no affiliations to any contractors or suppliers, therefore the services we provide and advice we give is unbiased and based entirely on our clients' needs and focused on achieving their objectives. WT has extensive experience in delivering projects for both public and private sector clients, including in aviation, education, local and central government, healthcare, commercial, industrial, retail, residential and development infrastructure.

WT's approach is to provide full support to our clients from inception of a project through to construction and it being fully operational. This follows the approach taken and benefits from the lessons learnt from the successful delivery of the Flybe Training Academy in Exeter and the International Aviation Academy, Norwich working alongside the client representatives in each case. It is crucial that any project is based on a robust business plan, which is then used as a point of reference and control throughout the construction and life of the building with any strategic adjustments required being made in line with the overall project objectives and with full regard to the implications of the original plan. WT will work closely with the Lincoln College Group and Industry to produce and agree the business plan for the IASTI - Newark, inputting construction and operational cost data as required alongside revenue data provided by the LCG. WT will be the custodian of the agreed business plan throughout the project. We will manage all aspects of the project, including programme, cost and Health & Safety matters through design, approvals, procurement, construction and handover and will report monthly to the LCG Project Board flagging up any issues that require consent, approval or to agree whatever corrective measures may be required to remedy any potential divergence from the business plan.

Previous relevant project management experience includes:

- **Education Norwich Aviation Academy**. The project comprises a 4,050m2 building on the south-side of Norwich Airport formed from the modification and refurbishment of an existing Type C hangar to accommodate up to 20 classrooms, 6 engineering workshops and an Emulation Zone facility that will house an A320 aircraft and potentially a helicopter to provide "real-life" training for aviation engineers. Partners in the development are KLM UK and City College Norwich, they are responsible for undertaking their own ICT, specialist fit out, FF&E and provision of an aircraft for the Emulation Zone.
- **Flybe Training Academy Exeter**. The Flybe Academy is a world-class aviation training centre at Exeter International Airport. The Academy provides specialist vocational aviation sector training for both Flybe and third-party airlines supported by Skills Funding Agency under the Capital Skills Prospectus. The Academy is built on a 2,433ha site and includes a 3,000 m2 classroom building accommodating up to 25 classrooms, associated offices and facilities and an adjoining 2,000 m^2 building to accommodate up to 4 flight simulators, cabin crew door training facilities and aviation engineering training workshops. The building is

naturally ventilated and employs rainwater harvesting and the facility is supported by a natural gas fuelled CHP facility which enabled it to be constructed to BREEAM and CEEQUAL Excellent standards.

- **University Centre, Hastings University Centre**. Hastings 2 provides a further 3,700m2 expansion of an existing campus for the University of Brighton. The scheme was a partial new building & partial refurbishment of an existing Post Office building. The accommodation provides 'state of the art' facilities including a lecture theatre as well as teaching rooms, office space, a science block, breakout space and a cafeteria. The building forms a key part of the Hastings Priory Quarter regeneration scheme.

Timescales and Milestones

The key project milestones are shown in the table below.

Activity	
Interim facilities enabling works	Jul-Aug 21
Limited Operating Capability in Interim Facilities	6 September 21
Planning application	16 July 21
Concept Design (RIBA Stage 2)	20 August 21
Planning Submission	18 October 21
Outline BC Approval	18 November 21
Planning approval anticipated	January 21
Detailed Design (RIBA stages 3 and 4)	October 21
Seedcorn funding available	December 21
Procurement	December 21
Full Business Case completion	27th January (P&F committee)
Interim Workshop complete	Mar 22
Start on Site	June 22
Construction completion	June 23
Equipping and commissioning	July-Aug 23
Building 'Go-Live' Initial Operating Capability	Sep 23

A detailed project plan is set out in Appendix A.

Delivery Risks & Issues

The quality of project delivery will be managed through the risk management and change control processes.

Risks to the project have been continually assessed throughout the development of the project. The table below presents the risks rated as "Red" before mitigation.

Change Management

The control of changes (or variations) within a project and each phase, is vital to enable suitable control of the scope and budget. The project manager will maintain a change control process which includes a log of all potential and instructed changes to project.

Divergence from the design brief or tendered design, or the increase or decrease in monies required to fund the design or construction of the works, shall constitute a change to the project.

All changes to the project required by the users or any officer of the College will need to be authorised by the project board / director.

Monitoring, Evaluation and Benefits Realisation

IASTI Theory of Change

CONTEXT	INPUT	OUTPUT	OUTCOME	IMPACT
Rationale for Investment: • **Earnings and aspiration**: Qualification levels in Newark and Sherwood are lower than the England average. 33% of residents are qualified to degree-level compared to 40% in England which is directly translates into earning potential. Resident earnings in Newark are 12% lower than the England average for men and 11% lower for women. • **Low land values**: commercial values in Newark are below the regional and national averages. By diversifying reasons for visiting Newark and increasing footfall, the IASTI project can contribute to addressing market failures and viability challenges. • **Impact of COVID-19** and sector job shortages : Newark lost 13% of economic output, or £339m, during 2020. It is also reasonable to expect that the 'labour shakeout' due to Covid-19 will result in a potentially significant percentage of former employees leaving the industry rather than representing a pool of labour that could be drawn on when the industry recovers. This is likely to exacerbate the sector's labour shortages which were particularly acute before the pandemic.	£10.6m Towns Fund investment £5.0m industry match of aviation equipment from Aviation 360 £1.9m match funding from Lincoln College Group	Centralized education facilities under one roof within Newark town centre Enhanced education to employment routes Repurposing an underutilised brownfield site which will attract students, hotels, aviation industry and business incubation to the town	Redevelop a key brownfield site in the town centre Level 2 qualifications to at least 300 people (over a 15-year period) Level 3 qualifications to 1,600 people (over a 15-year period) 204 apprentices across IASTI and local industry (over a 15-year period) Degrees to 888 people (over a 15-year period) Create 38 new jobs	Wider commercial land value uplift Direct land value uplift through new commercial and office space capacity Labour supply impacts: wage premium uplift, Social value

Strategic alignment to the Newark Town Investment Plan:

- Town Centre Regeneration and Culture: IASTI will contribute to creating a vibrant town centre through a centrally located skills facility which will enhance Newark's vitality by diversifying the reasons for visiting.
- Skills, Education and Business: The project will contribute to delivering better learning and employment opportunities for all by establishing post-16 education pathways to aviation/space industries, allowing entry to different sectors, and providing a high-quality new learning facility based within Newark town centre

Source: Hatch (2021)

The objectives of the IASTI intervention are to:

- Redevelop a brownfield site in the town centre
- Deliver Level 2 qualifications to at least 300 people (over a 15-year period)
- Deliver Level 3 qualifications to 1,600 people (over a 15-year period)
- Train 204 Apprentices across IASTI and local industry (over a 15-year period)
- Deliver L4-6 Qualifications to 888 people (over a 15-year period)
- Create 38 new jobs

Monitoring and evaluation objectives

The approach to the IASTI evaluation will align with MHCLG's overarching approach to M&E for the Towns Fund which is set out below.

MHCLG Towns Fund M&E objectives:

- Will allow an impact evaluation, as well as assessing how and why those impacts were achieved.
- Will produce an integrated picture of both Town Deals and Future High Streets Fund results, while enabling comparison and learning from the differences.
- Will allow evaluation and learning to be shared throughout the programme and at programme end, as well as ongoing monitoring and learning.
- Uses a mixture of methods, including quasi-experimental design and contribution analysis as well as being grounded in an overarching Theory of Change (ToC).
- Includes some standardisation and fixed requirements, to enable comparison and aggregation, while allowing for flexibility.

Newark and Sherwood District Council will be responsible for monitoring project performance, and this will be led by the Business Manager (Economic Growth). In addition to establishing a robust evidence baseline, the Business Manager will be in charge of monitoring project delivery; monitoring spend and output data; and tracking progress against milestones outlined in the delivery plan. Monitoring data will be saved on the NSDC intranet to allow select officers to keep key stakeholders abreast of progress as required.

This approach will align with the Towns Fund M&E Guidance document which requires local authorities to formally report twice a year on Inputs and Activities (Level 1), and Outputs (Level 2). This includes several mandatory indicators and a selection of indicators based on your project mix and output typologies. There are also a small number of Outcomes (Levels 3 & 4) which our indicator framework will also enable us to report against.

At the beginning of June 2021, Newark and Sherwood District Council submitted its Towns Fund Monitoring and Evaluation Plan. This included the creation of an indicator framework for IASTI (included overleaf). NSDC have used indicators provided within Annex 1 of the M+E Guidance to enable a robust comparison across project to support the overarching evaluation of the Towns Fund.

NSDC will work with MHCLG to submit monitoring forms through DELTA. These returns will be scrutinised and signed off by the Accountable Body's Section 151 Officer.

KPI's / Benefits realisation plan review

To be monitored by the project board at regular intervals during all stages of project delivery.

Post project review

The post-project review process is based on the UK Government's 'Soft Landings' methodology. After project completion, outcomes are measured and assessed against the project goals through three post occupancy evaluations (POEs). The POEs will be held at 12, 24 and 36 months after completion and each will have the following objectives:

- Identify how well the project and individual aims and objectives of each phase have been achieved.
- Determine if the timescales were met, both overall and for each key milestone, and what corrective actions, if any, were taken.
- Determine if the project costs were controlled and were within budget, both overall and for each of the phase of the project, and what corrective actions, if any, were taken.
- Against the benefits realisation plan identify what benefits have been achieved (both cash releasing and non-cash releasing) and seek the realisation of any outstanding benefits, including the implementation of any procedural and process changes.
- Assess the efficiency of the acquisition process and document the shortcomings for the benefit of future programmes and projects.

The outcomes of all the POEs will then be fed back to benefit future projects.

A benefits realisation plan is being developed alongside this business case. The high-level benefits realisation plan is designed to:

- Identify the benefits and responsibility for their delivery.
- Establish baseline measurement where possible.
- Quantify benefits.
- Assign responsibility for the actual realisation of benefits throughout the key phases of the project.
- Periodically assess realisation and initiate any actions required.
- Record further expected benefits identified during the project.
- Measure outcomes.

The table below is the benefits realisation plan linked to this business case. The investment described in this OBC is an enabler of improved services meaning more needs to happen to achieve the benefits described below. This distinction is shown in the table with additional changes needed shown in italics.

Monitoring and Evaluation Indicator Framework

Indicator	Unit of Measurement	MHCLG Intervention Theme	Responsibility for collecting	Reporting Frequency
£ spent directly on project delivery (either local authority or implementation partners)*	£	Mandatory Indicator	NSDC	6 months
£ co-funding spent on project delivery (private and public)*	£	Mandatory Indicator	NSDC	6 months
£ co-funding committed (private and public)*	£	Mandatory Indicator	NSDC	6 months
# of temporary FT jobs supported during project implementation*	Number	Mandatory Indicator	NSDC	6 months
# of full-time equivalent (FTE) permanent jobs created through the projects*	FTE jobs	Mandatory Indicator	NSDC	Annual
# of full-time equivalent (FTE) permanent jobs safeguarded through the projects*	FTE jobs	Mandatory Indicator	NSDC	Annual
# of residential units created	Number	Urban Regeneration	NSDC	Annual
# of derelict buildings refurbished	Number	Urban Regeneration	NSDC	Annual
Amount of public realm improved	m2	Urban Regeneration	NSDC	Annual
Amount of new commercial space	m2	Urban Regeneration	NSDC	Annual
Amount of floorspace repurposed	m2	Urban Regeneration	NSDC	Annual

Source: NSDC (2021)

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NEWARK EXECUTIVE TOWNS BOARD
13 JANUARY 2022

Communications and Branding Approach for Newark Town Board and Towns Fund Projects

1.0 Purpose of Report

1.1 To update on actions taken since the last Newark Town Board regarding the branding of Newark Town Board and the communications approach for the promotion of the Towns Fund Projects.

1.2 To seek the Board's endorsement of actions taken to date and seek agreement to continue with the recommended approach.

2.0 Background and Updates

2.1 The minutes of the Newark Town Board meeting held on the 26th November 2021 record a discussion about why "private industry engagement and energy in the projects and the wider Towns Fund initiative had waned since the Board was initially established". Following this, an agreed action was:

- "the Town Investment Programme Manager would take the lead on facilitating a workshop on visioning and communication and draw together with the NSDC communications team a joint PR campaign with key partners communications teams."

2.2 Officers including representatives from the NSDC communications team met on 16th December 2021 to discuss ways forward. The options were identified as:

- **OPTION A** – Tender for a larger scale project, following the ensuing procurement procedures.
- **OPTION B** – Seek quotes for smaller piece of work under procurement threshold, asking for responses in a shorter time frame, ensuring results and spend within this financial year.
- **OPTION C** – Use only in-house communications support to define and deliver a branding and communications plan.

2.3 Option A – this option was not considered to be the preferred option since for tenders above the £10k threshold, the procurement process would take a minimum of 6 weeks. This would mean that real actions would not realistically be seen until March 2022, which is considered too late to build on the momentum of the New Year and would allow engagement from the private sector to wane further.

2.4 Option B – this is the recommended option since it allows for swift actions and a relaunch event for the Town Board by the end of March 2022. Further projects building on this initial work could be the subject of future commissions.

2.5 Option C – this is not the preferred option and should instead be seen as the 'do minimum' option. Resource constraints in the in-house communications team would mean that branding project would not be able to be completed in the depth as required, and whilst communications interventions would be possible, they would crucially be lacking capacity to develop an overall strategy for these. Specialist support is considered necessary for this project, hence the recommended route of commissioning consultants.

2.6 On 5th January 2022, a specification to quote was sent out to four identified consultancies in the local area: BakerBaird, Shooting Star, Confetti, and Holmes Wood. The specification set a budget of up to £10,000 meaning that the commission would fall below the procurement threshold, and therefore responses were requested within 5 working days, by 12pm Wednesday 12th January 2022.

2.7 The specification commissions facilitated workshops to define the ambassadorial role of a member of Newark Town Board, and the development of a briefing document to set this out. It culminates in a relaunch event for Newark Town Board at the end of March 2022, with a refreshed membership and clear sense of purpose. The specification also sets out the requirement of a communications plan delivering effective, results-focussed interventions to promote and inform on the 10 identified Towns Fund projects as well as the overall vision for Newark from which they have originated.

3.0 Financial Implications

3.1 The Newark Town Deal includes £0.125m revenue per year for the purposes of programme management and it has been confirmed through informal discussions with the Towns Fund Policy Advisor that the branding of the Newark Town Board and the communication of the Towns Fund projects would be an appropriate use of this grant.

4.0 RECOMMENDATIONS that:

(a) the Board note the update on the actions progressed since the last Newark Town Board, 26th November 2021;

(b) the Board endorses the actions taken to date, and agrees with the recommended approach; and

(c) the Board members are asked to actively participate workshops regarding the branding of the Newark Town Board member role, and the communication of the Towns Fund Projects.

Next Steps:

- When responses are received on 12th January 2022, the quotes will be evaluated by officers at NSDC and if there is a quote which fits the requirements, a contract will be issued.
- Board members will be asked to participate in the branding workshops and comms activities to shape and influence the role of the Board going forward.

Background Papers

Private Sector Engagement Strategy, Report to Newark Town Board – 26th November 2021

Towns Fund Communications and Branding Guidance, May 2021

For further information, please contact Frances Davies (frances.davies@newark-sherwooddc.gov.uk)

Frances Davies

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