Buckinghamshire Growth Board

Detailed Appendix – Super Sectors - Westcott

Buckinghamshire County Deal

Purpose

The purpose of this document is to provide background information on the example investible propositions that the various investment funds could support. The information contained here sets out how the outputs and outcomes will flow from the desired interventions.

Investible proposition project/programme name:	Westcott Disruptive Innovation for Space Centre (DISC) and Skills Apprenticeship Hub

Investible proposition summary:

Space is both a major economic opportunity and part of our critical national infrastructure. The UK must retain and grow its influence in this international arena if it is to control its own destiny

As a country, we have an ambition to secure a 10% share of the global space market by 2030. Conservatively, this represents an increase of £26bn per annum for the domestic space economy. Such ambition requires a national response to develop sovereign supply-chain capability at sufficient scale to compete effectively on the international stage. Within this context, our ability to design, develop and manufacture launch and propulsion systems, satellites, and payloads, as well as applications, products, and services for real-world markets is critical. To achieve this goal, the UK must address two prime causes of market failure: i) poor availability of specialist equipment, and ii) insufficient access to skilled labour.

MARKET FAILURE - Poor availability of specialist equipment

Many companies find it difficult to justify the risk of investment in specialist equipment for the design, build, test, and demonstration of new concepts during the early phase of product and service development. Not surprisingly this is limiting ambition and opportunity. The equipment needed is often prohibitively expensive, with some items costing more than a million pounds. In this environment, demand is high, but availability and access to equipment is poor. Even the largest more established companies and institutions struggle for sufficient funds to make the required level of investment ahead of product demonstration.

Limited access to a skilled workforce

New products and services depend on having suitably skilled people to produce them. Without access to the right skills, in sufficient numbers, at the right time, scale-up opportunities are constrained or indeed lost to overseas competition. We need to create the environment for local talent to have access to the diverse range of jobs and skilled learning opportunities that the space sector provides.

PROPOSED MARKET INTERVENTION

The Satellite Applications Catapult's Disruptive Innovation for Space Centre (DISC) addresses these issues as follows:

- Open Access to Specialist Equipment: DISC provides a neutral, trusted environment for industry to access equipment on a rental basis to develop, prototype and demonstrate design concepts for the commercial market
- Open Access to Skills: DISC incorporates a Skills Academy to support supply-chain development, building capacity and resilience in readiness for commercialisation. It is aimed at Post-16 T Level and apprenticeships, career changes, reskilling, and upskilling those already working in the sector.

IMMEDIATE ASK

This Business Case, as part of the Buckinghamshire County Deal, requests a £30m investment to establish the first large-scale DISC capability. Located at Westcott, Buckinghamshire, the home of rocket propulsion testing, this facility will be a blueprint for further DISC deployment across the UK, supporting two important Government initiatives, Build Back Better and Levelling-up. The Westcott DISC is based on the successful smaller-scale prototype at Harwell,

Oxfordshire, which is oversubscribed. Public funding is essential to establish DISC as an impartial environment within which companies can operate with confidence, a critical factor to achieving its objectives.
The DISC at Westcott will provide industry with the entry point to the rapidly expanding space market, anchoring economic activity in the UK, and creating the means to develop and apply novel launch, propulsion, and satellite technologies. Utilising the Catapult's vast network, supply chains developed at DISC will have national reach, bringing further growth opportunities to other parts of the UK.
We will invest this public sector funding to procure, install and commission specialist equipment within a purpose-built, commercially sponsored facility. The proposal delivers an NPV of £387m and a BCR of 4.38:1. This equipment will be available to users for product and service prototyping, and for skills development being offered at the Skills Academy.

A CATALYST FOR GROWTH

The case for DISC is informed by the extensive and continual engagement of the Satellite Applications Catapult with the wider space industry and users over the past decade. This remit forms part of its underlying mission to promote and develop the UK Space sector.
The Grant request will establish the core neutral ethos of DISC and unlock commercial funding to develop and operate the DISC multi-layered environment that will set it apart from other national innovation facilities. The £30m grant fund will be used to establish the Physical and digital environment, with commercial funding being used for the Gateway, Service and Operating environments.
Delivering this high-performance environment will allow companies to maximise their growth potential by helping to close out supply-chain capability gaps, maintain tighter control over IP, and open new routes to market. The commercial value of this approach is recognised within the financial case of this document, while the return on investment captured by the economic case reflects the catalytic impact DISC will have on the wider UK Space sector.
During the Grant funded phase, the Satellite Applications Catapult will form an Enterprise Alliance with Industry. This Enterprise Alliance will be commercially sponsored to provide private match funding to develop the Operating, Gateway and Service environments of DISC. This will ensure the Blueprint established by this project is scalable and repeatable across other parts of the UK. The Enterprise Alliance construct is described within Section 5, Management Case, of this document.
The DISC project is being proposed at a time when international focus is on the commercialisation of Low Earth Orbit space. DISC makes this opportunity immediately accessible. Adoption of this project will position Westcott at the heart of the UK Space sector agenda for growth as outlined within the Buckinghamshire LEP strategic economic plan and Local Industrial Strategy. It will also showcase the Government's County Deal, in addition to other national Government initiatives.

Table Guidance

1	Economic sector, project location and current known ownership status	5	The financial or non-financial intervention(s) required
2	Site and/or project status	6	Quantitative outcomes, including financial outcomes, dwelling numbers, floorspace and job creation

3	Site strategy and planning status	7	Qualitative outcomes, including non-financial benefits
4	The inputs Buckinghamshire will provide		

Table 2: Westcott projects

Westcott DISC							
Ref No.	**Sector/Location [1]**	**Site/project status [2]**	**Strategy & planning status [3]**	**Buckinghamshire Input [4]**	**Intervention(s) required [5]**	**Quantitative outcomes [6]**	**Qualitative outcomes [7]**
W1	Westcott EZ Land owners: Patrizia	The DISC project can begin development in 2021 with the Centre up and running by 2023.	The project forms a key part of the Westcott Enterprise Zones long-term strategy to continue its advancement as a hub for the UK's space industry.	Buckinghamshire LEP to manage project development as lead partner in Westcott Space Board.	£30m	634 Jobs £387m NPV and be self-sustaining within 3 years BCR 4.38:1	The facility will create new domestic supply chains and help develop and commercialise new downstream applications relying on low Earth orbit space. These applications could be applied in multiple sectors, including maritime, transport and agritech. Local jobs and training opportunities at the DISC and adjacent facilities Support the development of products and services with international reach and appeal Support for OneWeb's future success A blueprint for attracting a new generation of school leavers and graduates into the UK space sector by integrating a skills

							programme directly into operation.
Westcott Apprenticeship Hub							
Ref No.	**Sector/Location [1]**	**Site/project status [2]**	**Strategy & planning status [3]**	**Buckinghamshire Input [4]**	**Intervention(s) required [5]**	**Quantitative outcomes [6]**	**Qualitative outcomes [7]**
W2	Westcott EZ Land owners: Patrizia	The project could be delivered and operational by the end of 2022 with construction estimated to take 12months following planning approval	The Buckinghamshire LIS has identified a need to bridge the gap between training providers and industry to support collaborative and applied research in key growth sectors. The proposed hub would be dedicated to tackling this gap.	The centre would be managed by the Satellite Application Catapult in partnership with Buckinghamshire LEP and a network of HE & FE organisations who would contribute to revenue costs.	£10m	4000 sq.m educational facility	A new space to support collaborative research between universities and business A base for apprenticeship and vocational training at the heart of Westcott EZ Opportunities for retraining and reskilling


High Tech Centre
Apprentice School