

ECONOMIC STATEMENT

PLOT 4200 – ARC OXFORD

Full Planning Application

Advanced Research Clusters GP Limited

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1.0 INTRODUCTION

- 1.1 This Economic Statement (**'Statement'**) has been prepared by Carter Jonas LLP (**'Carter Jonas'**) on behalf of Advanced Research Clusters GP Limited (**'the Applicant'**) in support of a Full Planning Application submitted to Oxford City Council (**'the Council'**) at Plot 4200, John Smith Drive, Oxford, OX4 2RU (**'the Site'**) within ARC Oxford.

ARC and ARC Oxford

- 1.2 Advanced Research Clusters (ARC) is Europe's leading network of science and innovation clusters. At the cutting edge of major knowledge economies, it supports businesses and institutions in the life science and technology industry by creating the best possible environments for innovation, allowing them to thrive and make a difference in the world. ARC operates at several locations across London and Oxfordshire – including ARC Uxbridge, ARC West London, the Harwell Campus and ARC Oxford.
- 1.3 Formerly known as Oxford Business Park, ARC Oxford is a well-established employment site comprising 88 acres in the Cowley area of Oxford home to several businesses set within a landscaped 'Campus' environment. Plot 4200 lies within the southern part of ARC Oxford and currently comprises 7 individual office buildings organised around areas of car parking and intermittent tree and landscape planting.
- 1.4 ARC (backed by investors Brookfield) purchased and became the majority landowner at Oxford Business Park in 2021. Utilising its expertise, it has begun to embark on a mission to transform the site into a 21st century innovation campus that can be at the forefront of Oxford's and the UK's life science sector.
- 1.5 ARC is currently bringing forward several planning applications on land across ARC Oxford that will deliver high-quality, lab-enabled office space through the (re)development of several existing plots. This will be provided alongside the provision of supporting amenities and structural changes to its layout that will enhance its experience and strengthen its position as a cluster for science and innovation.

Proposed Development

- 1.6 The proposals considered in this document relate to the redevelopment of Plot 4200, which will involve the demolition of existing office buildings to be redeveloped as a single laboratory-enabled office building, which will contain internal ancillary amenity on upper floors. The proposals will also deliver enhancements to the existing private footpath leading into the ARC Oxford from Boswell Road, alongside car and cycle parking.
- 1.7 The description of development is as follows:

"Demolition of existing office buildings and erection of 1no. laboratory-enabled office building for research and development with ancillary commercial space (all within use Class E). Provision of new access, enhancements to existing footpath, motor vehicle and cycle parking, landscaping and services infrastructure"

2.0 THE LIFE SCIENCE SECTOR

2.1 The life science sector refers to those businesses and institutions involved in the research, development and manufacturing of pharmaceuticals, biotechnology-based food and medicines, medical devices, biomedical technologies, nutraceuticals, cosmeceuticals, food processing, and other products that improve the lives of organisms. The industry plays a vital role in improving the quality of life of people around the world and is one of strategic importance to the UK.

National (UK)

2.2 According to latest available statistics¹, in 2021, the life sciences sector contributed £94.2 billion to the UK economy and was responsible for the provision of 282,000 jobs. Whilst already on an upward trend since 2013, these figures have increased sharply in more recent years following the Covid-19 pandemic as the clear benefits of investing in the industry became more apparent.

2.3 The UK Government has established a clear policy ambition to become a global science and technology superpower, summarised by its July 2021 document 'Life Sciences Vision'.² As well as setting out plans to stimulate the economic potential of the sector by increasing the UK's competitiveness in foreign investment and capitalising on its world-class economic institutions, the document also highlights the wider social and environmental benefits focussed investment can yield from the outputs of the industry – such as tackling long-term illnesses.

2.4 In recent years, the UK has made big advancements in the life science sector. The amount of venture capital investment more than doubling and the number of operating firms in the sector increasing by 20% in the last 5 years. Moreover, the rate of employment growth in the sector has outpaced total employment growth, a trend that is expected to continue.³ The Government has further doubled down on its vision, with the announcement of a £650million 'Life Sci for Growth' package focussed on boosting growth in the sector in May 2023 and its rejoining of the European Horizon research group in September 2023.

2.5 As appropriately summarised by Bidwells, life sciences will form a 'central plank' of the UK government's economic strategy in the coming decades with the potential for the sector to be dynamo for UK economic growth.⁴

Regional (South East)

2.6 Within the national picture, the 'Golden Triangle' has proven vital to the UK's life sciences sector. The Golden Triangle describes a region contained between Oxford, London and Cambridge (as well as other parts of south east England) that in 2021, held 24% of total employment and generated 31% of total GDP for the UK life science sector.⁵

¹ Bioscience and health technology sector statistics 2021

² UK Government (2021) *Life Sciences Vision*

³ CBRE (2022) *Market Outlook 2023: UK Real Estate*

⁴ Bidwells (2022) *Life Science Vision 2030: The implications for real estate*

⁵ Bioscience and health technology sector statistics 2021

- 2.7 Key to the success of this region is its access to resources that can foster knowledge and innovation. The region contains 6 of the 10 most productive cities in the UK, as well as a number of leading research institutions and world-class academic institutions – including the University of Oxford.
- 2.8 Within this triangle, the Oxford-Cambridge Arc has been identified by the UK government as an area with particular potential. Spanning five counties between the cities of Oxford, Cambridge and Milton Keynes, the Arc currently supports over 2 million jobs and contributes £110 billion to the UK economy annually. One of the UK's fastest growing economies, it is expected to contribute over 10% to the UK's GVA (up from 6% currently) by 2050.⁶ The life science sector is, and will continue to be, crucial to the performance of this economy and consequently the UK's economic prosperity.

Local (Oxford / Oxfordshire)

- 2.9 Oxford and the wider county of Oxfordshire has emerged as a renowned place of innovation and a core contributor to the 'Golden Triangle' cluster and UK life science sector more widely.
- 2.10 The Oxford Economic Strategy confirms there was a 1,223% increase in the number of life science jobs in Oxford between 2013 and 2018, going onto recognise it as a 'significant specialism' and establishing an increase to the quantum and quality of commercial space to support the life sciences sector as a 'guiding principle'.⁷
- 2.11 At its core is the city's academic and research institutions, in particular, the University of Oxford. Perhaps the best education institution currently on the global stage, it has the ability to source knowledge and expertise from around the world. It has ranked 1st place in overall terms in every year since 2017 and 1st in clinical, pre-clinical and health subjects since 2013.⁸
- 2.12 Oxford/Oxfordshire's potential to be at the forefront of the UK and global sector is founded in the calibre of its research institutions and the successful relationship it fosters between knowledge and the wider business community. The effect of this relationship can be measured by 'spinout' activity. Spinouts are companies that transform inventions developed by university research into commercial opportunities. According to research by Beaufort⁹, this has been exponential in Oxford with the University of Oxford topping the leaderboard for total the number of spinouts created by UK universities since tracking started in 2011. In the most recent observed year (2022-2023), the number of active spinouts stands at 205 with clear daylight to its nearest competitors the University of Cambridge (145) and Imperial College London (108).

3.0 ECONOMIC JUSTIFICATION

Oxford's Need for Laboratory Space

- 3.1 Driven by a global reputation that was further heightened by the Covid-19 pandemic, Oxford has emerged as a top target for the companies of all sizes operating within the life science sector.

⁶ Bidwells (no date) *Radical Capital*

⁷ Oxford City Council (2022) *Oxford's Economic Strategy 2022-2032*

⁸ Times Higher Education (2022) World University Rankings

⁹ Beaufort (2023) *Spotlight on Spinouts May 2023*

- 3.2 A number in the industry have estimated the scope of demand for appropriate space. Bidwells estimated there was active demand of 860,000sqft in Summer 2022.¹⁰ The Oxford Economic Strategy estimated a similar figure of 900,000sqft figure.¹¹ Savills, however, estimate this could be as much as 2m sqft when considering those looking to locate in Oxford amongst other places.¹² The depth of future demand in the market is demonstrated by the anticipated growth of Oxford Science Enterprises' companies. The venture capitalist expects that companies in their portfolio will grow their total real estate occupation by 2.5m sqft in the next five years, a sevenfold increase, demonstrating the consistent growth of the market and an increasing occupier appetite to be located within the Oxfordshire ecosystem.¹³
- 3.3 Despite clear demand, it is well documented that the supply of space in Oxfordshire is currently not enough to meet the needs of those operating in the life science sector both in quantum and quality. Even with a pipeline of sites, supply remains tight and demand is likely to continue with increased investment and focus on the sector nationally, as well as the subsequent growth of spinouts later on in their life cycle.¹⁴ Beyond Oxfordshire, a wider supply-demand imbalance in the UK is also of concern.¹⁵ Investors Life Science REIT estimate that take-up in the next 10 years is expected to exceed the pipeline by as much as 3m sqft.¹⁶
- 3.4 Accordingly, there is clear imperative for Oxford (and Oxfordshire) to plan ahead to maintain its forward supply of quality laboratory space through strategic planning. This would not only ensure active demand can be addressed in the short-medium term but ensure long-term supply is ready to capitalise on this growing market, preventing the sector going elsewhere in the UK or indeed around the world.

The Role of ARC Oxford

- 3.5 ARC Oxford remains one of the only spaces within Oxford that can address laboratory demand in the city. The Oxford Economic Strategy recognises ARC Oxford as a major economic node for Oxford, supportive of its evolution and expansion to help drive key sectors like life science.¹⁷
- 3.6 Since ARC acquired OBP in 2021, it has already begun to develop and refurbish existing buildings to meet demand and now provides space for several firms in the sector including Ivy Farm Technologies, OMass Therapeutics, Exact Sciences and Accession Therapeutics. It is now bringing forward several proposals to transform the site into an innovation hub for the sector, delivering high-quality laboratory space and improvements to the wider environment through the (re)development of several existing plots.
- 3.7 With regard to the needs of the life science sector, there are several components to the nature of the Proposed Development that are of particular benefit.

¹⁰ Bidwells (2022) *Arc Market Databook*

¹¹ Oxford City Council (2022) *Oxford's Economic Strategy 2022-2032*

¹² Savills (2022) *Spotlight: Oxford Offices & Laboratories*

¹³ Savills (2023) *Spotlight: Golden Triangle Offices & Laboratories*

¹⁴ Carter Jonas (2023) *Life Sciences: Research Report Autumn 2023* 3

¹⁵ Savills (2023) *Spotlight: Golden Triangle Offices & Laboratories*; Knight Frank (2023) *The shortage of lab space in the UK's Golden Triangle*; Cushman & Wakefield (2023) *Golden Triangle lab space demand continues despite shortage of high-quality stock*

¹⁶ Life Science REIT (2023): <https://lifesciencereit.co.uk/investors/value-creation/>

¹⁷ Oxford City Council (2022) *Oxford's Economic Strategy 2022-2032*

Clustering

- 3.8 Industrial clustering refers to the geographic co-location of interconnected businesses and institutions focused in a particular field. Through shared goals and interests, clustering promotes the sharing of ideas and resources, leading to higher levels of productivity, innovation and new business growth through agglomeration, particularly in knowledge-based fields.
- 3.9 Whilst the benefits of clustering are already apparent at the regional scale through the emergence of the Golden Triangle, they can also be realised at more local scales. The success of existing clusters, such as Harwell Campus, demonstrate the value of scale and the clustering of companies, harnessing the power of synergies across different spheres of science and technology.
- 3.10 ARC's business aim is to enable this clustering and has already begun to successfully build this at ARC Oxford, recognising that the attractiveness, efficiency and brand of a cluster results in a positive feedback loop which amplifies the benefits of the cluster for all members. In this way, growth does not hinder but complements other sites coming forward.
- 3.11 The Proposed Development would help to further this cluster, alongside ARC's existing sites and other proposals (e.g. Trinity House). In addition to buildings, ARC's proposals will also bring about improvements to the site layout and experience of the Campus to provide more spaces for interaction as well as its wider connectivity which are key elements for a localised clustering to work.

Scale

- 3.12 Whilst Oxford does well in providing start-up space for spinouts, it lacks the space needed to attract the larger firms who are market leaders in the life sciences space. Bidwells find that the vast majority of demand for lab space in Oxford is for larger buildings of over 30,000 sqft that can provide flexible dry lab space and specialist facilities, with Cambridge showing similar trends.¹⁸ ARC's proposals would provide buildings of a size to meet this demand, whilst also still being available to accommodate the needs of smaller businesses under a flexible tenant strategy.

Quality of Space

- 3.13 Growing life sciences companies require best-in-class office and lab space. The commercial real estate needs of life sciences companies are varied and complex – while spin-out firms can make use of small generic lab space, the market leading life sciences firms require large build-to-suit spaces for state-of-the-art production and quality control facilities.
- 3.14 Whilst some supply can be delivered through the renovation of existing commercial properties (as ARC have achieved), most are not fit to house life science spaces as there are certain factors that cannot easily be converted.
- 3.15 ARC's proposals (including the Proposed Development) will be purpose-built for life sciences firms to operate. It will help to fulfil some of the excess demand for space from life sciences firms in Oxfordshire, but also secure the much needed long term supply of a growing market. The floorspace provided at the Proposed Development will be flexible so that the lab provision can respond to market demand and be adapted to future tenant requirements.

Sustainability

- 3.16 The Proposed Development would provide the high-performing ESG credentials, necessary to aid businesses and indeed Oxford in its net zero ambitions. This extends beyond the building to car parking strategies, landscaping and the provision of green areas, as well as the sustainable location.

¹⁸ Bidwells (2022) *Life Science Vision 2030: The implications for real estate*

Deliverability

- 3.17 Whilst ARC's forthcoming proposals will help establish the longer-term success and strength of Oxfordshire's life science sector, the Proposed Development at Plot 4200 will be subject to a short construction period with an expected opening date of 2026 to address and fulfil some of the excess demand for required space in the short term.

4.0 ECONOMIC BENEFITS – CONSTRUCTION PHASE

- 4.1 This Section details the expected economic benefits associated with the Proposed Development during its construction phase. These benefits will surface as a result of the creation of associated employment opportunities, as well as economic output created.

Jobs

- 4.2 An estimate of the gross number of on-site jobs created by the construction phase of a development can be calculated by dividing its estimated construction cost by the average annual output for a construction worker in the defined region (£188,700¹⁹) to provide a number of 'job years' required to complete the development. This can be divided by the expected construction period in years (1.6 years / 19 months) to obtain an annualised average figure of 115 on-site construction jobs (FTE).
- 4.3 A more tailored estimate of total jobs created during the construction phase can be undertaken by applying principles of additionality, providing an idea of net additional employment (including off-site jobs) as well as benefits for residents of the study area.
- **Leakage** accounts for the proportion of jobs that could theoretically be created for those outside the local study area (i.e. Oxford City Council). Accounting for the Proposed Development's specific characteristics, guidance provided in the HCA Additionality Guide, as well as the latest available Census data²⁰, a leakage of workers from outside Oxford is anticipated to be 55%.
 - **Displacement** accounts for the proportion of jobs a development would theoretically 'displace' (i.e. would prevent from occurring elsewhere). We have applied a conservative displacement level of 25%. This reflects that the number of on-site jobs would form a small proportion of the existing construction workforce in Oxford, with research suggesting the need for construction workers in the South East is currently lower than that of the national level and experiencing growth rates higher than the national average.²¹
 - **Multiplier effects** accounts for indirect jobs that would result from the construction phase in the local economy, such as the provision of goods and services (e.g. construction materials, equipment, legal services). Based on the latest available ONS data²², we have added a construction multiplier of 2.175. In other words, for every on-site construction job created by the Proposed Development (minus displacement), 2.175 indirect jobs would be created.

¹⁹ Business population estimates for the UK and regions detailed tables (Table 18), 2021-2023 South East average

²⁰ Nomis Distance Travelled to Work by Industry (Workplace Population) 2011

²¹ CITB 'The skills construction needs: United Kingdom Five Year Outlook 2023-2027' (2023)

²² Office for National Statistics (June 2023) *FTE multipliers and effects, reference year 2019*

4.4 A calculation of jobs created during the construction phase is provided at **Table 1**. Taking into account additionality, it is estimated the construction phase of the Proposed Development would generate 90 net additional on-site and off-site jobs for residents of Oxford per annum. This equates to 145 jobs across the construction period.

Table 1: Employment created by the construction phase

Step		Calculation	Jobs pa
A	Gross construction employment on-site	---	115
B	Leakage of work outside Oxford (55%)	$A * 55\%$	65
C	Construction employment on-site (for Oxford residents)	$A - B$	50
D	Displacement (25%)	$C * 25\%$	10
E	Multiplier effect (2.175)	$(C - D) * (2.175 - 1)$	50
F	Construction employment off-site (for Oxford residents)	$E - D$	40
G	Net employment created by construction phase (for Oxford residents)	$C + F$	90

Note: Figures subject to rounding

Gross Value Added

4.5 Gross Value Added (GVA) is an indicator of wealth creation associated with economic activity. For the construction phase, the economic contribution per annum can be estimated by multiplying the GVA generated per workers in the sector in the South East region (£60,449²³) by the number of on-site jobs that would be created, minus displacement (85).

4.6 Accordingly, the Proposed Development is estimated to contribute around £5.1 million in GVA per annum, equating to £8.2 million over its construction period (1.6 years).

²³ ONS Region by industry labour productivity 2019. Output per Job (current price) in the South East region.

Summary – Construction Phase

- 4.7 In summary, the Proposed Development would deliver the following economic benefits during the construction phase:
- The creation of 115 construction jobs per annum on site;
 - A net total of 90 jobs per annum associated with the construction phase (on-site and off-site) for residents of Oxford, equivalent to 145 jobs over the construction period;
 - The contribution of around £5.1 million in GVA per annum to the local economy, equating to £8.2 million over the construction period, plus related spending from workers in the local economy.

5.0 ECONOMIC BENEFITS – OPERATIONAL PHASE

- 5.1 This Section details the expected economic benefits associated with the Proposed Development during its operational phase.

Jobs

- 5.2 The first stage in calculating employment generated by the operational phase is to estimate the gross number of jobs that would result from the Proposed Development.
- 5.3 The Proposed Development will provide a single laboratory-enabled office building, alongside internal amenity space, totalling 9,580sqm (NIA). The design of the building is based upon providing flexible laboratory and office space. Assuming an employment density split of office (1 to 11sqm) and laboratory space (1 to 35sqm), it is estimated the Proposed Development would create 500 jobs on-site during the operational phase.
- 5.4 A more tailored estimate of total jobs created during the operational phase can be undertaken by applying principles of additionality, providing an idea of net additional employment (including off-site jobs) as well as benefits for residents of the study area through account for 'leakage', 'displacement' and 'multiplier effects':
- **Leakage** accounts for the proportion of jobs that would be theoretically created for those outside the local area (i.e. Oxford City Council). We have assumed a leakage of 40% based on the latest data available from ARC Oxford Travel Surveys (2019) which confirmed this proportion of employees travelled from within 10km of the site.
 - **Displacement** accounts for the proportion of jobs a development would theoretically 'displace' (i.e. would prevent from occurring elsewhere). This has conservatively been applied at 25%. HCA guidance suggests that a standard displacement rate of 25% should be applied for areas where there are low levels of displacement. Evidence demonstrates low vacancy rates in Oxford for this space of 5%, with clear excess demand for lab-enabled office space – particularly modern, purpose-built space.
 - **Multiplier effects** account for indirect jobs that would result in the local economy, such as the provision of associated goods and services. Based on research undertaken on the multiplier

effect for development in the sector, it is assumed the Proposed Development would result in a multiplier effect of 2.7 – or 2.7 jobs off-site for every job on-site.²⁴

5.5 Finally, under the principle of ‘deadweight’, the HCA Additionality Guide²⁵ advises it is important to be mindful of the capacity of an existing employment site and the hypothetical number of jobs just ‘lost’ as a result of a redevelopment. Estimated to possess around 4,200sqm (NIA), the 7 existing office buildings theoretically have the capacity to accommodate 350 jobs. Whilst recommended by the Additionality Guide, it should be noted that this is a optimistic assumption, given half of the buildings are currently unoccupied with the remaining tenants having agreed or currently exploring relocation elsewhere.

5.6 A calculation of jobs created during the operational phase is provided at **Table 2**. Taking into account additionality, the operational phase of the Proposed Development would generate 190 net additional on-site and off-site jobs for residents of Oxford per annum.

Table 3: Employment created during the operational phase

Step		Calculation	Jobs
A	Gross operational phase employment on-site	---	500
B	Existing job capacity lost (theoretical)	---	350
C	Net additional employment on-site	A – B	150
D	Leakage of work outside Oxford (40%)	C * 40%	60
E	Net additional employment (for Oxford residents)	C – D	90
F	Displacement (25%)	E * 25%	20
G	Multiplier effect (2.7)	(E - F) * (2.7 - 1)	120
H	Operational employment off-site (for Oxford residents)	G – F	100

²⁴ Oxford Economics (2008) ‘Study of the impact of the Intermediate Research and Technology Sector on the UK economy’ and PwC (2017) ‘The economic contribution of the UK Life Sciences industry’

²⁵ Homes & Communities Agency (HCA) (2014) *Additionality Guide – Fourth Edition*

I	Net employment created by operational phase (for Oxford residents)	E + H	190
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Note: Figures subject to rounding

Gross Value Added

- 5.7 For the operational phase, we are able to estimate the economic contribution per annum by multiplying the GVA generated per workers in the relevant sector by the gross number of on-site jobs that would be created.
- 5.8 With an average output per worker of £76,000²⁶ in this sector, the Proposed Development is estimated to contribute £38m GVA per annum.

Other Revenues

- 5.9 The operational phase of the Proposed Development would generate additional revenues for Oxford City Council which can be reinvested in the community and local services/infrastructure – including tax revenues and business rates.
- 5.10 Whilst the exact level is to be discussed with the Council, the Proposed Development is likely to be subject to Section 106 contributions. The Proposed Development would also be liable for the Community Infrastructure Levy based on the net floorspace created by the proposal.

Summary – Operational Phase

- 5.11 In summary, the Proposed Development would deliver the following economic benefits during the operational phase:
 - The creation of 500 on-site jobs;
 - The creation of 190 jobs associated with the operational phase (net, on-site and off-site) for residents of Oxford;
 - The contribution of around £38 million in GVA per annum to the local economy, plus related spending from workers in the local economy; and
 - Additional revenues associated with the creation of the development, including additional tax revenues, business rates and contributions via the Community Infrastructure Levy and Section 106 contributions.

²⁶ ONS Business Register and Employment Survey 2021 (Table 4); ONS Regional gross value added by industry 2021 (Table 1c)

